

# Van Ness Corridor Bus Rapid Transit

## Vehicular Traffic Analysis Technical Memorandum Appendices



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# Appendix 1

## SF-CHAMP Validation Report



# **San Francisco County Transportation Authority On-Call Modeling Services Contract**



## **Update of the San Francisco Chained Activity Modeling Process (SF-CHAMP)**

**For:**

**The San Francisco County Transportation  
Authority**

**By:**

**PB**

**In Association with:**

**Mark Bradley Research & Consulting**

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## **INTRODUCTION**

The SF-CHAMP travel demand forecasting model is one of the first activity-based modeling systems used in the U.S., and the only activity-based model in the U.S. used for ongoing and extensive policy analysis on a wide variety of planning studies—from local impact assessments to New Starts analysis. As part of an on-call services contract, PB was engaged to provide services related to the enhancement and update of the SF-CHAMP model system. The services included tasks specifically intended to make it easier to set up and use the model system through the development of automated tools, as well as take advantage of recent data including an expanded TAZ system, refined employment estimates, highway and transit observed speed data, 2004 Muni on-board survey data, and 2000 BATS home-interview survey data. Ultimately, this effort resulted in a model system that is easier to use, matches observed data better than the previous model, and provides more accurate policy responses than the previous version of the model.

This document describes the tasks undertaken as part of this effort as well as the results of model calibration and validation.

## **EXPANDED TRAVEL ANALYSIS ZONE SYSTEM**

Prior to undertaking the refreshing and updating of the core San Francisco Model components, more zones were added to the San Francisco Model system. A total of 215 additional zones were added in San Francisco, and 294 additional zones were added outside San Francisco. The purpose of increasing the number of zones and improving the spatial resolution of the model was to provide greater model sensitivity in areas of the City expected to experience significant population and employment growth in the coming decades. These areas are primarily located on the Bayshore side of the City, including the Bayview and Hunters Point neighborhoods, Candlestick, the Third Street corridor, Mission Bay and South of Market. The original zone system within the city of San Francisco was based on Census Journey-to-Work TAZs, and included many relatively large TAZs in the areas identified, making detailed project analysis difficult. Within San Francisco, the new



TAZ system is based on 2000 Census block group definitions. Where Census block groups were too big, smaller TAZs are based on Census blocks. In some areas of the City, such as the Presidio, Treasure Island, and Golden Gate Park, even the Census block definitions were too large, and SFCTA staff manually disaggregated these areas into smaller TAZs.

The San Francisco Model's geographic extent includes the entire Bay Area. For areas outside San Francisco, the SF Model's TAZs and networks are based on MTC's regional Baycast model. Since the original development of the San Francisco Model, MTC has added more zones to the other eight Bay Area counties. These new TAZs outside San Francisco have been incorporated into the new SF TAZ system, and are approximately the size of census tracts. Figure 1 illustrates the new SF Model TAZ boundaries. Figure 2 illustrates the old SF Model TAZ boundaries.

**Figure 1: New SF Model TAZs**



**Figure 2: Old SF Model TAZs**



## **REVISED BASE YEAR (2000) SOCIOECONOMIC & EMPLOYMENT INPUTS**

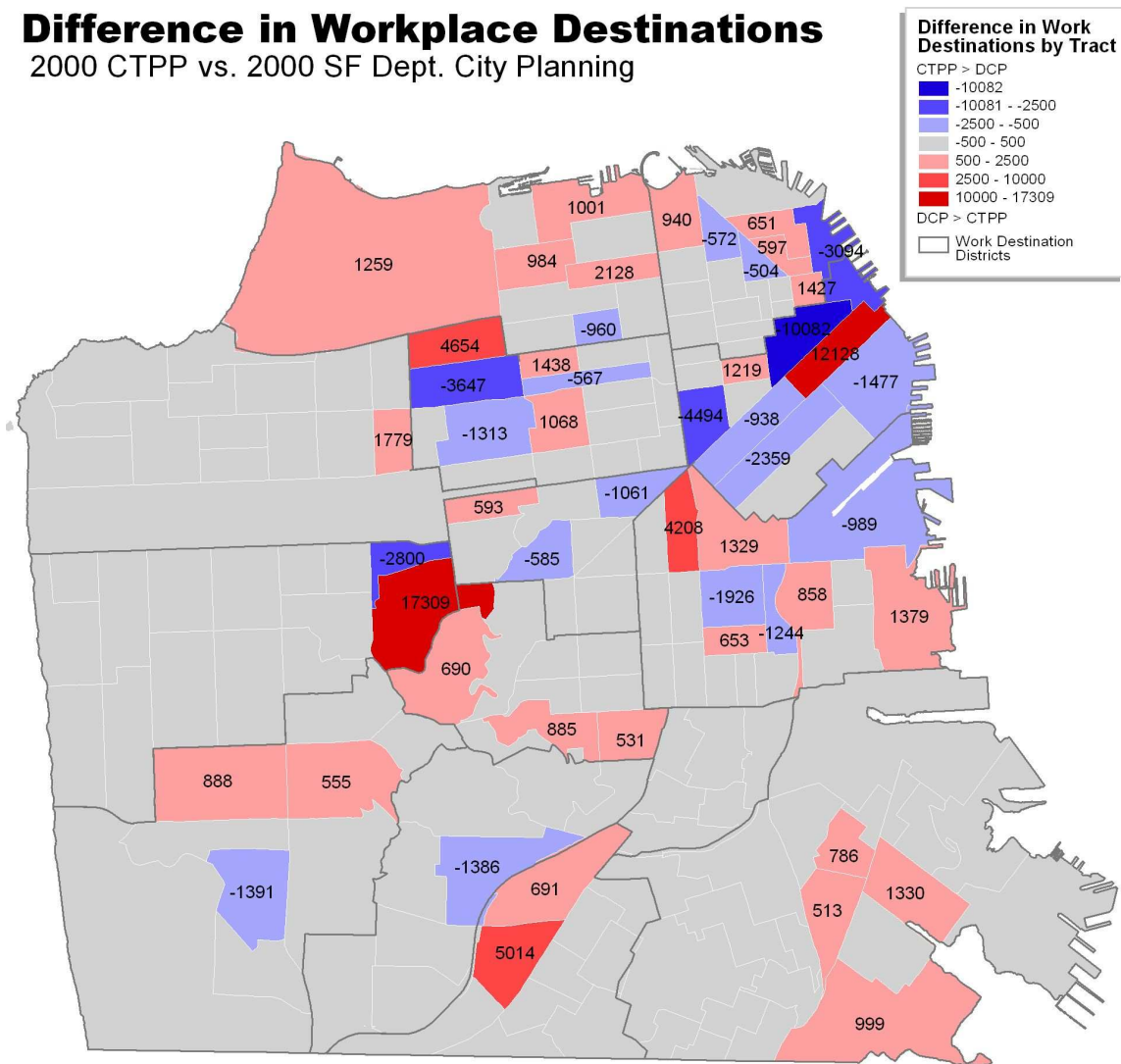
New socioeconomic and employment data were developed to reflect the new TAZ boundary definitions. New 2000 TAZ-level totals of households, household population, group quarters population, and employed residents were based on 2000 Census block information. The development of group quarters population estimates, which were not present in the original San Francisco Model, is necessary in order to include these people in the synthetic population input to the model. New 2000 TAZ-level employment estimates were created by reallocating by area the old TAZ-level employment estimates, which had been prepared by the San Francisco Planning Department.

Adjustments to the new TAZ-level employment estimates were made as a result of large differences between the modeled and observed workplace destinations identified in the process of calibrating the workplace destination choice model. Part 3 of the Census Transportation Planning Package (or “Journey-to-Work”) was a key source of observed workplace destination data used for model calibration. Figure 3 illustrates the differences (at a census tract level) between the employment inputs based on Planning Department data, and the work destinations reported in the CTPP. This map shows that there were 3 tracts where the differences between the two sources was more than 10,000 jobs, and another 7 tracts where the differences between the two sources was more than 2,500 jobs. These discrepancies hindered the workplace destination choice calibration effort, and called into question the integrity of the TAZ-level employment assumptions.

Figure 3 Comparison of CTPP and SF Planning Dept Employment Locations

### Difference in Workplace Destinations

2000 CTPP vs. 2000 SF Dept. City Planning

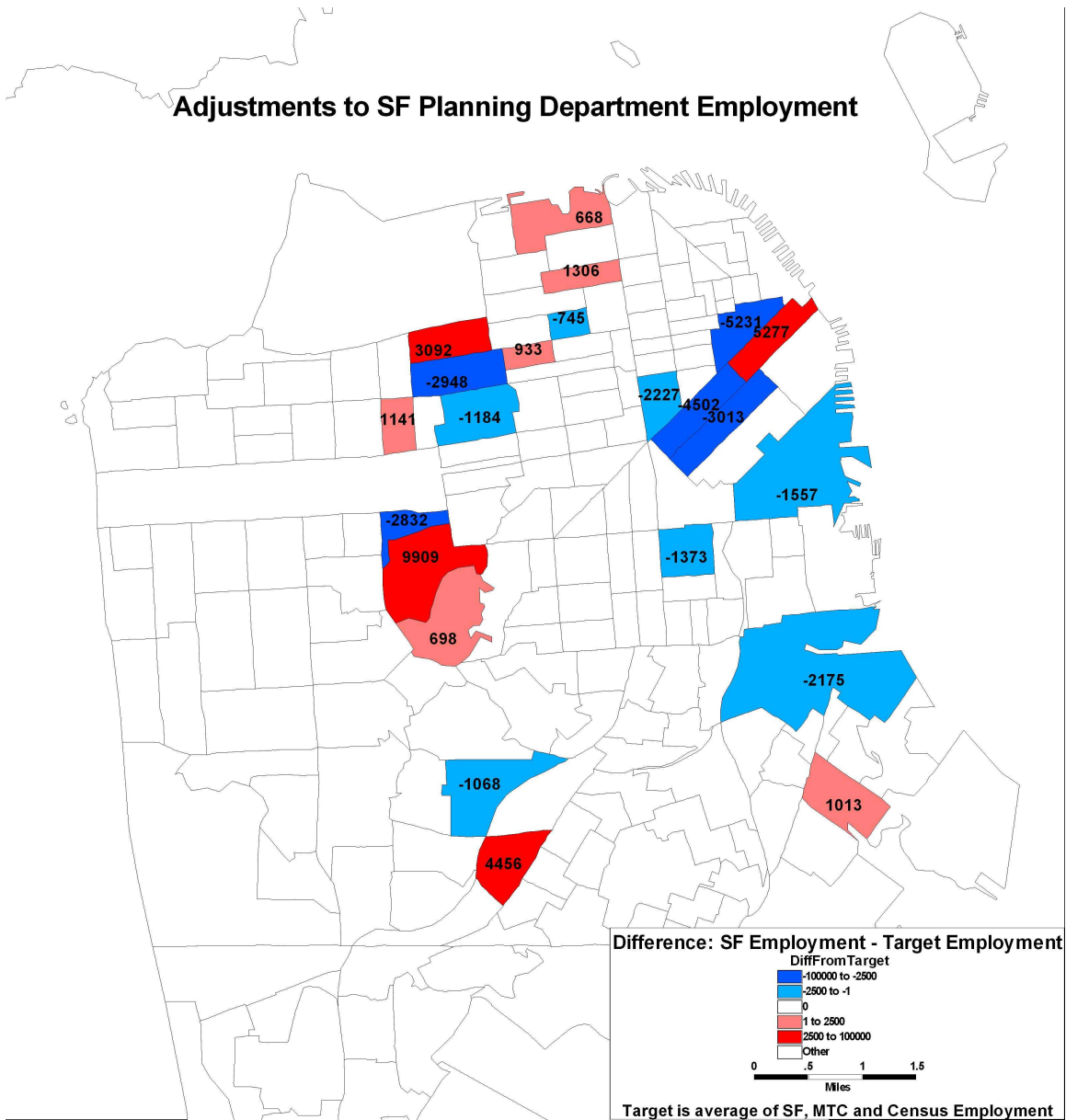


In order to evaluate the reasonableness of these assumptions, the Planning Department-based data were compared, at a Census tract-level, to the CTPP and MTC employment data for San Francisco. Frequently, two of three data sources were in agreement for a given TAZ, but which two sources agreed varied by TAZ. This led to use of a "best two out of three" rule, where if the Planning Department-based numbers agreed (within 1,000 jobs at a tract level) with either the MTC number or the CTPP number it was maintained, but if both the MTC and CTPP numbers were different from the Planning Department number (by more than 1,000), then the Planning Department numbers for TAZs within that tract were adjusted.

Using the difference criteria described above, TAZs in 19 tracts were adjusted.

Additionally, analyst review of the data identified three additional tracts that were adjusted manually. The adjustments were made by taking the average of the three sources at a tract level, developing a factor based on this new tract total and the original Planning Department tract total, and applying this factor to all TAZs within the tract. These adjustments resulted in a reallocation of employment geographically, with increases in Downtown, Potrero, and the Bayview, and with decrease in the Marina, Sunset and Richmond districts. The countywide distribution of employment by sector was little changed, with a reduction of the CIE (cultural, institutional, educational) and MED (medical) sectors, and slight increases in all the other sectors.

**Figure 4: Adjusted San Francisco Planning Dept Employment by Tract**



**Revised Future Year (2005, 2015, 2025, 2030) Socioeconomic & Employment Inputs**

In addition to developing new base year socioeconomic and employment inputs reflective of the more detailed TAZs for the San Francisco Model, it was also necessary to create new future year socioeconomic and employment inputs. For TAZs within San Francisco, future year household and population estimates were developed by estimating growth factors

derived from base year and future year MTC and ABAG tract-level data, and applying these factors to the Census-based year 2000 TAZ data. Manual adjustments were made to the future year assumptions for TAZs with no households or population in the year 2000, but which are expected to receive growth in future years. Future year population and socioeconomic inputs for non-San Francisco TAZs were derived directly from MTC's Baycast model zone data. The group quarters population in each TAZ is taken from the MTC model zone data (ZMAST) as the difference between total population and population in households.

Future year employment assumptions for San Francisco TAZs were developed in a slightly different manner. Rather than build future year assumptions by pivoting off of the base year, new future year TAZ-level employment estimates were created by reallocating by area the old CHAMP2 TAZ-level employment estimates, which had been prepared by the San Francisco Planning Department. Future year employment assumptions for non-San Francisco TAZs were derived directly from MTC's Baycast model zone data.



Figure 5: Population Density 2000

# Population Density 2000

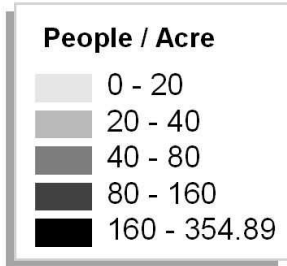


Figure 6: Employment Density 2000

# Employment Density 2000

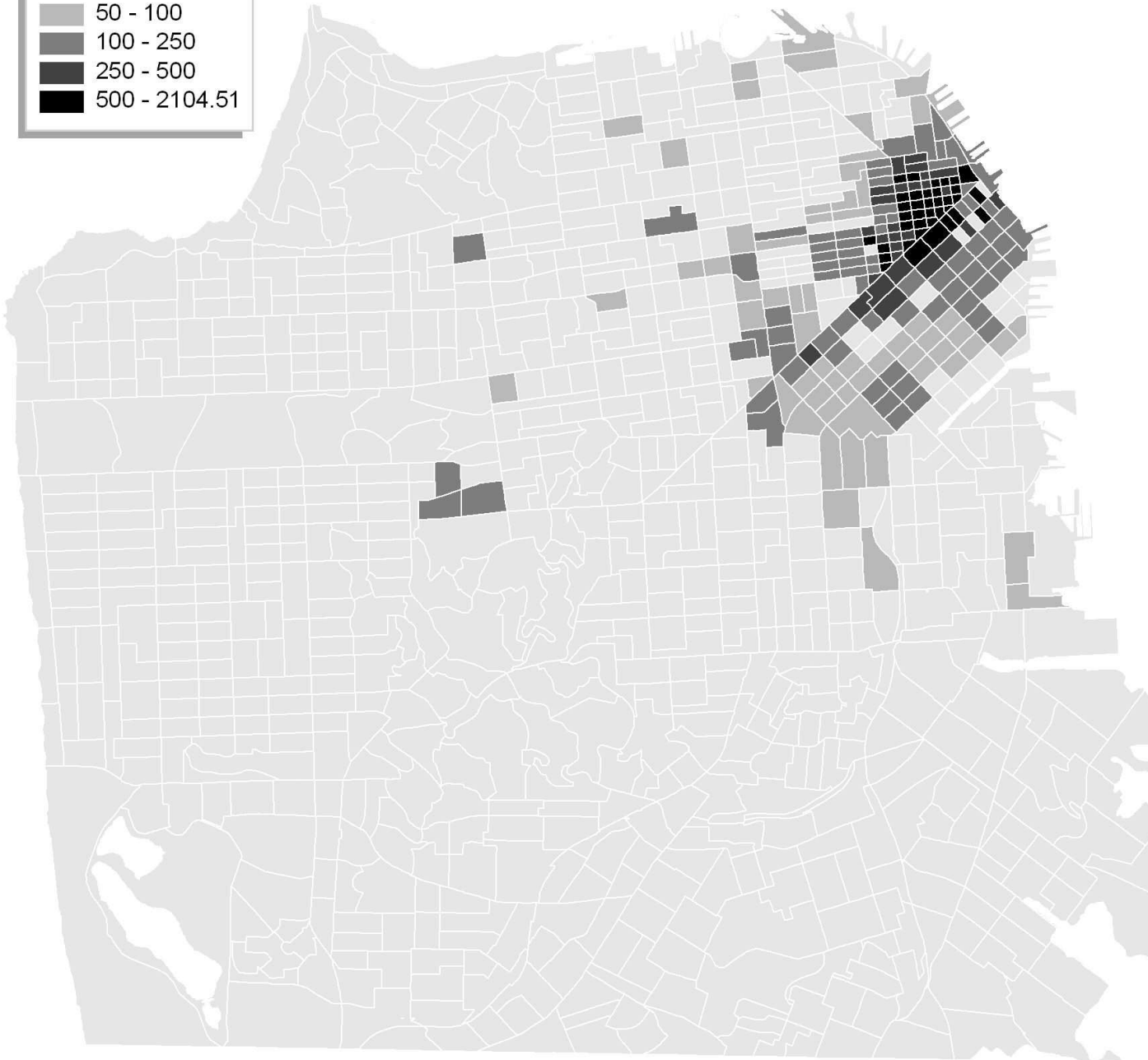
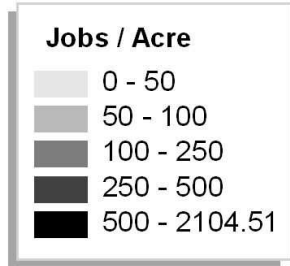


Figure 7: Population Density Change 2000-2030

# Population Density Change 2000-2030

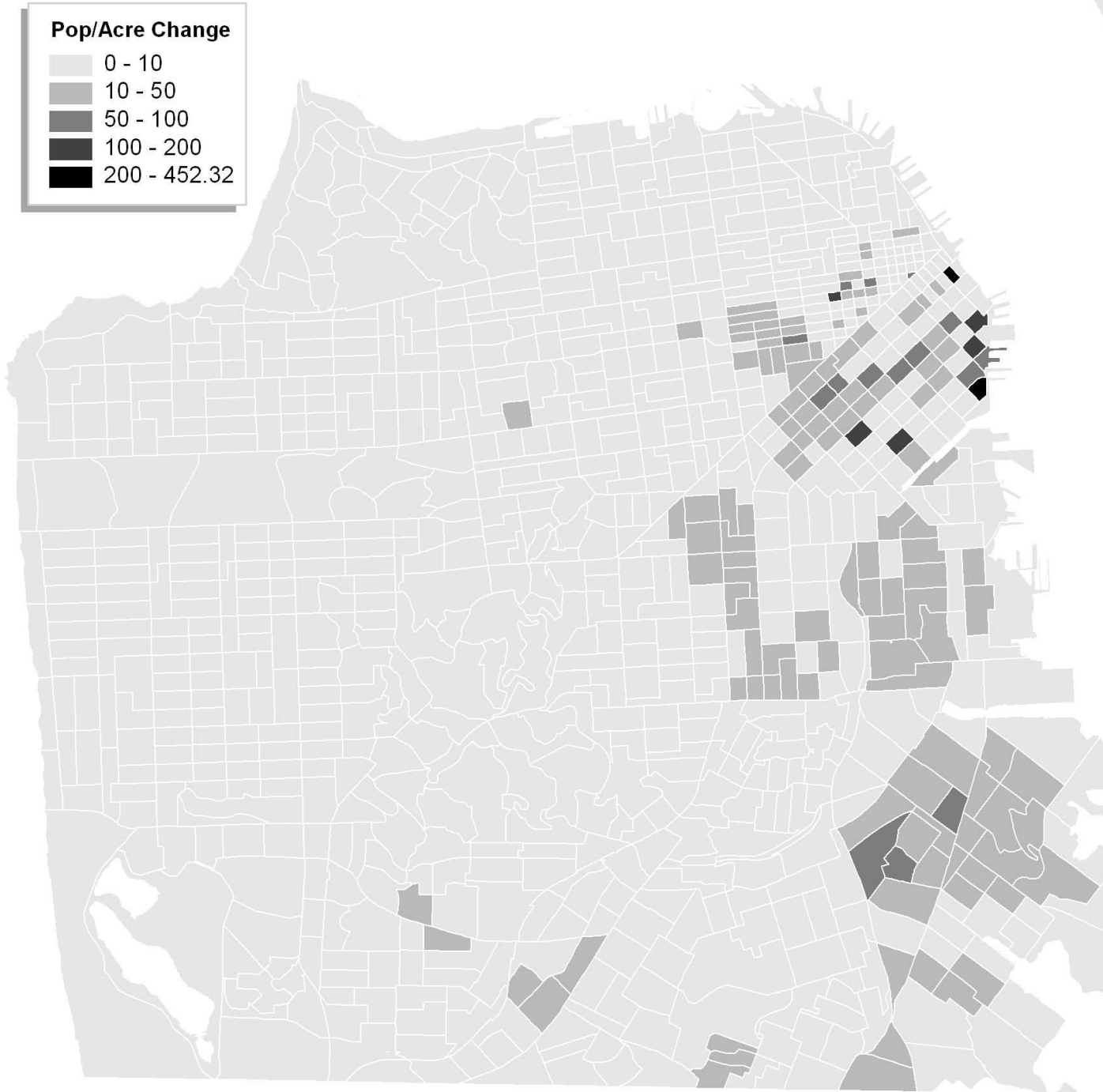
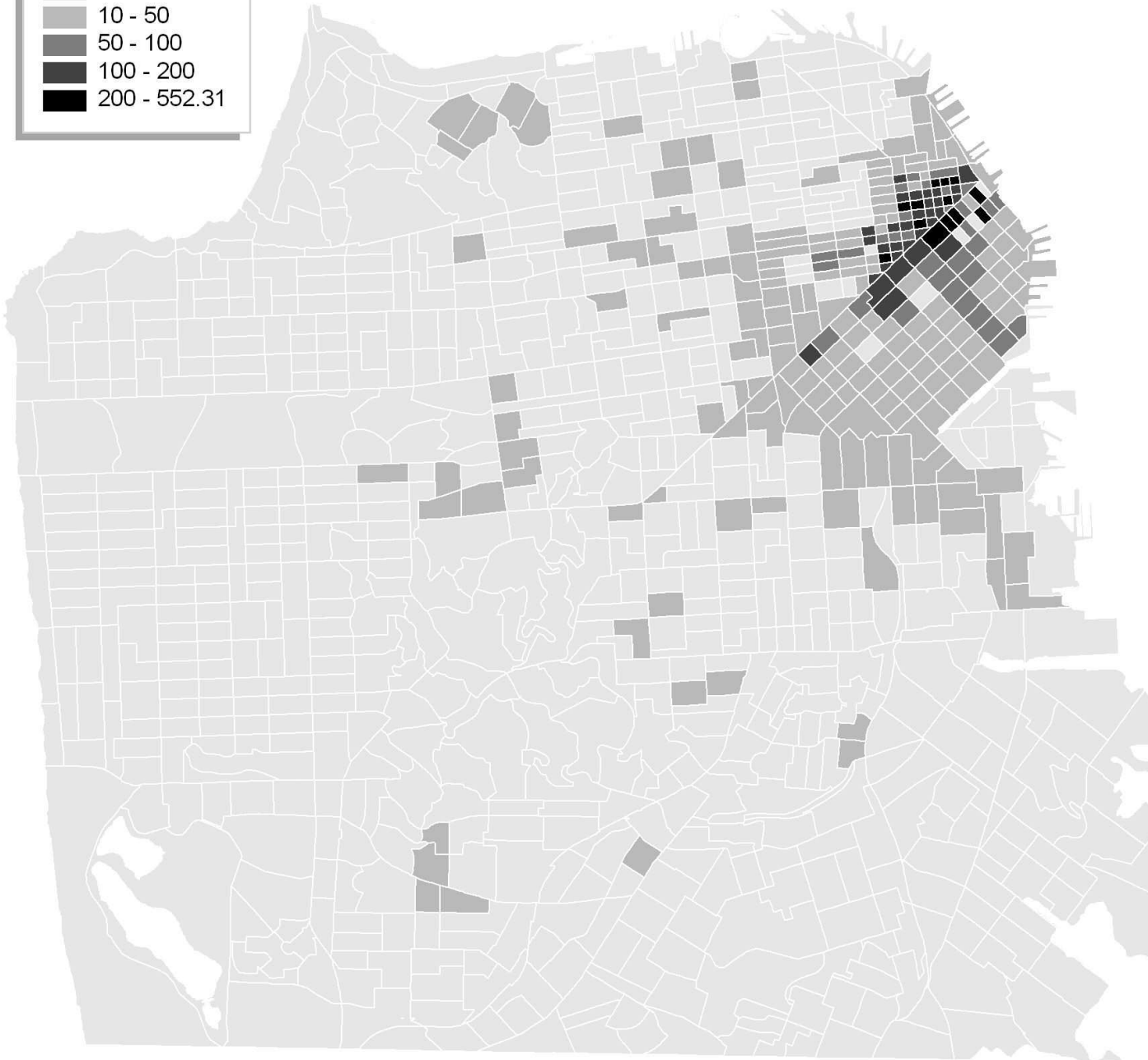
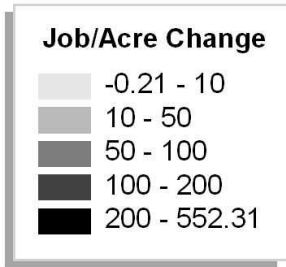


Figure 8: Employment Density Change 2000-2030

# Employment Density Change 2000-2030



## TAZ DATA PROCESSING

### TAZDATA file

A key input to the San Francisco Model is a TAZ-based datafile containing population and employment totals as described above, as well as other zone information, such as parking costs, household incomes, pedestrian environment factors, and many other critical attributes. This file includes information for all TAZs in the model system, which covers the entire Bay Area. The information in the TAZ data file is derived from multiple sources, including the San Francisco County Transportation Authority, the San Francisco Planning Department, and MTC. The attributes for San Francisco zones are in most cases different than the attributes for non-San Francisco zones. For example, the employment sectors for San Francisco zones are consistent with the categories defined by the Planning Department in the 1998 Citywide Land Use Study. This sector information is not available for Bay Area counties outside San Francisco. For non-San Francisco zones, the employment sectors are consistent with those used by MTC in the regional BAYCAST model. Table 1 shows the fields TAZDATA fields, their source data for the San Francisco zones and for the non-San Francisco zones, and any notes on how they are calculated.

**Table 1: TAZ Data File Contents**

Col.	SF Zones		NonSF Zones		Description	Notes
	Output Field	Source	Fieldname	Source		
1	SFTAZ	sfzones	SFTAZ	zmast	ZONE	San Francisco TAZ ID
2	COUNTY	sfzones	COUNTY	zmast	COUNTY	County
3	DISTRICT	sfzones	DISTRICT	zmast	ZONE	District
4	MTCTAZ	sfzones	MTAZ	zmast	ZONE	MTC TAZ ID
5	HHLDS	sfzones	HHLDS	zmast	TOTHH	Households
6	POP	sfzones	POP	zmast	TOTPOP	Population
7	EMPRES	sfzones	EMPRES	zmast	EMPRES	Employed Residents
8	CIE	sfzones	CIE			CIE Employment SF Zones Only
9	MED	sfzones	MED			MED Employment SF Zones Only
10	MIPS	sfzones	MIPS			MIPS Employment SF Zones Only
11	PDR	sfzones	PDR			PDR Employment SF Zones Only
12	RETAIL	sfzones	RETAIL	zmast	RETEMP	Retail Employment
13	VISITOR	sfzones	VISITOR			Visitors Employment SF Zones Only
14	TOTALEMP	sfzones	TOTALEMP	zmast	TOTEMP	Total Employment
15	NETCON	sfzones	NETCON			Ped. Env. Factor--Network Connectivity SF Zones Only
16	CROSSING	sfzones	CROSSING			Ped. Env. Factor--Crossing Ease SF Zones Only

17 SAFETY	sfzones	SAFETY			Ped. Env. Factor--Vitality	SF Zones Only
18 VITALITY	sfzones	VITALITY			Ped. Env. Factor--Safety	SF Zones Only
19 TOPOLOGY	sfzones	TOPOLOGY			Ped. Env. Factor--Topology	SF Zones Only
20 AREATYPE	azlos	AREATYPE	azlos	AREATYPE	Area Type	
21 SUPERDST	zmast	SD	zmast	SD	Super District	
22 MTCEMP	zmast	TOTEMP	zmast	TOTEMP	Total Employment	At MTC zone level
23 MTCPOP	zmast	TOTPOP	zmast	TOTPOP	Total Population	At MTC zone level
24 HHINCQ1	zmast/sfzones	HHINCQ1	zmast	HHINCQ1	Households in Income Quartile 1	Share scaled to total HH in Column 5
25 HHINCQ2	zmast/sfzones	HHINCQ2	zmast	HHINCQ2	Households in Income Quartile 2	Share scaled to total HH in Column 5
26 HHINCQ3	zmast/sfzones	HHINCQ3	zmast	HHINCQ3	Households in Income Quartile 3	Share scaled to total HH in Column 5
27 HHINCQ4	zmast/sfzones	HHINCQ4	zmast	HHINCQ4	Households in Income Quartile 4	Share scaled to total HH in Column 5
28 AVGINCQ1	zmast	AVGINCQ1	zmast	AVGINCQ1	Average Income in Quartile 1	
29 AVGINCQ2	zmast	AVGINCQ2	zmast	AVGINCQ2	Average Income in Quartile 2	
30 AVGINCQ3	zmast	AVGINCQ3	zmast	AVGINCQ3	Average Income in Quartile 3	
31 AVGINCQ4	zmast	AVGINCQ4	zmast	AVGINCQ4	Average Income in Quartile 4	
32 AVGHHINC	zmast	AVGHHINC	zmast	AVGHHINC	Average Income	
33 SHPOP62P	zmast	SHPOP62P	zmast	SHPOP62P	Share of Population Age 62+	
34 TOTACRE	sfzones	TOTACRE	zmast	TOTACRE	Total Acres	
35 RETEMP			zmast	RETEMP	Retail Employment	MTC zones only
36 SEREMP			zmast	SEREMP	Service Employment	MTC zones only
37 OTHEMP			zmast	OTHEMP	Other Employment	MTC zones only
38 AGREMP			zmast	AGREMP	Agricultural Employment	MTC zones only
39 MFGEMP			zmast	MFGEMP	Manufacturing Employment	MTC zones only
40 TRDEMP			zmast	TRDEMP	Transportation/Distribution Employment	MTC zones only
41 SERVICE	Sfzones	CIE+MED +VISITOR	zmast	SEREMP	Service Employment	MTC service employment divided by 2
42 PKDISTNO	Sfzones	PKDISTNO			Parking District 1	SF Zones Only
43 PKDIST	Sfzones	PKDIST			Parking District 2	SF Zones Only
44 FREEPARK	Sfzones	FREEPARK			Fraction with Free Parking	SF Zones Only
45 SUBPARK	sfzones	SUBPARK			Fraction with Subsidized Parking	SF Zones Only
46 PAIDPARK	sfzones	PAIDPARK			Fraction with Paid Parking	SF Zones Only
47 PPAYING	sfzones	PPAYING			Percent Paying for Parking	SF Zones Only
48 PRKAVIND	sfzones	PRKAVIND			Parking Availability Index	SF Zones Only
49 ONSTREET	sfzones	ONSTREET			Fraction of On-Street Parking	SF Zones Only
50 OFSTREET	sfzones	OFSTREET			Fraction of Off-Street Parking	SF Zones Only
51 PRKCSTWH	sfzones	PRKCSTWH			Hourly parking cost for work tours	SF Zones Only
52 PRKCSTOH	sfzones	PRKCSTOH			Hourly parking cost for other tours	SF Zones Only
53 TOTPARK	sfzones	TOTPARK			Total Parking Spaces	SF Zones Only
54 COLLENROLL	sfzones	COLLENROLL	enroll	COLLFTE +COLLPTE	College enrollment	
55 HIGHENROLL	sfzones	HIGHENROLL	enroll	HSENROLL	High school enrollment	
56 GRADENROLL	sfzones	GRADENROLL			Grade school enrollment	SF Zones Only
57 SFDU	zmast/sfzones	SFDU	zmast	SFDU	Households in single family dwelling units	Share scaled to total HH in Column 5
58 MFDU	zmast/sfzones	MFDU	zmast	MFDU	Households in multi family dwelling units	Share scaled to total HH in Column 5
59 AGE0004	zmast/sfzones	AGE0004	zmast	AGE0004	Persons age 0-4	Share scaled to total Population in Column 6
60 AGE0519	zmast/sfzones	AGE0519	zmast	AGE0519	Persons age 5-19	Share scaled to total Population in

						Column 6
61 AGE2044	zmast/sfzones	AGE2044	zmast	AGE2044	Persons age 20-44	Share scaled to total Population in Column 6
62 AGE4564	zmast/sfzones	AGE4564	zmast	AGE4564	Persons age 45-64	Share scaled to total Population in Column 6
63 AGE65P	zmast/sfzones	AGE65P	zmast	AGE65P	Persons age 65+	Share scaled to total Population in Column 6
64 HHPOP	zmast/sfzones	HHPOP	zmast	HHPOP	Household population	Share scaled to total Population in Column 6
65 GQPOP	zmast/sfzones	TOTPOP- HHPOP	zmast	TOTPOP- HHPOP	Group Quarters population	Share scaled to total Population in Column 6

### Allocation Files

The San Francisco Model relies on MTC's regional Baycast model for forecasts of intercounty movements, but the regional Baycast model produces traditional trip-based forecasts at a more aggregate geographic scale within San Francisco. In order to address the differences in TAZ geography in San Francisco, MTC trips are reallocated to the more fine-grained San Francisco zones.

For highway trips the allocation process first aggregates trips to a district level, and then disaggregates them to a San Francisco TAZ level. It is necessary to aggregate to the district level because significant differences have been observed between MTC MTAZ-level households and employment and San Francisco-based MTAZ-level households and employment within the City. Aggregating and disaggregating compensates for these differences. Transit trips are allocated directly from the MTC zones to the San Francisco zones to maintain the spatial distribution of transit trips to the greatest degree possible. This is important due to the sensitive nature of transit trips to walking distances, and access to specific transit lines.

A separate aggregation and disaggregation process is used to allocate workers living outside San Francisco to their appropriate work TAZ within San Francisco. The results of this process are used by the shadow pricing mechanism of the workplace location choice model to ensure that the intra-county workers are assigned appropriate work locations.

### **TAZDATA TOOL**

As part of the CHAMP3 update effort, a software tool was developed to automate the process of combining data from multiple sources to produce the required model inputs. The software is implemented as a Java program, and its usage is described below. The tool creates two types of outputs: A TAZ data file for all zones in the SF Model system containing critical attributes used in the model system; and a set of "allocation" files that support the reallocation of MTC Model trips at the MTC TAZ-level to the more fine-grained SF Model TAZ-level. The preparation of both types of files is automated in the TAZDATA tool. The tool creates five primary model input files:

- TAZDATA.DBF: The main output file with contents shown in Table 1, as specified in the TazKey (described below).
- MTC\_disaggregation.csv: This file is used by TP+ matrix module to disaggregate the school, other, and non-transit work trips. It contains 4 fields: 1) district, 2) TAZ, 3) shareX100 of total district households within the TAZ, and 4) shareX100 of total district employment within the TAZ. The purpose of this file is to reallocate total home-based district-level trips to TAZs using share of district households at the production end and share of district employment at the attraction end. The first 981 records of this file should reflect the San Francisco TAZ distributions. The remaining records are for non-San Francisco zones. For these records the second field contains the TAZ number, but the shares in columns 3 and 4 are all 100.
- MTC\_disaggregation\_nhb.csv: This file is used by the TP+ matrix module to disaggregate non-home based trips. This is similar to the previous file, except that the share of district level employment is used at both the production and the attraction side. It contains 4 fields: 1) district, 2) TAZ, 3) shareX100 of total district employment within the TAZ, and 4) shareX100 of total district employment within the TAZ. As with the previous file, the first 981 records of this file should reflect the San Francisco TAZ distributions. The remaining records are for non-San Francisco zones. For these records the second field contains the TAZ number, but the shares in columns 3 and 4 are all 100.



- Allocate\_nhb.csv: Prior to identifying the NHB trips made within San Francisco by non-San Francisco residents (by time period, mode, and origin and destination areatype), this file is used by the SF-CHAMP model to disaggregate NHB trips from the MTAZ level to the SFTAZ level. This file is also used to disaggregate the work trips using transit directly from the MTCAZ level to the SFTAZ level in order to preserve reflect the availability of transit embedded in the regional mode choice model outputs. This file contains 4 fields: 1) MTAZ, 2) TAZ, 3) shareX100 of total MTAZ employment within the TAZ, and 4) shareX100 of total MTAZ employment within the TAZ. The first 981 records of this file should reflect the San Francisco TAZ distributions. The remaining records are for non-San Francisco zones. For these records the second field contains the TAZ number, but the shares in columns 3 and 4 are all 100.
  
- MTC\_disaggregation\_hbw.csv: This file is used to support the shadow pricing mechanism of the workplace destination choice model. Non-resident HBW trips attractions in San Francisco are first aggregated to the county as a whole, then disaggregated to a specific work TAZ using this file. This process ensures that the workplace location choice shadow pricing has an appropriate number of jobs to fill with residents in the right locations. It contains 4 fields: 1) County ID, 2) TAZ, 3) shareX100 of total county households within the TAZ, and 4) shareX100 of total county size within the TAZ. For creating this process, a special size term was estimated based on the different employment categories. The size terms are:
  - o sizeSFMIPS = 0.5980
  - o sizeSFPDR = 0.4582
  - o sizeSFRet = 0.7298
  - o sizeSFCIE = 0.0950
  - o sizeSFMed = 0.0950
  - o sizeSFVisitor= 0.0950
  - o sizeMTCTotal = 1.0000

Using the TAZDATA tool

## *Running the Program*

The program is run by calling the DOS batch file 'ProcessTazData.bat'.

## *Input Files*

The program runs with five main input files:

- sfzones.csv – Comma-separated value file with San Francisco TAZ-level data, including households, population, employment by sector, pedestrian environment factors, and other TAZ-level attributes for the 981 zones that represent San Francisco in the model. The sfzones.csv file should have column headers defining the contents of each field.
  
- ZMASTXX.DAT: Fixed format text file with MTC's regional Baycast model TAZ-level data, including households, population, employment by sector, income distributions and other TAZ-level attributes for all 1454 zones that represent the Bay Area (XX refers to a give forecast year, such as 00 or 25). This file requires a dictionary file defining the contents of each field. The dictionary file is a CSV file with one record for each field in the main data file. It has the same name as the data file, but with the extension .DCT. The dictionary file has the following fields:
  - o COLUMN – The name of the field.
  - o START – The starting position of the field, one-based and inclusive.
  - o END – The ending position of the field, one-based and inclusive.
  - o TYPE – Either NUMBER or STRING depending on the type of the field.
  - o LABELINFILE – Either 1 or 0, indicating whether or not the first row of the main data file includes column headers.

- HBSSCHOOL.ZENROLL.DAT – Fixed format text file with estimated school enrollment for MTC TAZs. This file requires a dictionary file defining the contents of each field (see above for description of dictionary file structure).
  
- AZLOS.DAT: Fixed format text file with area type information for MTC TAZs. This file requires a dictionary file defining the contents of each field(see above for description of dictionary file structure).
  
- TAZKEY.CSV: Critical file that defines how the other input files are combined to produce the output TAZDATA file. The relationships are specified in this table such that they can be changed without re-compiling the code. TZKEY is in CSV format, with one record for each field desired in the output file, and the following columns:
  - o Column – Numerical position of the output column.
  - o OutputField – Desired name of the output field.
  - o Decimals – Number of decimals in the output table, only relevant for DBF outputs.
  - o Scaling – For each row in the output column, the values in factor fields are scaled such that their sum matches the value in the total field.
  - o SFZoneTable – Defines the input table from which values will be taken to fill that output field for zones within San Francisco. Must be sfzones, azlos, zmast, or enroll.
  - o SFZoneField – Defines the input column from which values will be taken to fill that output field for zones within San Francisco.
  - o SFFactor – Factor used to scale the output for zones within San Francisco.

- NonSFZoneTable – Defines the input table from which values will be taken to fill that output field for zones outside San Francisco. Must be sfzones, azlos, zmast, or enroll.
- NonSFZoneField – Defines the input column from which values will be taken to fill that output field for zones outside San Francisco.
- NonSFFactor – Factor used to scale the output for zones outside San Francisco.

### *Controls*

The controls include the JAR files with the Java classes, a log4j.xml file that specifies how logging will be performed, and the tazdata.properties file that specifies file names and other model parameters. The properties file is the only of these that may need to be modified, and includes:

- Tazkey: Name of the TazKey file.
- Sfzones: Name of the sfzones file.
- Zmast: Name of the zmast file.
- Azlos: Name of the azlos file.
- Enroll: Name of the enroll file
- numZonesInsideSF: Number of TAZs inside San Francisco (981).
- numZonesOutsideSF: Number of TAZs outside San Francisco (1264).
- numExternalStations: Number of external stations (21).
- tazkeyIndex: Column used as an index in TazKey file.
- sfzonesIndex: TAZ column used as an index in sfzones file
- zmastIndex: TAZ column used as an index in zmast file
- azlosIndex: TAZ column used as an index in azlos file
- enrollIndex: TAZ column used as an index in enroll file
- mtczoneEquivField: Name of column containing the MTC zone ID in the sfzones file
- firstNonSfZone: First MTC zone in zmast file that is outside San Francisco
- zmastSfTazConversion: Value added to MTC zone IDs outside San Francisco to get the SF zone ID

- districtField: Field in the output file containing the district ID for disaggregation.
- mtcTazField: Field in the output file containing the MTC TAZ ID for disaggregation
- hhField: Field in output file containing the number of households, used for disaggregation
- empField: Field in output file containing the total employment, used for disaggregation
- outputFile: Name of output file
- disagOutFile: Name of the disaggregation file for home-based trips
- nhbDisagOutFile: Name of the disaggregation file for non-home-based trips.
- allocateOutFile: Name of the allocation file for non-home-based trips
- outputFileType: Type of the main output file, either DBF or CSV.

### *Output Files*

The program produces the following output files:

- tazdata.dbf – The main output file containing the data specified in the TazKey.
- MTC\_disaggregation.csv - This file is used by TP+ matrix module to disaggregate the school, and other trips. In contains 4 fields: 1) District, 2) TAZ, 3) shareX100 of total District HHs within the TAZ, AND 4) shareX100 of total District Employment within the TAZ
- MTC\_disaggregation\_nhb.csv - This file is used by the TP+ matrix module to disaggregate non-home based trips. This is similar to the previous file, except that the share of district level employment is used at both the production and the attraction side. In contains 4 fields: 1) District, 2) TAZ, 3) shareX100 of total District Employment within the TAZ, AND 4) shareX100 of total District Employment within the TAZ
- Allocate\_nhb.csv - This file is used by the the TP+ matrix model to disaggregate internal-SF non-home-based trips from the MTAZ level to the SFTAZ level. In

contains 4 fields: 1) MTAZ, 2) TAZ, 3) shareX100 of total MTAZ employment within the TAZ, and 4) shareX100 of total MTAZ employment within the TAZ.

- MTC\_disaggregation\_hbw.csv: This file is used to establish targets for nonSF resident workers working in SF TAZs, for use in the shadow pricing mechanism of the workplace destination choice model. It contains 4 fields: 1) County ID, 2) TAZ, 3) shareX100 of total county households within the TAZ, and 4) shareX100 of total county size within the TAZ. For creating this process, a special size term was estimated based on the different employment categories
- event.log – Contains informational messages logged by the software.

## **NETWORKS**

The CHAMP3 system uses two primary types of networks: roadway networks and transit networks. The San Francisco portions of the CHAMP3 roadway and transit networks were primarily developed in-house by SFCTA staff, based on the City's GIS basemap. The non-San Francisco portions of the CHAMP3 networks are based on MTC's regional Baycast model roadway and transit networks.

The San Francisco portions have been extensively reviewed and revised to simplify maintenance and more accurately reflect network conditions. On roadway side, only one input roadway network for each model horizon year is now required by CHAMP3 (FREEFLOW.NET). Time period specific information (such as the number of general purpose travel lanes and the number of buslanes by time-of-day) is now maintained using a link attribute for each time period, rather than maintaining separate networks for the AM peak, PM, peak and midday. Within San Francisco, the network link facility types, area types, turn penalties, and directional information were reviewed and revised as appropriate to best reflect network supply conditions.

Significant changes were also made to the San Francisco portions of the transit network. Most critically, MUNI travel speeds were linked to congested roadway travel times, which is described in a subsequent section. In addition, SFCTA staff updated all San Francisco transit route operating assumptions, such as alignments and frequency by time-of-day, for all model horizon years. Finally, changes were made to transit network coding conventions, such as the creation of separate rail rights-of-way in tunnels and where streetcars do not operate in mixed flow.

No changes were made to the non-San Francisco portions of the roadway network. These portions of the network are based directly on MTC's regional model roadway networks. In order to be integrated with the San Francisco GIS-based portions of the CHAMP3 networks, the regional MTC node numbers are increased by 1000.

In contrast, the regional transit networks were extensively revised to add transit route alignment and operating attributes by time-of-day and direction. The CHAMP3 model system uses five time periods, while the MTC's regional model transit networks are represented as simply peak and off-peak service. Using the regional model transit networks as a starting point, for each time period the SFCTA staff coded inbound and outbound route alignments and operating assumptions such as frequency and stop locations. Finally, the transit network route files were reorganized by operator, with time-of-day attributes coded by transit route. In the CHAMP2 transit networks, all routes and operators were combined to create five large transit route files organized by time-of-day. Changes to alignments and frequencies required the modification of up to five separate files. In the revised CHAMP3 transit network coding scheme, modification of a single transit route attributes requires changes only a single file.

### Linking Transit and Roadway Speeds

As part of the CHAMP3 model enhancements, a method for linking congested roadway speeds to transit speeds in mixed flow conditions was developed, implemented and validated. Establishing a linkage between roadway and transit speeds (and travel times)

ensures logical and behavioral consistency in the model components. Differences in travel times significantly influence the sensitivities of a number of CHAMP3 model components, especially the tour and trip mode choice models. With this linkage, as congestion increases and vehicles travel more slowly, transit vehicles operating in mixed flow also travel more slowly. This linkage establishes a consistent method for relating auto and transit speeds, and is based on a comparison of observed data on auto and transit speeds.

### Observed Auto Speeds

The observed data on auto speeds and travel times were derived from data collected in 2006 by the San Francisco County Transportation Authority on average travel times on the set of roadway segments identified as the Authority's Congestion Management Program network. This data is collected only during the AM and PM peak periods.

### Observed Transit Travel Times

The observed data on transit travel times were derived from AVL (Automatic Vehicle Locator) data provided by MUNI. In order to use MUNI's AVL data, it was first necessary to develop a software tool that calculated observed MUNI travel times by route and segment from the point-based AVL data. This tool reads in the geographic points of the AVL data and associates them with the nearest transit stop found in the CHAMP3 transit networks. The points are sorted chronologically, and the point-to-point travel times calculated. If a travel time cannot be calculated for a specific link, it is interpolated using the average travel speed for that route, allowing the speeds and travel times for any user-defined route segment to be calculated.

Because the AVL data does not reliably distinguish between the different routes, so the software determines the correct route through geographic analysis. In addition, the tool incorporates checks to filter out flawed data if there is too much time or distance between subsequent AVL points. These filters prevent excessive travel times when a bus is out of service, or excessive travel speeds if data from two



vehicles across town are adjacent. As outputs, the software tool reports the average runtime and other statistics for each link, route, and user-defined segment. This information, along with the CMP travel time data, was used to estimate the transit-roadway speed linkage.

### Roadway Transit Linkage

Linear regression was used to statistically estimate the relationship between observed transit travel time and a variety of related independent variables. The independent variables tested included the highway time, the distance, and the number of stops. The highway time and number of stops were segmented by facility type and by area type, but no meaningful differences were found based on those segmentations. The best results were obtained through constrained estimations, where one or more of the coefficients was first fixed.

The best initial bus analysis, combining estimated and asserted parameters, and which was subsequently adjusted in calibration was:

$$\begin{aligned} \text{Bus Time} &= 1.2 * \text{Highway Time in Mixed Flow} \\ &+ 1.0 * \text{Free-flow Time in Bus-Only Lanes} \\ &+ 0.44 * \text{Number of Stops} \end{aligned}$$

This model has a logical relationship between the variables. It implies that the Muni busses traveling in mixed flow are 20% slower than the roadway traffic on the same streets, and that each stop adds 26 seconds to the runtime. Where bus only lanes are present, busses travel at the posted speed limit.

Linking roadway speeds and travel times to MUNI rail speeds and travel times is more complicated, because some rail segments have completely separate rights-of-way, such as the Market Street subway, while other rail segments are in mixed flow. For the rail segments with separate right-of-way, the AVL observed travel time was

hard-coded in the transit networks. For the rail segments in mixed flow, a relationship between roadway and rail travel times and speeds, similar to that used for buses, was developed. In order to handle difficulty with co-linearity, the best results were obtained when the highway time coefficient was constrained to be consistent with the coefficient used for buses. As with buses, segmentation by facility type and area type did not improve the estimated results. The preferred model for rail lines operating on highway segments was:

$$\text{Rail Time} = 1.2 * \text{Highway Time in Mixed Flow} \\ + 0.35 * \text{Number of Stops}$$

This model implies that in mixed-flow rail vehicles travel at approximately the same speed as busses, but with less delay per stop. The rail vehicles have shorter stop times because they allow more passengers to board or alight at the same time.

The bus and rail equations shown above are used to calculate MUNI bus and rail travel on mixed-flow segments. In addition to addressing MUNI travel times and speeds, CHAMP3 was modified to also consider travel times and speed for other Bay Area transit operators providing service to San Francisco. The approach for regional operators involved applying the same set of relationships to all bus routes in the region. These stop time factors were then calibrated by mode to match the average travel time by mode.

In application, the transit skim-building and assignment TP+ scripts calculate a new roadway network field called BUSTIME, which is the highway travel time factored by the estimated highway time coefficients (1.0 \* highway time for links with bus-only lanes and 1.2 \* highway time for all other links). Representing the stop delay is more complicated because TP+ requires that stop delay be explicitly coded for each stop. An AWK script is used to automatically add the delay codes to the transit line files, and is integrated into the CHAMP3 transit network skimming and assignment procedures.

The relationships were calibrated by applying them in a base-year model, and comparing the travel time by route to the observed travel time by route. For the Muni routes with valid AVL data, the travel times from the AVL data processor were used as the observed values. For the non-Muni routes where the AVL data was not available, the RUNTIME values coded in the transit line files were treated as the observed/scheduled travel times.

Two changes were made to the application formulas during calibration. First, for freeways and expressways, the highway time factor was reduced from 1.2 to 1.0. This change was made because busses operating on freeways are less limited by the vehicles' acceleration and deceleration characteristics and more likely to operate with the flow of traffic. It also served to increase the speeds of the premium bus modes, which were previously observed to be too slow.

The second change made was that the stop time factors were adjusted to better fit the observed data. The initial estimated stop time factors were 0.44 for busses and 0.35 for rail. Table 2 and Table 3 show the final calibrated model coefficients. The non-Muni local bus routes tend to have slightly less stop delay than the Muni routes, and the premium bus routes have less stop delay than the local routes. These differences can probably be attributed to the volume of passengers boarding and alighting at each stop, or to the specific operating characteristics of the routes.

**Table 2: Final Highway Time Factors**

Roadway Type	Highway Time Factor
Freeway or Expressway	1.0
Arterial or Below	1.2
Facility with Bus Lane	1.0

**Table 3: Final Stop Time Factors**

Mode	Description	Stop Time
1	Muni Express Bus	0.50

2	Muni Local Bus	0.50
3	Light Rail	0.40
4	BART	0
5	Other Local Bus	0.50
6	Premium Bus	0.20
7	Premium Bus	0.20
8	Premium Bus	0.20
9	Premium Rail & Ferry	0

Table 4 shows a comparison of the modeled and observed runtimes on Muni routes. In the aggregate, the revised method for calculating transit runtimes better matches the observed runtimes than the original method. The overall root mean squared error is 17%. Table 5 shows the validation results comparing the scheduled and modeled runtimes for all transit routes. Modes 4 and 9 are BART and ferry/Caltrain modes that use hard-coded RUNTIMES, and thus have no difference. The overall percent root mean squared error is 26% for all routes.

**Table 4: Validation Results for Muni Routes**

Mode	# Routes	Observed Time			Modeled Time		Difference		% Difference		% RMSE	
		Min	Max	Avg	Orig	Rev	Orig	Rev	Orig	Rev	Orig	Rev
Muni Bus	157	32.3	60.9	43.8	38.3	44.4	-5.4	0.6	-12%	1%	21%	19%
Muni Rail	42	25.1	58.5	42.2	38.0	39.3	-4.2	-2.9	-10%	-7%	13%	11%
Total	209	30.3	60.6	43.5	38.3	42.9	-5.2	-0.5	-12%	-1%	19%	18%

**Table 5: Validation Results for All Routes**

Mode	Description	# Routes	Scheduled	Modeled	Difference	% Difference	% RMSE
			Runtime	Runtime			
1	Muni Express Bus	34	37.9	37.4	-0.5	-1.2%	2%
2	Muni Local Bus	414	52.9	52.9	0.1	0.1%	3%
3	Light Rail	108	31.2	30.4	-0.8	-2.6%	8%
4	BART	41	65.4	65.4	0.0	0.0%	0%
5	Other Local Bus	2697	41.8	41.9	0.1	0.2%	29%
6	Premium Bus	45	65.7	63.7	-2.0	-3.0%	25%
7	Premium Bus	66	90.6	94.7	4.0	4.5%	28%
8	Premium Bus	125	46.2	50.4	4.2	9.2%	34%
9	Premium Rail & Ferry	114	58.1	58.1	0.0	0.0%	0%
Total		3644	44.8	45.1	0.2	0.6%	26%

## **SYNTHETIC POPULATION**

The disaggregate, tour-based structure of CHAMP3 predicts daily activity patterns and the demand for travel at the individual person-level. In order to operationalize this approach, it is necessary to first build a “synthetic population” of households and persons whose attributes, such as household size or the number of workers, match observed or expected patterns. A new population synthesizer was implemented in CHAMP3 that is significantly more sophisticated and comprehensive than that used in the previous version of the model. CHAMP3 uses the ARC (Atlanta Regional Council) population synthesis tool, adapted for application in the San Francisco and the Bay Area. This tool provides a great deal of flexibility in defining and validating population segments. The new population synthesizer incorporates a greater number of “controlled for” attributes than were included in the original population synthesizer, including the presence of children in households, housing type, and group quarters population.

The CHAMP3 population synthesizer first develops a “base year” population distribution using year 2000 Census data. A set of controlled for attributes are defined, and Census Summary File 1, Summary File 3, and the Census Transportation Planning Package information is used to develop single and multi-dimensional distributions of these attributes. In CHAMP3, these attributes include:

- Householder age
- Household size
- Household income
- Presence of children in household
- Number of workers in household
- Number of units in household structure
- Population race
- Population group quarters type

Once this distribution is established, the population synthesis tool then samples PUMS records to create a fully enumerated representation of the population.

In order to use the CHAMP3 to forecast the demand for future travel, it is necessary to develop future year synthetic populations. Because detailed future year distributions are not currently available, the base year distributions of household and person attributes are updated to provide future year distributions of these attributes, based on future year data found in MTC's regional model TAZ inputs and the SFCTA's CHAMP3 TAZ inputs. The CHAMP3 population synthesizer is applied at the CHAMP3 TAZ level for the entire Bay Area.

### Group Quarters Residents

Group quarters residents are treated as a separate category of households. In the PUMS data, each group quarters resident has a record in the person format as well as a record in the household format representing a one-person pseudo-household containing only that individual. These fields are distinguished from the normal household records by the UNITTYPE field, which indicates if the record is a household record, a non-institutional group quarters record, or an institutional group quarters record. This field is used to distinguish the type of household, and group quarters residents are otherwise treated just like any other household record. In the CHAMP3 implementation of the population synthesizer, institutional group quarters residents are generated by the model so that the total population matches the control totals, but because institutional residents are not expected to travel, these records are not printed to the population output file used by CHAMP3.

### Household Categories

Each household is grouped into household defined by eight dimensions. The dimensions are:

- Household unit type (3)
  - Household
  - Non-Institutional Group Quarters
  - Institutional Group Quarters;
- Income in 1999 dollars (4)
  - <\$30k
  - \$30-60k
  - \$60-100k

- \$100k+
- Householder age (2)
  - 0-64
  - 65+
- Household size (4)
  - 1
  - 2
  - 3
  - 4+
- Presence of own children age 0-17 (2)
  - Yes
  - No
- Number of Workers (2)
  - 0
  - 1
  - 2
  - 3+;
- Number of Units in Structure (2)
  - Single-Family Attached or Single-Family Detached
  - All Other
- Race (2):
  - White-Alone Non-Hispanic
  - Other.

A simple product of the number of categories in the eight dimensions indicates that up to 3,072 household categories would be possible. However, to keep the number of categories manageable, not all combinations are used. Combinations of the eight dimensions that are excluded or merged include:

- Illogical combinations of workers and household size are excluded
- Illogical combinations of presence of children and household size are excluded
- For households with a householder age 65+, no distinction is made between those households with or without children
- For group quarters, no distinctions are made by household income
- For group quarters, no distinction are made by household size
- For group quarters, no distinctions are made by presence of children
- For group quarters, no distinction is made by the number of units in the structure.



These rules limit the total number of categories to 592 for households and 16 for group quarters, totaling 608 mutually exclusive and collectively exhaustive categories.

### Control Totals

The 2000 PUMS data are tabulated into the categories above to generate a seed distribution with 8 dimensions and 608 cells. This seed distribution is then adjusted using iterative proportional fitting (IPF) to a set of marginal control totals for one or more of the dimensions. For the base-year application, those control totals are derived entirely from 2000 Census data tabulated at the block-group level and converted to a TAZ-level. The controls include households by:

- Householder Age x Household Size x Presence of Children ( $2 \times 2 \times 2 = 8$  controls);
- Household Size (4 controls);
- Household Income x Householder Age ( $4 \times 2 = 8$  controls);
- Household Size x Number of Workers ( $4 \times 4 = 16$  controls);
- Household Income x Household Size ( $4 \times 4 = 16$  controls);
- Household Income x Number of Workers ( $4 \times 4 = 16$  controls);
- Household Income x Household Size x Number of Workers ( $3 \times 4 \times 4 = 48$  controls);
- Household Size x Number of Units ( $4 \times 2 = 8$  controls);
- Number of Units (2 controls);
- Race (2 controls);
- Group Quarters Type x Householder Age ( $2 \times 2 = 4$  controls);
- Group Quarters Type x Number of Workers ( $2 \times 2 = 4$  controls); and
- Total households (1 control).

These dimensions add up to 119 individual controls ( $8 + 4 + 8 + 16 + 16 + 16 + 48 + 8 + 2 + 2 + 4 + 4 + 1 = 119$ ). When controlling to these base-year marginals, the IPF produces a floating point base-year seed distribution for the 608 categories. This new seed distribution is then adjusted through a second IPF process to match a set of “forecast-year” marginal control totals. While these control totals are labeled “forecast-year,” they represent totals

for any model year based on the subset of data available in the standard TAZ data files prepared by MTC for the regional BAYCAST model, and by the SFCTA for CHAMP3. For the forecast years, a more limited set of control totals is available in the TAZ data files. Multi-dimensional distributions are not directly available in the TAZ data files, and some attributes such as race are not present in the TAZ data files. The forecast-year control totals include households by:

- Household Size (4);
- Number of Units (2);
- Income (4);
- Number of Workers (4);
- Householder Age (2) x Presence of Children (2);
- Householder Age (2) for Group Quarters Residents; and
- Number of Workers (2) for Group Quarters Residents.

This second IPF process results in a floating point future-year seed distribution for the 608 categories. That distribution is then converted to an integer seed distribution using a randomized rounding method. The randomized rounding works such that if a cell contains the value 0.14, it has an 86% chance of being rounded to 0, and a 14% chance of being rounded to 1. This randomized rounding is preferred because it avoids bias, but it does not guarantee that the total number of households in a TAZ exactly matches the targets. Households are drawn from the PUMS sample to fill this integer distribution and create the synthetic population. Any income values less than zero are set to zero prior to writing the population.

### Household Submodels

The forecast-year control totals are based on the information found in the BAYCAST and CHAMP3 TAZ data files and in the Census data. However, prior to use in the population synthesizer, it is necessary to develop additional detail not represented directly in the TAZ data files. A set of seven household submodels were established to provide this detail, including:

- Income Inflation Submodel;
- Household Children Submodel;
- Householder Age Submodel;
- Group Quarters Age Submodel;
- Group Quarters Workers Submodel;
- Household Workers Submodel; and
- Household Size Submodel.

Income Inflation Submodel

The MTC ZMAST file breaks households into four income quartiles based on the household income in 1989 dollars. The 2000 Census data, however, reports household incomes in 1999 dollars. To account for this difference, the MTC breakpoints are inflated to 1999 dollars, which results in breakpoints that are close to, but not exactly the same as the income breakpoints in the 2000 census. Table 6 compares the MTC and Census income groups.

**Table 6: MTC and Census Income Groups**

	MTC Income Groups (1989 \$)		MTC Income Groups (1999 \$)		Census Income Groups (1999 \$)	
	Low	High	Low	High	Low	High
Quartile 1	\$ 0	\$ 25,000	\$ 0	\$ 33,589	\$ 0	\$ 30,000
Quartile 2	\$ 25,000	\$ 45,000	\$ 33,589	\$ 60,460	\$ 30,000	\$ 60,000
Quartile 3	\$ 45,000	\$ 75,000	\$ 60,460	\$ 100,766	\$ 60,000	\$ 100,000
Quartile 4	\$ 75,000	+	\$ 100,766	+	\$ 100,000	+

Because the MTC income groups in 1999 dollars do not perfectly align with the Census income groups in 1999 dollars, some households must be shifted between income groups to match the census breakpoints. The shifts are made using the percentages shown in Table 7. These percentages are calculated from the distribution of incomes found in the 2000 PUMS data. For example, of all households in the PUMS earning less than \$33,589, 14.1% earn at least \$30,000.

**Table 7: Household Income Quartile Shifts in Income Inflation Submodel**

Old Group	New Group	% of HH in Old to Shift to New
Quartile 1	Quartile 1	85.9%

Quartile 1	Quartile 2	14.1%
Quartile 2	Quartile 2	95.5%
Quartile 2	Quartile 3	4.5%
Quartile 3	Quartile 3	96.7%
Quartile 3	Quartile 4	3.3%
Quartile 4	Quartile 4	100.0%

When the synthetic population is written to disk, the incomes in the standard household file are by default written in 1999 dollars. However, to maintain consistency with the existing SF-CHAMP model, the household incomes written in the SF formatted output file are in 1989 dollars.

#### Household Children Submodel

The household children submodel adjusts the share of households with children based on changes in the age distribution of the population. For each TAZ, the percent of households with children found in the 2000 Census, and the age distribution found in the 2000 TAZ data file are stored as model inputs. When the submodel is applied, the age distribution in the application-year TAZ data file is compared to the base age distribution, and the share of households with children is adjusted proportionally to the change in the share of the population age 0-19. For example, consider a TAZ in which 10% of households in the base year have children, and 20% of the base-year population is age 0-19. If the share of the population age 0-19 increases to 24% in the future, the share of households with children will increase to 12%.

#### Householder Age Submodel

The household age submodel is similar in structure to the household children submodel. It increases the share of households with a householder age 65+ proportionally to the share of the population age 65+. While an MTC staff analysis of historic Census data did not reveal a clear pattern of this relationship, it is still deemed an appropriate assumption because it allows a mechanism for aging the population in the future.

#### Group Quarters Age Submodel

The group quarters age submodel changes the share of group quarters residents age 65+ proportionally to the change in the population age 65+. The total group quarters residents are calculated as the difference between total population and household population.

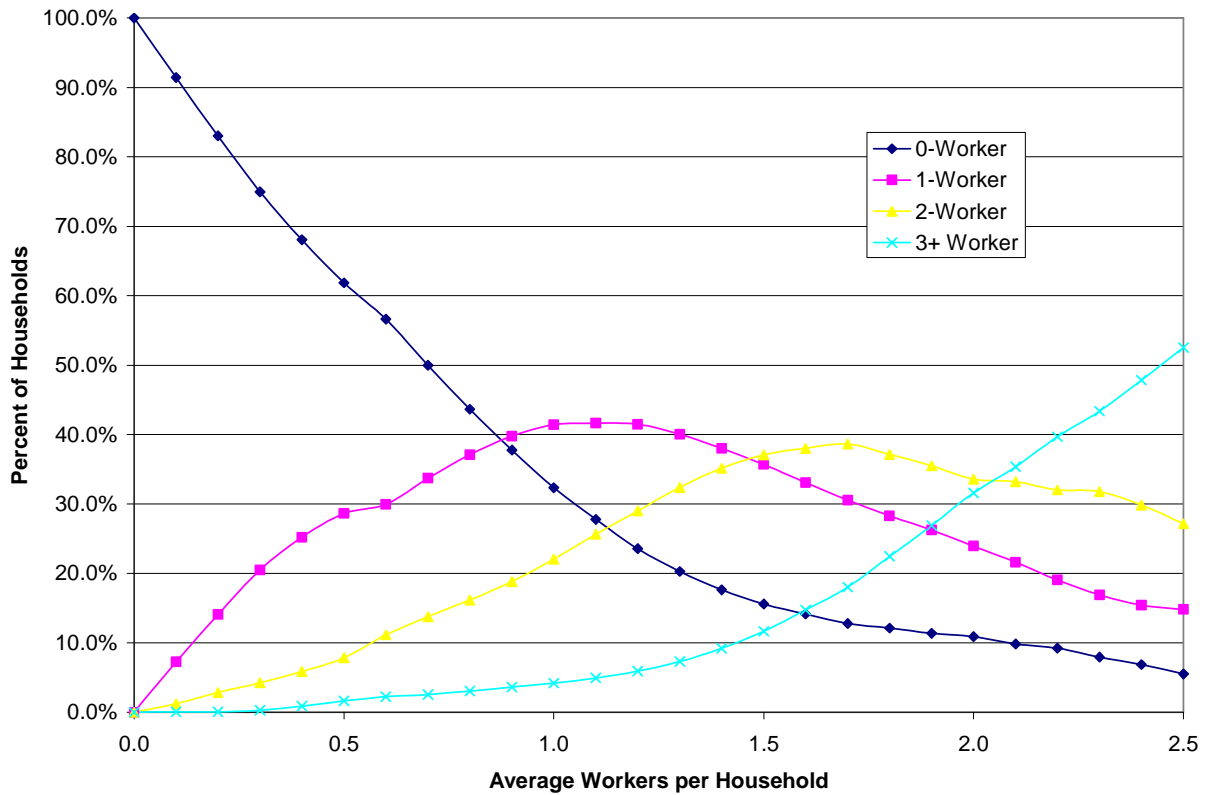
#### Group Quarters Workers Submodel

This submodel splits the total group quarters population in each TAZ into workers and non-workers, based on the share of group quarters residents in the base year who are workers. The base-year group-quarters workers are derived from Census Transportation Planning Package data by subtracting the workers in households tables from the total workers tables. After applying the group quarters workers submodel, the number of household workers in a TAZ can be calculated, allowing that variable to be used as the basis for the household workers submodel.

#### Household Workers Submodel

The household workers submodel is a proportional allocation model that converts the average number of workers per household to categories of households by number of workers. This conversion is made using a lookup table, which is shown graphically in Figure 9. The lookup table was created by relating the household categories to the average household size as found in the 2000 Census data at a block group level.

**Figure 9: Household Workers Submodel**

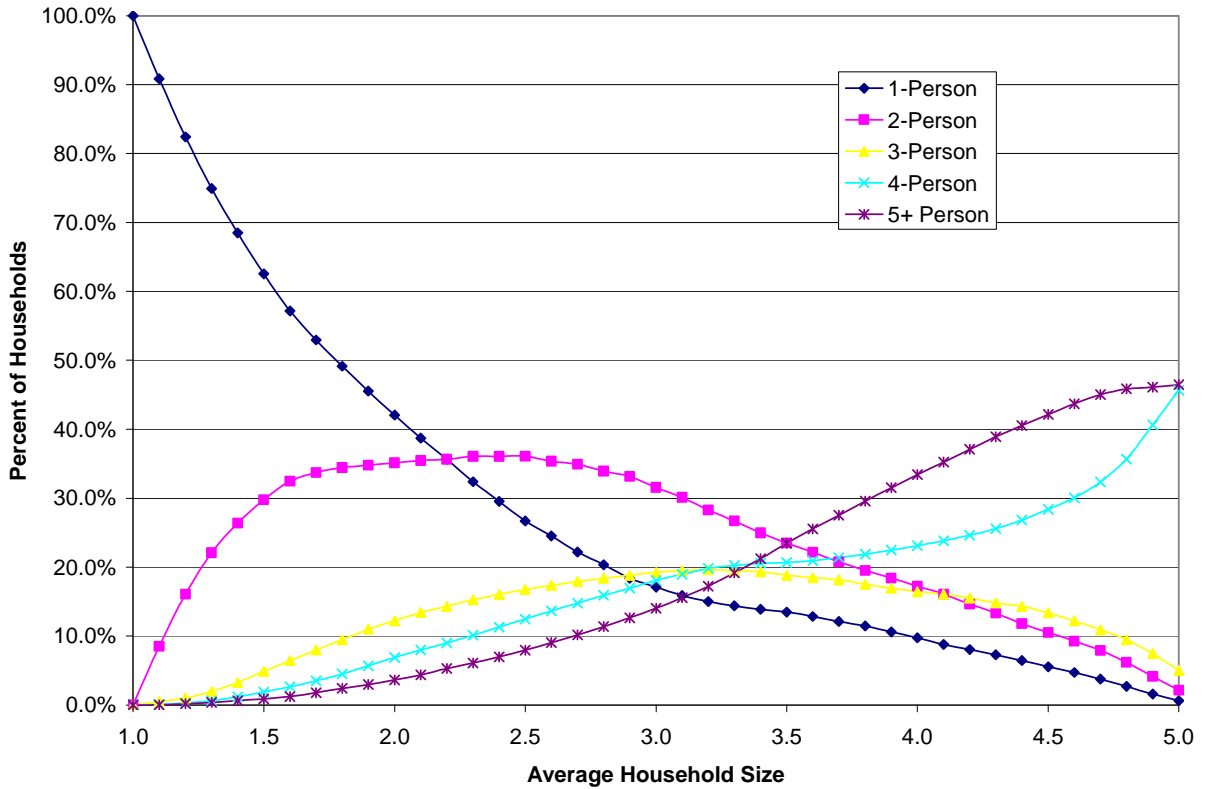


The household workers submodel allows for separate sets of curves for San Francisco County county and the rest of the Bay Area, though the current configuration of the population synthesizer uses the same curves for all areas. This implementation allows for additional flexibility in future calibration efforts.

### Household Size Submodel

The household size submodel is a proportional allocation model used to convert the average household size to the number of households grouped by size. It is graphically depicted in Figure 10.

**Figure 10: Household Size Submodel**



Like the household workers submodel, the household size submodel allows for a different set of curves for SF county and the rest of the Bay Area, though the current configuration of the population synthesizer uses the same curves for all areas. This implementation allows for additional flexibility in future calibration efforts.

Validation Results

The population synthesizer was implemented to generate populations representing residents of the entire Bay Area, though at present CHAMP3 only uses the synthetic population of San Francisco residents to forecast travel. Table 8 and Table 9 show the population synthesizer validation results for San Francisco County and for the 9-County area, respectively. The validation results compare the synthesized population to Census data or to the TAZ data at a PUMA level. All values are percents, unless the category label indicates that it is a total. Note that not all categories in the validation tables are controlled for, and it is expected that any controlled categories will fit better than the uncontrolled categories.

Overall, the synthesized population is 0.9% too high in San Francisco County, but 1.2% too low in the 9-County area. This discrepancy is due to the difference in the average sizes of 4+ person households, which are uncontrolled. The exact population can be calibrated by adjusting the curves in the household size submodel, but in order to match the values in both San Francisco County and the region as a whole it would be necessary to use two separate sets of curves.



**Table 8: Population Synthesizer PUMA-level Validation Results for San Francisco County**

Label	Pop Syn %	Census %	Mean Diff. %	Std. Dev. %	Min. Diff. %	Max. Diff. %
TOTAL: Households	329,876	329,648	-0.7	7.1	-8.9	13.5
Family households	44.2	44.0	2.0	3.5	-2.0	7.7
Nonfamily households	55.8	56.0	0.0	3.7	-3.5	6.8
Households w/ householder age 15-64	80.2	80.0	0.0	0.8	-1.0	1.4
Households w/ householder age 65+	19.8	20.0	-0.2	3.5	-7.1	3.2
Households w/ 5+ persons	8.2	9.0	-2.6	15.5	-19.6	28.4
Households w/ 0 workers	21.7	24.8	-16.8	15.1	-40.1	-0.2
Households w/ 3+ workers	9.7	8.9	15.1	31.9	-13.5	78.6
Households w/ income \$100k+	25.5	24.7	5.2	3.4	1.0	10.2
TOTAL: Persons in households	743,445	756,749.0	-1.7	8.5	-13.7	9.2
Persons in family households	64.5	65.0	1.0	2.3	-2.0	4.3
Persons in nonfamily households	35.5	35.0	1.5	8.3	-4.3	19.6
TOTAL: Persons	763,539.0	776,504.0	-1.7	8.6	-13.7	9.7
Males	50.6	50.8	-0.7	1.4	-2.1	1.9
Females	49.4	49.2	0.8	1.5	-1.8	2.6
Persons age 65+	13.2	13.7	-3.1	3.4	-7.7	1.4
Persons who are Hispanic or Latino	14.2	14.1	4.2	8.4	-9.8	12.6
Persons who are White alone	50.3	49.7	0.6	3.3	-4.4	4.1
Persons who are Black or African American alone	7.0	7.8	-10.5	11.5	-28.7	5.4
Persons who are American Indian or Alaska Native alone	0.5	0.4	29.8	54.7	-26.6	114.9
Persons who are Asian alone	30.6	30.8	1.2	5.6	-6.0	7.6
Persons who are Native Hawaiian or Pacific Islander Alone	0.4	0.5	-0.9	83.2	-74.2	157.9
Persons who are of some other race - or two or more races	11.1	10.8	5.0	6.7	-6.8	12.5
TazData: TOTAL: Households	329,876.0	329,887.0	0.0	0.3	-0.6	0.4
TazData: Households in single-family dwelling units	31.4	31.4	0.9	2.6	-1.1	6.3
TazData: Households in multi-family dwelling units	68.6	68.6	0.7	1.2	-0.5	2.7
TazData: Households w/ 5+ persons	8.2	6.9	18.1	9.8	2.7	32.0
TazData: Households w/ 0 workers	21.7	21.6	0.6	1.8	-1.6	3.3
TazData: Households w/ 3+ workers	9.7	9.7	-0.5	2.9	-5.7	2.8
TazData: Households w/ Income \$100k+	25.5	25.3	0.8	1.2	-0.7	3.3
TazData: Households w/ householder age 65+	19.8	19.8	0.2	1.4	-1.4	1.8
TazData: TOTAL: Persons	763,539.0	757,701.0	0.9	1.6	-1.1	3.1
TazData: Persons in households	97.4	97.3	0.0	0.1	0.0	0.3
TazData: Persons in group quarters	2.6	2.7	-0.4	1.8	-3.1	2.5
TazData: Persons age 65+	13.2	13.7	-3.1	2.6	-8.6	-1.0
TazData: TOTAL: Employed residents	444,480.0	445,503.0	-0.1	1.5	-2.5	2.0
TazData: Employed residents in households	99.3	99.3	0.0	0.0	-0.1	0.0
TazData: Employed residents in group quarters	0.7	0.7	-1.7	4.3	-9.9	3.2

**Table 9: Population Synthesizer PUMA-level Validation Results for 9-County Area**

Label	Pop Syn %	Census %	Mean Diff. %	Std. Dev. %	Min. Diff. %	Max. Diff. %
TOTAL: Households	2,466,190.0	2,465,600.0	-0.1	2.5	-8.9	14.3
Family households	64.5	64.7	0.4	3.6	-6.4	9.6
Nonfamily households	35.5	35.3	0.4	8.1	-30.4	22.7
Households w/ householder age 15-64	81.6	81.6	0.0	0.4	-1.0	1.2
Households w/ householder age 65+	18.4	18.4	-0.2	1.8	-4.7	3.8
Households w/ 5+ persons	12.0	12.6	-3.9	8.2	-20.8	24.6
Households w/ 0 workers	20.1	21.8	-7.8	13.6	-42.7	31.0
Households w/ 3+ workers	9.9	9.1	10.6	18.3	-41.7	69.6
Households w/ income \$100k+	27.8	26.9	4.0	2.6	0.8	14.7
TOTAL: Persons in households	6,533,110.0	6,639,830.0	-1.5	3.4	-12.9	10.3
Persons in family households	81.9	82.0	0.2	1.6	-2.5	6.3
Persons in nonfamily households	18.1	18.0	0.4	7.1	-19.2	21.9
TOTAL: Persons	6,672,830.0	6,782,620.0	-1.6	3.5	-12.9	10.8
Males	49.5	49.8	-0.7	1.3	-3.8	2.0
Females	50.5	50.2	0.7	1.3	-1.9	4.3
Persons age 65+	11.0	11.2	-1.5	3.1	-10.2	5.4
Persons married w/ spouse present	37.5	38.2	-1.3	2.6	-6.0	8.3
Persons who are Hispanic or Latino	19.4	19.4	0.1	5.5	-8.9	13.3
Persons who are White alone	57.7	58.1	-0.6	2.3	-5.3	5.0
Persons who are Black or African American alone	7.2	7.5	-5.4	11.8	-34.7	27.0
Persons who are American Indian or Alaska Native alone	0.7	0.6	8.8	37.0	-56.6	109.0
Persons who are Asian alone	19.2	19.0	0.5	7.1	-18.0	13.8
Persons who are Native Hawaiian or Pacific Islander Alone	0.5	0.5	-12.2	57.5	-100.0	166.6
Persons who are of some other race - or two or more races	14.7	14.2	3.9	6.0	-5.0	22.8
TazData: TOTAL: Households	2,466,190.0	2,466,200.0	0.0	0.1	-0.2	0.3
TazData: Households in single-family dwelling units	63.1	63.1	0.5	2.1	-1.1	9.8
TazData: Households in multi-family dwelling units	36.9	36.9	0.3	0.9	-1.7	3.5
TazData: Households w/ 5+ persons	12.0	11.4	5.0	12.1	-29.5	28.2
TazData: Households w/ 0 workers	20.1	20.1	0.0	1.6	-8.2	2.6
TazData: Households w/ 3+ workers	9.9	9.9	0.0	1.2	-4.1	2.7
TazData: Households w/ Income \$100k+	27.8	27.8	0.2	1.3	-1.2	5.9
TazData: Households w/ householder age 65+	18.4	18.4	-0.1	1.7	-4.8	4.1
TazData: TOTAL: Persons	6,672,830.0	6,764,730.0	-1.2	2.5	-6.0	6.5
TazData: Persons in households	97.9	97.9	0.0	0.4	-0.1	2.7
TazData: Persons in group quarters	2.1	2.1	0.2	5.6	-30.8	6.1
TazData: Persons age 65+	11.0	11.2	-1.5	3.1	-9.3	5.4
TazData: TOTAL: Employed residents	3,389,000.0	3,394,820.0	-0.1	1.5	-2.3	5.8
TazData: Employed residents in households	99.4	99.4	0.0	0.0	-0.1	0.1
TazData: Employed residents in group quarters	0.6	0.6	-3.5	20.5	-100.0	22.7

## ROADWAY ASSIGNMENT VOLUME DELAY FUNCTION REVISIONS

Prior to initiating the CHAMP3 model system updates, SFCTA staff reviewed and revised the parameters used in the roadway assignment procedures. This review was initiated after staff expressed concern that lower level facility types, such as local streets and collectors, were under-predicted in the base year. In addition, it was discovered that the model was not appropriately sensitive on these facilities to future roadway changes. To address these concerns, SFCTA developed a new set of assignment parameters. These parameters were further adjusted as part of the CHAMP3 development process to ensure that the resulting congested speeds and volumes were reasonably well calibrated in the base year.

Table 10 shows, by facility type, the original CHAMP2 and the revised CHAMP3 alpha and beta parameters, as well as the travel time adjustment factor used in calibration. The alpha parameters on freeway facility types was increased, which has the effect of making speeds decline more quickly as volumes increase, thus shifting more traffic onto non freeway facilities. In contrast, the alphas for lower level facilities were generally decreased, meaning that speeds do not decline as rapidly as congestion increases, thus increasing volumes on these facilities. The betas for the freeway facility types were adjusted only slightly, while the betas for the non-freeway facility types were reduced significantly, which results in speeds decline more gradually as congestion increases. The betas for local and collector streets were increased significantly, which results in speeds close to free-flow even as congestion increases and generally higher volumes on these facilities. However, once capacity is approached, speeds decline precipitously. Finally, a gamma factor is applied to the calculated congested link travel time in order to better match observed congested travel times.

**Table 10: CHAMP3 Roadway Traffic Assignment Parameters**

Facility Type Name	Facility Type ID	Alpha		Beta		Gamma	
		CHAMP2	CHAMP3	CHAMP2	CHAMP3	CHAMP2	CHAMP3
Freeway	2	0.88	0.83	6.0	5.5	1.0	1.0
Fwy-Fwy Connector	1	0.71	0.88	6.0	5.5	1.3	1.3
Ramp	5	0.71	0.88	6.0	5.5	1.3	1.3

Centroid Connector	6	0.71	0.88	6.0	5.5	1.3	1.3
Metered ramp	8	0.71	0.88	6.0	5.5	1.3	1.3
Expressway	3	0.83	0.56	6.0	3.5	1.3	1.3
Major Arterial	7	0.83	0.60	6.0	3.5	1.6	1.8
Minor Arterial	12	0.71	0.60	6.0	3.5	1.3	1.8
Super Arterial	15	0.83	0.60	6.0	3.5	1.6	1.8
Collector	4	0.71	0.60	6.0	8.5	1.0	1.8
Local	11	0.71	0.60	6.0	8.5	1.3	1.8

## COMMERICAL / VERY SMALL TRUCK DEMAND

The CHAMP3 model system does not explicitly forecast commercial or truck trips. The model incorporates forecasts of truck demand prepared by MTC as part of the regional BAYCAST model system. Previously, this commercial and truck demand was based on MTC’s traditional truck trip tables, and augmented by factoring up a portion of non-home-based trips within San Francisco. Since the development of the original CHAMP model, MTC has modified their truck forecasting process to include a new segment representing daily commercial trips, such as taxis and light duty four-tire “very small” trucks. The new very small truck trip table has been incorporated into CHAMP3, and the factoring of non-home-based trips eliminated. The new “very small truck” trip tables are very significant in size, containing millions of trips.

In order to integrate these trips into CHAMP3, a set of time of day factors were developed based on observed roadway volumes. Table 11 shows these factors. In the overall CHAMP3 calibration and validation effort, described in subsequent sections, the very small truck demand was further adjusted to improve the roadway count validation effort by time-of-day, including increasing the overall volumes of these trips, and shifting these trip around by time of day.

**Table 11: Time-of-day Factors for Trucks**

Period	EA	AM	MD	PM	EV
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Factor	0.018	0.160	0.400	0.200	0.222
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## EXTERNAL TRIPS

The CHAMP3 model system does not explicitly forecast external trips, that is, trips with at least one end outside of the nine Bay Area counties. Instead, the model incorporates forecasts of daily external trips prepared by MTC as part of the regional BAYCAST model system. No external trips were represented in the previous version of CHAMP.

In order to integrate these trips into CHAMP3, it was necessary to develop a set of factors by time-of-day and direction. These factors were based on Caltrans hourly count data at the external station locations collected between 2000 and 2005. Caltrans counts were not available for all external locations, so the final factors by time-of-day and direction are based on the combined results for available external station locations. Table 12 shows these factors.

**Table 12: Time-of-Day and Directional Factors for External Trips**

	EA	AM	MD	PM	EV
Inbound	0.0419	0.0991	0.1823	0.0915	0.0852
Outbound	0.0145	0.0564	0.1537	0.0932	0.1821

## INTEGRATING REGIONAL DEMAND

The CHAMP3 model system predicts the travel behavior of San Francisco residents traveling within San Francisco. Non-resident and inter-county forecasts of travel demand are derived from MTC's regional BAYCAST travel demand forecast model. MTC's regional model is an advanced 4-step travel demand model, which predicts peak and offpeak trips by purpose at a zone level approximately equivalent to census tracts. In contrast, CHAMP3 forecasts linked tours and trips across five time periods at a more detailed zone

level, approximately equivalent to Census block groups. Due to the different temporal and spatial resolutions and structures of these models, it is necessary to establish a process by which temporal and spatial detail is added to the regional MTC travel demand in order to integrate this demand with the more detail CHAMP2 demand.

#### Spatial Disaggregation of BAYCAST Trip Tables

The BAYCAST trip tables are disaggregated to the more detailed SF zone system using separate mechanisms for roadway and transit trips. First, total daily trips by purpose are calculated from the daily, peak, and off-peak trip tables. The roadway trips are then aggregated to nine districts within San Francisco and disaggregated to the SF zone system based on the each zone's share of the total district households or employment. This approach maintains the trip distribution at an aggregate level, but also ensures consistency of regional destinations with San Francisco TAZ-level employment. This aggregation / disaggregation process is implemented in a TP+ script using the MTC\_disaggregation.csv and MTC\_disaggregation\_nhb.csv files described earlier in the TAZ data processing section. The daily trips by purpose are then assigned time-of-day and directionality using a set of purpose and mode specific factors derived from MTC's 2000 Bay Area Travel Survey (2000BATS).

Transit trips are processed slightly differently than highway trips. Rather than first aggregating up to the district level and then disaggregating down to the TAZ level, transit trips are disaggregated directly from MTC TAZs to SF TAZs using the Allocate\_nhb.csv. This approach maintains the geographic detail of the MTC trip tables, which is more important for transit because a relatively small change in the destination can push a trip out of walking distance and result in transfer, significantly changing the assignment results. Separate peak and off-peak transit trip tables are maintained where available, and split directly from peak into AM and PM, and from off-peak into EA, MD, and EV. Maintaining consistency with MTC's peak period transit demand also ensures a greater consistency of the trip tables with the transit networks and improves the regional transit assignments.

#### Adjusting Disaggregated Regional Trip tables

After disaggregating the MTC trip tables by time period and TAZ, a portion of critical county-to-county movements are then adjusted to match observed roadway and transit volumes at county cordons by time period. Vehicle trips are factored to match volumes on the Golden Gate Bridge, Bay Bridge, and at the San Mateo County line. In addition to the county-cordon adjustments, intra-SF vehicle trips are also adjusted to ensure that the initial model skims reasonably match observed congestion levels. Similar to the roadway adjustments, transit person trips are adjusted to better match observed TransBay volumes and observed volumes at the San Mateo County line. Also, in an effort to better match the “through” volumes on BART, trips between San Mateo County and Alameda County are also adjusted. Table 13 shows the roadway adjustment factors, and Table 14 shows the transit adjustment factors.

**Table 13: Intercounty Roadway Adjustment Factors**

Location	Direction	Early AM	AM Peak	Midday	PM Peak	Evening
Bay Bridge	West	4.19	0.64	0.95	0.93	1.31
	East	1.37	0.99	0.82	0.63	1.58
Golden Gate	South	1.27	0.56	1.02	0.82	1.65
	North	1.55	1.34	1.25	0.73	1.34
San Mateo Countyline	North	1.23	1.05	0.87	0.86	1.62
	South	0.77	1.00	0.88	0.95	1.62
Intra-SF		2.24	0.95	1.08	0.98	1.49

**Table 14: Intercounty Transit Adjustment Factors**

Location	Direction	Early AM	AM Peak	Midday	PM Peak	Evening
Bay Bridge	West	-	0.555	2.101	1.272	2.897
	East	-	1.037	1.508	0.627	4.142
Golden Gate	South	-	0.533	1.419	0.542	1.849
	North	-	0.500	1.582	0.513	1.699
BART Thru	North/East	-	0.553	1.000	0.542	1.000
	South/West	-	0.500	1.000	0.513	1.000

Intra-County NHB Trips by Non-Residents

Ultimately, all intra-SF travel made by San Francisco residents is predicted by the CHAMP3 model. However, intra-SF non-home based travel made by non-SF residents are taken from the MTC model using a factoring process specific to the mode, time period, origin area type, and destination area type. The share of intra-SF trips person trips made by non-SF residents as derived from the MTC model was compared to the share of intra-SF trips by non-residents reflected in the household survey. The non-resident trip tables were adjusted by time period to match the observed shares in the survey. The shares and totals of intra-SF trips by non-SF residents are shown in Table 15. To avoid an excess of non-resident transit trips, only the highway trips are scaled.

**Table 15: Shares and Total Intra-SF Trips by Non-SF Residents**

Time Period	Share of I-I Trips by Non-Residents		Modeled I-I Trips
	Observed	Modeled	by Non-Residents
EA	10%	9%	2,347
AM	6%	7%	34,375
MD	19%	21%	270,855
PM	13%	13%	87,673
EV	9%	9%	60,852
Total	13%	14%	456,102

## CORE BEHAVIORAL MODEL COMPONENT UPDATES

The “core” model components of model system include separate models for predicting individual and household choices of auto ownership, tour generation, time-of-day, tour destination and mode choice and trip destination and mode choices. Each model component was evaluated and revised to reflect revisions to the model structure and recalibrated to reflect the latest observed data.

The primary source of observed data used to revise and recalibrate the core model components was the 2000 Bay Area Travel Survey (BATS2000). The BATS2000 is a detailed household travel survey, containing information on individual and household travel



behavior for over 15,000 Bay Area households. The BATS2000 data was supplemented by the additional household travel diaries collected by the BART using an identical survey instrument and collected in 2000 and 2001. The household surveys were expanded to represent the households and individuals for the entire region using a multi-dimensional expansion scheme that considered household income, household size, household workers, household autos, and neighborhood. Finally, an on-board survey of MUNI riders collected in 2004 was used to support the mode choice and transit assignment calibration efforts.

## **WORKPLACE LOCATION CHOICE**

The first of the core behavioral models applied in CHAMP3 is the workplace location choice model. Applying this model at the beginning of the model stream allows the information on workplace location to be used in subsequent models such as the auto ownership. This model predicts the primary workplace location for workers, and is applied regardless of whether the subsequent daily activity pattern model predicts that a work tour was made during the simulated day. If a work tour is predicted, then the workplace location is identified as the work tour destination. The workplace location choice model is shadow priced to ensure that each job is filled by one worker, within a 5% threshold at a TAZ level. Considerable effort was spent in model calibration due to the model's influence on subsequent models, and also because of the importance of the work commute market to transit forecasts.

### Allocation of Non-Resident Workers

CHAMP3 predicts the travel-related choices of San Francisco residents, but also must consider the travel choices of non-San Francisco residents. In order to forecast where San Francisco residents choose to work, the model system must consider how many San Francisco residents work in other Bay Area counties, as well as how many non-SF residents work in San Francisco, and where specifically in San Francisco they commute to. A key feature of CHAMP3 is that workplace destination choice is "shadow priced," so that the combined number of San Francisco and non-San Francisco resident workplace destinations

to any given TAZ is approximately equal to the number of jobs in that TAZ. The fixed non-SF resident workplace destinations in San Francisco, derived from MTC trip tables, is first allocated to San Francisco zones. Non-residents “consume” some of the jobs in each TAZ, and the remaining employment establishes a target through which shadow-pricing can allocate these jobs to San Francisco residents.

The method for allocating non-SF resident workers to San Francisco job locations was revised in CHAMP3. In order to predict where in San Francisco non-residents work, a regression model was estimated to determine the share of jobs in each TAZ filled by non-workers, using the employment by type as the descriptive variables. This regression model provides a measure for each TAZ of the attractiveness of the TAZ for work destinations for non-SF residents. For each TAZ, this measure, or attractiveness index, is then converted into a relative share of citywide attractive, which is then applied to the number of non-SF residents working in San Francisco. This estimates the number of non-SF residents working in each TAZ, which is then used in shadow pricing to set the target number of SF residents that work in each TAZ. This equation is fully documented previously, in the section describing the TAZ data processor.

### Destination Choice Sampling

The sampling mechanism used in the workplace destination choice model, as well as the other destination choice models, was also revised in CHAMP3 in order to be more consistent with discrete choice theory. Sampling of alternatives is commonly used in destination choice models so as to avoid needing to compute a complicated utility equation for a large number of alternatives, where many of the alternatives may have very low probabilities of being selected. Instead, it is possible to define a “simple” utility equation that has a user-specified size term and a user-defined dispersion parameter on distance between zones.

$$U_{ij} = \ln(S_j) - \text{lambda} * \text{dist}_{ij}$$

where **lambda** is typically (1 / average observed trip length)

This utility is then used in a multinomial logit model to determine the probability that the destination will be chosen for the sample set. Because the variables are not specific to the employee/traveler, the probabilities can be calculated once at the beginning of the model run. The sample is chosen with replacement proportional to the probabilities. Sampling correction factors are calculated and are returned along with the sample set. These correction factors are then added to the “full” utility that is used in the choice model for selecting an alternative from the sample set.

$$CF_{ij} = \ln(\text{freq. of } j \text{ in sample set} / (\text{sample size} * \text{probability of } j \text{ being in set}))$$

where **probability** was calculated from applying the MNL model to the above utility

This sampling strategy was implemented in the work destination choice and other destination choice models. However, it was observed during model calibration that while this sampling approach worked very well for the vast majority of trips, it resulted in too few alternatives being included in the sample that were very far from the home TAZ, producing an under-prediction of trips from San Francisco to Santa Clara County. To resolve this issue, the negative exponential distribution was modified such that after a critical distance, the distribution became uniform, or flat. In CHAMP3, this means that all destinations beyond 25 miles had a probability of being selected that is proportional to their size term alone.

### Calibration

Calibration of the workplace location choice model focused on matching the following observed data:

- Trip length frequency distributions from the household survey;
- Neighborhood to Neighborhood worker flows from the Census;
- Intrazonal trip rates;
- Share of workers in each district that are non-residents; and
- Area type to Area type worker flows from the Census.

As previously mentioned, a shadow pricing is a key features of the workplace destination choice model, though the imposition of shadow pricing constraints has implications for the calibration process, and requires that all model inputs are as consistent and accurate as possible. Significant effort was spent adjusting the base year employment data and building a model to predict the work locations of non-SF residents, as discussed in earlier sections of this document. In addition, it was necessary to establish a rate (1.307) to apply to non-home-based trips in order to estimate the number of these trips destined to workplace locations.

The previous version of the CHAMP workplace destination choice model included a number of “dummy” variables applied to specific categories of trips or specific combinations of origins and destinations. For the CHAMP3 recalibration, some of these coefficients were calibrated to better match observed data, while in other cases these dummy variables were deemed irrelevant, and their coefficients were zeroed out. Specifically:

- The average household income coefficient was set to zero because it was not logical;
- Area type destination flags were set to zero because have no effect when shadow pricing is implemented,
- The intrazonal constant was calibrated,
- Area type to Area type constants were calibrated,
- County destination constants were calibrated.

Note that the dummy variables are not necessarily mutually exclusive. For example, Alameda County has a flag for itself, but is also included in a more general East Bay term.

The piece-wise linear distance coefficients were calibrated to correct for an under-prediction of very short trips. Finally, the model was modified to use a higher mode choice logsum coefficient (0.300 instead of 0.0921), making the model more sensitive to travel time. This value was selected based on experience in other regions. The final model coefficients are shown in Table 16.

**Table 16: Calibrated Workplace Destination Choice Model Coefficients**

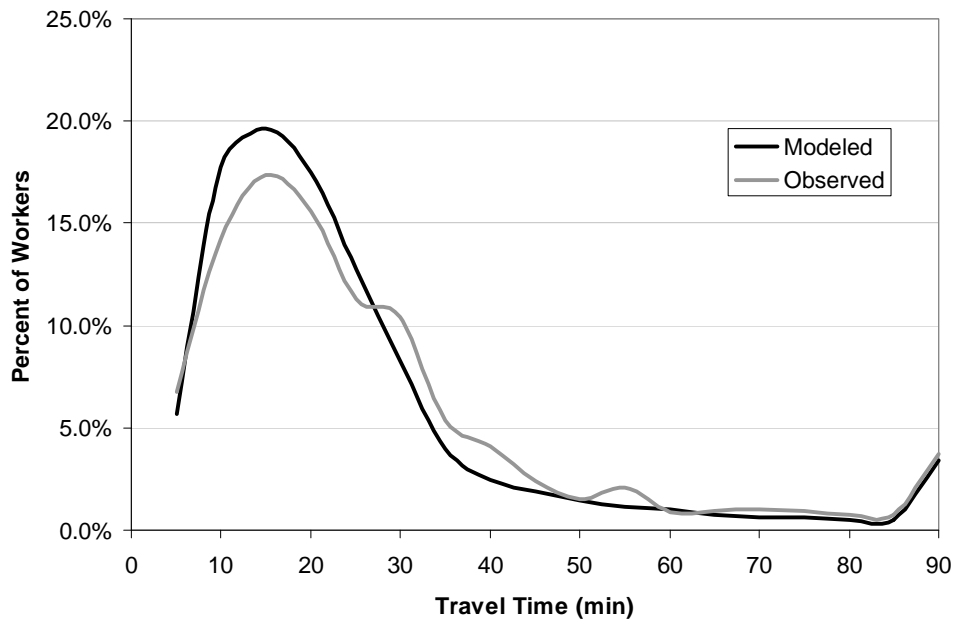
<b>Coefficient</b>	<b>Original Value</b>	<b>Final Value</b>
AvgSampleDist	8.8200	8.8200

FlatSampleDist		25.0000
Avg Household Income	0.0020	-
Dest is Home TAZ (dummy)	4.4950	2.9038
Origin and Destination are in Core	0.5000	0.3478
Origin and Destination are in CBD	0.4000	0.0889
Origin and Destination are in UBD	0.3352	0.2463
Origin and Destination are in Urban	1.1000	0.3535
Destination is in CBD	2.0000	-
Destination is in UBD	1.9000	-
Destination is in Urban or Suburban	1.1000	-
Destination is in SF	1.0000	-
Destination is in Napa, Sonoma or Marin County	0.9500	-0.4094
Destination is in Santa Clara County	1.0500	0.4743
Destination is in Alameda County	0.5000	0.2207
Destination is in San Mateo County	1.5000	-
Destination is in Alameda, Contra Costa, or Solano	-	-1.2420
Distance 3+ Miles	-0.0551	-
Distance 1-2 Miles	-	-0.1711
Distance 2-5 Miles	-	-0.0800
Distance 5+ Miles	-	-0.0400
Mode Choice Logsum	0.0921	0.3000
Total Employment	1.0000	1.0000
SF MIPS Employment	1.4717	1.4717
SF CIE Employment	2.7037	2.7037
SF PDR Employment	1.9357	1.9357
SF Retail Emplotment	2.5079	2.5079
MTC Other Employment	0.9736	0.9736

## Results

Figure 11, Figure 12, Figure 13, Table 17, Table 18, Table 19, and Table 20 show the model results compared to observed data.

### **Figure 11: Work Tour Length Frequency Distribution (Time)**



**Figure 12: Work Tour Length Frequency Distribution (Distance)**

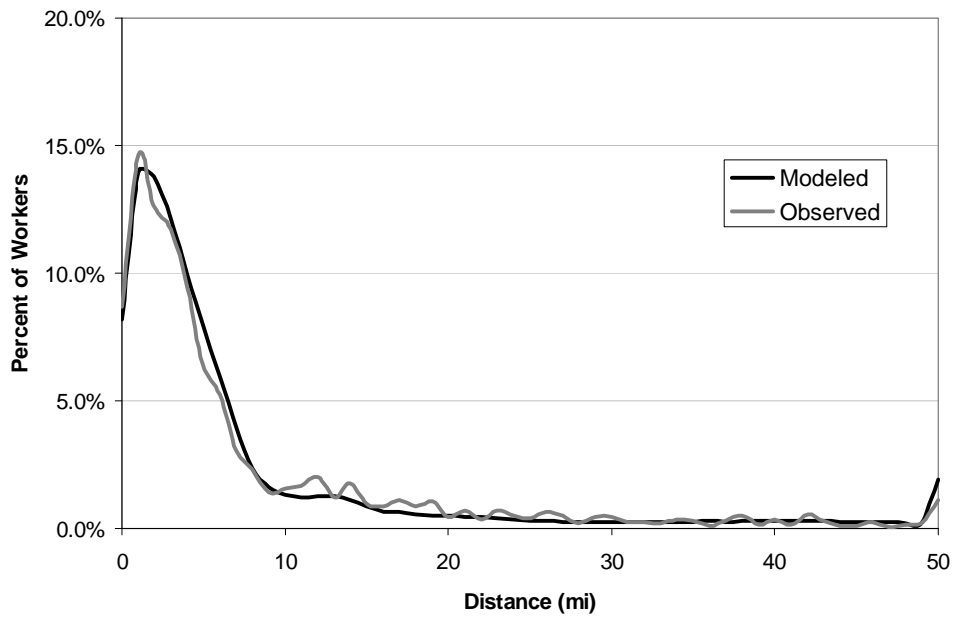


Figure 13 Map of Calibration Neighborhoods

# Workplace Destination Neighborhoods





**Table 17 Estimated Worker Flows by Neighborhood**

District Name		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Presidio / Marina / Pacific Heights	1	2,395	4,277	11,369	1,239	278	64	181	322	289	949	136	53	31	6	3,123	1,711	1,744	550	32	41	45
Chinatown / North Beach	2	994	9,526	15,632	2,172	889	173	349	502	618	1,257	241	74	61	100	2,673	1,360	1,948	640	57	30	85
Downtown / Civic Center / SOMA	3	508	3,852	12,362	2,020	788	138	236	437	431	1,334	357	84	67	111	1,674	873	1,128	277	8	22	56
Potrero Hill / Mission	4	889	3,487	13,090	5,523	1,865	242	636	683	512	1,823	1,212	258	409	238	3,909	1,426	2,247	295	10	4	140
Bayview / Hunters Point / Vis Valley	5	457	2,806	7,679	2,462	3,509	183	498	520	467	1,640	479	154	193	342	4,946	952	1,436	246	7	-	24
Glen Park / Westwood / Ingleside	6	553	2,146	7,029	1,610	1,011	888	884	735	355	1,183	451	450	123	186	3,556	952	1,574	262	18	16	52
Lake Merced / West of Twin Peaks	7	372	1,899	6,060	1,117	635	299	2,052	988	522	1,185	279	131	125	120	3,061	1,049	799	229	66	14	57
Sunset / Parkside	8	1,106	5,117	13,664	2,800	1,529	216	1,509	5,313	1,421	2,779	708	222	123	153	6,149	2,357	2,840	720	64	8	84
Richmond / Golden Gate	9	1,188	4,483	11,956	2,382	943	120	882	1,013	3,526	2,893	633	144	118	137	3,961	1,394	2,092	282	34	25	46
Western Addition / Laurel Heights	10	1,152	4,279	13,706	2,572	754	174	675	868	730	4,757	956	161	123	79	3,088	1,290	1,803	498	39	37	130
Haight / Upper Market	11	777	3,059	10,887	2,530	633	104	582	659	252	1,957	2,205	185	102	90	2,552	1,356	1,840	439	17	21	65
Diamond Heights / Noe Valley	12	372	2,046	6,423	1,537	446	196	245	498	306	948	540	923	64	83	2,616	1,423	1,408	259	24	12	31
Bernal Heights	13	360	1,158	4,173	1,410	671	153	296	260	152	676	302	94	543	94	1,736	517	733	114	23	21	56
Outer Mission / Crocker Amazon	14	421	2,408	6,818	1,904	1,395	214	765	507	291	1,330	345	215	182	1,005	3,792	556	1,066	243	56	8	42
San Mateo	15	1,754	8,934	32,952	8,771	7,326	898	2,979	2,982	1,454	4,829	1,355	862	572	889	206,222	59,264	15,812	1,957	323	176	368
Santa Clara	16	129	1,122	4,344	1,032	617	76	146	246	107	410	142	20	52	79	43,366	748,182	39,540	3,126	629	172	567
Alameda	17	1,299	11,339	43,322	7,173	4,156	516	1,265	1,244	777	4,084	1,043	336	444	267	35,972	74,799	460,566	38,165	2,049	364	972
Contra Costa	18	971	7,892	31,726	4,539	2,933	311	680	852	535	2,426	557	260	146	178	10,220	11,338	104,187	255,457	7,045	1,185	1,186
Solano	19	191	1,727	5,617	1,255	1,095	62	71	321	216	672	313	123	50	28	3,275	1,841	14,287	24,936	105,951	9,327	2,655
Napa	20	95	191	704	153	80	-	40	22	26	94	21	5	10	10	562	422	1,378	2,165	4,094	45,166	2,353
Sonoma	21	367	1,392	4,193	863	585	33	153	226	267	686	163	28	16	27	1,874	1,396	2,648	1,985	1,427	3,313	188,286
Marin	22	1,831	6,617	17,859	2,170	883	184	368	1,109	710	2,564	276	136	159	89	2,996	1,173	5,429	3,117	708	435	3,948
<b>Total</b>		<b>18,182</b>	<b>89,758</b>	<b>281,567</b>	<b>57,233</b>	<b>33,022</b>	<b>5,244</b>	<b>15,493</b>	<b>20,307</b>	<b>13,963</b>	<b>40,476</b>	<b>12,716</b>	<b>4,921</b>	<b>3,716</b>	<b>4,311</b>	<b>351,325</b>	<b>915,633</b>	<b>666,506</b>	<b>335,963</b>	<b>122,678</b>	<b>60,397</b>	<b>201,248</b>

**Table 18: Difference between Estimated and Observed Worker Flows by Neighborhood**

District Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Presidio / Marina / Pacific Heights	-560	-406	-2,036	959	759	66	313	971	321	1,321	227	158	111	167	-1,345	-649	-410	-233	11	-5	53
Chinatown / North Beach	151	-2,366	500	389	327	-38	83	778	-94	790	161	98	88	78	-620	-240	-402	-268	-10	11	16
Downtown / Civic Center / SOMA	66	-755	-1,098	-305	24	-69	44	413	-109	-120	-123	27	12	-2	-365	-176	-132	-39	21	-1	1
Potrero Hill / Mission	37	169	-828	-625	259	-20	57	1,102	135	301	-655	90	-90	78	-190	768	-122	174	65	35	-38
Bayview / Hunters Point / Vis Valley	110	-213	769	-88	-1,175	68	80	584	28	-415	-199	81	-4	7	-759	1,329	40	86	38	36	33
Glen Park / Westwood / Ingleside	9	-211	-669	369	364	-442	-127	550	158	-10	-148	-144	85	233	-279	645	-403	5	40	4	23
Lake Merced / West of Twin Peaks	76	-319	-878	400	416	-77	-1,041	223	33	-28	-59	131	-6	129	-511	313	180	-4	-23	1	25
Sunset / Parkside	129	-741	-264	1,211	752	220	84	-1,270	148	358	-29	316	150	352	-819	467	-537	-177	20	35	114
Richmond / Golden Gate	12	-795	-752	552	538	114	87	1,200	-	160	-91	214	75	166	-768	501	-285	173	36	18	128
Western Addition / Laurel Heights	239	-276	-1,404	430	562	-9	1	1,024	1,570 139	-872	-317	111	85	142	-685	-4	-180	-92	16	-1	-4
Haight / Upper Market	94	-137	-1,283	328	655	75	-1	997	359	297	-1,396	85	59	119	-48	202	-247	-70	33	21	29
Diamond Heights / Noe Valley	128	-256	-867	365	731	-30	313	626	114	197	-221	-510	114	150	-289	-180	-318	-17	13	4	27
Bernal Heights	-80	-13	-389	-79	219	-41	-6	294	46	-0	-149	54	-313	84	127	386	56	52	-2	-12	-25
Outer Mission / Crocker Amazon	78	-311	-172	11	45	62	-134	630	133	-237	-89	13	-15	-387	-417	1,101	108	-4	-9	11	14
San Mateo	665	3,825	8,035	-963	-2,516	-224	-1,560	-1,168	49	-540	229	-205	-129	-176	6,965	10,507	2,225	50	-73	-122	162
Santa Clara	99	251	182	-221	-134	-40	-34	-119	-8	12	2	25	-25	-27	-2,789	19,359	-1,788	-376	-201	-93	-256
Alameda	1,385	2,729	1,826	1,449	1,167	249	324	800	915	662	717	400	56	532	-2,719	4,778	-9,011	-679	-453	-111	-34
Contra Costa	865	1,733	-842	1,361	710	217	411	554	629	823	647	246	199	373	-767	1,069	4,640	-6,708	-645	222	-388
Solano	140	8	-51	-191	-439	31	123	-73	-8	-86	-97	-32	11	70	-529	496	626	792	-10,583	2,488	59
Napa	-45	79	165	11	21	13	-12	14	3	-4	12	7	-1	4	30	171	189	420	178	-2,705	576
Sonoma	169	1,437	4,891	869	481	115	160	173	65	265	189	116	81	130	1,631	193	-351	-333	36	-356	-10,669
Marin	-890	-1,675	-1,992	857	986	84	189	-393	-117	-899	341	122	16	191	1,188	258	-42	515	110	-29	1,048
Difference	2,876	1,757	2,841	7,089	4,750	323	-647	7,909	1,371	1,975	-1,051	1,404	556	2,414	-3,960	41,292	-6,166	-6,734	-11,379	-550	-9,105
Difference from Total Employment	-166	-281	-791	-233	-151	0	-188	-131	-24	-166	-43	-29	-14	15	-48,539	-135,419	-91,330	-31,875	-11,912	-6,987	-13,078

**Table 19 Estimated Worker Flows by Area Type**

Area Type	AT	0	1	2	3	4	5	Total
Core	0	13,270	5,442	2,210	2,485	1,127	39	24,534
CBD	1	32,648	29,332	11,224	13,138	6,078	177	92,420
UBD	2	37,003	32,294	22,372	19,952	9,000	268	120,621
Urban	3	49,999	45,284	23,326	51,334	15,415	427	185,358
Suburban	4	-	-	-	-	-	-	-
Rural	5	-	-	-	-	-	-	-
	Total	132,920	112,352	59,132	86,909	31,620	911	422,933

**Table 20 Difference between Estimated and Observed Worker Flows by Area Type**

Area Type	AT	0	1	2	3	4	5	Total
Core	0	2,329	-2,873	66	-610	-245	-48	-1,332
CBD	1	3,244	-4,369	1,694	-777	-1,159	-176	-1,367
UBD	2	813	-3,980	2,666	-156	-1,195	-287	-1,852
Urban	3	5,289	-7,278	1,368	4,121	-2,020	-379	1,480
Suburban	4	-	-	-	-	-	-	-
Rural	5	-	-	-	-	-	-	-
	Total	11,676	-18,500	5,794	2,578	-4,619	-890	-3,071

## VEHICLE AVAILABILITY / AUTO OWNERSHIP

The vehicle availability (also known as the auto ownership model) predicts the number of vehicles each household chooses to maintain and which are available for use by household members. Given the location of the household, the characteristics of household members, and the primary workplace location of each work, the model estimates the probability of a household having 0, 1, or 2+ vehicles. The model was originally estimated using the 1990 Bay Area Travel Survey. No changes were made to the structure of the vehicle availability Model

### Calibration

Calibration of the vehicle availability model focused on matching the number of observed households but vehicle availability class (0 vehicles, 1 vehicles, 2+ vehicles) and by:

- MTC Superdistrict
- Household Income

- Number of Workers in the Household

**Table 21: Calibrated Workplace Destination Choice Model Coefficients**

Coefficient	Original Values			Final Values		
	1veh	2veh	3veh	1veh	2veh	3veh
Household Income	0.0262	0.0366	0.0398	0.0262	0.0366	0.0398
2 Adults in Household	0.642	1.924	0.806	0.642	1.924	0.806
3 Adults in Household		1.874	1.917		1.874	1.917
# of Adults over 3 in Household		0.714	1.005		0.714	1.005
Fulltime Workers in Household	0.361	0.490	0.946	0.361	0.490	0.946
Parttime Workers in Household		0.722	1.293		0.722	1.293
# of Household Members 18-24	-0.317	-0.381	-0.381	-0.317	-0.381	-0.381
Max Auto Time to Work (minutes)	0.0144	0.0273	0.0273	0.0144	0.0273	0.0273
Transit / Auto Accessibility Ratio	-0.128	-0.641	-0.641	-0.128	-0.641	-0.641
Work Zone Parking Cost (daily, in dollars)	-0.250	-0.359	-0.832	-0.250	-0.359	-0.832
Home Zone Parking Availability	-0.469	-0.469	-0.469	-0.469	-0.469	-0.469
Home Zone VitalityIndex		-0.218	-0.432		-0.218	-0.432
Households w/I ½ Mile	-0.145	-0.185	-0.310	-0.145	-0.185	-0.310
Constant	0.909	-0.527	-1.324	0.909	-0.527	-1.324

## TOUR GENERATION & TIME-OF-DAY

The tour generation and time-of-day models in CHAMP3 predict the purpose, number, types, and timing of tours and trips made by individuals during the day. Calibration targets derived from BATS2000, excluding additional BART sample. Expansion based on San Francisco residents.

Although the models were not re-estimated, a number of changes affecting the structure and the sensitivities to the model were made. These changes included addition of more detailed school tour purposes, new person types to accommodate new school purposes, and adjustments to the accessibility measures included in the model.

Changes made in calibration included – changing the school tour rate?

### School Purpose Segmentation

The most significant structural change to the tour and trip generation model was the more detailed segmentation of the school purpose. The changes were made primarily to ensure that grade school student school tour destinations were attracted to TAZs containing grade school enrollment, high school tour destinations were destined to TAZs with high school enrollment, and college tours were destined to TAZs with college enrollment. SFCTA staff developed detailed estimates of enrollment in both public and private schools for all TAZs within San Francisco. For areas outside San Francisco, MTC's estimates of college enrollment were used (San Francisco resident grade school and high school students are assumed to attend schools within San Francisco County).

### Updated Person Type Definitions

In order to support this more detailed school tour generation scheme, it was necessary to update the definitions person types used in CHAMP3. In previous versions of CHAMP, there were four basic person types:

- Child (<16),
- Adult worker (16+ employed full or part time OR primary tour work),
- Adult student (16+ attend school full or part time OR primary tour school),
- Other adult (Everyone else 16+).

In CHAMP3, the person types definitions are now:

- Child (<16, and People age 16-20 who are still enrolled in high school),
- Adult worker (21+ and employed regardless of whether or not they also go to school),
- Adult student (anyone 16-20 and enrolled in college, anyone 21+ who is a student and not employed).
- Other adult (21+ unemployed)

Under this person type scheme, most full time college students will get school patterns with possible secondary work tours, while part time students who also work will get work patterns with possible secondary school tours. All secondary tours are called "other" within the model.

The structure of the non-school tour purpose models were unchanged.

#### Accessibility Measure Adjustments

Another significant set of changes to the CHAMP3 tour generation models involved making adjustments to the sensitivity to the accessibility measures used in the model. These measures allow the number of tours generated and the number of intermediate stops on tours to be influenced by the proximity to desired destinations. The measures reflect the amount of total employment and retail / service employment within certain time and distance thresholds as measured from both home and work locations. Accessibility measures used in the CHAMP model system include:

- Adult workers
  - o Employment w/I 15 minutes by car from home in PM peak
  - o Retail & Service w/I 15 minutes by car from home in PM peak
  - o Retail & Service w/I ½ mile of home
  - o Retail & Service w/I ½ mile of work
  - o Retail & Service w/I 15 minutes by car from home in offpeak
- Students / Children
  - o Retail & Service w/I 15 minutes by car from home in PM peak
- Other Adults
  - o Retail & Service w/I 15 minutes by car from home in offpeak
  - o Retail & Service w/I ½ mile of home

These parameters on accessibility were revisited because SFCTA and PB staff discovered that the model appeared to be oversensitive to changes in these measures in application. An investigation of the elasticities of tour and trip generation with respect to accessibility was performed, and elasticities as high 0.5 (for other tours made by workers) were identified. Although one would expect workers making other tours to be sensitive to changes in accessibility, due to the fact that the proximity of home to a greater number of destinations would likely increase home-based other tours and reduce intermediate stops on work tours (as this investigation also illustrated), the demonstrated elasticity appeared too strong.

In order to address the perceived oversensitivity of the model to the accessibility measures, the coefficients for adult workers on auto travel time-based accessibility measures were scaled by 0.25. No changes were made to the child, student, or other adult models, and no changes were made to the coefficients on employment within a ½ mile. The changes produced an elasticity of about 0.15 for workers making other tours (previously 0.48), and 0.04 overall (previously 0.14).

One significant limitation of the current accessibility measures used in CHAMP3 are that they are primarily based on changes in auto travel time. In model applications where transit capacity is increased and roadway capacity is reduced (and thus accessibility to destination by roadway reduced), tour and trip-making may actually decline. A future improvement to the model's sensitivity to changes in accessibility would be the incorporation of multimodal logsum-based impedance measure, rather than roadway impedance based measures.

### Calibration

The tour generation model works in conjunction with the time-of-day models. The time-of-day models predict the timing of the outbound and return legs of each tour, as well as the timing of the individual trips that comprise the tour. In conjunction with the roadway validation effort, some tours were shifted by time of day in order to better match observed roadway volumes. Specifically, some other purpose tours were shifted to later in the day with evening period return times, while the share of other purpose tours occurring entirely within the AM peak was reduced. In addition, a small number of work tours were shifted from the early AM to the AM peak time period. Table 22 compares the expanded household survey to the estimated trips by tour purpose, person type and time of day. Table 23 compares these same statistics for the previous and revised versions of the model.

**Table 22: Comparison of Observed and Estimated Internal San Francisco Trips by Tour Type and Time of Day**

<b>Person Type</b>	<b>Tour Type</b>	<b>Early AM</b>	<b>AM Peak</b>	<b>Midday</b>	<b>PM Peak</b>	<b>Late</b>	<b>Total Trips</b>
<b>Observed Weekday Trips from BATS 2000 (Expanded to 2000 population)</b>							
Worker	HBWork	25,804	271,795	224,231	279,366	194,446	995,642
Worker	HBOther	1,589	65,930	162,559	124,763	264,685	619,526
Worker	WkBased	0	5,372	230,630	32,883	12,920	281,805
Student	HSchool	1,464	76,155	78,813	27,557	3,431	187,420
Student	HBOther	446	11,448	62,516	45,189	49,875	169,474
Other	HBOther	2,832	71,816	330,106	136,742	143,460	684,956
<b>Total</b>	<b>Total</b>	<b>32,135</b>	<b>502,516</b>	<b>1,088,855</b>	<b>646,500</b>	<b>668,817</b>	<b>2,938,823</b>
<b>Estimated Weekday Trips from CHAMP3 (Using 2000 synthetic population)</b>							
Worker	HBWork	16,506	317,299	270,011	292,457	166,576	1,062,849
Worker	HBOther	4,334	69,270	176,451	159,892	357,274	767,221
Worker	WkBased	51	9,147	206,341	10,941	1,843	228,323
Student	HSchool	861	17,340	40,980	14,321	8,325	81,827
Student	HBOther	233	8,361	30,718	17,356	25,416	82,084
Other	HBOther	1,679	66,972	384,481	143,925	224,913	821,970
<b>Total</b>	<b>Total</b>	<b>23,664</b>	<b>488,389</b>	<b>1,108,982</b>	<b>638,892</b>	<b>784,347</b>	<b>3,044,274</b>
<b>% Difference</b>							
Worker	HBWork	-36%	17%	20%	5%	-14%	7%
Worker	HBOther	173%	5%	9%	28%	35%	24%
Worker	WkBased	0%	70%	-11%	-67%	-86%	-19%
Student	HSchool	-41%	-77%	-48%	-48%	143%	-56%
Student	HBOther	-48%	-27%	-51%	-62%	-49%	-52%
Other	HBOther	-41%	-7%	16%	5%	57%	20%
<b>Total</b>	<b>Total</b>	<b>-26%</b>	<b>-3%</b>	<b>2%</b>	<b>-1%</b>	<b>17%</b>	<b>4%</b>



**Table 23 Comparison of CHAMP3 and CHAMP2 Internal San Francisco Trips by Tour Type and Time of Day**

Person Type	Tour Type	Early AM	AM Peak	Midday	PM Peak	Late	Total Trips
<b>Estimated Weekday Trips from CHAMP2 (Using 2000 synthetic population)</b>							
Worker	HBWork	31,005	303,240	225,391	303,525	162,118	1,025,279
Worker	HBOther	814	53,469	187,475	152,951	266,935	661,644
Worker	WkBased	131	7,218	257,792	25,716	11,567	302,424
Student	HSchool	142	69,985	81,025	24,049	5,089	180,290
Student	HBOther	83	18,928	45,691	48,597	50,607	163,906
Other	HBOther	919	66,744	396,540	121,553	145,479	731,235
Total	Total	33,094	519,584	1,193,914	676,391	641,795	3,064,778
<b>Estimated Weekday Trips from CHAMP3 (Using 2000 synthetic population)</b>							
Worker	HBWork	16,506	317,299	270,011	292,457	166,576	1,062,849
Worker	HBOther	4,334	69,270	176,451	159,892	357,274	767,221
Worker	WkBased	51	9,147	206,341	10,941	1,843	228,323
Student	HSchool	861	17,340	40,980	14,321	8,325	81,827
Student	HBOther	233	8,361	30,718	17,356	25,416	82,084
Other	HBOther	1,679	66,972	384,481	143,925	224,913	821,970
Total	Total	23,664	488,389	1,108,982	638,892	784,347	3,044,274
<b>% Difference</b>							
Worker	HBWork	-47%	5%	20%	-4%	3%	4%
Worker	HBOther	432%	30%	-6%	5%	34%	16%
Worker	WkBased	-61%	27%	-20%	-57%	-84%	-25%
Student	HSchool	506%	-75%	-49%	-40%	64%	-55%
Student	HBOther	181%	-56%	-33%	-64%	-50%	-50%
Other	HBOther	83%	0%	-3%	18%	55%	12%
Total	Total	-28%	-6%	-7%	-6%	22%	-1%

## NON-WORK TOUR DESTINATION CHOICE

The tour destination choice models predict the primary destinations for tours. Each tour purpose (work, grade school, high school, college, other, work-based) has a unique tour destination choice model. As previously described, the first of the models to be run is the workplace destination choice model, which is run at the beginning of the model system so that the model system is sensitive to the influence of work location choice on the number of autos owned, the number and types of tours generated and time-of-day choices. If the tour generation model predicts that a worker will make a work tour, then the chosen workplace location becomes the destination for this tour. The primary tour destinations for the other

tour purposes are predicted after the tour generation and time-of-day model has established each individual's daily activity pattern.

In addition to the changes made to the workplace destination choice model describer earlier in this document, a number of structural changes were also made to the non-work tour primary destination choice models. These changes included revisions to the sampling mechanism, segmentation of the school model into three school type models, and modifications to the specification of size terms.

### Destination Choice Sampling

The sampling mechanism implemented in the CHAMP3 workplace destination choice model was also implemented in the Grade School, High School, College, Other, and Work-Based tour destination models in order to be more consistent with discrete choice theory. Sampling of alternatives is used in destination choice models to avoid needing to compute a complicated utility equation for a large number of alternatives, where many of the alternatives may have very low probabilities of being selected. As in the workplace destination choice models, a “simple” utility equation was defined that has a user-specified size term and a user-defined dispersion parameter on distance between zones, and which is then used in a multinomial logit model to determine the probability that the destination will be chosen for the sample set.

### School Purpose Segmentation

The tour generation section of this document describes how the school purpose was segmented in CHAMP3 into three separate school markets: Grade School, High School, and College. The ability of the tour generation model to predict separate school purposes greatly enhances the ability of the school tour primary destination model to connect students with school destinations appropriate to their age. The SFCTA staff developed San Francisco TAZ-level estimates of public and private school enrollment for grade school, high school, and college and professional schools, which are used in CHAMP3 as size terms to attract

appropriately aged students. In addition, constraints were implemented so that for each school segment only TAZs with enrollment in the appropriate age school were included in the choice set; for example, grade school trips are destined only to TAZs with grade school enrollment. However, unlike the work purpose, shadow pricing of school destinations was not implemented.

### Size Term Specification

The third structural change to the primary destination choice models involved improvements to the specification of the size terms. In previous versions of the CHAMP non-work destination choice models, the probability of selecting a zone was proportional to the log of the size of that zone, where size is usually a measure of some combination of employment by sector. This specification is inconsistent with travel behavior theory, which asserts that the probability of selecting a TAZ should be directly proportional to the size of the TAZ, not to the log of the size of the TAZ. For example, doubling employment in a zone should, all other things being equal, double the number of trips attracted to that zone. The result of this specification error was that the previous model was under-predicting the number of trips to large attractors. In order to address this issue, it was necessary to estimate new parameters for the other tour destination and work-based tour destination models, using simple regression.

Estimate of new size term coefficients was performed using household travel behavior derived from the BATS2000 and BART add-on surveys and using CHAMP3 TAZ-level employment data. An estimation file was created from this data by summing expanded tour destinations by purpose to a district level. For purposes of estimation, the 26 neighborhood district system was used for destinations within San Francisco County. The MTC Super-District system was used for destinations outside San Francisco County. However, estimations at this level of geography were generally unsuccessful, probably due to the very large size of super-districts.

Table 24 shows the final estimation results for Other purpose tours. The estimation data relies on Other purpose tours made by San Francisco BATS2000 and BART households with destinations within San Francisco County. Based on this regression, retail employment tends to attract more other purpose tours than service employment, all else being equal. There is also a large coefficient on medical employment (note that the service variable also includes medical employment, for a total medical employment parameter of  $0.2686 + .9439 = 1.2125$ ), and coefficients on both number of households and grade school enrollment (Other tours include pickup/dropoff trips). The fit of the model is very good, with an adjusted R-squared of 0.9016. Note that in application all of the parameters are related to the retail parameter for consistency with logit theory, which requires that one less coefficient than total size function variables can be estimated.

**Table 24: Other Tour Destination Choice Size Term Estimation Results**

<b>Summary Statistics</b>			
R-squared	0.9205		
Adj R-squared	0.9016		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
Service Employment	0.2686	0.7836	1.37
Medical Employment	0.9439	2.7540	1.46
Retail Employment	0.3427	1.0000	1.12
Households	0.5670	1.6544	2.81
Grade School Enrollment	0.3435	1.0022	0.40

Table 25 shows the final estimation results for work-based tours. There are coefficients only on the retail and MIPS (Management, Information, and Professional Services) employment categories. The coefficient on retail employment is slightly higher than the parameter on MIPS employment. The relatively high MIPS parameter probably reflects work-related travel made to and from the regular workplace for work purposes. The fit of the model is good, with an adjusted R-squared of 0.9653.

**Table 25: Work-Based Tour Destination Choice Size Term Estimation Results**

<b>Summary Statistics</b>			
R-squared	0.9680		
Adj R-squared	0.9653		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
MIPS Employment	0.0634	0.7740	10.25
Retail Employment	0.0820	1.0000	2.57

In the CHAMP3 model system, the employment sectors used in San Francisco County are based on the City Planning Department’s land use classifications, and are different than the employment sectors used in non-San Francisco counties, which are derived from ABAG and MTC information. Model estimations were tested using employment differentiated by destinations within San Francisco versus outside San Francisco, but these estimations produced counterintuitive results, such as service employment being seven times more attractive than retail employment for non-SF counties. As a result, similar size terms were used for both San Francisco and non-San Francisco destinations, with the following modifications:

- For Other tours, no medical employment totals are available for non-SF zones.
- For Work-Based tours, service employment was substituted for MIPS employment for non-SF zones.

### Calibration

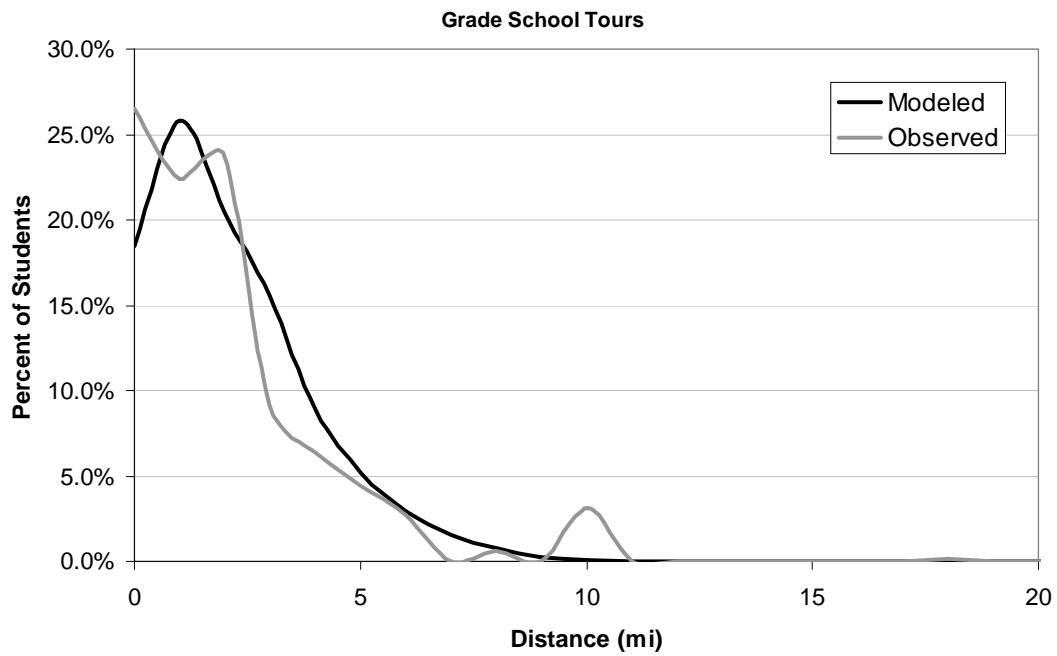
After making the structural changes to the model described above, the tour destination choice models were calibrated. The calibration effort focused on the following areas:

- The San Francisco destination constants were calibrated to properly match the number of tours with destinations within the county, versus external to the county.
- The piece-wise linear distance terms were adjusted to better match observed trip length distributions. Generally, this involved making the terms much steeper in the 0-2 mile range to get enough very short trips.
- The intrazonal constants were calibrated to match observed intrazonal trip rates.

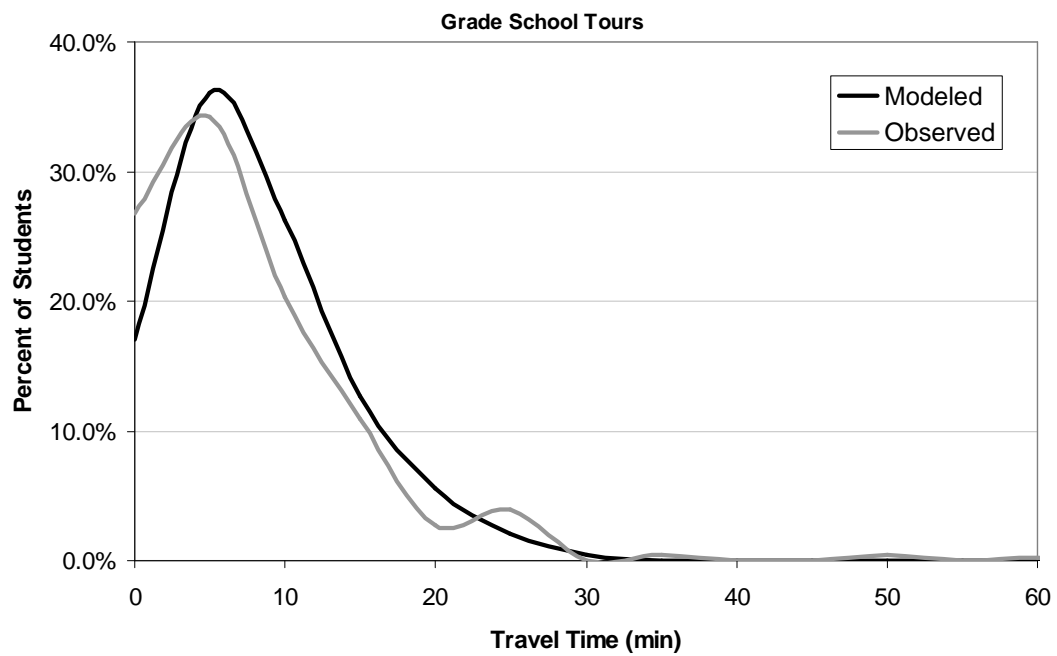
- The area type to area type constants in most cases, as most were found to contribute only marginally to improving the fit of the models compared to observed data.

Figure 14 through Figure 19 illustrates the calibrated distance and time trip length frequency distributions for each of the new school segments. The fit for each of the school segments was reasonably good, though the observed distributions for college tours were somewhat noisy, making calibration more difficult.

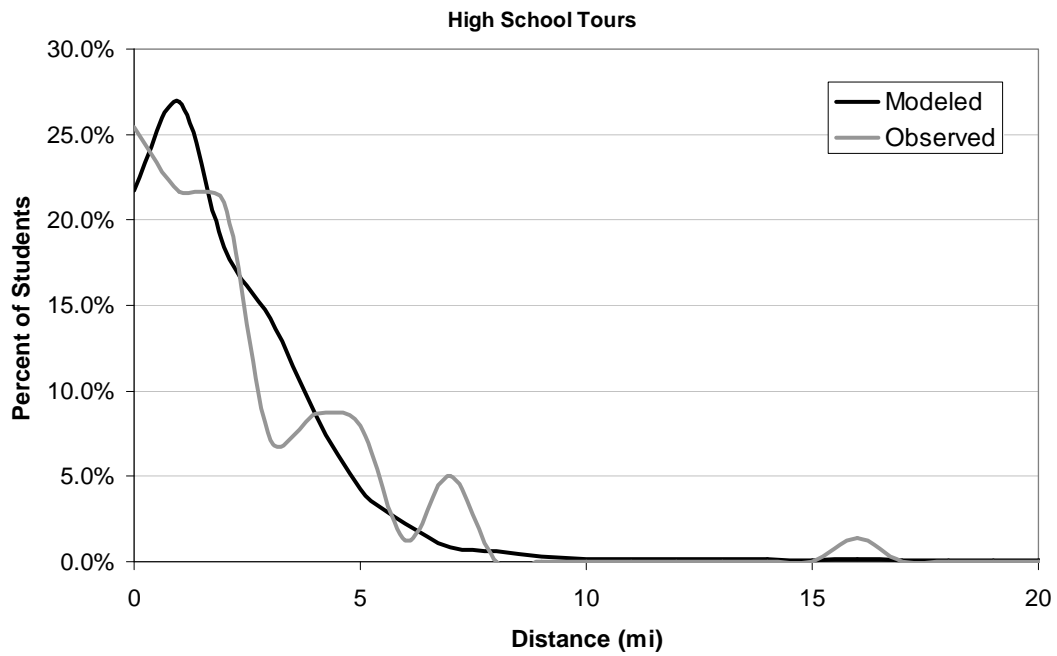
**Figure 14: Grade School Tour Length Frequency Distribution (Distance)**



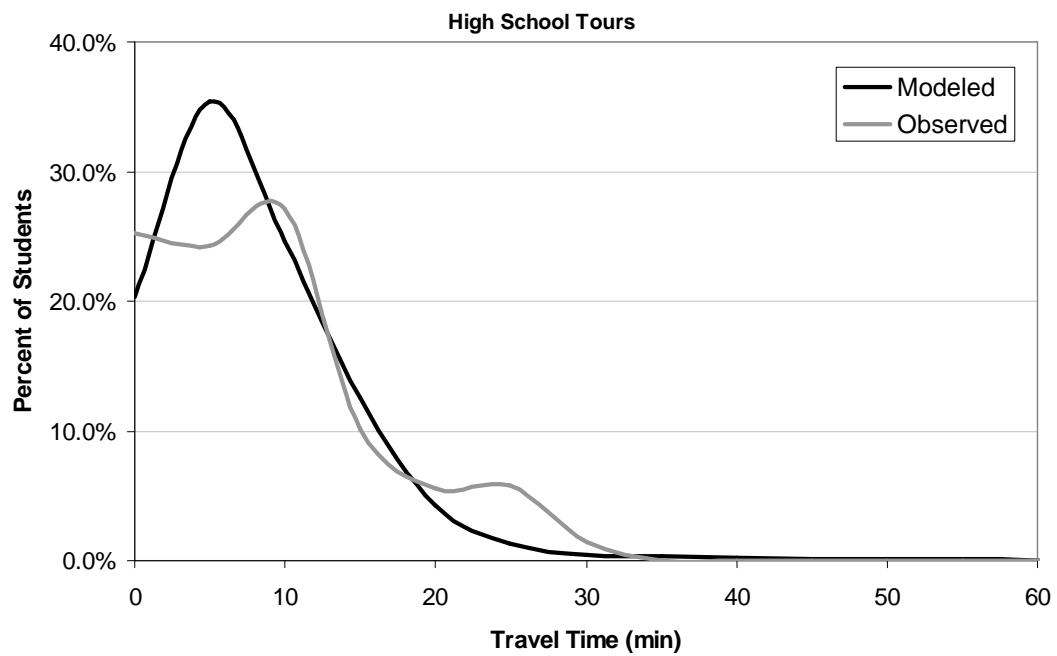
**Figure 15: Grade School Tour Length Frequency Distribution (Time)**



**Figure 16: High School Tour Length Frequency Distribution (Distance)**

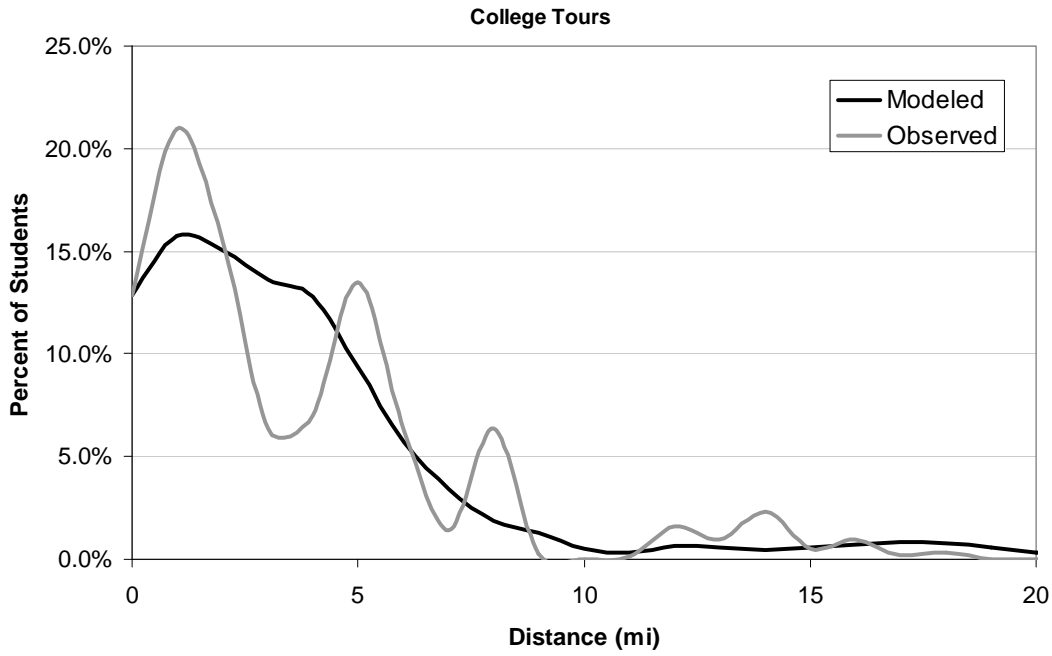


**Figure 17: High School Tour Length Frequency Distribution (Time)**





**Figure 18: College Tour Length Frequency Distribution (Distance)**



**Figure 19: College Tour Length Frequency Distribution (Time)**

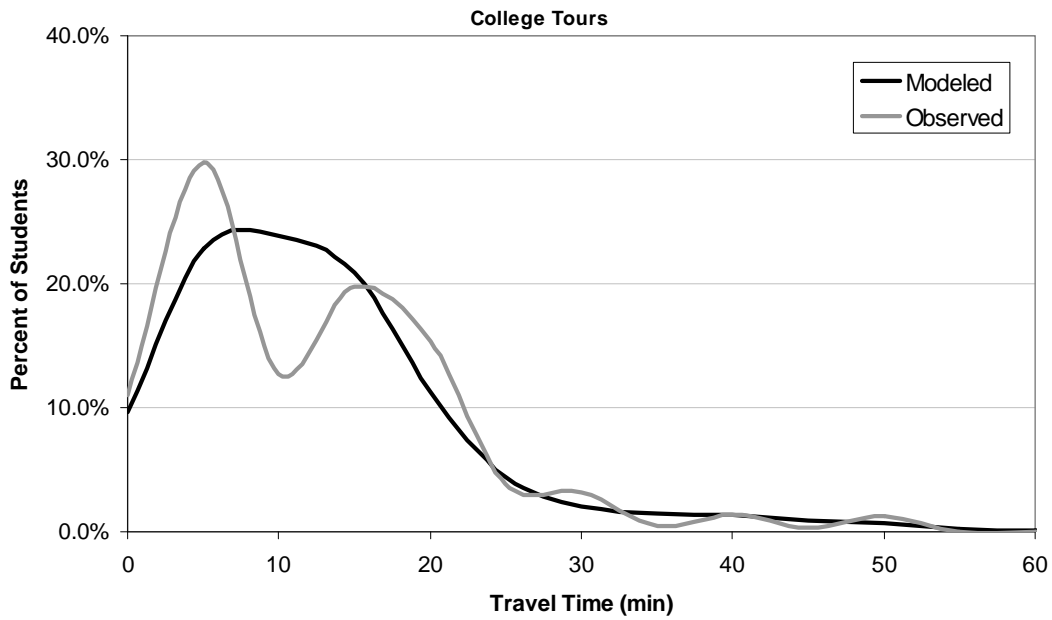
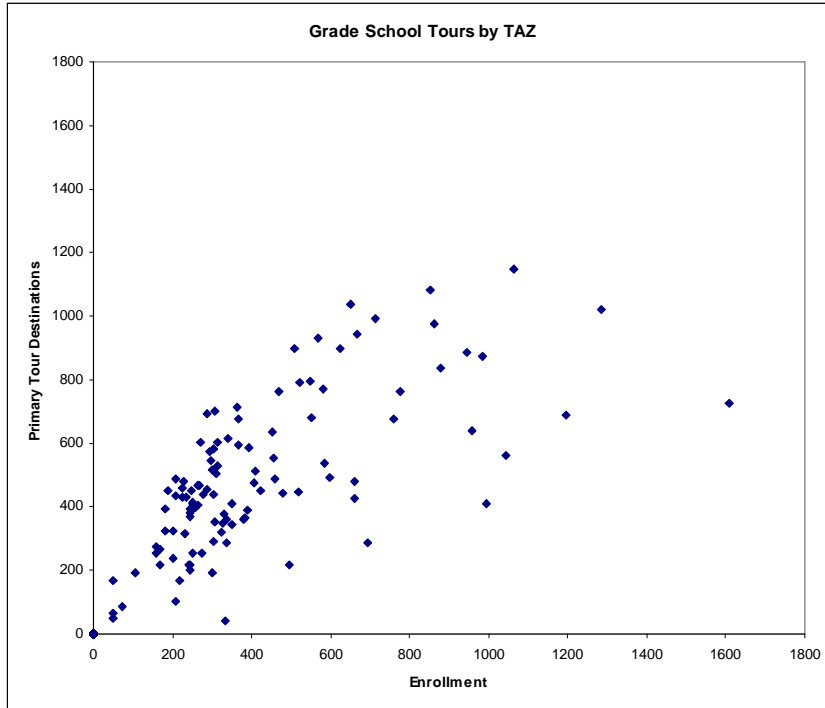


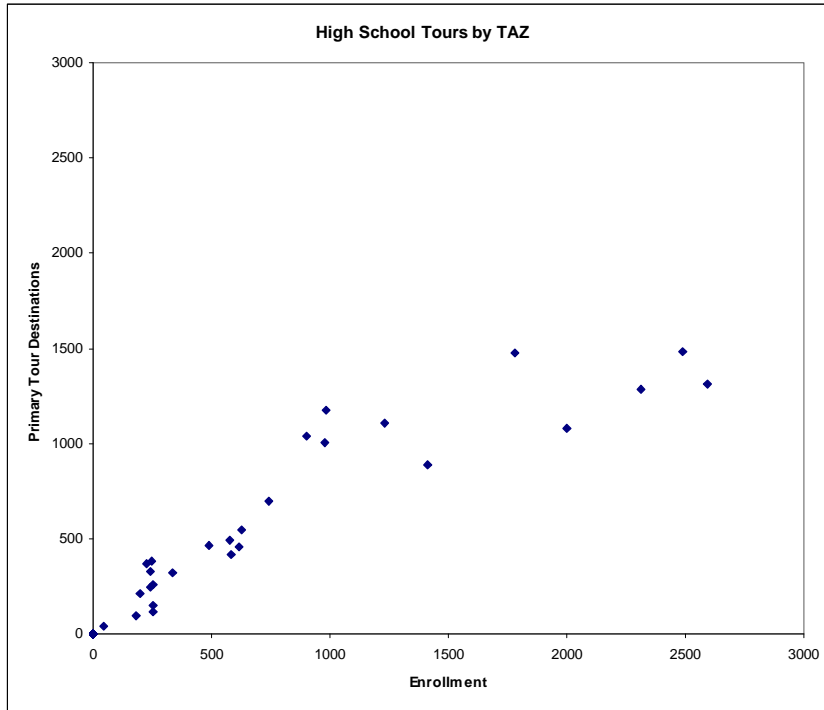
Figure 20 through Figure 22 illustrate the number of school destinations to school enrollment by TAZ. The figures demonstrate that the destinations are proportional to the

enrollment, as expected. The college tours show significantly fewer destinations than enrollment, probably due to the number of part-time students, and the commuters from outside SF. Also, as previously noted, unlike the work purpose, shadow pricing of school destinations was not implemented, meaning that the number of school destinations is not required to match enrollment within a given tolerance.

**Figure 20: Grade School Destinations vs. Grade School Enrollment by TAZ**



**Figure 21: High School Destinations vs. High School Enrollment by TAZ**



**Figure 22: College Destinations vs. College Enrollment by TAZ**

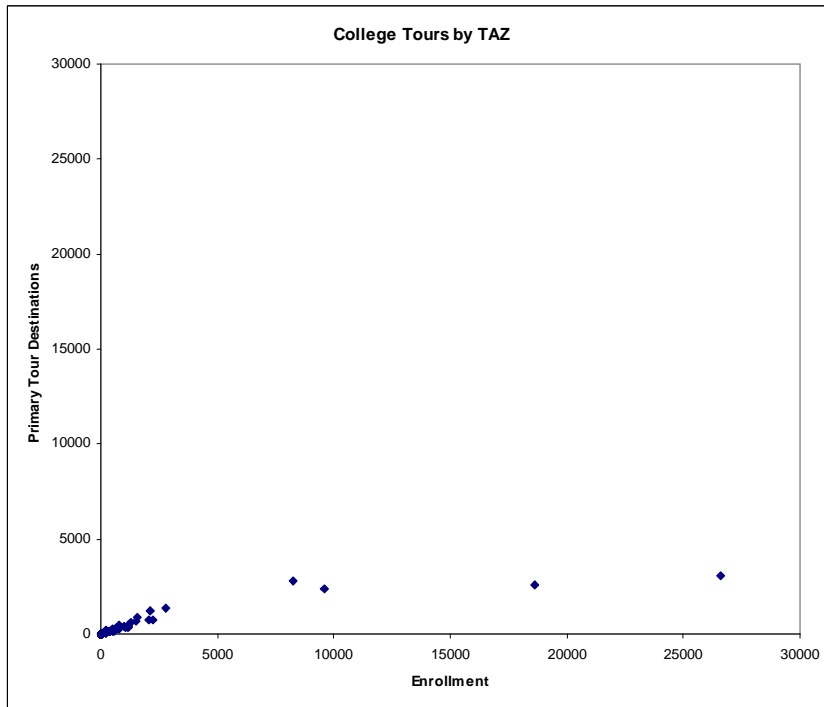
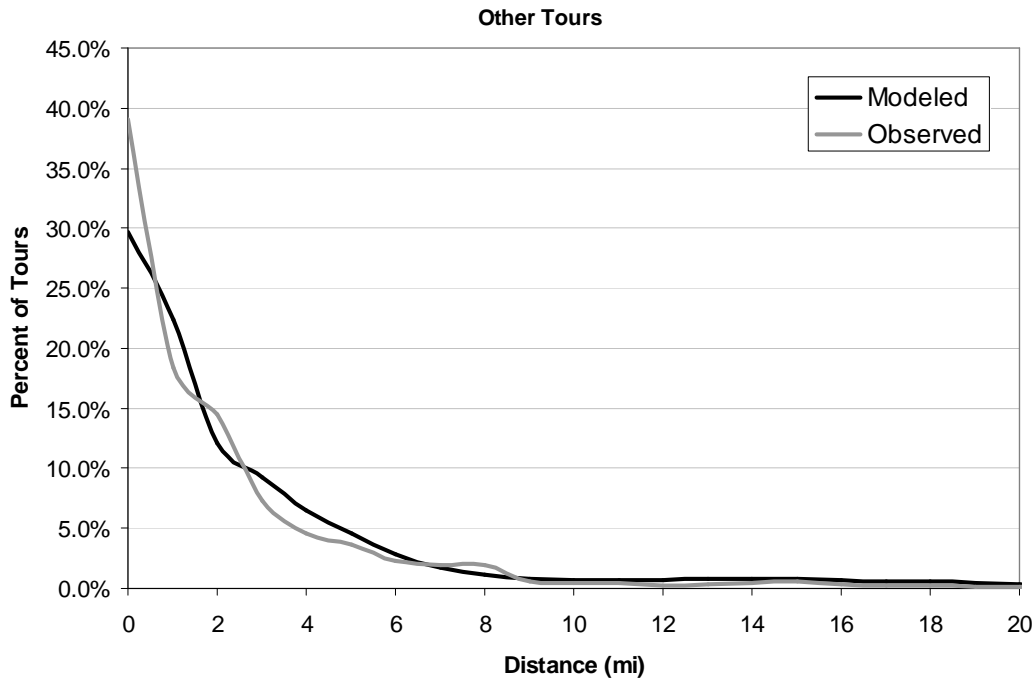
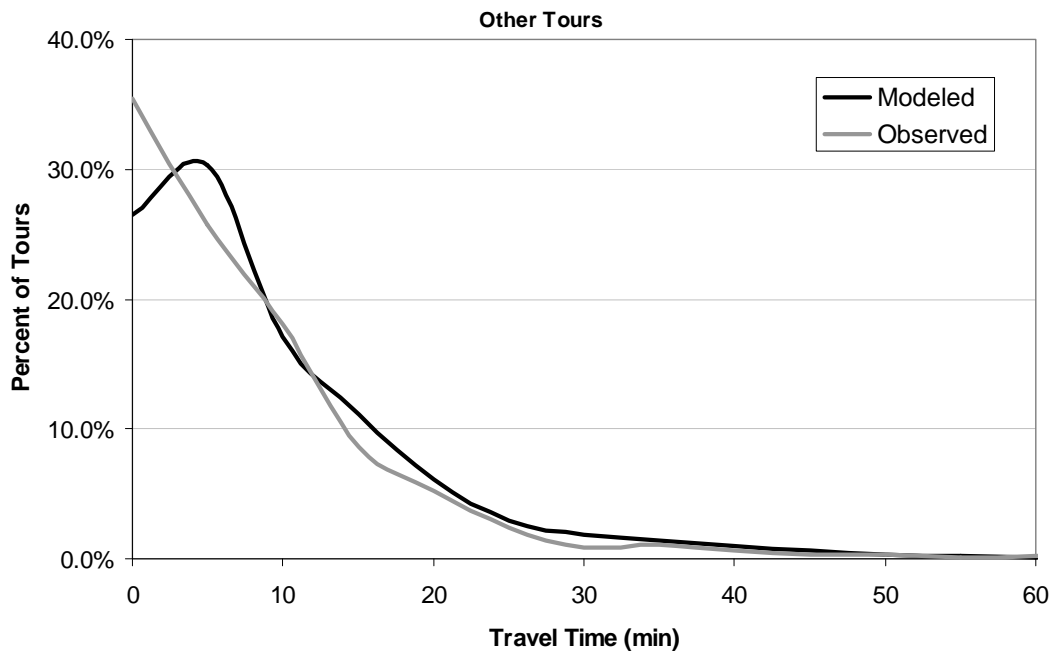


Figure 23 through Figure 26 demonstrates the final calibrated time and distance trip length frequency distributions for the other and work-based tour destination choice models.

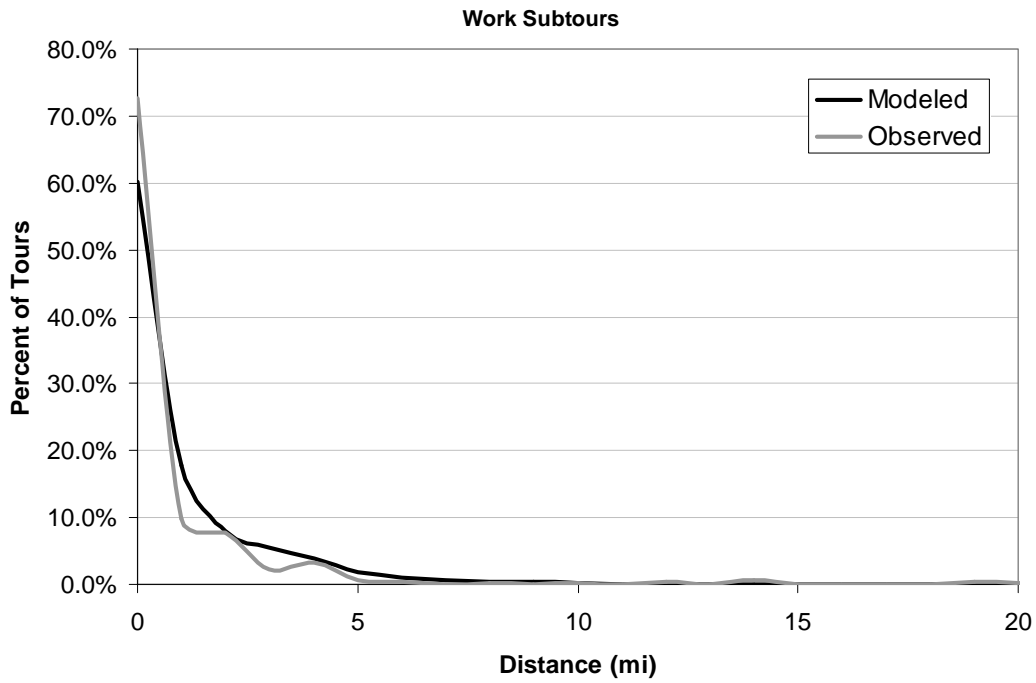
**Figure 23: Other Tour Length Frequency Distribution (Distance)**



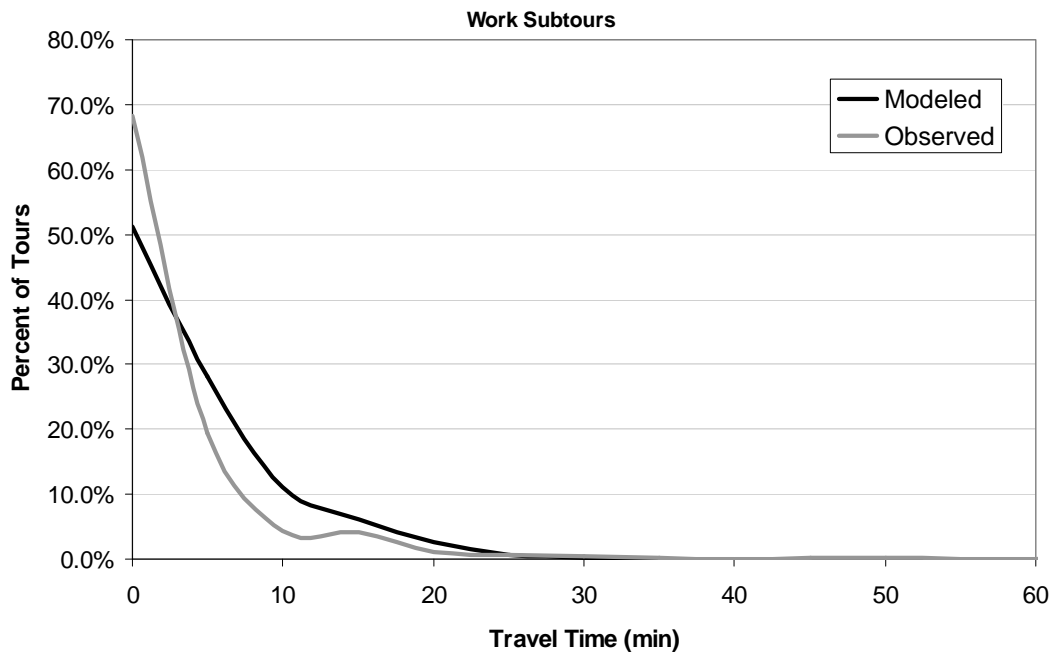
**Figure 24: Other Tour Length Frequency Distribution (Time)**



**Figure 25: Work-based Subtour Length Frequency Distribution (Distance)**



**Figure 26: Work-based Subtour Length Frequency Distribution (Time)**



Tables 26 through 28 show the final tour destination choice models for the school, other, and work-based tour purposes

**Table 26: Final School Tour Destination Choice Model**

Attribute	CHAMP2 Coefficient	CHAMP3 Grade	CHAMP3 High	CHAMP3 College
<b>Destination Size Attributes</b>				
School Area in Thousands of Square Feet (Zones in SF County)	4.14E-04	-	-	-
Grade School Enrollment		1.0000	-	-
High School Enrolment (in Thousands)	8.53E-01	-	1.0000	-
Full-time College Enrolment (in Thousands)	4.12E-02	-	-	1.0000
Part-time College Enrolment (in Thousands)	7.64E-02	-	-	1.0000
Logarithm of Number of Households	8.57E-02	-	-	-
Service Employment (Zones outside SF County)	2.56E-04	-	-	-
<b>Destination Characteristics</b>				
School Zone Dummy (Zones in SF County)	0.5675	-	2.4349	0.3857
College Zone Dummy	1.6334	-		
Number of School Buildings (Zones in SF County)	0.2779	-		
Dest in Home TAZ Dummy	-	0.6921	1.8208	0.6453
<b>Origin-Destination Level of Service</b>				
Piecewise linear distance 0-1 miles	-0.6807	-	-	-
Piecewise linear distance 0.5-1 miles	-	-1.2500	-1.2500	-
Piecewise linear distance 1-2 miles	-0.5675	-1.0000	-1.0000	-0.4000
Piecewise linear distance 2-5 miles	-0.1760	-0.3000	-0.2000	-0.1300
Piecewise linear distance 5Plus miles	-0.1099	-0.1500	-0.1800	-0.1200
Mode Choice Logsum (Zones in SF County)*	0.5358	0.5358	0.5358	0.5358
Mode Choice Logsum (Zones outside SF County)*	0.3436	0.3436	0.3436	0.3436
Missing Mode Choice Logsum	0.1861	-	-	-

**Table 27: Final Other Tour Destination Choice Model**

Attribute	CHAMP2 Coefficient	CHAMP3 Coefficient
<b>Destination Size Attributes</b>		
Logarithm of Retail Employment (Zones in SF County)	0.3018	-
Logarithm of Service Employment (Zones in SF County)	0.1870	-
Logarithm of Retail Employment (Zones outside SF County)	0.5177	-
Total Area in Thousands of Acres	3.33E-02	3.33E-02
SF Medical Employment (Zones in SF County)	-	2.7540
Grade School Enrollment	-	1.0022
Retail Employment	-	1.0000
Service Employment	-	0.7836
Households	-	1.6544
<b>Destination Characteristics</b>		
Average Household Income in Thousands of Dollars	4.29E-03	4.29E-03
Destination Zone is Home Zone Dummy	1.2381	2.1378
Eastern Destinations (Solano + Contra Costa + Alameda)	-1.2836	-
Destination is in SF	-	0.4440
<b>Origin-Destination Characteristics</b>		
Origin & Dest are in CBD Dummy	0.2756	-
Origin is in CBD & Dest is in UBD Dummy	0.3686	-
Origin is in CBD & Dest is in an Urban/Suburban/Rural area Dummy	0.5075	-
Origin is in an Urban area & Dest is in Core Dummy	0.3444	-
Origin & Dest are in an Urban area Dummy	0.7958	-
Origin & Dest are in Core Dummy	-	0.6508
<b>Origin-Destination Level of Service</b>		
Piecewise linear distance 0-1 miles	-0.4822	-
Piecewise linear distance 0.5-1 miles	-	-2.8000
Piecewise linear distance 1-2 miles	-0.8468	-1.4000
Piecewise linear distance 2-5 miles	-0.2481	-0.2000
Piecewise linear distance 5Plus miles	-0.1156	-0.1300
Mode Choice Logsum (Zones in SF County)	0.6755	0.6755
Mode Choice Logsum (Zones outside SF County)	0.2634	0.2634
Missing Mode Choice Logsum	0.9614	-



**Table 28: Final Work-based Tour Destination Choice Model**

Attribute	CHAMP2 Coefficient	CHAMP3 Coefficient
<b>Destination Size Attributes</b>		
Logarithm of Health Services Employment (Zones in SF County)	0.1047	-
Logarithm of MIPS Employment (Zones in SF County)	0.1110	-
Logarithm of Retail Employment (Zones in SF County)	0.2741	-
Logarithm of Retail Employment (Zones outside SF County)	0.1724	-
Logarithm of Service Employment (Zones outside SF County)	0.0996	-
Logarithm of Other Employment (Zones outside SF County)	0.1722	-
Logarithm of Agricultural Employment (Zones outside SF County)	0.0989	-
Logarithm of Manufacturing Employment (Zones outside SF County)	0.1303	-
Logarithm of Trade Employment (Zones outside SF County)	-0.1607	-
Households per Acre	-0.0092	-0.0092
MIPS Employment (Zones in SF County)	-	0.7740
Service Employment (zones outside SF County)	-	0.7740
Retail Employment	-	1.0000
<b>Destination Characteristics</b>		
Average Household Income in Thousands of Dollars	4.65E-03	4.65E-03
Destination Zone is Home Zone Dummy	4.8357	4.8357
Destination Zone is Work Zone Dummy	0.5167	2.5350
Destination is in SF	-	1.6526
<b>Origin-Destination Characteristics</b>		
Origin & Dest are in CBD Dummy	0.7002	-
Origin & Dest are in UBD Dummy	0.5185	-
Origin is in UBD or Urban & Dest is in UBD or Urban	0.5095	-
Origin & Destination are outside SF County	0.8755	-
<b>Origin-Destination Level of Service</b>		
Piecewise linear distance 0-1 miles	-0.7913	-
Piecewise linear distance 0.5-1 miles	-	-3.0000
Piecewise linear distance 1-2 miles	-0.9591	-1.5000
Piecewise linear distance 2-5 miles	-0.3555	-0.3000
Piecewise linear distance 5Plus miles	-0.1745	-0.0700
Mode Choice Logsum (Zones in SF County)	0.5136	0.5136
Mode Choice Logsum (Zones outside SF County)	0.1620	0.1620
Missing Mode Choice Logsum	0.4324	-

## TOUR MODE CHOICE

The tour mode choice models predict the primary mode used for tours. Each tour purpose (Work, Grade School, High School, College, Other, Work-Based) has a unique tour mode

choice model. The modes available in the tour mode choice model include Driver, Passenger, Walk-Transit, Drive-Transit, Bike and Walk. The only structural change made to the tour mode choice models was the segmentation of the School tour mode choice model into separate Grade School, High School, and College tour mode choice models. The individual purpose tour mode choice models are further segmented by auto sufficiency, with three market segments in each model:

- Household autos = 0
- Household autos < household workers
- Household autos >= household workers.

For School tours, the zero auto and low auto markets are combined due to the relatively small sample sizes in each. The calibration involved adjusting the constants in each of these market segments to match the observed mode shares.

### Calibration

Calibration of each purpose-specific tour mode choice models involved making adjustments to alternative specific constants for each mode by market segment, in order to match observed modal shares. Three data sources were used to establish the observed modal shares: the BATS2000 household survey, the 2004 MUNI onboard transit survey, and counts of the observed transit ridership. These data sources were reconciled using the following approach:

- The tours in the expanded BATS2000 household survey were tabulated by purpose, market segment and mode. For work tours, these tabulations were compared to the 2000 Census Journey to Work data as a check on their validity.
- The zero auto and low auto market segments were combined for all of the School purpose tours.
- Because Drive-Transit is not permitted for non-work tours, any observed Drive-Transit tours were re-coded as Walk-Transit tours in the same purpose.
- Because Auto Driver is not allowed in the zero auto market segment, or in the Grade School purpose, any observations in this category were recoded as Auto Passenger tours.

- The tours were scaled to match the total number of tours that the model produces by purpose and market segment.
- To avoid constants converging to negative infinity, modes with zero observations were coded with a small number of tours.
- Because the trip mode choice models, which are conditional on the tour mode choice models, only allow Drive-Premium and Drive- BART, the number of Drive-Transit tours were scaled to remove the Drive-Local and Drive-Muni tours.
- The MUNI onboard survey was tabulated, and where the household and onboard survey diverged, the transit trips were adjusted to be more consistent with the onboard survey.

To calibrate the models, the alternatives specific constants were adjusted such that the modeled tours by mode matched the target values. Consideration was given to ensuring that the alternative specific constants change logically across market segments. To be more consistent with the trip mode choice models, a constant equivalent to 5 minutes of in-vehicle time is added to paths that include Muni Metro (LRT), and a constant equivalent to 10 minutes of in-vehicle time is added to paths that include BART. The structure of the tour-based CHAMP3 model requires that the tour mode choice models are calibrated first and then the trip mode choice models are calibrated, as the trip mode choices are conditional on tour mode choices. The calibration of both tour and trip mode choice models involved an iterative process of making to adjustments to each model.

## Results

Table 29 through Table 34 summarizes the final tour mode choice model calibration results for each of the tour purposes Table 35 through Table 38 shows the final calibrated model coefficients and constants.

**Table 29: Work Tour Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Tours</b>	<b>Estimated Share</b>	<b>Difference</b>
Driver	45.4%	150,523	46.1%	0.8%
Passenger	5.5%	19,297	5.9%	0.4%

Walk	8.3%	26,372	8.1%	-0.3%
Bike	3.9%	12,441	3.8%	-0.1%
Wlk-Tran	34.0%	109,922	33.7%	-0.3%
Drv-Tran	2.8%	7,634	2.3%	-0.5%
<b>TOTAL</b>	<b>100.0%</b>	<b>326,189</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 30: Grade School Tour Mode Choice Calibration Results**

MODE	Observed Share	Estimated Tours	Estimated Share	Difference
Driver		-		
Passenger	51.1%	32,051	51.7%	0.6%
Walk	6.4%	3,921	6.3%	-0.1%
Bike	0.2%	166	0.3%	0.0%
Wlk-Tran	42.3%	25,884	41.7%	-0.5%
Drv-Tran		-		
<b>TOTAL</b>	<b>100.0%</b>	<b>62,022</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 31: High School Tour Mode Choice Calibration Results**

MODE	Observed Share	Estimated Tours	Estimated Share	Difference
Driver	9.3%	1,841	9.3%	-0.1%
Passenger	21.0%	4,113	20.7%	-0.3%
Walk	12.6%	2,451	12.3%	-0.2%
Bike	0.8%	146	0.7%	0.0%
Wlk-Tran	56.3%	11,302	56.9%	0.6%
Drv-Tran		-		
<b>TOTAL</b>	<b>100.0%</b>	<b>19,853</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 32: College Tour Mode Choice Calibration Results**

MODE	Observed Share	Estimated Tours	Estimated Share	Difference
Driver	43.2%	11,106	42.7%	-0.5%
Passenger	6.8%	2,613	10.0%	3.2%
Walk	11.8%	2,884	11.1%	-0.8%
Bike	1.1%	282	1.1%	0.0%
Wlk-Tran	37.1%	9,153	35.2%	-2.0%
Drv-Tran		-		
<b>TOTAL</b>	<b>100.0%</b>	<b>26,038</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 33: Other Tour Mode Choice Calibration Results**

MODE	Observed Share	Estimated Tours	Estimated Share	Difference
Driver	42.4%	270,053	42.8%	0.4%
Passenger	22.0%	136,077	21.5%	-0.4%
Walk	20.0%	126,410	20.0%	0.0%
Bike	2.0%	12,749	2.0%	0.0%
Wlk-Tran	13.6%	86,199	13.7%	0.0%
Drv-Tran		-		
<b>TOTAL</b>	<b>100.0%</b>	<b>631,488</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 34: Work-based Tour Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Tours</b>	<b>Estimated Share</b>	<b>Difference</b>
Driver	21.0%	22,968	21.5%	0.5%
Passenger	6.3%	6,827	6.4%	0.1%
Walk	62.1%	65,906	61.6%	-0.5%
Bike	1.6%	1,771	1.7%	0.0%
Wlk-Tran	9.0%	9,565	8.9%	-0.1%
Drv-Tran		-		
<b>TOTAL</b>	<b>100.0%</b>	<b>107,037</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 35: Final Calibrated Work Tour Mode Choice Model**

Attribute	CHAMP2 Coefficient	CHAMP3 Coefficient	VOT / Equiv Minutes
<b>Level-of-Service Variable</b>			
In-Vehicle Time	-0.0134	-0.0134	
First Wait	-0.0144	-0.0144	
Second Wait	-0.0411	-0.0411	
Drive Time	-0.0269	-0.0269	
Walk Time	-0.0377	-0.0377	
Walk Mode Time	-0.0377	-0.0377	
Bike Mode Time	-0.0536	-0.0536	
OPC, Income 0-30k	-0.0021	-0.0021	
OPC, Income 30-60K	-0.0014	-0.0014	
OPC, Income 60k+	-0.0012	-0.0012	
Parking Availability Index	-0.1340	-0.1340	
<b>Number of Stops</b>			
Walk	-0.9387	-0.9387	
Bike	-0.4748	-0.4748	
Auto Passenger	-0.2109	-0.2109	
Walk-Transit	-0.4576	-0.4576	
Drive-Transit	-0.8646	-0.8646	
<b>Pedestrian Environment Factor - Walk Mode</b>			
Destination Network Connectivity	-1.0697	-1.0697	
Destination Vitality	-0.4945	-0.4945	
Destination Topology	-0.9686	-0.9686	
<b>Pedestrian Environment Factor - Walk-Transit</b>			
Destination Network Connectivity	-0.6019	-0.6019	
Destination Vitality	-0.0675	-0.0675	
Destination Topology	-0.6219	-0.6219	
<b>Household Type</b>			
Auto Passenger - Household Size = 1	-0.7346	-0.7346	
<b>Alternative-Specific Constants</b>			
<u>Walk</u>			
Autos=0	-0.0574	4.8317	
Autos<Workers	-0.9399	5.2172	
Autos>=Workers	-0.0278	4.5951	
<u>Bike</u>			
Autos=0	-4.5757	0.9294	
Autos<Workers	-3.7281	2.1543	
Autos>=Workers	-4.0583	0.3663	
<u>Driver- Auto</u>			
Autos=0	0.000	0.0000	
Autos<Workers	-1.9586	1.5038	
Autos>=Workers	-1.4759	1.9349	
<u>Passenger- Auto</u>			

Autos=0	-4.7469	0.0000
Autos<Workers	-3.3009	0.0000
Autos>=Workers	-3.3686	0.0000
<u>Transit Walk Access</u>		
Autos=0	-1.0929	3.6380
Autos<Workers	-0.0375	3.8595
Autos>=Workers	-0.5384	3.0377
MUNI Metro		0.0670
BART		0.1340
<u>Transit Drive Access</u>		
Autos=0	0.0000	0.0000
Autos<Workers	-0.7235	4.8480
Autos>=Workers	-1.9293	4.5756
MUNI Metro		0.0670
BART		0.1340

**Table 36: Final Calibrated School Tour Mode Choice Models**

Attribute	CHAMP2 Coefficient	CHAMP3 Grade School	CHAMP3 High School	CHAMP3 College
<b>Level-of-Service Variable</b>				
In-Vehicle Time	-0.0224	-0.0224	-0.0224	-0.0224
First Wait	-0.0757	-0.0757	-0.0757	-0.0757
Second Wait *	-0.0336	-0.0336	-0.0336	-0.0336
Out-of-Pocket Cost	-0.0065	-0.0065	-0.0065	-0.0065
Walk Time	-0.0622	-0.0622	-0.0622	-0.0622
Walk Mode Time	-0.0622	-0.0622	-0.0622	-0.0622
Bike Mode Time	-0.0344	-0.0344	-0.0344	-0.0344
Parking Availability Index	-0.2240	-0.2240	-0.2240	-0.2240
<b>Number of Stops</b>				
Auto Driver/Passenger	-0.2845	-0.2845	-0.2845	-0.2845
Walk	-0.8328	-0.8328	-0.8328	-0.8328
<b>PEF- Bike Mode</b>				
Destination Topology	-2.0253	-2.0253	-2.0253	-2.0253
<b>Household Type</b>				
Auto Driver, Age between 16 and 19 years old	-1.3813	-1.3813	-1.3813	-1.3813
Transit, Age less than or equal to 10 years old	-1.5548	-1.5548	-1.5548	-1.5548
Auto Passenger - Household Size less than 3 persons	-0.6359	-0.6359	-0.6359	-0.6359
<b>Alternative-Specific Constants</b>				
Driver				
Autos<Workers	-1.5726		-0.6673	-0.0203
Autos>=Workers	-1.6064		1.5712	1.5307
Passenger- Auto				
Autos<Workers	-4.6702	0.0000	0.0000	0.0000
Autos>=Workers	-7.8016	0.0000	0.0000	0.0000
Bike				
Autos<Workers	-6.5929	-3.0983	-1.3822	-3.3019
Autos>=Workers	-7.4809	-3.9808	-1.4536	-1.3649
Walk				
Autos<Workers	0.0000	1.9767	2.9255	6.2675
Autos>=Workers	0.0000	0.1567	3.0705	3.1509
Transit Walk Access				
Autos<Workers	0.3388	4.2947	3.9093	5.4123
Autos>=Workers	-0.6041	3.1859	3.8869	3.4789
MUNI Metro		0.1120	0.2240	0.1120
BART		0.0000	0.0000	0.2240



**Table 37: Final Calibrated Other Tour Mode Choice Model**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>
<b>Level-of-Service Variable</b>		
In-Vehicle Time	-0.0175	-0.0175
First Wait *	-0.0438	-0.0438
Second Wait	-0.0372	-0.0372
Walk Time	-0.0334	-0.0334
Walk Mode Time	-0.0334	-0.0334
Bike Mode Time	-0.0422	-0.0422
OPC, Income 0-30k	-0.0033	-0.0033
OPC, Income 30-60K	-0.0023	-0.0023
OPC, Income 60k+	-0.0016	-0.0016
Parking Availability Index	-0.1750	-0.1750
<b>Number of Stops</b>		
Walk	-1.0067	-1.0067
Bike	-0.3236	-0.3236
Auto Passenger	-0.1662	-0.1662
Walk-Transit	-0.3727	-0.3727
<b>Pedestrian Environment Factor - Walk Mode</b>		
Destination Vitality	-0.7269	-0.7269
Destination Topology	-0.2693	-0.2693
<b>Pedestrian Environment Factor - Bike Mode</b>		
Destination Vitality	-0.9118	-0.9118
Destination Topology	-0.7659	-0.7659
<b>Pedestrian Environment Factor - Walk-Transit</b>		
Destination Network Connectivity	-0.0520	-0.0520
Destination Vitality	-0.1720	-0.1720
Destination Topology	-0.0384	-0.0384
<b>Household Type</b>		
Auto Passenger - Age less than 16	-1.3660	-1.3660
Auto Passenger - Household Size equals 1	0.0000	0.0000
<b>Alternative-Specific Constants</b>		
Drive		
Autos=0	0.0000	0.0000
Autos<Workers	-2.3572	-0.6027
Autos>=Workers	-1.5497	-0.4150
Walk		
Autos=0	-0.1221	0.9107
Autos<Workers	-0.1380	0.4915
Autos>=Workers	-0.2707	0.6414
Bike		
Autos=0	-3.7509	-1.3281
Autos<Workers	-3.8102	-1.5365
Autos>=Workers	-4.9340	-2.5783
Passenger- Auto		
Autos=0	-2.3432	0.0000
Autos<Workers	-3.1020	0.0000
Autos>=Workers	-2.0835	0.0000

Passenger-Transit Walk		
Autos=0	-0.8484	0.6071
Autos<Workers	-2.6292	-1.3562
Autos>=Workers	-2.7253	-0.8030
MUNI Metro		0.0880
BART		0.1750

**Table 38: Final Calibrated Work-Based Tour Mode Choice Model**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>
<b>Level-of-Service Variable</b>		
In-Vehicle Time	-0.0188	-0.0188
First Wait	-0.0281	-0.0281
Second Wait	-0.0252	-0.0252
Out-of-Pocket Cost	-0.0071	-0.0071
Parking Availability Index	-0.1880	-0.1880
Bike Mode Time	-0.1554	-0.1554
Short Walk Time	-0.0276	-0.0276
Long Walk Time	-0.0967	-0.0967
<b>Number of Stops</b>		
Walk	-1.0067	-1.0067
Bike	-0.3236	-0.3236
Auto Passenger	-0.1662	-0.1662
Walk-Transit	-0.3727	-0.3727
<b>Pedestrian Environment Factor - Walk Mode</b>		
Destination Vitality	-0.7269	-0.7269
Destination Topology	-0.2693	-0.2693
<b>Pedestrian Environment Factor - Bike Mode</b>		
Destination Topology	-0.7659	-0.7659
Destination Vitality	-0.9118	-0.9118
<b>Pedestrian Environment Factor - Transit Mode</b>		
Destination Network Connectivity	-0.0520	-0.0520
Destination Vitality	-0.1720	-0.1720
Destination Topology	-0.0384	-0.0384
<b>Alternative-Specific Constants</b>		
Drive		
Autos=0	0.0000	0.0000
Autos<Workers	-5.3915	4.6413
Autos>=Workers	-1.8858	1.5087
Walk		
Autos=0	-1.5329	3.9358
Autos<Workers	-1.5835	5.6288
Autos>=Workers	-0.2133	4.0493
Bike		
Autos=0	-0.6730	1.4658
Autos<Workers	-0.0987	3.2450
Autos>=Workers	-1.4033	3.9889
Passenger- Auto		
Autos=0	-8.1702	0.0000
Autos<Workers	-7.8884	0.0000
Autos>=Workers	-6.4965	0.0000
Passenger-Transit Walk		
Autos=0	-5.5137	2.0160
Autos<Workers	-5.3968	2.0314
Autos>=Workers	-3.6638	0.0981

MUNI Metro	0.1880
BART	0.0000

## **INTERMEDIATE STOP CHOICE**

The intermediate stop choice models predict the location of stops made on the way to or from the tour primary destination. Up to eight intermediate stops (four on each half-tour) may be made on each tour. Each tour purpose has a unique intermediation stop choice model, though the specific purpose of the activity at the intermediate stop location are not predicted by the model.

A number of structural changes were also made to the intermediate stop choice models, similar to those made to the tour destination choice models. These changes included revisions to the sampling mechanism, segmentation of the School model into three school type models, modifications to the specification of size terms, and inclusion of a term on out-of-direction distance.

### Destination Choice Sampling

Sampling of alternatives is used in destination choice models to avoid needing to compute a complicated utility equation for a large number of alternatives, where many of the alternatives may have very low probabilities of being selected. The sampling mechanism for the intermediate stop choice models was updated in a manner similar to the updated sampling mechanism implemented in the tour primary destination choice models, with two key distinctions.

First, when intermediate stops are chosen two tour anchor points, rather than one, are known because both origin and destination have been established. Therefore, the alternatives for the intermediate stop models are drawn from two separate sampling distributions, one anchored at the tour's home location (or work for work-based tours), and one anchored at

the tour's destination. The correction factors are adjusted to account for this double-ended sample.

Second, when the intermediate stops are chosen the tour mode has also been established, so the intermediate stop locations samples are mode-specific. For example, for Walk and Bike tours, only TAZs within walking or biking distance are sampled. For Walk-Transit tours, only TAZs that can be accessed via transit or walk are sampled. For Drive-Transit tours, TAZs are sampled that can be accessed via transit or via auto at the production end are sampled. An additional improvement to the model related to the sampling and selection of alternatives is that "out-of-direction travel time" used as an impedance measure is calculated is mode-specific, rather than as the using roadway travel time for all modes, as was done previously.

#### School Purpose Segmentation

The tour generation section of this document describes how the school purpose was segmented in CHAMP3 into three separate school markets: Grade School, High School, and College. The ability of the tour generation model to predict separate school purposes greatly enhances the ability of the school tour primary destination model to connect students with school destinations appropriate to their age. The intermediate stop choice model carries forward the segmentation of school purposes added to the tour generation, tour primary destination and tour mode choice models.

#### Size Term Specification

The third structural change to the intermediate stop choice models involved improvements to the specification of the size terms, similar to the improvements made to the tour primary destination choice models. In previous versions of CHAMP intermediate stop choice models, the probability of selecting a zone was proportional to the log of the size of that zone, where size is usually a measure of some combination of employment by sector. As previously described, this specification is inconsistent with travel behavior theory, which asserts that the probability of selecting a TAZ should be directly proportional to the size of the TAZ. In the previous version of CHAMP, the size terms in the intermediate stop models

suffered the same problem as the size terms in the other primary destination choice models—they tended to under-predict trips to large attractors. The size terms were re-structured and re-estimated to allow for direct proportionality between the size of the zone and the probability of choosing the zone, all other things being equal.

The new size terms were estimated using data from the BATS 2000 household survey and CHAMP3 year 2000 TAZ land use data. An estimation file was created from this data by summing expanded tour intermediate stop destinations by tour purpose at a district level. For purposes of estimation, the 26 neighborhood district system was used for destinations within San Francisco county. The estimation process was constrained to consider only intermediate stop destinations within San Francisco County, as the intermediate stop destination choice models only consider intra-county destinations. Models were estimated for each tour purpose (Work, Grade School, High School, College, Other, and Work-Based).

Table 39 shows the final estimation results for Work tours. Retail employment tends to attract more Work tours than service employment, all else being equal. There are also coefficients on the number of households and grade school enrollment (stops to/from work often include dropoffs and/or pickups of children at school). The fit of the model is good, with an adjusted R-squared of 0.9206. In order to be consistent with logit theory in application, where there must be one less coefficient than total size function variables, the included size parameters are scaled to the retail parameter.

**Table 39: Work Tour Intermediate Stop Choice Size Term Estimation Results**

<b>Summary Statistics</b>			
R-squared	0.9328		
Adj R-squared	0.9206		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
Service Employment	0.1825	0.1801	1.45
Retail Employment	1.0135	1.0000	5.07
Households	0.2544	0.2510	2.25
Grade School Enrollment	0.8762	0.0865	0.26

Table 40 shows the final estimation results for Grade School tours. The final coefficients are limited to households, grade school and high school enrollment. No parameters on employment measures significant, reflecting the low probability of children making stops for shopping or other purposes on the way to or from school. The parameters on grade school and high school enrollment can be explained by two behavioral factors; first, they may reflect the propensity of school children to participate at sporting events and other activities at other schools; second, intermediate stops include pickups and dropoffs at school, and households with multiple children may be linking escort stops for more than one child per tour. The fit of the model is not as good as other intermediate stop models, but adequate with an adjusted R-squared of 0.5120. In order to be consistent with logit theory in application, where there must be one less coefficient than total size function variables, the included size parameters are scaled to the grade school enrollment parameter.

**Table 40: Grade School Tour Intermediate Stop Choice Size Term Results**

<b>Summary Statistics</b>			
R-squared	0.5683		
Adj R-squared	0.5120		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
Households	0.0017	0.0110	0.16
Grade School Enrollment	0.1533	1.0000	1.85
High School Enrollment	0.8268	0.5394	0.91

Table 41 shows the final estimation results for High School tours. Unlike the Grade School model, a positive parameter was estimated on retail employment. In addition, parameters were estimated on households, grade school, and high school enrollment. The fit of the model is also not as good as other intermediate stop models, with an adjusted R-squared of 0.3723. In order to be consistent with logit theory in application, where there must be one

less coefficient than total size function variables, the included size parameters are scaled to the high school enrollment parameter.

**Table 41: High School Tour Intermediate Stop Choice Size Term Results**

<b>Summary Statistics</b>			
R-squared	0.4689		
Adj R-squared	0.3723		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
Retail Employment	0.0050	0.0990	0.44
Households	0.0044	0.0871	0.63
Grade School Enrollment	0.0134	0.2653	0.34
High School Enrollment	0.0507	1.0000	1.15

Table 42 shows the final estimation results for College tours. The model includes parameters on retail and service employment, as well as number of households. The service employment parameter is higher than the retail parameter, perhaps indicating that shopping trips are less likely on College Tours (potentially due to less disposable income among college students). Parameter estimates on other variables were inappropriately signed. The fit of the model is good, with an adjusted R-Squared of 0.8133.

**Table 42: College Tour Intermediate Stop Choice Size Term Results**

<b>Summary Statistics</b>			
R-squared	0.8348		
Adj R-squared	0.8133		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
Service Employment	0.0686	2.1553	4.61
Retail Employment	0.0318	1.000	1.41
Households	0.0030	0.0945	0.35



Table 43 shows the final estimation results for Other tours. The model includes parameters on retail and service employment, medical employment, and number of households. Parameter estimates on other variables were inappropriately signed. The fit of the model is good, with an adjusted R-Squared of 0.8788. In order to be consistent with logit theory in application, where there must be one less coefficient than total size function variables, the included size parameters are scaled to the retail parameter.

**Table 43: Other Tour Intermediate Stop Choice Size Term Results**

<b>Summary Statistics</b>			
R-squared	0.8975		
Adj R-squared	0.8788		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>
Service Employment	0.0772	0.4134	0.59
Medical Employment	0.6177	3.3053	1.47
Retail Employment	0.1869	1.0000	0.95
Households	0.4041	2.1624	4.59

Table 44 shows the final estimation results for work-based tours. The model has only one parameter, on retail employment. Parameter estimates on other variables were inappropriately signed. The fit of the model is high, with an adjusted R-Squared of 0.8788. In order to be consistent with logit theory in application, where there must be one less coefficient than total size function variables, the included size parameters are scaled to the retail parameter.

**Table 44: Work-based Tour Intermediate Stop Choice Size Term Results**

<b>Summary Statistics</b>			
R-squared	0.8351		
Adj R-squared	0.8285		
<b>Variable</b>	<b>Coefficient Estimated</b>	<b>Coefficient In Size Term</b>	<b>T-statistic</b>

Retail Employment	0.0936	1.0000	11.25
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### Calibration

After making the structural changes to the model described above, the intermediate stop choice models were calibrated. The calibration effort focused on the following areas:

- The San Francisco destination flag variable was calibrated to properly match the number of stops within the city boundaries.
- The distance term was adjusted to match the total observed out-of-direction distance per tour.
- The intra-zonal constants were calibrated to match the observed intrazonal shares
- The area type to area type constants were zeroed out because they contributed little to the calibration.

### Results

Table 45 and Table 46 provides summary comparisons of average observed and estimated total tour distance and time by tour purpose. Figure 27 through Figure 32 shows the observed and estimated total tour distance (including intermediate stops) trip length frequency distributions. Finally, Table 47 through Table 50 show the original CHAMP2 and the revised CHAMP3 model coefficients for each purpose.

**Table 45: Calibrated Average Tour Distance including Intermediate Stops**

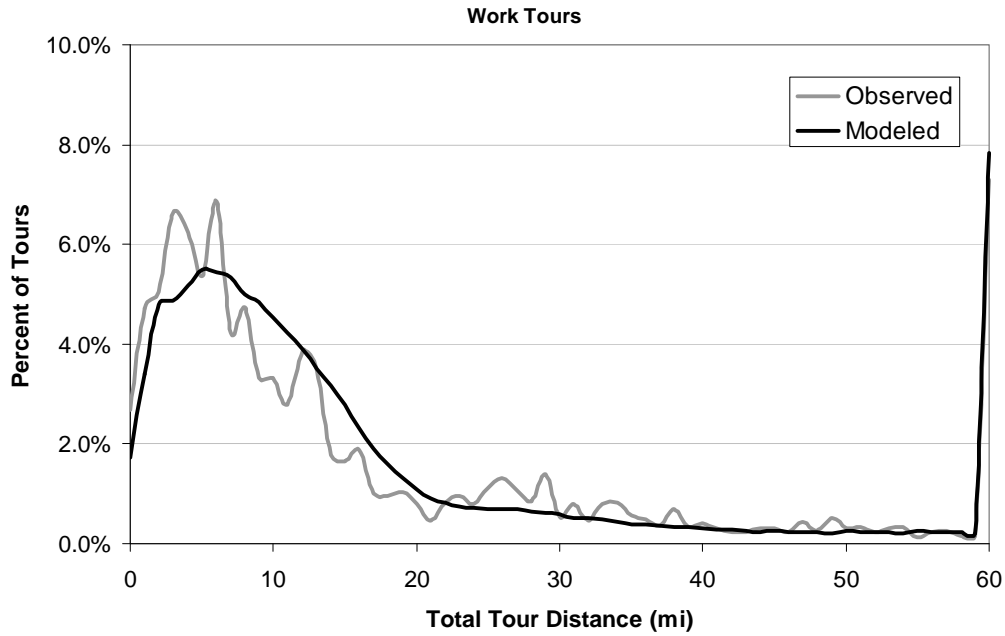
Purpose	Observed	Modeled	Difference	% Diff
Work	19.0	19.3	0.2	1%
GSchool	6.3	6.6	0.3	5%
HSchool	7.1	7.0	-0.1	-1%
College	11.3	11.7	0.5	4%
Other	7.8	8.3	0.5	6%
Work Subtours	3.5	3.5	0.0	1%

**Table 46: Calibrated Average Tour Time including Intermediate Stops**

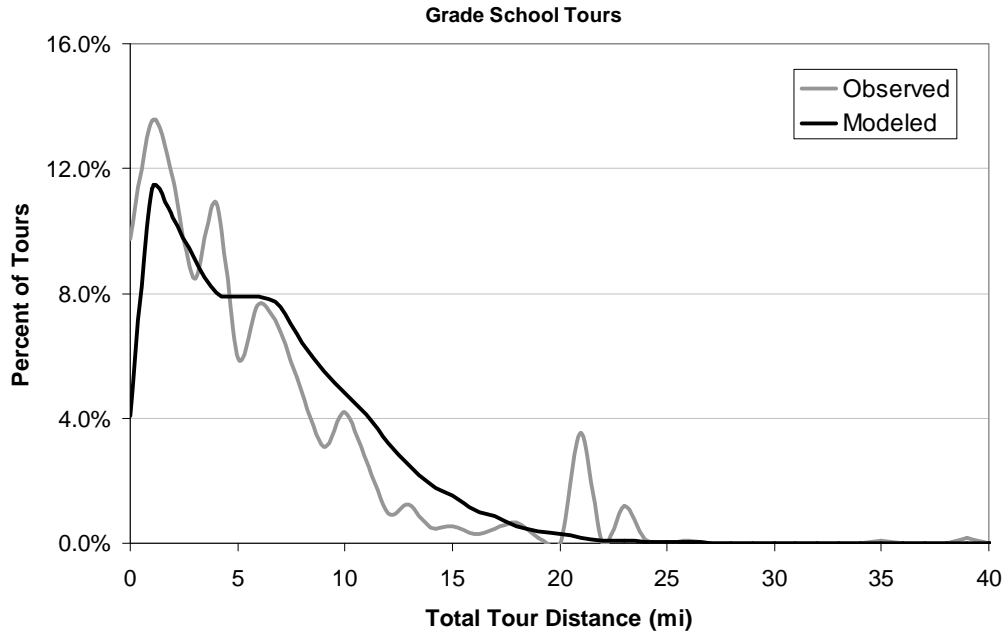
Purpose	Observed	Modeled	Difference	% Diff
Work	53.6	54.8	1.2	2%

GSchool	23.7	26.8	3.0	13%
HSchool	27.1	27.0	-0.1	-1%
College	36.4	39.1	2.6	7%
Other	25.6	27.5	1.9	8%
Work Subtours	15.7	14.1	-1.5	-10%

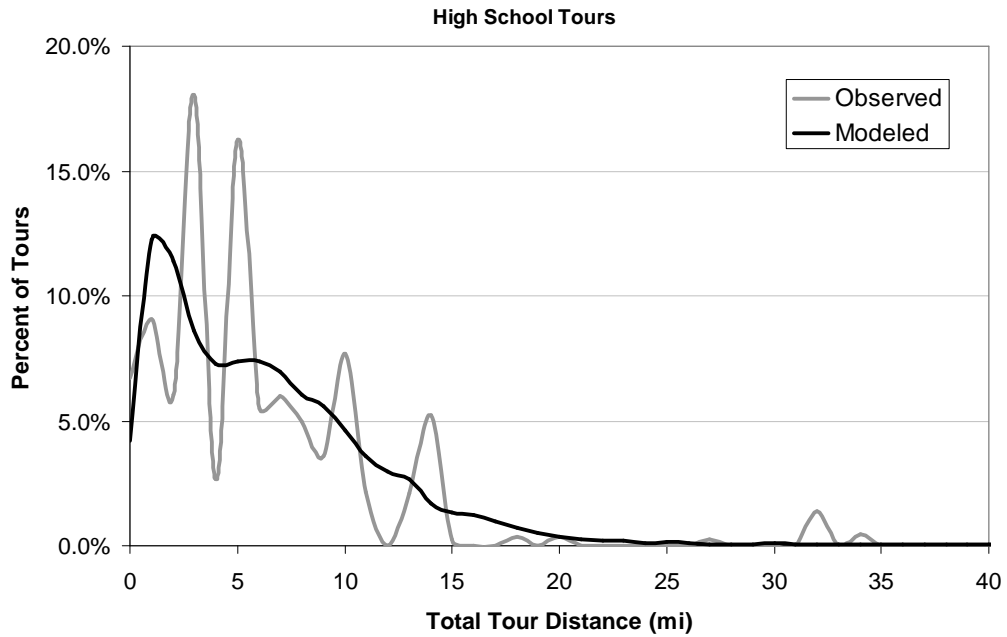
**Figure 27: Work Total Tour Length Frequency Distribution (Distance)**



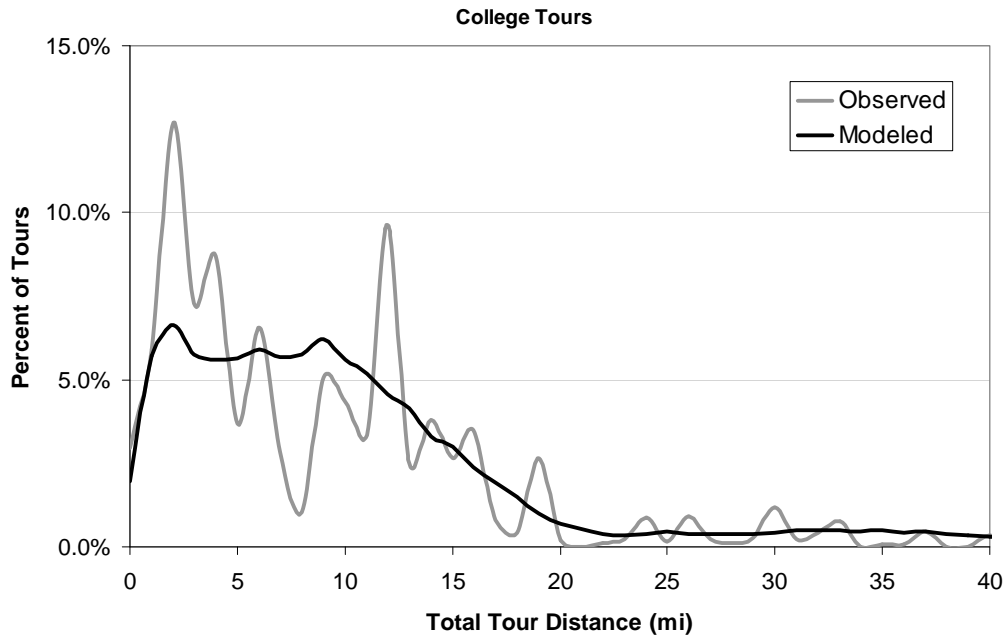
**Figure 28: Grade School Total Tour Length Frequency Distribution (Distance)**



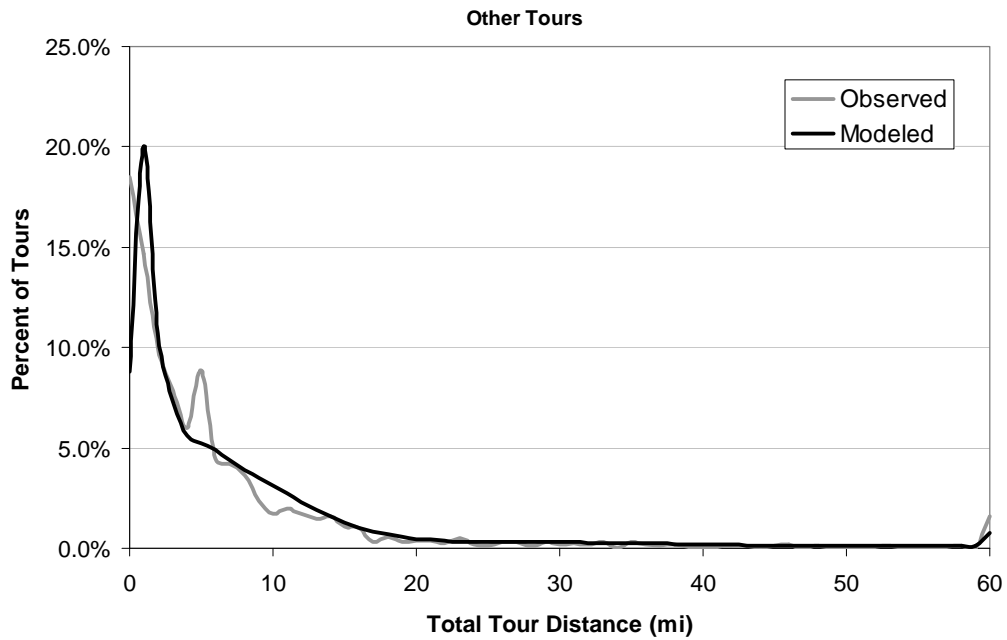
**Figure 29: High School Total Tour Length Frequency Distribution (Distance)**



**Figure 30: College Total Tour Length Frequency Distribution (Distance)**



**Figure 31: Other Total Tour Length Frequency Distribution (Distance)**



**Figure 32: Work-based Total Subtour Length Frequency Distribution (Distance)**



**Table 47: Final Calibrated Work Intermediate Stop Choice Model**

Attribute	CHAMP2 Coefficient	CHAMP3 Coefficient
<b>Destination Size Attributes</b>		
Logarithm of Health Services Employment (Zones in SF County)	0.1434	-
Logarithm of MIPS Employment (Zones in SF County)	0.1088	-
Logarithm of Retail Employment (Zones in SF County)	0.2333	-
Logarithm of Service Employment (Zones in SF County)	0.0625	-
Logarithm of Retail Employment (Zones outside SF County)	0.4149	-
Logarithm of Service Employment (Zones outside SF County)	0.2360	-
Retail Employment	-	1.0000
Service Employment	-	0.1801
Grade School Enrollment	-	0.0865
High School	-	0.0865
Households	-	0.2510
<b>Destination Characteristics</b>		
Destination Zone is in SF County	2.0915	0.4290
Destination is in East Bay	-	1.2088
<b>O-D Characteristics for First Half-tour</b> (From Origin/Home to Primary Destination)		
Stop Zone is Origin Zone Dummy	1.1558	3.1880
Stop Zone is Destination Zone Dummy	0.9733	3.2827
Origin Zone & Stop Zone are in CBD - Dummy	0.3926	-
Origin Zone & Stop Zone are in UBD - Dummy	0.3497	-

Origin Zone & Stop Zone are in an Urban area - Dummy	0.4848	-
Stop Zone & Destination Zone are in Core - Dummy	0.9558	-
Stop Zone & Destination Zone are in UBD - Dummy	0.5144	-
Stop Zone & Destination Zone are in an Urban area - Dummy	-0.8718	-

**O-D Characteristics for Latter Half-Tour**

(From Primary Destination to Home)

Stop Zone is Origin Zone Dummy	0.6492	5.1833
Stop Zone is Destination Zone Dummy	1.2026	3.3105
Origin Zone & Stop Zone are in Core – Dummy	0.2400	-
Stop Zone & Destination Zone are in Core – Dummy	-0.7299	-
Origin Zone & Stop Zone are in CBD – Dummy	0.3493	-
Stop Zone & Destination Zone are in an Urban area – Dummy	0.3224	-

**Origin-Destination Level of Service**

Auto Travel Time	-0.0287	-0.0287
Distance	-	-0.2000

**Table 48: Final Calibrated School Intermediate Stop Choice Models**

<b>Attribute</b>	<b>CHAMP2</b>	<b>CHAMP3 Grade Sch</b>	<b>CHAMP3 High Sch</b>	<b>CHAMP3 College</b>
<b>Destination Size Attributes</b>				
Logarithm of CIE Employment (Zones in SF County)	0.1737	-	-	-
Logarithm of Health Services Emp (Zones in SF County)	0.1920	-	-	-
Logarithm of MIPS Employment (Zones in SF County)	0.1033	-	-	-
Logarithm of PDR Employment (Zones in SF County)	-0.1995	-	-	-
Logarithm of Retail Employment (Zones in SF County)	0.1480	-	-	-
Logarithm of Retail Emp (Zones outside SF County)	1.2781	-	-	-
Logarithm of Agricultural Emp (Zones outside SF County)	-0.6833	-	-	-
Logarithm of Trade Emp (Zones outside SF County)	0.2440	-	-	-
Retail Employment	-	-	-	1.0000
Service Employment	-	-	-	2.1553
Grade School Enrollment	-	1.0000	0.0990	-
High School Enrollment	-	0.5394	1.0000	-
Households	-	0.0110	0.0871	0.945
<b>Destination Characteristics</b>				
School Zone Dummy (Zones in SF County)	0.5993	-	-	-
Destination Zone is in SF County	4.4671	-0.1903	-	0.3362
Destination is in East Bay	-	-	-	3.8575
<b>O-D Characteristics for First Half-tour (From Origin/Home to Primary Destination)</b>				
Stop Zone is Origin Zone Dummy	2.6048	1.8845	2.6048	0.8950
Stop Zone is Destination Zone Dummy	0.9099	2.3255	2.2797	5.0638
Origin Zone & Stop Zone are in CBD - Dummy	4.0550	-	-	-
Origin Zone & Stop Zone are in UBD - Dummy	1.0910	-	-	-
Origin Zone & Stop Zone are in an Urban area - Dummy	0.4233	-	-	-
Stop Zone & Destination Zone are in UBD - Dummy	-1.8220	-	-	-
Stop Zone & Destination Zone are in an Urban area – Dummy	1.4271	-	-	-
<b>O-D Characteristics for Latter Half-Tour (From Primary Destination to Home)</b>				
Stop Zone is Origin Zone Dummy	1.8116	0.7598	-0.2074	1.0909
Stop Zone is Destination Zone Dummy	2.0854	3.5389	4.9786	1.8877
Origin Zone & Stop Zone are in Core - Dummy	2.2140	-	-	-
Stop Zone & Destination Zone are in Core - Dummy	2.8957	-	-	-
Origin Zone & Stop Zone are in UBD - Dummy	-1.0409	-	-	-
Stop Zone & Destination Zone are in an Urban area – Dummy	0.9340	-	-	-
<b>Origin-Destination Level of Service</b>				
Auto Travel Time	-0.0740	-0.0740	-0.0740	-0.0740
Distance	-	-0.3500	-0.1000	-0.220



**Table 49: Final Calibrated Other Intermediate Stop Choice Models**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>
<b>Destination Size Attributes</b>		
Logarithm of Health Services Employment (Zones in SF County)	0.2060	-
Logarithm of MIPS Employment (Zones in SF County)	0.0957	-
Logarithm of Retail Employment (Zones in SF County)	0.1871	-
Logarithm of Retail Employment (Zones outside SF County)	0.2854	-
Total Area in Acres	0.0006	-
Medical Employment	-	3.3053
Retail Employment	-	1.0000
Service Employment	-	0.4134
Households	-	2.1624
<b>Destination Characteristics</b>		
Destination is in SF	-	-0.9165
Eastern Destinations (Solano + Contra Costa)	1.4305	-
<b>O-D Characteristics for First Half-tour (From Origin/Home to Primary Destination)</b>		
Stop Zone is Origin Zone Dummy	3.76107	2.1583
Stop Zone is Destination Zone Dummy	2.84359	3.5052
Origin Zone & Stop Zone are in an Urban area - Dummy	0.6929	-
Stop Zone & Destination Zone are in Core - Dummy	0.5372	-
Stop Zone & Destination Zone are in CBD - Dummy	0.8464	-
Stop Zone & Destination Zone are in a Suburban area - Dummy	1.0880	-
<b>O-D Characteristics for Latter Half-Tour (From Primary Destination to Home)</b>		
Stop Zone is Origin Zone Dummy	2.61788	3.0888
Stop Zone is Destination Zone Dummy	2.04156	1.4135
Origin Zone & Stop Zone are in Core - Dummy	0.9237	-
Origin Zone & Stop Zone are in CBD - Dummy	0.6657	-
Origin Zone & Stop Zone are in UBD - Dummy	0.5865	-
Origin Zone & Stop Zone are in an Urban area - Dummy	0.9939	-
Stop Zone & Destination Zone are in UBD - Dummy	0.3868	-
Stop Zone & Destination Zone are in an Urban area - Dummy	0.4639	-
<b>Origin-Destination Level of Service</b>		
Auto Travel Time	-0.0323	-0.0323
Distance	-	-0.2200

**Table 50: Final Calibrated Work-Based Tour Intermediate Stop Choice Models**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>
<b>Destination Size Attributes</b>		
Logarithm of MIPS Employment (All Zones)	0.5040	-
Logarithm of Retail Employment (All Zones)	0.0812	-
Retail Employment	-	1.0000
<b>Destination Characteristics</b>		
Destination is in SF	-	-1.8177
<b>O-D Characteristics for First Half-tour (From Origin/Home to Primary Destination)</b>		
Stop Zone is Home Zone Dummy	5.5918	5.5918
Stop Zone is Origin Zone Dummy	-	3.6821
Stop Zone is Destination Zone Dummy	0.3547	5.7087
Origin Zone & Stop Zone are in UBD - Dummy	1.2938	-
Origin Zone & Stop Zone are in an Urban area – Dummy	-1.0079	-
Stop Zone & Destination Zone are in Core - Dummy	2.5050	-
<b>O-D Characteristics for Latter Half-Tour (From Primary Destination to Home)</b>		
Stop Zone is Home Zone Dummy	6.3368	6.3368
Stop Zone is Origin Zone Dummy	2.0583	4.2596
Stop Zone is Destination Zone Dummy	0.7626	1.9951
Origin Zone & Stop Zone are in Core - Dummy	1.2850	-
Stop Zone & Destination Zone are in CBD - Dummy	1.5085	-
Origin Zone & Stop Zone are in UBD - Dummy	1.9386	-
Stop Zone & Destination Zone are in UBD - Dummy	-1.6978	-
<b>Origin-Destination Level of Service</b>		
Auto Travel Time - To Stop Zones in SF County	-0.0285	-0.0285
Auto Travel Time - To Stop Zones outside SF County	-0.1336	-0.0285

## TRIP MODE CHOICE

The tour mode choice models predict the mode used for the individual trip segments that comprise the tours. Each tour purpose (Work, Grade School, High School, College, Other, Work-Based) has a unique tour mode choice model. The modes available in the tour mode choice model include Drive-alone, Shared-ride 2, Shared-ride 3+, Walk-local bus, Walk-Muni Metro, Walk-premium regional transit, Walk-BART, Drive-“premium” regional transit, Drive-BART, Bike, and Walk. Two primary structural changes to the trip mode choice models were made. The School trip mode choice model was segmented into separate Grade School, High School, and College models, and premium transit modes were allowed where they had previously been prohibited.

### Calibration

The trip mode choice model predicts the mode for each individual trip conditional on the primary mode chosen for the tour. The goal of calibration was to obtain reasonable alternative-specific constants for each available trip mode within a tour mode, segmented by purpose. Particular attention was given to the transit modes, with the desire that the Muni and BART modes have a moderate and reasonable (0-20 minutes) preference over the local bus mode due to the higher level of reliability expected from exclusive guideway systems.

Three data sources were used to establish the observed modal shares: the BATS2000 household survey, the 2004 MUNI onboard transit survey, and counts of the observed transit ridership. These data sources were reconciled using the following approach:

- For each purpose, the trips in the expanded household survey were tabulated by trip mode and tour mode.
- Tour modes not available for a specific purpose were re-coded to the nearest tour mode. This included re-coding Drive- transit tours as Walk-transit for non-work purposes, re-coding Drive-transit tours to Walk-transit if the trip mode is Local bus or Muni (which do not allow Drive-transit), and recoding Auto Driver to Passenger for Grade School tours.

- Trip modes not available for a specific tour mode were re-coded to the nearest trip mode. This included re-coding Drive Alone trips to Shared Ride 2, where Drive Alone is not available, and re-coding Bike trips to Walk where Bike is not available.
- Cells that are available, but had zero observations, were given a small number of trips to avoid constants of negative infinity.
- The totals were scaled to match the total number of trips predicted by the model.
- These household survey based results were compared to the expanded trips by sub-mode and purpose in the onboard transit survey. Adjustments were made to make the targets more consistent with the onboard survey. This process also considered the number of trips by sub-mode required to match the observed transit boarding counts.

The alternative-specific constants in the trip mode choice models were adjusted to match these calibration target values. The final model coefficients are shown in Table 57 through Table 60.

## Results

Table 51 through Table 56 shows the trip mode choice results compared to the targets.

**Table 51: Work Trip Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Trips</b>	<b>Estimated Share</b>	<b>Difference</b>
Drive Alone	34.2%	288,310	34.2%	0.0%
Shared Ride 2	10.8%	91,238	10.8%	0.0%
Shared Ride 3+	4.0%	33,606	4.0%	0.0%
Walk	19.9%	167,475	19.9%	0.0%
Bike	3.9%	32,449	3.9%	0.0%
Walk to Local Bus	15.8%	133,458	15.8%	0.0%
Walk to MUNI Metro	8.1%	67,680	8.0%	-0.1%
Walk to Premium	0.2%	1,293	0.2%	0.0%
Walk to BART	3.0%	25,475	3.0%	0.0%
Drive to Local Bus	-	-	-	-
Drive to MUNI Metro	-	-	-	-
Drive to Premium	0.0%	165	0.0%	0.0%
Drive to BART	0.2%	1,157	0.1%	-0.1%
<b>TOTAL</b>	<b>100.0%</b>	<b>842,306</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 52: Grade School Trip Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Trips</b>	<b>Estimated Share</b>	<b>Difference</b>
Drive Alone	-	-	-	-
Shared Ride 2	23.0%	39,182	23.0%	0.0%
Shared Ride 3+	30.4%	51,826	30.4%	0.0%
Walk	11.9%	20,036	11.7%	-0.2%
Bike	0.3%	429	0.3%	0.0%
Walk to Local Bus	27.3%	46,124	27.0%	-0.3%
Walk to MUNI Metro	6.6%	11,194	6.6%	0.0%
Walk to Premium	0.0%	13	0.0%	0.0%
Walk to BART	0.6%	1,853	1.1%	0.5%
Drive to Local Bus	-	-	-	-
Drive to MUNI Metro	-	-	-	-
Drive to Premium	-	-	-	-
Drive to BART	-	-	-	-
<b>TOTAL</b>	<b>100.0%</b>	<b>170,657</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 53: High School Trip Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Trips</b>	<b>Estimated Share</b>	<b>Difference</b>
Drive Alone	5.2%	2,603	5.2%	0.0%
Shared Ride 2	21.0%	10,492	20.9%	-0.1%
Shared Ride 3+	13.8%	6,913	13.8%	0.0%
Walk	19.5%	9,760	19.5%	0.0%
Bike	0.7%	334	0.7%	0.0%
Walk to Local Bus	29.1%	14,582	29.1%	0.1%
Walk to MUNI Metro	8.7%	4,371	8.7%	0.0%
Walk to Premium	0.1%	38	0.1%	0.0%
Walk to BART	2.0%	989	2.0%	0.0%
Drive to Local Bus	-	-	-	-
Drive to MUNI Metro	-	-	-	-
Drive to Premium	-	-	-	-
Drive to BART	-	-	-	-
<b>TOTAL</b>	<b>100.0%</b>	<b>50,082</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 54: College Trip Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Trips</b>	<b>Estimated Share</b>	<b>Difference</b>
Drive Alone	26.3%	17,296	25.6%	-0.7%
Shared Ride 2	9.7%	6,761	10.0%	0.3%
Shared Ride 3+	6.5%	4,533	6.7%	0.2%
Walk	15.3%	10,490	15.5%	0.2%
Bike	1.1%	754	1.1%	0.0%
Walk to Local Bus	23.8%	16,321	24.1%	0.3%
Walk to MUNI Metro	12.0%	8,041	11.9%	-0.1%
Walk to Premium	0.1%	31	0.0%	0.0%
Walk to BART	5.2%	3,456	5.1%	-0.1%
Drive to Local Bus	-	-	-	-
Drive to MUNI Metro	-	-	-	-
Drive to Premium	-	-	-	-
Drive to BART	-	-	-	-
<b>TOTAL</b>	<b>100.0%</b>	<b>67,683</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 55: Other Trip Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Trips</b>	<b>Estimated Share</b>	<b>Difference</b>
Drive Alone	26.7%	384,661	26.7%	0.0%
Shared Ride 2	22.3%	320,897	22.3%	0.0%
Shared Ride 3+	14.1%	203,349	14.1%	0.0%
Walk	25.2%	363,355	25.2%	0.0%
Bike	2.1%	30,803	2.1%	0.0%
Walk to Local Bus	6.4%	92,215	6.4%	0.0%
Walk to MUNI Metro	2.5%	35,628	2.5%	0.0%
Walk to Premium	0.1%	1,288	0.1%	0.0%
Walk to BART	0.6%	8,985	0.6%	0.0%
Drive to Local Bus	-	-	-	-
Drive to MUNI Metro	-	-	-	-
Drive to Premium	-	-	-	-
Drive to BART	-	-	-	-
<b>TOTAL</b>	<b>100.0%</b>	<b>1,441,181</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 56: Work-Based Trip Mode Choice Calibration Results**

<b>MODE</b>	<b>Observed Share</b>	<b>Estimated Trips</b>	<b>Estimated Share</b>	<b>Difference</b>
Drive Alone	14.6%	34,438	14.6%	0.0%
Shared Ride 2	2.4%	5,680	2.4%	0.0%
Shared Ride 3+	7.4%	17,400	7.4%	0.0%
Walk	67.8%	159,333	67.8%	0.0%
Bike	1.7%	4,011	1.7%	0.0%
Walk to Local Bus	3.6%	8,412	3.6%	0.0%
Walk to MUNI Metro	1.8%	4,329	1.8%	0.0%
Walk to Premium	0.0%	40	0.0%	0.0%
Walk to BART	0.6%	1,494	0.6%	0.0%
Drive to Local Bus	-	-	-	-
Drive to MUNI Metro	-	-	-	-
Drive to Premium	-	-	-	-
Drive to BART	-	-	-	-
<b>TOTAL</b>	<b>100.0%</b>	<b>235,137</b>	<b>100.0%</b>	<b>0.0%</b>

**Table 57: Final Calibrated Work Trip Mode Choice Model**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>	<b>Equivalent Minutes</b>
<b>Level-of-Service Variable</b>			
In-Vehicle Time	-0.0220	-0.0220	
First Wait	-0.0550	-0.0550	
Second Wait	-0.0800	-0.0800	
Drive-Transit Time	-0.0440	-0.0440	
Out-of-Pocket Cost	-0.0077	-0.0077	
Walk Time	-0.0877	-0.0877	
Walk Mode Time	-0.0877	-0.0877	
Bike Mode Time	-0.1156	-0.1156	
<b>Number of Stops</b>			
Walk, Tour mode not walk	0.7083	0.7083	
Shared-ride, Tour mode = transit	0.4585	0.4585	
Walk Mode – Night	-0.5721	-0.5721	
<b>Household Variables</b>			
Drive Alone-Low income	-0.4159	-0.4159	
Shared-Ride 2, Household Size=1	-0.8003	-0.8003	
Shared-Ride 3+, Household Size<=2	-1.5691	-1.5691	
<b>Pedestrian Environment Factor - Walk Mode</b>			
Destination Network Connectivity	-0.4983	-0.4983	
Destination Crossing	-0.6599	-0.6599	
Destination Vitality	-0.7239	-0.7239	
Destination Topology	-0.1334	-0.1334	
<b>Pedestrian Environment Factor - Transit</b>			
Destination Network Connectivity	-0.3974	-0.3974	
Destination Crossing	-0.7164	-0.7164	
Destination Vitality	-0.1608	-0.1608	
<b>Alternative-Specific Constants</b>			
<b>Driver</b>			
Shared-Ride 2	-1.5407	-1.1396	52
Shared-Ride 3+	-2.3020	-1.3340	61
Walk	-0.8890	3.5269	-160
<b>Passenger</b>			
Shared-Ride 3+	-1.2905	-0.3366	15
Walk	1.4914	6.5583	-298
<b>Bike</b>			
Walk	-1.0876	5.1311	-233
<b>Walk-Transit</b>			
Shared Ride 2	-	-5.1907	236
Shared-Ride 3+	-1.1198	-6.2953	-286
Walk	4.1943	3.6955	-168
Walk-Local	4.9448	-	
Walk-Muni	4.2186	0.2425	-11
Walk-Premium	3.1882	-0.7729	35
Walk-BART	4.7910	0.3449	-16
<b>Drive-Transit</b>			
Shared Ride 2	-	-3.8023	173
Shared-Ride 3+	-0.6673	-4.3310	197
Walk	4.4489	2.2444	-102
Walk-Local	4.0467	-1.5270	69
Walk-Muni	3.4963	-1.3200	60
Walk-Premium	2.4499	-1.0147	46
Walk-BART	4.8443	-1.4310	65

Drive-Premium	3.5757	-2.1330	97
Drive-BART	5.6775	-	

**Table 58: Final Calibrated School Trip Mode Choice Models**

Attribute	CHAMP2 Coefficient	CHAMP3 Grade Sch	Grade Equiv Min	CHAMP3 High Sch	High Equiv Min	CHAMP3 College
<b>Level-of-Service Variable</b>						
In-Vehicle Time	-0.0271	-0.0271		-0.0271		-0.0271
First Wait	-0.0398	-0.0398		-0.0398		-0.0398
Second Wait	-0.0355	-0.0355		-0.0355		-0.0355
Out-of-Pocket Cost	-0.0118	-0.0118		-0.0118		-0.0118
Walk Time	-0.0642	-0.0642		-0.0642		-0.0642
Walk Mode Time	-0.0642	-0.0642		-0.0642		-0.0642
Bike Mode Time	-0.0481	-0.0481		-0.0481		-0.0481
<b>Number of Stops</b>						
Walk, Tour mode not walk	0.4713	0.4713		0.4713		0.4713
Shared-ride, Tour mode = transit	0.4592	0.4592		0.4592		0.4592
<b>Household Variables</b>						
Shared-Ride 2, Household Size=1	-1.3672	-1.3672		-1.3672		-1.3672
Shared-Ride 3+, Household Size<=2	-1.5114	-1.5114		-1.5114		-1.5114
<b>Alternative-Specific Constants</b>						
<b>Driver</b>						
Shared-Ride 2	-1.6256	-		-0.5414	20	-6.3673
Shared-Ride 3+	-3.1843	-		-1.4192	52	-6.6057
Walk	-1.9401	-		-0.2675	10	-6.1464
<b>Passenger</b>						
Shared-Ride 3+	-0.3411	0.3255	-12	-0.0493	2	0.9910
Walk	-0.4185	-0.9884	36	-1.1449	42	2.0752
<b>Bike</b>						
Walk	-2.4959	0.9589	-35	0.9793	-36	-0.3442
<b>Walk-Transit</b>						
Shared Ride 2+	-	-3.7242	137	-2.8572	105	-2.7002
Shared-Ride 3+	0.4781	-4.9482	183	-3.2274	119	-2.9899
Walk	2.1542	-5.6349	208	-2.1041	78	-2.6924
Walk-Local	4.6869	0.0000		0.0000		0.0000
Walk-Muni	3.0762	0.2313	-9	0.2350	-9	0.1975
Walk-Premium	-	-2.0643	76	-0.3997	15	-0.7736
Walk-BART	4.4197	-		0.4076	-15	0.4235



**Table 59: Final Calibrated Other Trip Mode Choice Models**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>	<b>Equivalent Minutes</b>
<b>Level-of-Service Variable</b>			
In-Vehicle Time	-0.0279	-0.0279	
First Wait	-0.0681	-0.0681	
Second Wait	-0.1095	-0.1095	
Out-of-Pocket Cost	-0.0067	-0.0067	
Walk Time	-0.0974	-0.0974	
Walk Mode Time	-0.0974	-0.0974	
Bike Mode Time	-0.1311	-0.1311	
<b>Number of Stops</b>			
Shared-ride	-0.2525	-0.2525	
Transit	-0.5692	-0.5692	
<b>Household Variables</b>			
Shared-Ride 2, Household Size=1	-0.5145	-0.5145	
Shared-Ride 3+, Household Size<=2	-1.6935	-1.6935	
Transit, age <= 10	-1.4158	-1.4158	
<b>Pedestrian Environment Factor-Walk Mode</b>			
Crossing	-0.8856	-0.8856	
Safety	-0.5407	-0.5407	
Vitality	-1.1399	-1.1399	
<b>Pedestrian Environment Factor-Bike</b>			
Vitality	-1.8661	-1.8661	
<b>Pedestrian Environment Factor-Transit</b>			
Crossing	-0.7541	-0.7541	
Vitality	-0.2774	-0.2774	
Topology	-0.4493	-0.4493	
<b>Alternative-Specific Constants</b>			
<b>Driver</b>			
Shared-Ride 2	-0.5860	-0.3803	14
Shared-Ride 3+	-0.9517	-0.3597	13
Walk	-0.2885	4.6754	-168
<b>Passenger</b>			
Shared-Ride 3+	-3.0934	0.2133	-8
Walk	0.0064	4.8577	-174
<b>Bike</b>			
Walk	0.3917	0.8274	-30
<b>Walk-Transit</b>			
Shared-Ride 2	-	-7.1127	255
Shared-Ride 3+	-1.2715	-7.2527	260
Walk	5.5656	1.7205	-62
Walk-Local	7.1595	-	
Walk-Muni	5.5714	0.3544	-13
Walk-Premium	6.1305	0.7387	-26
Walk-BART	6.8890	0.4412	-16

**Table 60: Final Calibrated Work-Based Trip Mode Choice Models**

<b>Attribute</b>	<b>CHAMP2 Coefficient</b>	<b>CHAMP3 Coefficient</b>	<b>Equivalent Minutes</b>
<b>Level-of-Service Variable</b>			
In-Vehicle Time	-0.0227	-0.0227	
First Wait	-0.0340	-0.0340	
Second Wait	-0.0325	-0.0325	
Out-of-Pocket Cost	-0.0040	-0.0040	
Walk Time	-0.0840	-0.0840	
Walk Mode Time	-0.0840	-0.0840	
Bike Mode Time	-0.1299	-0.1299	
Number of Stops			
Walk	-0.8606	-0.8606	
Transit	-0.4792	-0.4792	
<b>Pedestrian Environment Factor-Walk Mode</b>			
Safety	-0.4243		
Vitality	-0.6542		
Topology	-0.7457		
<b>Pedestrian Environment Factor-Transit</b>			
Safety	-0.4452	-0.2226	
Vitality	-1.7720	-0.8860	
Topology	-0.8730	-0.4365	
<b>Alternative-Specific Constants</b>			
<b>Drive</b>			
Shared-Ride 2	-1.4030	-1.7687	78
Shared-Ride 3+	-3.1113	-1.2528	55
Walk	3.2944	3.7999	-167
<b>Passenger</b>			
Shared-Ride 3+	-	1.0254	-45
Walk	-	-2.6226	116
<b>Bike</b>			
Walk	-2.5523	3.6852	-162
<b>Walk-Transit</b>			
Shared-Ride 2	-	-7.7660	342
Shared-Ride 3+	-	-7.7873	343
Walk	-	0.3290	-14
Walk-Local	-0.2190	-	
Walk-Muni	-0.4839	0.2609	-11
Walk-Premium	-	-0.3777	17
Walk-BART	-0.3918	0.3499	-15

## ROADWAY & TRANSIT ASSIGNMENT CALIBRATION

Once the core behavioral model components were reasonably well calibrated, the refreshed CHAMP3 model system was applied, and the resulting travel demand assigned to the roadway and transit networks for validation of the entire model system. The roadway and transit assignment results were compared to observed roadway and traffic counts, and adjustments made to both the core behavioral components and to the regional demand derived from MTC's Baycast model. The observed roadway counts were based on a database of approximately 1,100 direction counts. The observed transit volumes were based on MUNI ridership data, augmented by information derived from the recent MUNI on-board survey. In addition to validating volumes, the estimated roadway speeds were also compared to observed speed data collected by the SFCTA as part of the Congestion Management Program.

### Roadway Calibration

The initial roadway assignment results under-predicted total roadway volumes by approximately 15%, primarily in the off-peak periods. The AM and PM peaks were within about 5%, the mid-day was about 15% low, and the evening was about 25% low. In order to address this under-prediction, the calibration effort focused on identifying the sources of this issue, and on iteratively revising the core model components and the regional demand adjustment procedures until a better match between estimated and observed volumes was achieved.

The following changes were made as part of this calibration process:

- The tour generation models were modified to produce more other tours, particularly secondary tours in the evening, and fewer other purpose tours during the peaks. The changes accounted for the expected under-reporting of off-peak in the household survey.
- The tour generation model was modified to produce more school tours.
- The work time-of-day model was adjusted to produce fewer tours in the early AM.

- The intra-SF non-home based auto trips were scaled to match the correct share of person trips in the city made by non-residents, based on shares derived from in the household survey.
- The factors applied to the MTC trip tables were calibrated match the observed inter-county screenline volumes.
- The commercial vehicle trip table was scaled up by 40%.
- The commercial vehicle time-of-day factors were adjusted to produce more trips in the mid-day and evening.

### Roadway Results

Table 61 shows the final validated volumes by facility type. Facility type refers to the type of roadway and is used in the model system to assign default roadway speeds and capacities. These general speeds and capacities, as well as the facility types assigned to individual links, may be adjusted as part of the calibration process. This table shows that all facility types except collectors and locals are well validated with relatively low %RMSE and estimated/observed ratios close to 1.00. Collectors are under-predicted by 23%, and local streets are under-predicted by 31%. SFCTA staff spent a considerable amount of time adjusting the default parameters for these facility types, and though still not perfect, these final assignment results for these facility types represents an distinct improvement over earlier versions of CHAMP (which underestimated volumes on collectors and locals by 35% and 46%, respectively).

**Table 61: Roadway Daily Volume Validation by Facility Type**

<b>Facility Type</b>	<b>Observed</b>	<b>Estimated</b>	<b>Est/Obs</b>	<b>%RMSE</b>
Interchange to Interchange	136,066	152,208	1.119	24%
Freeway	1,676,705	1,825,488	1.089	12%
Rural Arterial	71,567	77,508	1.083	38%
Collector	1,113,520	857,011	0.770	80%
Ramp	983,454	1,132,519	1.152	49%
Major Arterial	4,611,349	4,437,633	0.962	39%
Local	342,577	235,830	0.688	73%
Minor Arterial	1,749,780	1,857,329	1.061	57%
Arterial Plus	1,234,894	1,078,950	0.874	36%
<b>Total</b>	<b>11,919,912</b>	<b>11,654,475</b>	<b>0.978</b>	<b>45%</b>

Table 62 presents a summary of estimated and observed volumes by time-of-day. All time periods are well-validated, with the peak periods estimated within 2%, the midday and evening within 3%, and the early A.M. within 5%.

**Table 62: Roadway Daily Volume Validation by Time-of-Day**

<b>Time Period</b>	<b>Observed</b>	<b>Estimated</b>	<b>Est/Obs</b>	<b>%RMSE</b>
Early AM	297,607	282,280	0.949	120%
AM Peak	1,977,114	1,968,444	0.996	50%
Midday	4,341,930	4,223,357	0.973	48%
PM Peak	2,538,509	2,496,019	0.983	47%
Evening	2,764,752	2,684,375	0.971	56%
<b>Total</b>	<b>11,919,912</b>	<b>11,654,475</b>	<b>0.978</b>	<b>45%</b>

Table 63 and Table 64 summarize the AM. Peak and P.M. Peak roadway speed validation. Observed data on roadway speeds was available only for the peak periods. These tables show that all facility types, with the exception of rural arterials (in both time periods) and ramps (in the A.M. Peak) are very well validated, typically close to 10% different or less. The two problematic facility types comprise a very small portion of the total observed data, and the ramps

**Table 63: Roadway AM Peak Speed Validation**

<b>Facility Type</b>	<b>Observed</b>	<b>Estimated</b>	<b>% Diff</b>
Interchange to Interchange	-	-	
Freeway	33	29	-12%
Rural Arterial	33	21	-38%
Collector	15	15	0%
Ramp	32	20	-39%
Major Arterial	16	16	-2%
Local	17	15	-12%
Minor Arterial	14	15	8%
Superarterial	20	18	-11%

**Table 64: Roadway PM Peak Speed Validation**

<b>Facility Type</b>	<b>Observed</b>	<b>Estimated</b>	<b>% Diff</b>
Interchange to Interchange	-	-	-
Freeway	27	29	10%
Rural Arterial	32	20	-38%
Collector	14	15	12%
Ramp	20	24	15%
Major Arterial	15	16	2%

Local	15	15	-1%
Minor Arterial	13	15	15%
Superarterial	20	18	-11%

### Transit Calibration

The transit assignment results are composed of two components—those trips made by San Francisco residents internal to the city, as predicted by the CHAMP3 model, and the regional inter-county demand, which is derived from the MTC model. Local transit demand can be changed through adjustments to the core CHAMP3 model components, specifically the tour and trip mode choice models. In contrast, regional transit demand is relatively fixed in that MTC’s regional trip distribution and mode choice models are not typically rerun as part of CHAMP3. Because the final transit forecasts arise from the combination of local and regional demand, each segment was considered independently as well as in conjunction with the other. The ability to consider local and regional transit demand separately was greatly enhanced by the availability of the recent MUNI onboard survey. The onboard survey contained critical information not available at the time of the original CHAMP model development, such as the share of non-San Francisco residents riding on MUNI buses or on MUNI Metro, or observed average transfer rates by MUNI sub-mode.

The most significant change made to the transit skimming and assignment process was the reduction of the weights on perceived in-vehicle travel times in path-building. The transit assignment process is hierarchical in structure, in that only certain modes are available to travelers, based on their mode choices. For example, if a traveler’s predicted mode is local bus, then only bus routes are available. However, if a traveler’s predicted mode is Muni Metro, then both bus and Metro rail routes are available. In previous versions of CHAMP, in order to ensure that the chosen mode was actually used by the traveler, the perceived in-vehicle travel time of the chosen mode was assigned a weight of 0.2 in path-building, meaning it was perceived to be very fast. In CHAMP3 this weighting scheme has been significantly reduced so that the preferred mode is only perceived to be slightly faster than the other modes. This modification was made because it leads to a more restrictive set of paths being given to the trip mode choice models, resulting in more reasonable trip mode choice constants on rail modes such as Muni Metro and BART. It is also consistent with FTA guidance.

A significant portion of the calibration was also focused on ensuring that regional, non-San Francisco resident demand is assigned to the proper transit sub-modes. The following steps were taken in calibrating the transit assignment models:

- The regional trip tables were factored such that the assigned transit volumes at count-cordon lines matched observed volumes at those locations.
- To mitigate an under-assignment of inter-county movements on premium busses, the premium bus in-vehicle time was weighted at 0.8 times the BART in-vehicle time.
- The initial assignments found that too many regional transit trips were transferring to the Muni busses and the Muni Metro. To avoid forced transfers, the maximum walk access and egress distances were increased from 0.5 miles to 1.0 miles for the regional transit modes (BART and Premium).
- To further mitigate the over-assignment of regional transit trips on the Muni system, transfers between regional transit and Muni busses or rail were given a 10 minute penalty, and the Muni busses and rail in-vehicle time was weighted at 1.2.

These changes are applied only to the regional transit assignment scripts, which used the fixed trip tables, not to the SF transit assignments.

### Transit Results

Table 65 presents a summary of MUNI boardings by sub-mode. Total MUNI ridership is validated to within 1% of year 2000 counts. Local and express buses are slightly under-predicted, and MUNI Metro and cable cars are slightly over-predicted.

**Table 65: MUNI Boardings by Submode**

<b>Mode</b>	<b>Observed</b>	<b>Modeled</b>	<b>% Diff</b>
Local Bus	531,878	520,838	-2%
Express Bus	29,176	28,692	-2%
Light Rail & CC	191,322	194,230	2%
Total	752,376	743,760	-1%

Table 66 presents a summary of MUNI boardings by time of day. This table shows the Early AM, AM peak, and evenings over-predicted, and the Midday and PM peak under-predicted. Caution should be used when interpreting these results because MUNI was



unable to provide detailed counts by time of day, and the onboard survey data by time-of-day proved to be unreliable.

**Table 66: MUNI Boardings by Time of Day**

Time of Day	Observed	Modeled	Difference
Early AM	4,209	5,186	23%
AM Peak	153,139	203,035	33%
Midday	306,049	230,338	-25%
PM Peak	206,628	185,387	-10%
Evening	82,352	119,814	45%
Total	752,376	743,760	-1%

As previously described, significant attention was paid to ensuring that the share of SF residents and regional travelers using MUNI bus and rail was reasonable and consistent with on-board survey data. Table 67 shows the distribution of boardings by MUNI submode and by residency status. Table 68 contains a MUNI route-level summary of year 2000 observed and estimated daily boardings. Figure 33 is a scatterplot that illustrates route-level observed and estimated daily boardings.

**Table 67: MUNI Boardings by Residency Status and Submode**

Submode	Residency Status	Observed	Modeled	Difference
Bus	SF Resident	510,559	499,145	-2%
	Non Resident	50,495	50,385	-0%
Rail	SF Resident	157,458	149,527	-5%
	Non Resident	33,864	44,703	32%
Total	SF Resident	668,017	648,672	-3%
	Non Resident	84,359	95,088	13%

**Table 68: Estimated and Observed MUNI Boardings by Route**

<b>Route</b>	<b>Observed</b>	<b>Estimated</b>	<b>Est/Obs</b>
1	29,735	26,079	0.88
2	7,810	4,614	0.59
3	4,729	6,352	1.34
4	5,374	5,060	0.94
5	14,013	19,257	1.37
6	8,298	8,911	1.07
7	6,432	5,846	0.91
9	17,196	19,286	1.12
12	5,704	1,565	0.27
14	40,449	31,546	0.78
14L	4,496	1,796	0.40
15	28,157	31,139	1.11
17	1,364	692	0.51
18	3,944	4,842	1.23
19	13,291	12,282	0.92
21	9,074	7,619	0.84
22	25,467	23,360	0.92
23	5,576	4,724	0.85
24	14,527	18,212	1.25
26	4,629	1,542	0.33
27	10,686	5,769	0.54
28	12,900	12,459	0.97
28L	1,652	5,155	3.12
29	14,771	17,957	1.22
30	24,943	39,865	1.60
31	9,098	7,642	0.84
33	7,107	6,175	0.87
35	1,256	1,166	0.93
36	1,676	3,996	2.38
37	2,125	2,419	1.14
38	30,635	27,108	0.88
38L	18,823	31,926	1.70
39	610	224	0.37
41	3,976	3,818	0.96
42	15,703	17,888	1.14
43	17,030	12,450	0.73
44	16,546	13,960	0.84
45	18,770	22,438	1.20
47	6,657	8,512	1.28
48	11,789	13,827	1.17
49	21,003	22,141	1.05

52	4,577	1,861	0.41
53	1,675	315	0.19
54	6,167	3,249	0.53
56	341	83	0.24
66	1,222	2,746	2.25
67	3,159	1,929	0.61
71	10,643	10,946	1.03
71L	2,105	3,885	1.85
83	2,005	617	0.31
88	1,150	997	0.87
89	136	0	0.00
90	235	320	1.36
91	466	920	1.97
1AX	888	1,181	1.33
1BX	1,743	1,967	1.13
9AX	2,532	3,226	1.27
9BX	2,076	1,814	0.87
9X	8,464	4,543	0.54
14X	2,614	3,406	1.30
16AX	912	2,629	2.88
16BX	956	2,207	2.31
30X	2,377	1,685	0.71
31AX	1,145	2,653	2.32
31BX	1,048	645	0.62
38AX	1,599	668	0.42
38BX	1,417	864	0.61
80X	314	0	0.00
81X	596	0	0.00
82X	495	0	0.00
F	19,193	17,906	0.93
J	15,229	24,082	1.58
K	25,304	18,488	0.73
L	29,866	28,067	0.94
M	33,296	27,948	0.84
N	45,621	38,789	0.85
Powell & Mason	7,924	11,583	1.46
Powell & Hyde	9,374	13,804	1.47
California	5,515	5,994	1.09
Total	752,400	753,636	1.00

**Figure 33: Scatterplot of Estimated and Observed MUNI Boardings by Route**

**Daily Boardings by Route**

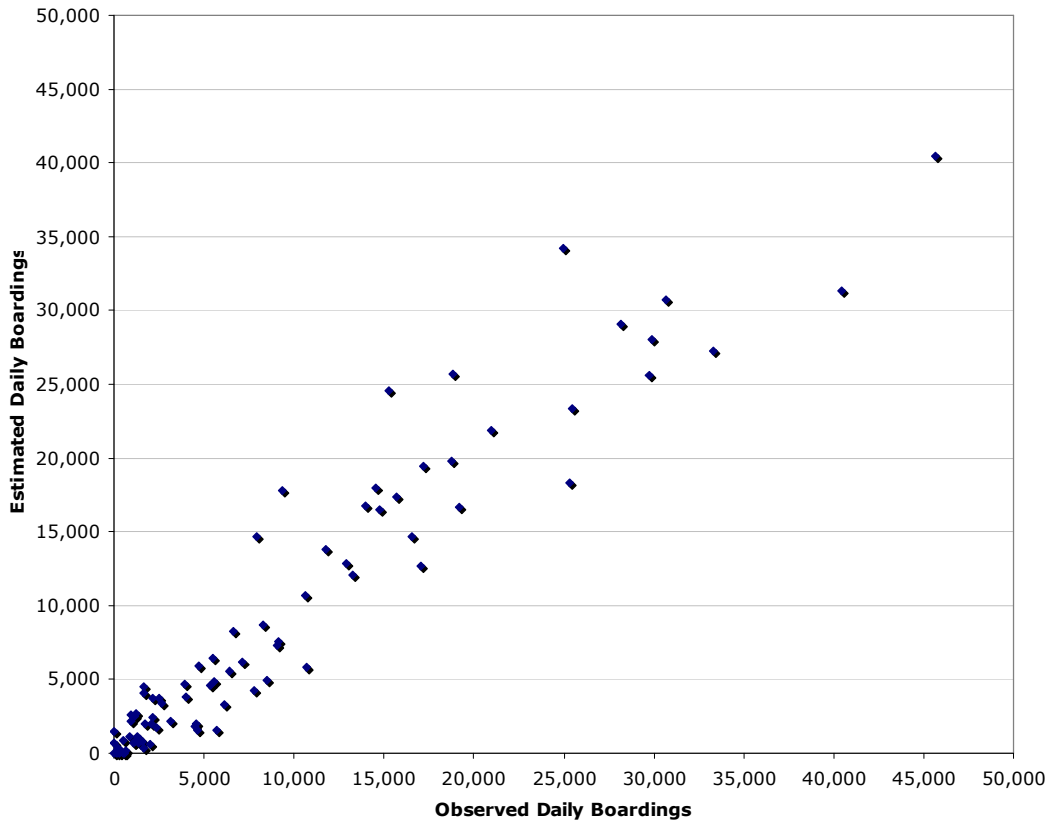


Table 69 and Table 70 summarizes BART boardings by San Francisco station and time of day respectively. Daily BART boardings are underestimated by 2%, with the downtown stations being slightly overestimated, and the outlying stations being under-predicted. Estimated BART boardings by time-of-day match observed data closely, typically differing by about 5%.

**Table 69: BART Daily Boardings by San Francisco Station**

Station	Observed	Modeled	Difference
Embarcadero	31,114	29,269	-6%
Montgomery Street	31,634	37,398	18%
Powell Street	26,580	28,301	6%
Civic Center	17,684	18,606	5%
16th Street Mission	8,845	6,626	-25%
24th Street Mission	11,048	9,070	-18%
Glen Park	7,226	4,747	-34%
Balboa Park	11,283	8,269	-27%

<b>Total</b>	<b>145,414</b>	<b>142,286</b>	<b>-2%</b>
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**Table 70: BART SF Boardings by Time-of-Day**

<b>Time of Day</b>	<b>Observed</b>	<b>Modeled</b>	<b>Difference</b>
Early AM	980	0	-100%
AM Peak	19,315	20,415	6%
Midday	33,531	34,851	4%
PM Peak	54,979	51,785	-6%
Evening	36,609	35,235	-4%
<b>Total</b>	<b>145,414</b>	<b>142,286</b>	<b>-2%</b>

Table 71 and Table 72 summarize estimated and observed inter-county transit screenlines, for the Transbay corridor and at the San Mateo county line respectively. Both screenlines are underestimated by about 5%. These volumes are derived entirely from MTC's regional demand.

**Table 71: Transbay Daily Inbound Transit Screenline Volumes**

<b>Time of Day</b>	<b>Observed</b>	<b>Modeled</b>	<b>Difference</b>
Early AM	2,733	0	-100%
AM Peak	38,493	37,591	-2%
Midday	24,633	23,933	-3%
PM Peak	9,389	9,133	-3%
Evening	5,928	5,693	-4%
<b>Total</b>	<b>81,176</b>	<b>76,350</b>	<b>-6%</b>

**Table 72: San Mateo Countyline Daily Inbound Transit Screenline Volumes**

<b>Time of Day</b>	<b>Observed</b>	<b>Modeled</b>	<b>Difference</b>
Early AM	823	0	-100%
AM Peak	12,392	12,207	-1%
Midday	6,089	5,914	-3%
PM Peak	2,787	2,820	1%
Evening	1,851	1,784	-4%
<b>Total</b>	<b>23,942</b>	<b>22,725</b>	<b>-5%</b>

# Appendix 2

## Land Use Inputs to SF-CHAMP model






# SAN FRANCISCO PLANNING DEPARTMENT

**MEMO**

**DATE:** July 3, 2013

**TO:** Elizabeth Sall, SFCTA  
Michael Schwartz, SFCTA

**FROM:** Aksel Olsen   
Information and Analysis Group

**RE:** Land Use Assumptions for the Van Ness Avenue  
Bus Rapid Transit Environmental Impact  
Statement/Environmental Impact Report Transportation  
Modeling

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This memo is intended to explain assumptions of the Planning Department's land use allocation, and their relationship to the Association of Bay Area Governments ("ABAG") projections, for the Van Ness Avenue Bus Rapid Transit (BRT) Project Transportation Analysis to support the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) lead by the San Francisco County Transportation Authority ("SFCTA"). The Planning Department updates and maintains a land use forecast to aid in policy deliberation and decision making on the city's land use future, as well as form the basis for testing transportation impacts of new projects or plans. The fundamental basis for the land use forecasts has for more than a decade been the citywide growth projections from ABAG. ABAG issues biennial projections for population, jobs and households, and since 2003 these projections were issued reflecting a strategic effort to focus regional growth where existing infrastructure can be leveraged. In parallel with this regional effort, San Francisco has, through a number of planning efforts, sought to accommodate its growth by focusing on central locations and ensuring commensurate mitigations through the CEQA process. More details on the allocation itself are available in a memo on the Land Use Allocation 2007.<sup>1</sup>

## **General ABAG Compliance**

The Land Use Allocation ("LUA") is made to be consistent with ABAG's 2007-series projections. State of California Government Code 65089 states that data bases (i.e., land use inputs) for models such as SF-CHAMP used to determine quantitative impacts of development on the circulation system "...shall be consistent with the data bases used by the regional planning agency [i.e., MTC]". For this reason, land use projections used in the SF-CHAMP model for EIRs led by the San Francisco Planning Department as well as the Van Ness Avenue BRT Project EIS/EIR are within 1% of regional ABAG projections for population, employed residents, households, and employment. The allocation and transportation model together are accordingly consistent with the Regional Transportation Plan pursuant to CEQA Guidelines Section 15130(b)(1)(B). With this consistency, different projects can be evaluated against a consistent baseline to

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<sup>1</sup> Memo from Aksel Olsen to Jesse Koehler, SFCTA titled, "Land Use Allocation 2007", dated February 26, 2008.

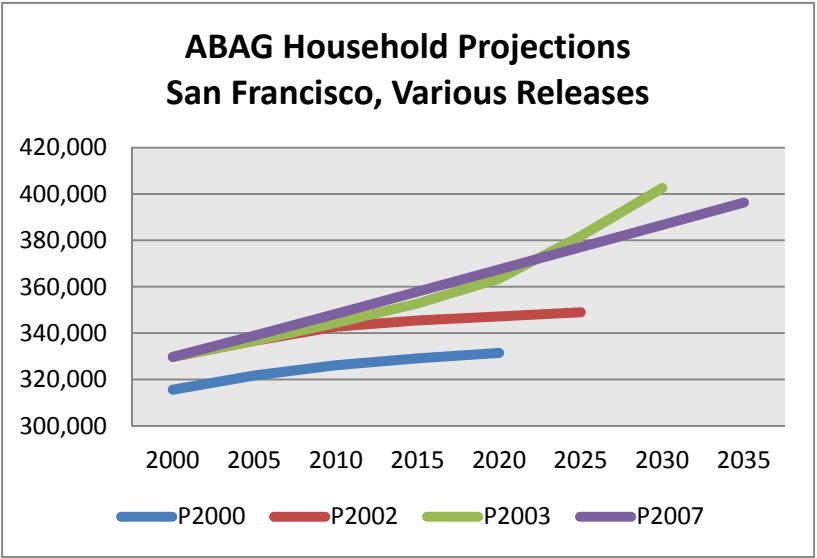


Figure 1 ABAG Household Projections from different years. Source: ABAG

make various analyses more comparable relative to what would have been the case in the absence of such consistency.

ABAG projections have themselves undergone a change in philosophy during the past decade (see Figure 1). Unlike earlier ABAG projections issued prior to 2002, *Projections 2007* (“P2007”) adjusted assumptions about the regional growth distribution, focusing more growth in core areas of the region, including San Francisco. This is consistent with trends of

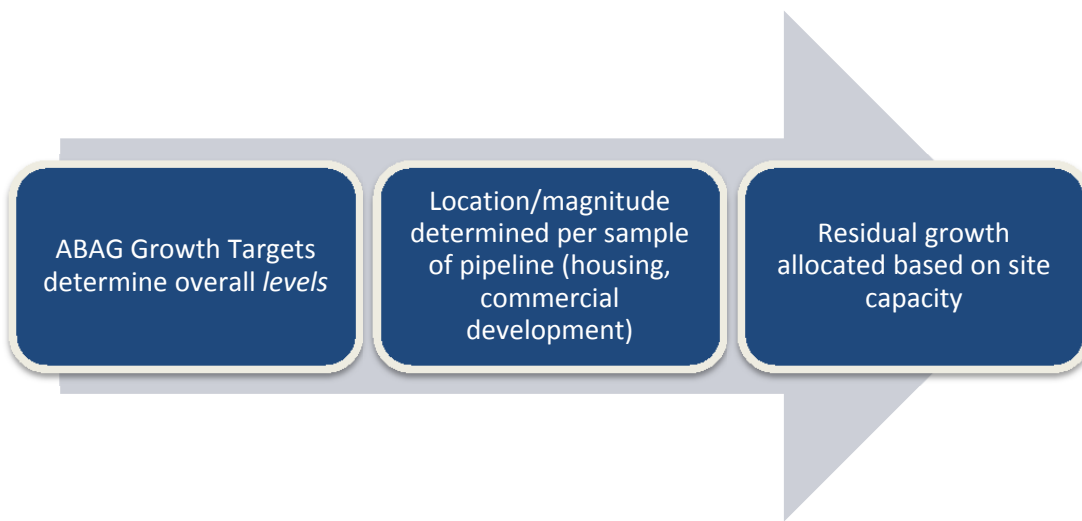
the past decade showing higher amounts of growth in San Francisco relative to historical levels for the city. The fact that ABAG’s projections assume a change in “business as usual” with respect to the location of growth appears more empirically plausible given the accelerated growth in San Francisco during the past decade.

Ultimately, regulatory consistency means that the projections from ABAG are taken as externally given constraints, “control totals” or “growth targets” on the allocation, representing the total amount of growth the city will experience by a given time frame given regional economic assumptions. The main components going into the Planning Department’s allocation of ABAG’s citywide growth targets to Travel Analysis Zones (TAZs) are 1) growth allocated according to the development pipeline, and 2) growth allocated according to estimated capacity on currently underutilized sites, favoring zones with established activity centers (household or jobs).

The Development Pipeline consists of known<sup>2</sup> development projects that would add residential units or commercial space, applications for which have been formally submitted to the Planning Department or the Department of Building Inspection (DBI). As of early 2008, the time of preparation of this projection, pipeline activity levels were at a long time high, adding up to some 54,000 units. In addition to this number comes a number of projects the Department were analyzing specifically at the time, including the Transit Center District Plan, consisting of a changed zoning program for around 18 development sites in the Transbay area, but also plans such as Mission Bay which was well known and with good expectations as to its realization.

<sup>2</sup> The Planning Department maintains a database of projects (the “development pipeline”) as they move through the entitlement stages, obtain building permits and proceed with construction.





Adding all these components presents the challenge of remaining within the macroeconomic assumptions for overall growth for the City for the projection horizon as represented by ABAG's control totals. If everything is included, the allocation is not compliant with California Government Code 65089 (see discussion at start of section). One approach would be to assume the area plans developed in full, but was rejected because the total growth would have either significantly exceeded the ABAG control totals or would have “crowded out” the development pipeline of known projects in order to meet those control totals, neither of which was feasible or desirable from an analytical standpoint since the pipeline represented actually revealed developer interest, and as this interest comprised such a large share of the control total, it was taken to embody more immediate location information.

In order to address this issue of magnitude, a random sampling of pipeline projects was applied, and in some cases a reduction of amount developed within the projection horizon, was applied. The logic of inclusion of the magnitude of pipeline projects is enumerated further below:

- *First*, as the number of units in the pipeline, widely conceived, turned out to be higher than the entire projection for the 2005-2030 period,<sup>3</sup> an overall reduction in development was needed. If everything had been assumed built by 2030, the allocation would have failed to be regionally compliant.<sup>4</sup> The development pipeline normally exhibits attrition as projects are abandoned, delayed or fundamentally changed before completion. Based on past experience, Planning Department staff, using professional judgment, felt that some pipeline projects should not be represented with their fully proposed buildout. A random sampling was employed in part to represent this attrition.

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<sup>3</sup> The standard LUA as provided by the Planning Department to the Transportation Authority only covered the period to 2030. For the BRT EIR/EIS, the horizon year was 2035. The last increment was handled by Transportation Authority staff by proportional extrapolation in order to match the 2035 P2007 ABAG control totals.

<sup>4</sup> It is worth noting that ABAG's 2007 Projection represented a relatively high amount of growth for the city to begin with, so this limitation did not represent an unrealistic constraint.

- *Second*, for a number of the largest projects it was assumed that they would not be fully built out by 2030, in effect scaling them for the purpose of the citywide allocation. These include Candlestick/Bayview Waterfront, Treasure Island, and Park Merced. While this serves as a useful way to ensure citywide consistency with ABAG control totals, it is not an unreasonable assumption to make (and consistent with past experience) given the magnitude and complexity of realizing these 25,000 units.
- *Third*, not everything that is going to be built during a given 25-year period is known 25 years in advance. Just as some projects are abandoned, new ones are expected to appear on an ongoing basis over the projection horizon. This segment of new projects was represented by allocating a residual growth based on existing underutilized site capacity. Since the residential pipeline was reduced by sampling due to its large size, this applies mostly to non-residential development.

Generally, area plans such as Market Octavia and the Eastern Neighborhood suite (Mission, Showplace Square/Potrero Hill, Central Waterfront and East Soma) were treated as development *capacity* that could *enable* growth, rather than growth that would deterministically happen. This is consistent with what the plans are—a change to zoning controls bundled with fees on development, ensuring impacts are offset as growth proceeds, enabling private developers to over time develop – or not as the case may be—property according to the updated zoning designations. But zoned capacity is no guarantee that development will happen; and as it is, more than 73,000 units could be developed under current zoning throughout the city.<sup>5</sup> Thus zoning plans, each representing for some areas several thousand parcels with scattered ownership, differ in nature from more defined projects such as Mission Bay and the Transit Center District Plan mentioned earlier, as each of these are characterized by a much more limited number of parcels and land owners, and/or the developer and funding sources may already be identified. A key constraint on residential development assumptions was then ABAG’s control totals, even as they had been significantly expanded relative to their previous projections series. This constraint was less salient on the non-residential side, because the pipeline did not exceed the ABAG control total for jobs. As such, jobs were in large part allocated first per the development pipeline proportional to development potential.

A sample of key projects included in the vicinity of Van Ness for the land use projections are the CPMC Cathedral Hill hospital project; tower projects at Market and Van Ness and Market and Mission; the new building for the Public Utilities Commission on Golden Gate Ave; a residential tower at 10<sup>th</sup> and Market; the Trinity Plaza development; and a residential tower on 9<sup>th</sup> and Market. Figure 3 shows allocated growth in the vicinity and beyond for households and jobs, respectively.

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<sup>5</sup> See Table I-57, *Housing Element 2009, Part I: Data and Needs Analysis*, San Francisco Planning Department.

## Annex

**Table 1 ABAG Projections Series 2007, San Francisco Subset**

ABAG Sector	2000	2005	2010	2015	2020	2025	2030
Agriculture And Natural Resources Jobs	1,041	1,019	1,020	1,021	1,019	1,020	1,018
Manufacturing, Wholesale And Transportation Jobs	77,300	53,641	56,688	59,944	63,687	67,436	71,189
Retail Jobs	57,401	47,213	50,638	54,471	58,603	62,734	67,172
Financial And Professional Service Jobs	208,019	180,221	194,205	209,549	226,297	243,733	261,749
Health, Educational And Recreational Service Jobs	192,884	182,600	196,089	210,518	226,351	242,680	259,058
Other Jobs	105,856	88,399	94,724	101,344	108,362	115,410	122,367
Jobs, Total	642,501	553,093	593,364	636,847	684,319	733,013	782,553
Households	329,700	338,920	348,330	357,810	367,430	377,050	386,680

**Table 2 ABAG Projections Series 2007 Converted to Landuse Sectors, San Francisco Subset**

Land use Sector	2000	2005	2010	2015	2020	2025	2030
Cultural/Institutional/Educational Services (CIE)	63,808	60,307	64,760	69,522	74,746	80,131	85,532
Medical and Health Services (MED)	40,722	38,464	41,301	44,337	47,668	51,103	54,548
Management Information, and Professional Services (MIPS)	324,298	274,586	294,995	317,116	341,174	365,947	391,261
Production/Distribution/Repair (PDR)	95,044	73,313	78,065	83,125	88,713	94,353	100,003
Retail/Entertainment (Retail/ENT)	100,113	88,895	95,419	102,538	110,290	118,183	126,340
Visitor Lodging (VISITOR)	18,516	17,529	18,824	20,209	21,729	23,296	24,869
<b>Total</b>	<b>642,501</b>	<b>553,093</b>	<b>593,364</b>	<b>636,847</b>	<b>684,319</b>	<b>733,013</b>	<b>782,553</b>

**Table 3 Citywide Growth Summary, P2007 "Standard" (See Figure 3 for Districts)**

District/Area	HH	CIE	MED	MIPS	PDR	RET	VIS	JOBS
Balboa Park	1,616	2	-	126	2	2	-	132
Bernal Heights	135	661	204	1,049	127	848	67	2,956
Buena Vista	67	195	52	222	9	195	42	715
BVHP Area A,B	305	939	246	487	13,491	1,249	108	16,520
Candlestick	3,447	1	-	188	20	909	-	1,118
Central	57	243	76	384	13	302	28	1,046
Central Waterfront	327	1,125	80	9,022	743	611	9	11,590
Central Corridor	1,509	655	132	10,072	(24)	2,321	1,034	14,190
Downtown	2,650	1,549	996	13,654	(50)	2,199	375	18,723
East SoMa	591	230	67	726	(32)	562	139	1,692
Executive Park	1,346	6	-	(388)	5	122	1	(254)
Glen Park	1	32	10	45	1	49	3	140
Golden Gate Park	-	1	-	-	1	-	-	2
HP Shipyard	1,905	-	-	8,153	599	139	324	9,215
India Basin	781	-	-	1,623	122	161	449	2,355
Ingleside, Other	171	1,041	250	1,924	17	1,258	86	4,576
Inner Sunset	69	339	187	367	19	321	21	1,254
Japantown	220	552	179	587	9	634	55	2,016
Marina	74	1,136	453	1,441	23	1,393	249	4,695
Market Octavia	2,617	1,669	428	3,560	22	2,200	175	8,054
Mission	1,115	1,713	408	1,798	368	2,979	137	7,403
Mission Bay	4,446	214	6,271	16,187	16	292	92	23,072
Northeast	1,076	1,953	327	5,224	6	1,778	298	9,586
Other S Bayshore	666	1,092	275	497	10,066	1,356	100	13,386
Outer Sunset	98	985	279	1,113	26	1,406	93	3,902
Park Merced	4,306	63	2	145	-	400	-	610
Presidio	(159)	185	-	1,138	-	81	135	1,539
Richmond	327	1,819	573	2,134	97	2,233	154	7,010
Rincon Hill	4,208	241	72	(28)	(62)	436	22	681
SFSU	2	4	-	33	-	-	-	37
Showplace/Potrero	1,222	1,112	383	4,911	271	2,500	70	9,247
South Central, Other	546	2,438	653	2,525	229	3,010	223	9,078
South of Market	385	273	-	3,073	-	797	763	4,906
Transbay	4,847	(143)	28	21,788	2	670	1,283	23,628
Treasure Island	3,964	622	1	6	42	840	490	2,001
VisVal	594	20	-	-	12	141	-	173
Western Addition	479	1,661	3,755	1,981	47	2,076	203	9,723
WSoMa	781	626	155	1,045	380	859	83	3,148
<b>Grand Total</b>	<b>46,791</b>	<b>25,254</b>	<b>16,542</b>	<b>116,812</b>	<b>26,617</b>	<b>37,329</b>	<b>7,311</b>	<b>229,865</b>

Figure 2 LUA Planning Summary Districts

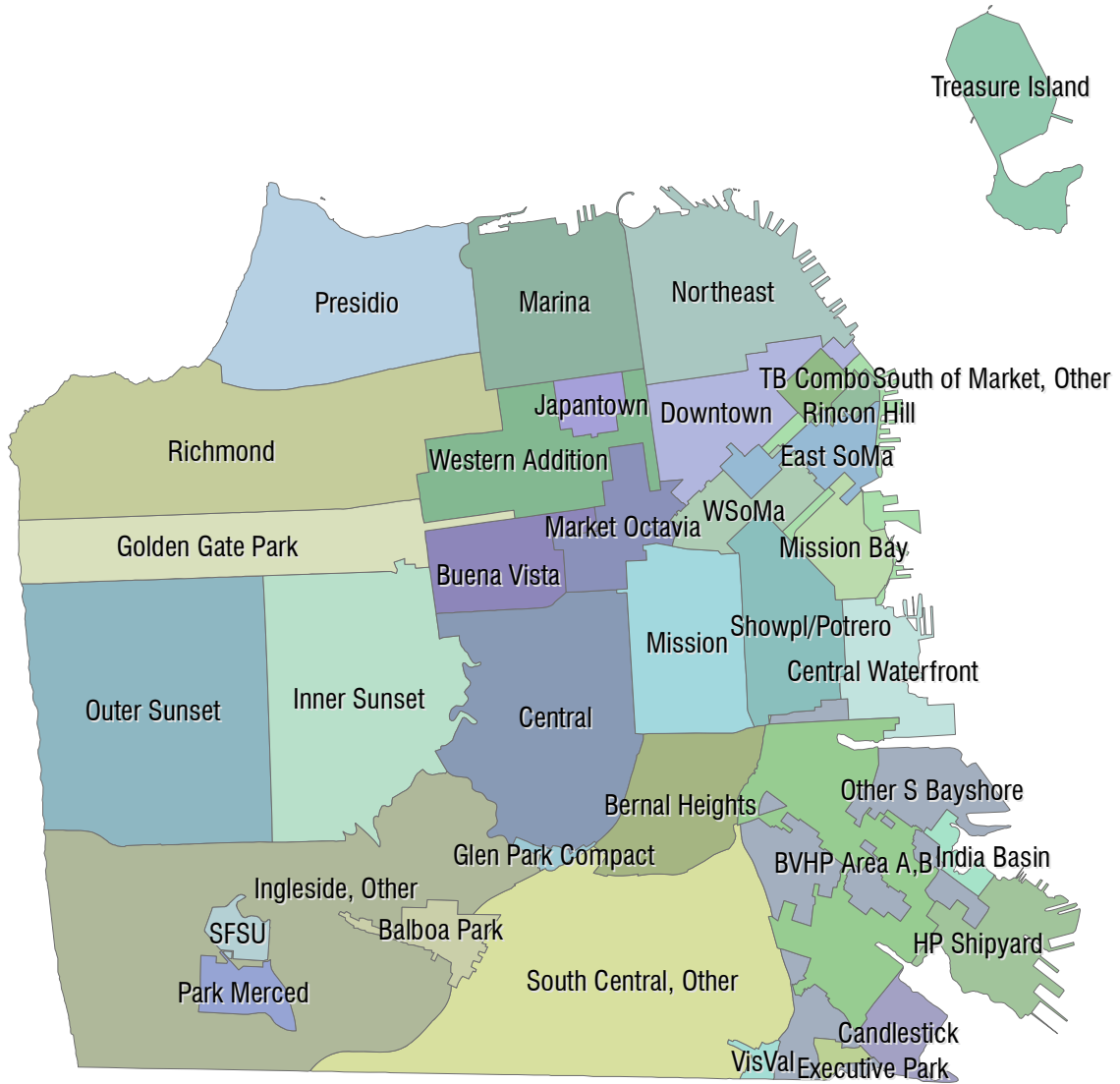
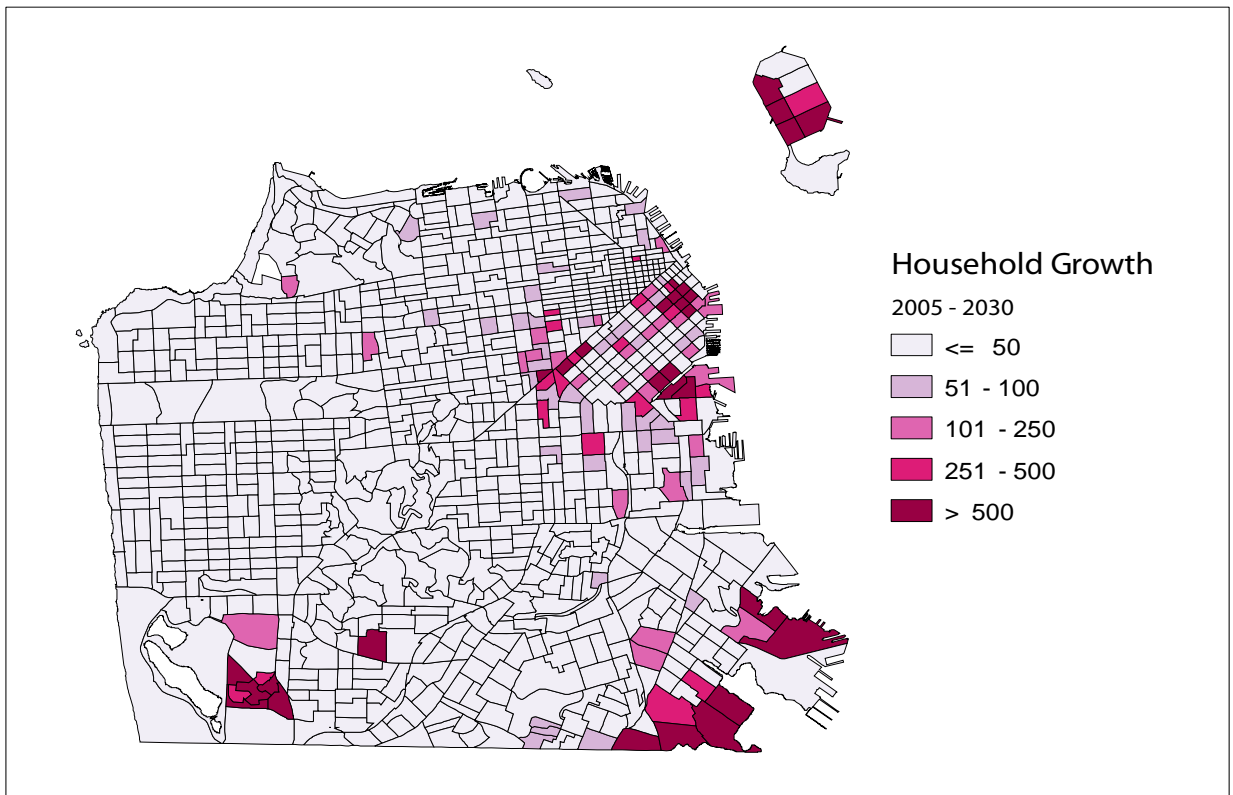
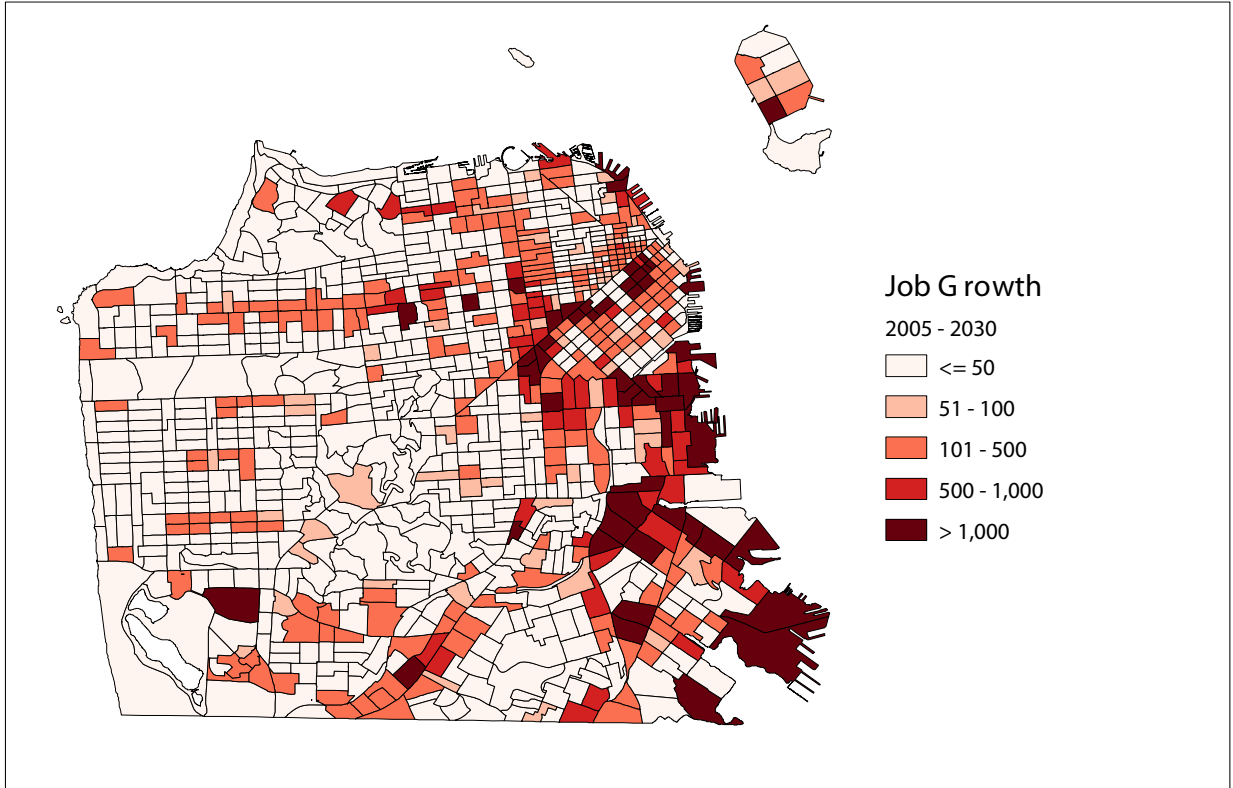


Figure 3

Panel A: Allocation of Projected Growth in Employment, 2005-2030

Panel B: Allocation of Projected Growth in Households, 2005-2030

Source: San Francisco Planning Department LUA 2007





# SAN FRANCISCO PLANNING DEPARTMENT

**MEMO**

## Land Use Allocation 2007

**Date:** February 26, 2008  
**To:** Jesse Koehler, SFCTA  
**From:** Aksel Olsen, San Francisco Planning Department  
**Subject:** Draft Summary Documentation

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### Introduction and General Notes

This summary specifies the main steps used to allocate ABAG's *Projections 2007* (P2007) of employment growth from 2000 to 2030 for the City & County of San Francisco to the 981 Traffic Analysis Zones (TAZ's) of the San Francisco County Transportation Authority (SFCTA or TA).

The Planning Department updates and maintains a land use forecast to aid in policy deliberation and decision making on the city's land use future, as well as form the basis for testing transportation impacts of new projects or plans. The basis for the land use forecasts has for a number of years been the citywide projections from the Association of Bay Area Governments (ABAG). ABAG issues biennial projections for population, jobs and households, and since 2003 these projections were performed reflecting a strategic effort to focus regional growth where existing infrastructure can be leveraged.

Larger macro-economic conditions are taken as given as reflected in ABAG P2007. The purpose of Land Use Allocation 2007 is to distribute the citywide growth targets (control totals) from ABAG P2007 to 981 distinct TAZ's. The Planning Department categorizes land uses not by industrial activity, but by a land use classification system crafted to reflect distinct land use characteristics of a given economic activity.<sup>1</sup> These land use categories are in turn understood by SF-CHAMP, the activity-based transportation model maintained by the San Francisco County Transportation Authority.

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<sup>1</sup> The Planning Department employs a classification of economic activities according to their land use characteristics for the purposes of land use and transportation analysis. The scheme is referenced in the San Francisco Administrative Code, Chapter 38, Transit Impact Development Fee, §§38.1(H), (J), (K), (M), (N), (U), (EE). The categories are spelled out in Table 5 ABAG Projections Series 2007 Converted to Landuse Sectors.

The base year for this exercise is year 2005 as that represents our best available disaggregate count of housing units and households, as census blocks can easily be aggregated to TAZs. As for TAZ-level employment counts, these were taken from Dun & Bradstreet 2004<sup>2</sup>, the dataset deemed most accurate in terms of number and location of businesses. The employment counts have at the establishment level been amplified slightly to match ABAG's sector-wide control totals for the year 2005.

The allocation is implemented in Microsoft Access and draws on a number of tables external to the allocation database itself; chiefly the pipeline and the buildout databases, but also a table of developments since 2005 as well as a table containing information on programmed development. As the MS Access .mdb file serves as the container for the personal geodatabase for use in Arcgis, with changes made in these externally linked tables, new model outputs can be automatically generated and mapped.

**There are 8 overall steps to the allocation:**

1. Convert control totals from P2007 to the Planning Department's land use sectors to work as land use specific growth targets for each five-year increment. (Six land use sectors times five increment periods equals 30 data points to match with the allocation.)
2. Summarize growth in the pipeline and other planning programs and summarize by TAZ by sector, for years 2010, 2015, etc.
3. Assume vacant space is partially filled over the allocation period and grow employment relative to 2005 numbers.
4. Determine residual growth to be allocated in addition to pipeline and filled vacant space.
5. Determine buildout capacity in terms of PDR and MIPS and OTHER square footage for each parcel in the city as a function of current and/or proposed zoning, and summarize by TAZ. Assign to each TAZ the portion of citywide PDR, MIPS and OTHER square footage it comprises.
6. Summarize existing (2005) commercial square footage/housing units by sector by TAZ and determine each TAZ's share of citywide totals.
7. Based on steps 5 and 6, construct for each TAZ for each sector a weighed measure for each TAZ determining the attractiveness of a parcel for development. A TAZ with plenty of capacity, but little existing activity, will not be as attractive as a TAZ with some capacity and plenty of existing activity. Each weight is then converted to a proportion of citywide weights and multiplied the residual from step 4 to get TAZ-specific growth for each sector, and housing units. These are summed with the contribution from the pipeline and vacancy fill, and total growth is known. Result: households and jobs for each sector for each TAZ.

---

<sup>2</sup> Employment numbers for Treasure Island come from Dun & Bradstreet 2005.



8. After each allocation period, subtract allocated space from capacity table. These updated capacities will form the basis of the weights in the subsequent period.

The steps are expanded below:

## 1. Convert control totals from P2007 to the Planning Department's land use sectors.

- a. Purpose
  - i. ABAG's numbers represent macro-economic trends for the city and thus serve as the benchmark against which growth is measured.
  - ii. ABAG's numbers must be converted to the Planning Department's land use sectors for use in this allocation.
- b. Determine relation between NAICS and land use sectors, i.e. assess how one ABAG NAICS category aggregation is distributed along the Planning Department's land use categories. (Jobs in ABAG's general category *Health, Educational And Recreational Service Jobs*, itself an aggregation of NAICS classes, for instance, are in several different land use categories, including *Cultural, Institutional, Educational; Medical; and Retail*. Each business was cross-classified in both systems and the result cross-tabulated to reveal the aggregate result. This was done for the 2004 Dun & Bradstreet dataset by converting NAICS classification to SIC, then assigning land use sector based on the SIC code and location.
- c. Assuming that the relation between these classification systems remain constant over time (not the actual numbers), we converted ABAG's 2005, 2010, 2015, 2020, 2025 and 2030 control totals to the Planning Department's land use sectors. A cross-tabulation was performed, summarizing employees by landuse sector on one axis and ABAG's categories on another. Employees were converted to percentages (i.e. again ABAG's general category *Health, Educational And Recreational Service Jobs* would be categorized in 32% CIE, 21% MEDICAL, 6% MIPS, and so on.) This conversion scheme was used for all ABAG control total years, getting growth by land use sectors for each increment.
- d. Accordingly, growth could be calculated for each increment, i.e. retail growth 2005-2010, 2010-2015, etc.

## 2. Summarize growth in the pipeline and other planning programs and summarize by TAZ.

- a. Purpose
  - i. The development pipeline is an important indicator and component of growth in the near to intermediate term. It serves as observed information representing interest in small and large development.
- b. The pipeline database is updated quarterly with consolidated information from Planning and Building Departments' databases and represents projects

not yet completed, ranging from permit filed to under construction. Projects vary in size and complexity, and thus likelihood of being built upon issuance of a building permit. For the purpose of the allocation, we only included projects with approved building permits or planning entitlements, and projects under construction as these are the most likely to actually be built.

- c. Pipeline projects are recorded with net square footage information by land use sector. Thus, projects with an office component will show a net positive growth in office square footage IF proposed office is larger than what is demolished, should the site not be vacant. Similarly with housing units. If a pipeline project is a conversion from one commercial category to another or demolishes existing commercial space, net negative commercial space is recorded.
- d. Pipeline net square footage is converted to jobs using job densities (Attachment 1) calculated using Dun & Bradstreet business data to which a land use category has been assigned. The dataset has employment and square footage by establishment, so average densities by sector can be calculated. Net negative square footage from the pipeline was treated the same way as net positive space, leading to occasionally sizeable job losses attributable to a demolition.
- e. Add proposed programmed development to the pipeline.
  - i. Larger projects such as Candlestick, Bayview-Hunters Point, India Basin, Treasure Island and Mission Bay are treated as full development programs with a high likelihood of being realized over the span of the forecast.
  - ii. Thus, where such a program is present, we use that as the “best guess” and close off the TAZ in question for further development allocation.
  - iii. Programmed development, measured in square feet, was converted to jobs using the densities described in 2(c).

### **3. Fill up vacant space by increasing existing employment slightly.**

- a. Purpose
  - i. According to ABAG, San Francisco lost 90,000 jobs between 2000 and 2005 as the dot-com boom turned to bust. For this reason, the Planning Department assumed that a portion of the control totals must be met not by new construction, but by re-occupation of existing space, i.e. a lowering of the vacancy rate across sectors. This ensured a more realistic geographic distribution of growth than just relying on jobs to go where construction sites are available, a method that would otherwise show little growth in the downtown area.

- b. Vacancy rates for different sectors for the different increments were estimated with an aim to roughly follow the trends in economic activity as represented by P2007. The highest vacancy rates were thus in 2005, dropping for all sectors by 2010, with slight increases later in the allocation period. The aim was not to pinpoint the actual future vacancy rate so much as to estimate relative movement trends allowing for re-occupation of vacated space in the short-to-medium term.
- c. The jobs coming from this method were based on the 2005 base year count by sector held constant. To spread out the contribution from this method (which was necessary to avoid breaching control totals), a portion was added for each increment period relative to the number of jobs present at the base year. This method does not consider vacancy of new space being built.<sup>3</sup>

**4. Determine residual growth to be allocated in addition to pipeline and filled vacant space.**

- a. Purpose
  - i. The pipeline and the filling of vacant space make up a sizeable portion of the control totals. However, there remains a residual that must be allocated by other means.
- b. With the sector-specific pipeline and vacancy contributions to jobs treated as given, the difference between the sector-specific control total and the growth from pipeline and vacancy fill sources is the residual yet to allocate by other means. Residual growth is counted in square feet<sup>4</sup> and housing units. The process for allocating this residual is described in what follows.

**5. Determine buildout capacity in terms of NET UNITS, NET PDR, MIPS and OTHER COMMERCIAL square footage for each parcel in the city**

- a. Purpose
  - i. Buildout capacity is one of two key factors used to determine the location of future residual growth.
- b. Each parcel in the city has two key characteristics: a zoning district and a height limit. This information can be used to obtain a reasonably accurate estimate of buildout potential for each parcel. For example, some districts limit the number of housing units per lot; others have a limit as a function of lot size, whereas lot cover and setbacks are stipulated for others. Knowing this information and what is currently on the ground, an estimate of net potential can be calculated.

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<sup>3</sup> This was dealt with separately.

<sup>4</sup> As square feet are the unit of analysis for the buildout and pipeline tables, we account using this metric for the capacity-driven portion of the allocation. Since we assume some vacancy for future years, control totals for the residual square footage are adjusted upwards to reflect this anticipated vacancy.

- i. On-the-ground information comes from a LIDAR<sup>5</sup> dataset current as of June, 2007. While accurate in terms of volume, the dataset doesn't readily provide square footage, so this must be inferred based on building height and an assumed height per floor. This is assumed to vary depending on the type of district; downtown commercial districts, for instance, are assumed to have an average ceiling height that is larger than that in residential districts.
- ii. Existing residential unit counts come from the assessor, the Census Bureau, and the Planning Department's Housing Inventories.
- iii. Some districts are undergoing a rezoning effort, including the Eastern Neighborhoods, Central Waterfront, and Market & Octavia. For these neighborhoods, the buildout potential was calculated for the proposed zoning rather than the existing zoning. For the rest of the city, existing zoning was assumed in calculating net capacity.
- iv. The net commercial capacity is further subdivided into PDR, MIPS and other commercial capacity. Each zoning district was flagged to determine whether PDR and MIPS was allowed, and in those districts where it was, a certain proportion of net commercial space was assigned as PDR and MIPS space. The remainder, and for all other parcels, the net commercial was assumed to be OTHER non-descript commercial/institutional space.
- v. Finally, the net capacity, for PDR, MIPS and other commercial capacity square footage, was summed by TAZ, and each TAZ was assigned the proportion each TAZ comprised of the total non-PDR and PDR square footage, respectively.

**6. Summarize existing (2005) commercial square footage/housing units by sector by TAZ and determine each TAZ's share of citywide totals.**

- a. Purpose
  - i. The second factor determining the geography of future growth is existing conditions. Existing conditions have been shown to be strong predictors of future growth.
- b. Existing square footage by sector at the TAZ-level is used as an indicator of local attractiveness of a certain TAZ for a certain activity. This measure will be made into a composite weight measure balancing capacity with attractiveness. This is essentially a gross-level agglomeration economics measure suggesting that like attracts like.

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<sup>5</sup> "Light Detection and Ranging", a remote sensing system used to collect three-dimensional topographic data, was used to estimate existing building square footage.

- c. Produce a composite weight measure<sup>6</sup> based on step 5(b)(v) and step 6(b). The measure is constructed as follows:

$$\text{Constant1} * \text{MIPS\_EXIST\_2005}_{\text{TAZi}} + \text{Constant2} * \text{MIPS\_CAP\_20xx}_{\text{TAZi}}$$

Where

Constant1 = a manual weight regulating importance of measures

Constant2 = a manual weight regulating importance of measures

MIPS\_EXIST\_2005TAZi = Proportion of total 2005 MIPS sqft in TAZi

MIPS\_CAP\_20xxTAZi = Proportion of total 20xx MIPS capacity sqft in TAZi

- d. The composite measure is then itself converted to a percentage of the total of citywide weight measures, allowing for multiplication with the residual.

**7. Multiply the proportions from Step 6(d) with the growth residual from Step 4, and sum with the contributions from the pipeline and vacancy fill.**

- a. The total residual sector-specific square footage, or remaining growth to be allocated after the pipeline and vacancy fill, is distributed according to the proportions from Step 6(d): For each sector, multiply residual growth (whether as sector or households<sup>7</sup>), counted in square footage, by percentages from step 6(d).
- b. Sum the residual result with the pipeline growth. Result: Total allocation, PDR jobs, non-PDR jobs

**8. End of Period Accounting: Subtract allocated space from capacity table.**

- a. After each allocation period, what was allocated must be subtracted from the capacity table so this table and the derived coefficients calculated for at the onset of the following allocation period, is current. This is done in sequence following each sector allocation. The allocation sequence, and in turn capacity subtraction, is MIPS, RETAIL, CIE, MED, VISITOR and PDR.<sup>8</sup>
- b. As there is programmed development assumed to take place, this is given precedence in cases where programmed growth for a given sector exceeds that allotted by the control total. In such cases, to offset excess in one period,

<sup>6</sup> Incidentally, using a weight based on existing conditions and future potential is similar to the Census Tract Allocation (SAM), the final leg of ABAG's forecast framework which distributes growth to tracts within a subarea.

<sup>7</sup> Housing units is the unit of analysis in the pipeline and capacity table; the control total is measured in households and converted to housing units by assuming a 5 % vacancy. (There are thus slightly more housing units to be produced than the number of households listed by ABAG.)

<sup>8</sup> The order in a sense doesn't matter as much as it appears since capacity is counted separately for MIPS, PDR, and OTHER COMMERCIAL.

discretionary growth<sup>9</sup> was offset in the following allocation period for the sector in question.

- c. This process of determining pipeline and vacancy contributions to growth, capacity by sector, calculating new coefficients to allocate the residual, monitoring excess allocation and next period growth adjustment, is repeated for each five-year increment.

## Data Pre-Processing

As different data sources differ in how proposed and existing uses are counted and categorized, it was necessary to map input source classifications to the land use system used by the Planning Department. The Bayshore figures from Lennar included a Research and Development classification which, while substantively meaningful, has yet to be defined in the land use classification system currently used. In treating Bayshore as a special case, it was decided to treat R&D as a hybrid of MIPS and PDR land uses for transportation and job density purposes; any space in the Bayshore region designated on the input side as R&D would be mapped to 75% MIPS space, 25% PDR space.<sup>10</sup>

For Mission Bay, our source data was less unequivocal about the nature of the space, and it was accordingly mapped to either MIPS or MEDICAL, not the hybrid as described for Bayshore. While this may seem somewhat inconsistent, there were strong reasons to treat Bayshore as a special case and not use the same strategy for Mission Bay. Apart from the less explicit classification on the input side (often a project would be described as office/R&D), to map the large amount of square footage in Mission Bay out to PDR would lead to both misleading inconsistencies with the control totals on the demand side as well as problems of PDR capacity on the supply side. It should in this context be noted that while much space in Mission Bay was mapped to MIPS/office, it may strictly speaking be a mix of other, but in substance similar uses, and the allocation effort should not be construed as an endorsement nor entitlement of construction of office space as regulated and limited by Planning Code §§320-322.

## ABAG Compliance

The intent was for the allocation to be ABAG-compliant. Unlike earlier ABAG projections, which were much more conservative, P2007 is much more expansive with respect to the growth it projects. Because of this higher growth, and to better match numbers used by other agencies in the City and beyond, it was decided to aim for project runs to be ABAG-compliant, essentially assuming a zero-sum growth within city boundaries. If one project happens, it will, in this allocation, result in less growth elsewhere. The notable exception to

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<sup>9</sup> Discretionary growth refers to the residual growth after the pipeline and vacancy has been filled.

<sup>10</sup> For example, 100,000 square feet of R&D would be mapped to 75,000 sq. ft. of office space and 25,000 sq. ft. of PDR space, and each converted to jobs applying respective density rates.

this is where programmed development exceeds the control total for a given sector. As noted in step 8(b), such cases of programmed growth in excess of the control total would be offset in the subsequent period in the portion of discretionary growth. If the next period has a high amount of programmed growth as well (and thus little discretionary growth from which to offset), the allocation will exceed the ABAG control total. With macro-economic conditions constant, development beyond the control totals could result in higher vacancies and/or lower prices, but these have not been modeled as a part of this effort, the primary purpose of which was to show a “what-if”-scenario of a set of specific proposed development programs.

# Attachment 1

## Constants Used

**Table 1 Estimated Vacancy Rates <sup>/1/</sup>**

Vacancy	MIPS	RETAIL	VISIT <sup>/3/</sup>	MED <sup>/3/</sup>	CIE <sup>/3/</sup>	PDR
2005	14.5%	8.0%	8.0%	8.0%	8.0%	7.5%
2010	12.0%	5.0%	5.0%	5.0%	5.0%	6.0%
2015	10.5%	4.5%	4.5%	4.5%	4.5%	6.0%
2020	11.0%	5.0%	5.0%	5.0%	5.0%	6.0%
2025	10.0%	6.0%	6.0%	6.0%	6.0%	6.0%
2030	9.0%	6.5%	6.5%	6.5%	6.5%	6.0%
Default Average Rate <sup>/2/</sup>	10.0%	6.0%	6.0%	6.0%	6.0%	5.0%

/1/ Rates were used to calculate extra jobs moving into vacated space. The MIPS vacancy range was deliberately compressed in order to keep vacancy fill well within control totals.

/2/ the Default Average Rate was used when converting proposed square footage into actual jobs (proposed programmed development), and when converting an ABAG job control total into square feet to build. Thus accounting for vacant space, to reach the number of jobs in the control totals, slightly more space will need to be built.

/3/ While the interpretation of vacancy for MIPS, RETAIL and PDR space is fairly straightforward, it is somewhat less so for the CIE, MED and VISITOR sectors. For the larger institutional uses in CIE and MED categories because they often appear in larger discrete portions which are either occupied or not (like schools, museums or hospitals); for VISITOR uses because the metric is entirely different (room occupancy) and seasonal. Vacancy rates for those sectors may thus be more theoretical than practical.

**Table 2 Density Factors, Square Feet per Job**

Density MIPS	Density RETAIL	Density PDR	Density CIE	Density MED	Density VISIT
332	349	681	357	257	423

/1/ Factors used to convert control total jobs to square feet. Source: Calculated from Dun & Bradstreet 2007 data.



## Attachment 2

### Control Totals

**Table 3 ABAG Projections Series 2007**

ABAG Sector	2000	2005	2010	2015	2020	2025	2030
Agriculture And Natural Resources Jobs	1,041	1,019	1,020	1,021	1,019	1,020	1,018
Manufacturing, Wholesale And Transportation Jobs	77,300	53,641	56,688	59,944	63,687	67,436	71,189
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Jobs, Total	642,501	553,093	593,364	636,847	684,319	733,013	782,553
Households	329,700	338,920	348,330	357,810	367,430	377,050	386,680

**Table 4 Landuse Sector Distribution Across ABAG Economic Sectors**

ABAG Sector	Land Use Sectors						Total
	CIE	MED	MIPS	PDR	RETAIL/ENT	VISITOR	
Agriculture And Natural Resources Jobs	0%	0%	51%	49%	0%	0%	100%
Manufacturing, Wholesale And Transportation Jobs	0%	0%	35%	65%	0%	0%	100%
Retail Jobs	0%	0%	16%	4%	80%	0%	100%
Financial And Professional Service Jobs	0%	0%	96%	3%	1%	0%	100%
Health, Educational And Recreational Service Jobs	33%	21%	7%	3%	27%	10%	100%
Other Jobs	1%	0%	72%	27%	0%	0%	100%

**Table 5 ABAG Projections Series 2007 Converted to Landuse Sectors**

Landuse Sector	2000	2005	2010	2015	2020	2025	2030
Cultural/Institutional/Educational Services (CIE)	63,808	60,307	64,760	69,522	74,746	80,131	85,532
Medical and Health Services (MED)	40,722	38,464	41,301	44,337	47,668	51,103	54,548
Management, Information, and Professional Services (MIPS)	324,298	274,586	294,995	317,116	341,174	365,947	391,261
Production/Distribution/Repair (PDR)	95,044	73,313	78,065	83,125	88,713	94,353	100,003
Retail/Entertainment (Retail/ENT)	100,113	88,895	95,419	102,538	110,290	118,183	126,340
Visitor Lodging (VISITOR)	18,516	17,529	18,824	20,209	21,729	23,296	24,869
Total	642,501	553,093	593,364	636,847	684,319	733,013	782,553

# Attachment 3

## Programmed Development Used in Allocation

Table 6 TAZ-Level Programmed Development

TAZ Name	TAZ	Net Units	Net Growth, Square Feet						Complete	Source
			MIPSNET	CIENET	MEDNET	RETNET	VISNET	PDRNET		
Balboa	915	1,700	-	-	-	-	-	-	2026	SF Planning
Candlestick I	881	3,257	131,250	-	-	675,000	-	18,750	2021	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
Candlestick II	882	3,257	-	-	-	-	-	-	2016	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
Candlestick III	891	724	-	-	-	-	-	-	2016	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
Executive Park	880	2,825	(320,000)	4,000	-	90,000	-	-	2012	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
Hunters Point I	386	4,000	1,093,750	-	-	18,750	52,500	156,250	2018	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
Hunters Point II	387	-	3,281,250	-	-	56,250	157,500	468,750	2021	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
India Basin I	446	1,642	299,002	-	-	30,000	100,000	42,715	2019	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
India Basin II	444	-	897,006	-	-	90,000	300,000	128,144	2021	San Francisco/San Mateo Bi-County Modeling Efforts/Lennar
Mission Bay 557	557	-	1,000,000	-	1,712,803	-	-	-	2015	UCSF, Catellus
Mission Bay 649	649	-	2,655,000	-	-	4,600	-	-	2016	UCSF, Catellus
Mission Bay 650	650	474	213,627	-	-	6,612	41,131	-	2014	Both seawall lot 337 (Port) and Mission Bay
Mission Bay 652	652	-	563,000	-	-	10,000	-	-	2009	UCSF, Catellus
Mission Bay 653	653	-	240,000	-	-	-	-	-	2015	UCSF, Catellus
Mission Bay 654	654	602	-	-	-	-	-	-	2007	UCSF, Catellus
Mission Bay 655	655	193	723,373	-	-	72,388	339,733	-	2021	Both seawall lot 337 (Port) and Mission Bay
Mission Bay 656	656	236	-	-	-	-	-	-	2013	UCSF, Catellus
Mission Bay 657	657	1,010	-	-	-	16,400	-	-	2009	UCSF, Catellus
Mission Bay 924	924	984	62,928	-	-	110,600	-	-	2003	UCSF, Catellus
Mission Bay 927	927	962	-	-	-	47,900	-	-	2011	UCSF, Catellus
Mission Bay 928	928	957	-	-	-	1,800	-	-	2009	UCSF, Catellus
Mission Bay 929	929	430	1,269,000	81,000	-	20,000	-	-	2015	UCSF, Catellus
Northeast Waterfront 723	723	210	370,000	100,000	-	220,000	-	-	2022	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Northeast Waterfront 802	802	305	-	-	-	7,600	-	-	2016	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Northeast Waterfront 814	814	170	-	12,000	-	20,100	-	-	2020	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24,

TAZ Name	TAZ	Net Units	Net Growth, Square Feet						Complete	Source
			MIPSNET	CIENET	MEDNET	RETNET	VISNET	PDRNET		
										2007 Memo from José I. Farrán
Northeast Waterfront 826	826	78	-	-	-	-	-	-	2014	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Northeast Waterfront 828	828	-	23,900	263,200	-	22,900	-	-	2011	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Northeast Waterfront 829	829	95	275,500	115,800	-	33,200	-	-	2026	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Northeast Waterfront 835	835	51	-	-	-	-	-	-	2015	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Northeast Waterfront 854	854	-	275,500	-	-	152,900	-	-	2010	Adapted from Assessment of cumulative development in San Francisco's Northern Waterfront, Adavant Consulting, October 24, 2007 Memo from José I. Farrán
Park Merced 31	31	568	-	-	-	-	-	-	2028	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Park Merced 34	34	851	12,090	-	-	34,500	-	-	2022	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Park Merced 52	52	851	-	-	-	-	-	-	2016	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Park Merced 883	883	851	12,090	-	-	34,500	-	-	2015	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Park Merced 884	884	851	16,120	-	-	46,000	-	-	2026	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Park Merced 887	887	568	8,060	-	-	23,000	-	-	2014	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Park Merced 888	888	1,135	16,120	30,000	-	46,000	-	-	2023	2008.0021, "Grand green vision for S.F.'s Parkmerced", San Francisco Chronicle, January 21, 2008
Pier 70	559	-	2,430,000	381,800	-	129,200	-	(241,000)	2026	Central Waterfront Proposed Area Plan leaves unchanged; Numbers from Diane Oshima, Port
Pier 80 only	492	-	-	-	-	-	-	-		
Presidio 856	856	(540)	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 857	857	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS

TAZ Name	TAZ	Net Units	Net Growth, Square Feet						Complete	Source
			MIPSNET	CIENET	MEDNET	RETNET	VISNET	PDRNET		
Presidio 858	858	230	-	-	-	-	-	-	2020	Record of Decision; Final Supplemental Environmental Impact Statement. Netcomml_pdr comes from p. 9, other numbers from p. 8 or inferred. Final Supplemental Environmental Impact Statement. The Public Health Service Hospital at the Presidio of San Francisco
Presidio 859	859	(200)	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 860	860	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 861	861	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 862	862	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 863	863	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 864	864	20	19,872	19,950	-	-	10,150	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 959	959	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 960	960	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 961	961	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 962	962	30	99,912	50,050	-	-	50,050	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 963	963	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 964	964	60	300,012	-	-	30,100	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 965	965	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 966	966	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 967	967	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 968	968	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 969	969	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 970	970	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 971	971	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 972	972	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 973	973	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 974	974	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 975	975	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 976	976	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 977	977	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 978	978	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 979	979	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Presidio 980	980	-	-	-	-	-	-	-	2020	Adapted from Presidio Trust Management Plan EIS
Treasure Island 865	865	81	-	6,650	-	-	27,783	-	2020	Adapted from Treasure Island and Yerba Buena Island

TAZ Name	TAZ	Net Units	Net Growth, Square Feet						Complete	Source
			MIPSNET	CIENET	MEDNET	RETNET	VISNET	PDRNET		
										Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 866	866	1,188	-	67,900	-	274,050	204,183	2,268	2026	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 867	867	1,701	-	151,200	-	39,550	-	47,061	2022	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 868	868	521	-	21,000	-	3,500	-	567	2022	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 869	869	1,188	-	30,100	-	10,500	-	1,701	2014	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 870	870	(86)	-	7,350	-	(1,400)	-	-	2022	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 871	871	(244)	-	13,650	-	1,050	-	-	2014	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Treasure Island 872	872	614	-	17,150	-	3,500	-	567	2026	Adapted from Treasure Island and Yerba Buena Island Redevelopment Plan Notice of Preparation of an Environmental Impact Review, January 28, 2008
Vis Valley	876	1,250	-	15,000	-	105,000	-	-	2021	Lennar

## Other Programmed Development

**Table 7 Individual Projects not in Regular Pipeline**

blot	name	taz	NETMIP S	NETPD R	NETCI E	NETME D	NETRE T	NETVI S	Year	Netunits	Source
0695006	Cathedral Hill	318	0	0	0	860000	0	0	2016	0	Jonas Ionin, SF Planning, SF Planning
0694010	Cathedral Hill East	699	0	0	0	150000	0	0	2016		Jonas Ionin, SF Planning
0628014	Pacific Campus	336	0	0	0	0	0	0	2018		Jonas Ionin, SF Planning
01016002	California Campus	323	0	0	0	0	0	0	2018		Jonas Ionin, SF Planning
3539001	Davies	564	0	0	0	0	0	0	2020		Jonas Ionin, SF Planning

blot	name	taz	NETMIP S	NETPD R	NETCI E	NETME D	NETRE T	NETVI S	Year	Netunits	Source
3738004	Transbay Redevelopment	731	0				0	0	2015	123	TransbayRedevelopmentPlan
3738004	Transbay Redevelopment	731	0			0	10000	0	2015	355	TransbayRedevelopmentPlan
3718012	Transbay Redevelopment	781	0	0	0	0	381	0	2021	42	TransbayRedevelopmentPlan
3718025	Transbay Redevelopment	781	0	0	0	0	3317	0	2021	364	TransbayRedevelopmentPlan
3718026	Transbay Redevelopment	781	0	0	0	0	1056	0	2021	116	TransbayRedevelopmentPlan
3718027	Transbay Redevelopment	781	0	0	0	0	1247	0	2021	137	TransbayRedevelopmentPlan
3720001	Transbay Redevelopment	943	565000	0	0	0	0	0	2012	0	TransbayRedevelopmentPlan
3721015 A	Transbay Redevelopment	741	137298	0	0	0	0	0	2019	0	TransbayRedevelopmentPlan
3721016	Transbay Redevelopment	741	20339	0	0	0	0	0	2019	0	TransbayRedevelopmentPlan
3721019	Transbay Redevelopment	741	13954	0	0	0	0	0	2019	0	TransbayRedevelopmentPlan
3721029	Transbay Redevelopment	741	986	0	0	0	0	0	2019	0	TransbayRedevelopmentPlan
3721031	Transbay Redevelopment	741	27423	0	0	0	0	0	2019	0	TransbayRedevelopmentPlan
3736119	Transbay Redevelopment	730	0	0	0	0	3	0	2012	0	TransbayRedevelopmentPlan
3736120	Transbay Redevelopment	730	0	0	0	0	3979	0	2012	430	TransbayRedevelopmentPlan
3737005	Transbay Redevelopment	731	0	0	0	0	2898	0	2011	189	TransbayRedevelopmentPlan
3737012	Transbay Redevelopment	731	0	0	0	0	6460	0	2011	421	TransbayRedevelopmentPlan
3737027	Transbay Redevelopment	731	0	0	0	0	642	0	2011	42	TransbayRedevelopmentPlan
3740032	Transbay Redevelopment	764	0	0	0	0	47	0	2011	2	TransbayRedevelopmentPlan
3749061	Transbay Redevelopment	732	0	0	0	0	0	0	2010	17	TransbayRedevelopmentPlan
3749064	Transbay Redevelopment	732	0	0	0	0	0	0	2010	87	TransbayRedevelopmentPlan
3736016	Transbay Redevelopment	730	0	0	0	0	17	0	2012	2	TransbayRedevelopmentPlan
3739002	Transbay Redevelopment	764	0	0	0	0	0	0	2017	0	TransbayRedevelopmentPlan
3739004	Transbay Redevelopment	764	0	0	0	0	2810	0	2017	42	TransbayRedevelopmentPlan
3739006	Transbay Redevelopment	764	0	0	0	0	0	0	2017	0	TransbayRedevelopmentPlan
3739007	Transbay Redevelopment	764	0	0	0	0	248	0	2017	4	TransbayRedevelopmentPlan
3739008	Transbay Redevelopment	764	0	0	0	0	9942	0	2017	150	TransbayRedevelopmentPlan
3739008	Transbay Redevelopment	764	0	0	0	0	0	0	2017	0	TransbayRedevelopmentPlan
3739008	Transbay Redevelopment	764	0	0	0	0	6000	0	2017	526	TransbayRedevelopmentPlan
3740027	Transbay Redevelopment	764	0	0	0	0	4575	0	2011	162	TransbayRedevelopmentPlan
3740029	Transbay Redevelopment	764	0	0	0	0	883	0	2011	31	TransbayRedevelopmentPlan
3740030	Transbay Redevelopment	764	0	0	0	0	2335	0	2011	83	TransbayRedevelopmentPlan
3740031	Transbay Redevelopment	764	0	0	0	0	2160	0	2011	77	TransbayRedevelopmentPlan
3764068	Transbay Redevelopment	768	0	0	0	0	0	0	2023	64	TransbayRedevelopmentPlan
3749059	Rincon Hill	732	0	0	0	0	0	0	2010	305	RinconProjects

biklot	name	taz	NETMIP S	NETPD R	NETCI E	NETME D	NETRE T	NETVI S	Year	Netunits	Source
3747002	Rincon Hill	767	0	0	0	0	0	0	2013	450	RinconProjects
3747012	Rincon Hill	767	0	0	0	0	0	0	2012	70	RinconProjects
3747019	Rincon Hill	767	0	0	0	0	0	0	2012	82	RinconProjects
3748008	Rincon Hill	767	0	0	0	0	0	0	2013	355	RinconProjects
3765009	Rincon Hill	981	0	0	0	0	0	0	2009	709	RinconProjects
3736121	Foundry Square III	730	252500	0	0	0	9518	0	2011	0	RinconProjects



Michael Schwartz <michael.schwartz@sfcta.org>

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## Fwd: SFCTA Model Consistency 2009

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Elizabeth Sall <elizabeth@sfcta.org>  
To: Michael Schwartz <Michael.schwartz@sfcta.org>

Fri, Jun 7, 2013 at 4:23 PM

----- Forwarded message -----

From: **David Ory** <DOry@mtc.ca.gov>  
Date: Fri, Jun 7, 2013 at 4:22 PM  
Subject: SFCTA Model Consistency 2009  
To: Elizabeth Sall <elizabeth@sfcta.org>

Dear Elizabeth,

This email confirms that I verbally approved SFCTA's Modeling Consistency requirement for the 2009 CMP.

Kindest Regards,

Dr. David T. Ory

Principal, Planning

MTC

101 Eighth Street

Oakland, CA 94607

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# Appendix 3

## Cross Transit Delay and Travel Time Reduction Proposals





# Memorandum

**Date:** 07/02/2013  
**To:** Tilly Chang, Deputy Director for Planning  
**From:** Michael Schwartz, Senior Transportation Planner  
**Subject:** Van Ness BRT Cross Transit Delay Analysis

This memorandum summarizes the potential delay to transit vehicles crossing Van Ness Avenue that could result from implementation of the Van Ness Bus Rapid Transit (BRT) project. The analysis was done in response to comments received by the San Francisco County Transportation Authority (Authority) as part of its review of the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR).

## BACKGROUND

The analysis uses transit delay methodology developed by Adavant Consulting, Wilbur Smith Associates (now CDM Associates), and CHS consulting in a memorandum dated October 22, 2008. This methodology was used to determine transit delay impacts for the Bicycle Plan EIR.

## METHODOLOGY

The analysis quantifies the delay that could potentially be experienced by transit vehicles crossing the Van Ness corridor from Mission Street to Lombard Street. The total transit vehicle delay is assumed to comprise of the following cumulative elements:

- **Traffic Congestion Delay** - The traffic congestion delay represents the additional time experienced by a transit vehicle as it travels between stops across one or more intersections in the corridor due to congestion caused by other vehicular traffic traveling parallel or perpendicular to the transit flow.
- **Passenger Boarding Delay** - The additional dwell time incurred by transit vehicles at stops waiting for passengers to board and pay the fare.<sup>1</sup>
- **Transit Reentry Delay** - The transit reentry delay represents the wait for a sufficient gap in traffic flow to allow a bus to pull back from its stop into the travel lane.

Since intersection congestion in the study area currently is, and would continue to be, most severe during the weekday PM peak hour, this time period was evaluated for the effects to SFMTA transit operations.

As the significance criteria consider only the incremental increase in transit travel time as a result of the project (i.e., greater than 50% of the route's headway during the PM peak), the transit travel time

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<sup>1</sup> Delay due to passenger alighting is captured within the passenger boarding delay because passengers can exit and enter via all doors on a transit vehicle.

evaluation only considers the following scenarios:

- 2007 Existing Conditions
- 2035 Baseline (No Build) Alternative (considered to be the baseline for the analysis);
- 2035 Baseline plus Project Alternative.

Since traffic diversions and delays are higher in 2035 than 2015, this represents the worst case scenario. Similarly, since Design Option B (LPA) is expected to have the highest rate and number of diversions, this also represents a worst case scenario. Using the following criteria, each measure of transit delay was calculated for each of the 50 crossing routes with PM service at the station on or closest to Van Ness Avenue.

**Traffic congestion delay:** Increased traffic congestion along transit routes slows down transit vehicles and results in increased transit travel times. Congestion delay was quantified from the results of the intersection operations analysis performed in SYNCHRO for the study area. For every transit line that crosses Van Ness Avenue, the transit delay was estimated as the average delay per vehicle at the individual intersection movements through which the transit line would operate. The additional traffic congestion delay was calculated as the difference between the delay in the 2035 No Build scenario and 2007 Base Year, between the 2035 Project scenario and 2007 Base Year, and between the 2035 Project Scenario and 2035 No Build scenario. For transit lines that operate within a transit-only lane (i.e., those operating on Market and Geary streets), the transit delay can be estimated as half the average red time at the controlling traffic signal (as transit vehicles would not be subject to the congestion experienced by regular traffic at these locations). Because the signal timing is not projected to change between scenarios, transit lines in transit only lanes (e.g. the 38 and 38L) do not experience additional traffic congestion delay.

**Passenger boarding delay:**<sup>2</sup> Although increases in transit ridership are generally viewed as a project benefit, the amount of time required for passenger boarding and alighting (i.e., the dwell time) is directly correlated to the number of passengers boarding the transit vehicle. As transit ridership increases, transit vehicles would have to spend more time at stops, which may increase overall transit travel times, which could impact service. Passenger boarding delay was estimated by examining the increase in transit ridership on individual buses generated from existing conditions to the 2035 No Build Alternative and again to the 2035 Baseline plus Project Alternative to understand the ridership impacts of the project in the context of background growth. Passenger boardings were estimated by applying a growth factor between existing conditions (2007), 2035 No Build, and 2035 Baseline Plus Project derived from SF-CHAMP, the Authority's activity-based travel demand model. The growth factor was applied to Automatic Passenger Counter (APC) ridership data from 2007 to estimate new passenger boardings in the 2035 No Build Alternative and 2035 Baseline Plus Project Alternative scenarios. Passenger boarding delay was then calculated by multiplying the change in boardings by an average boarding time, assumed to be two seconds per passenger for buses and 0.5 seconds per passenger for light rail vehicles, consistent with assumptions for VISSIM model used for the Van Ness Avenue BRT EIS/EIR (see VISSIM Data Portfolio as part of Van Ness Avenue BRT Vehicular Traffic Analysis Technical Memorandum).

**Transit re-entry delay:** Transit vehicles typically experience delays after stopping to pick-up and drop-off passengers while waiting for gaps in adjacent street traffic in order to pull out of bus stops. As traffic volumes on the adjacent street increase, re-entering the flow of traffic becomes more difficult and transit vehicles experience increased delay. For this analysis, re-entry delay was not calculated for each individual crossing route. Instead, the difference between the threshold for significant delay (assumed

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<sup>2</sup> It is assumed that the additional travel and boarding delay as a result of the Van Ness BRT project to cross transit routes would be limited to the stop closest to Van Ness Avenue.

to be ½ of a transit route’s headway), and the sum of the transit travel and passenger boarding delays as calculated above, is reported. In other words, the maximum acceptable transit re-entry delay is calculated for each route. Based on empirical data presented in the 2000 Highway Capacity Manual, a transit re-entry delay of 14 seconds is expected where traffic volumes in the adjacent travel lane exceed 1000 vehicles/hour. It is assumed that re-entry delay would be minimal for buses or rail vehicles operating in transit-only lanes.

**Total Transit Delay:** The total transit delay for each transit line that operates within the study area was calculated as the sum of the traffic congestion and passenger boarding delays. This additional travel time is assumed to be potentially significant if greater than 50% of a transit line’s headway in the project year. The additional transit re-entry delay that would put a given line over the threshold was examined in cases where the transit travel and passenger boarding delays were close to meeting the threshold.

## RESULTS

Of the 50 routes with PM-service crossing Van Ness Avenue, none exceed the 50% average PM headway threshold in the 2035 Baseline plus Project scenario. Two transit lines are expected to have incremental delays between 25% and 50% of a headway (the 31 inbound and the 38L outbound). The re-entry delay in both cases would have to exceed a minute for the 50% headway threshold to be exceeded in the case of the 31, and is not applicable to the 38L because it operates in a transit only lane. Based on the SFMTA Transportation Engineering’s Draft Travel Time Reduction Proposals: Transit Preferential Toolkit (SFMTA, 2012; see Attachment 1), pull out delay averages 5 seconds per the benefits anticipated through bus bulbs. This is significantly less than the delay required for there to be a significant impact for the 31 (more than a minute).

The table below shows the delay for cross transit routes with expected delays above 20% of average headways during the PM peak.

**Table 1: Cross Transit Delay (Most Delayed Routes)**

Line	Cross Street	Total Additional Delay (sec)			Additional Delay as Percent of Headway			Re-Entry Time to Exceed Threshold (sec)		
		2007 to 2035 No Build	2035 No Build to 2035 BRT	2007 to 2035 BRT	2007 to 2035 No Build	2035 No Build to 2035 BRT	2007 to 2035 BRT	2007 to 2035 No Build	2035 No Build to 2035 BRT	2007 to 2035 BRT
MUN31I	Eddy	48	190	238	8%	32%	40%	252	110	62
MUN38LO	Geary	25	4	29	21%	4%	25%	35	56	31
MUN1I	Clay	50	-8	42	28%	-4%	23%	40	98	48
MUN71I	Market	70	62	132	12%	10%	22%	230	238	168
MUN6I	Market	78	54	132	13%	9%	22%	222	246	168
MUN21O	Hayes	91	0	91	22%	0%	22%	119	210	119
MUN1O	Sacramento	-4	40	36	-2%	22%	20%	94	50	54

The last three columns show the reentry time that would result in a transit line exceeding the 50% headway delay threshold. Again, with average re-entry delay anticipated to be 5 seconds per stop/intersection (source: SFMTA, 2012; for the 38L, there would be no re-entry delay because the route travels in a transit only lane), none of the routes would exceed the threshold.

Appendix A lists the expected delay for all transit routes. For 23 of the 50 routes, the BRT Project is expected to reduce or produce no added delay when compared to Baseline Conditions.

## CONCLUSION

Based on the transit travel delay analysis above, the Van Ness BRT Project is not expected to incur a significant travel time delay on any transit route crossing Van Ness Avenue.

Attachments (1): Travel Time Reduction Proposals: Transit Preferential Toolkit (Draft, 12/6/12)

cc: C. Pangilinan – SFMTA

C Shao, P. Narayanan – CHS Consulting

STR – Chron, File: Van Ness BRT

## **Appendix A: Cross Transit Delay (All Routes)**

Line	Cross Street	Add'l Traffic Congestion Delay (sec)			Add'l Pax Boarding Delay (sec)			Total Additional Delay (sec)			Delay as Percent of Headway			Re-Entry Time to Exceed Threshold (sec)		
		2007 to 2035 No Build	2035 to 2035 BRT	2007 to 2035 BRT	2007 to 2035 No Build	2035 to 2035 BRT	2007 to 2035 BRT	2007 to 2035 No Build	2035 to 2035 BRT	2007 to 2035 BRT	2007 to 2035 No Build	2035 to 2035 BRT	2007 to 2035 BRT	2007 to 2035 No Build	2035 to 2035 BRT	2007 to 2035 BRT
MUN31I	Eddy	35	193	228	13	-3	10	48	190	238	8%	32%	40%	252	110	62
MUN38LO	Geary	0	0	0	25	4	29	25	4	29	21%	4%	25%	35	56	31
MUN1I	Clay	46	-7	39	4	-1	3	50	-8	42	28%	-4%	23%	40	98	48
MUN71I	Market	70	62	132	0	0	0	70	62	132	12%	10%	22%	230	238	168
MUN6I	Market	70	62	132	8	-8	0	78	54	132	13%	9%	22%	222	246	168
MUN21O	Hayes	92	2	94	-1	-2	-3	91	0	91	22%	0%	22%	119	210	119
MUN1O	Sacramento	-3	37	34	-1	3	2	-4	40	36	-2%	22%	20%	94	50	54
MUN7I	Market	70	62	132	4	0	4	74	62	136	8%	7%	15%	376	388	314
MUN38LI	O Farrell	0	0	0	28	-1	27	28	-1	27	15%	-1%	15%	62	91	63
MUNFI	Market	1	48	49	-2	0	-2	-1	48	47	0%	11%	11%	211	162	163
MUN26I	Market	70	62	132	-4	0	-4	66	62	128	6%	5%	11%	534	538	472
MUN21I	Grove	10	28	38	-1	0	-1	9	28	37	2%	7%	9%	201	182	173
MUN45I	Union	-4	33	29	5	3	8	1	36	37	0%	7%	7%	270	234	233
MUN5I	Mc Allister	36	-27	9	2	5	7	38	-23	16	13%	-8%	5%	112	173	135
MUN38I	O Farrell	0	0	0	14	-1	13	14	-1	13	3%	0%	3%	196	211	197
MUN41O	Union	8	2	10	0	1	1	8	3	11	2%	1%	3%	202	207	199
MUN12I	Jackson	14	14	28	-3	0	-3	11	14	25	1%	1%	2%	589	586	575
MUN45O	Union	8	2	10	-1	2	1	7	4	11	1%	1%	2%	263	267	259
MUN12I	Pacific	9	1	10	0	-1	-1	9	0	9	2%	0%	2%	291	300	291
MUN14I	12th	21	-26	-5	5	5	10	26	-21	5	7%	-6%	1%	154	201	175
MUN3O	Sutter	-29	36	7	-3	0	-3	-32	36	4	-5%	6%	1%	332	264	296
MUN6O	Market	33	-28	5	-2	1	-1	31	-27	4	5%	-5%	1%	269	327	296
MUN12O	Pacific	-7	1	-6	0	9	9	-7	10	3	-1%	2%	1%	307	290	297
MUN2O	Sutter	-29	36	7	-4	0	-4	-33	36	3	-6%	6%	1%	333	264	297
MUN4O	Sutter	-29	36	7	-3	0	-3	-32	36	5	-4%	4%	1%	482	414	446
MUN7O	Market	33	-28	5	-2	1	-1	31	-27	4	3%	-3%	0%	419	477	446
MUN71LO	Market	33	-28	5	-3	0	-3	30	-28	2	5%	-5%	0%	270	328	298
MUN26O	12th	0	-6	-6	-3	7	4	-3	1	-2	0%	0%	0%	603	599	602
MUN27O	Jackson	1	3	4	-4	-1	-5	-3	2	-1	0%	0%	0%	363	358	361
MUN27I	Jackson	-7	1	-6	0	0	0	-7	1	-6	-1%	0%	-1%	367	359	366
MUN4I	Post	5	-14	-9	0	-1	-1	5	-15	-10	1%	-2%	-1%	445	465	460
MUN30XO	Chestnut	5	-11	-6	-4	0	-4	1	-11	-10	0%	-2%	-2%	299	311	310
MUN2I	Post	5	-14	-9	0	0	-1	5	-14	-10	1%	-2%	-2%	295	314	310
MUN3I	Post	5	-14	-9	0	-1	-1	5	-15	-10	1%	-2%	-2%	295	315	310
MUN12O	Jackson	29	-54	-25	-1	0	-1	28	-54	-26	2%	-5%	-2%	572	654	626
MUN31O	Eddy	0	-4	-4	-7	-2	-9	-7	-6	-13	-1%	-1%	-2%	307	306	313
MUN16BXO	Turk	6	-22	-16	-9	2	-7	-3	-21	-23	0%	-2%	-3%	453	471	473
MUN16AXO	Turk	6	-22	-16	-10	1	-9	-4	-21	-25	0%	-2%	-3%	454	471	475
MUN14O	12th	0	-6	-6	-2	-4	-7	-2	-10	-13	-1%	-3%	-4%	182	190	193
MUNFO	Market	11	-35	-24	1	0	1	12	-35	-23	3%	-8%	-6%	198	245	233
MUN38O	Geary	0	0	0	-26	0	-26	-26	0	-26	-7%	0%	-7%	206	180	206
MUN5O	Mc Allister	-40	-1	-41	-5	3	-2	-45	2	-43	-15%	1%	-14%	195	148	193
MUN16AXI	Golden Gate	No Inbound PM Service														
MUN16BXI	Golden Gate	No Inbound PM Service														
MUN30XI	Chestnut	No Inbound PM Service														
MUN41I	Union	No Inbound PM Service														
MUN71LI	Market	No Inbound PM Service														
MUN71O	Market	No Inbound PM Service														

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SFMTA TRANSPORTATION  
ENGINEERING

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TRAVEL TIME  
REDUCTION  
PROPOSALS:  
  
TRANSIT  
PREFERENTIAL  
TOOLKIT

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## INTRODUCTION

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This transit preferential toolkit provides a description of common measures to reduce transit travel time, including planning-level cost estimates and estimated travel time savings. Excluded in this list are changes related to the design and operation of transit vehicles themselves, such as low-floor buses or all-door boarding. Estimated travel time savings are provided for individual measures, although some measures have greater travel time savings if applied through an entire corridor. Travel time savings may vary greatly depending on context and only detailed analysis can provide reliable estimates for particular locations. Information is provided on where these measures may generally be applied and potential implementation challenges.

## SOURCES OF DELAY

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Each transit preferential toolkit measure can reduce transit travel time by reducing one or more of the following elements of transit delay:

- **Transit stop delay.** Delay caused by decelerating and pulling into a transit stop.
- **Dwell delay.** Delay caused by Muni customers entering and leaving the transit vehicle. Measured from opening of doors to closing of doors.
- **Merge delay.** Delay caused by transit vehicle merging back into traffic after serving a transit stop.
- **Congestion delay.** Delay caused by traffic queues, such as those due to turning traffic waiting for gaps in crossing pedestrians or general traffic congestion.
- **Traffic signal delay.** Delay caused by a traffic signal, including stopped and congestion delay.
- **STOP sign delay.** Delay caused by a STOP sign, including deceleration and congestion.
- **Parking delay.** Delay caused by delivery vehicles, parking maneuvers, driveways, and other on-street parking friction factors.

The most cost-effective measures for reducing transit travel time are generally transit stop removal or consolidation and transit signal priority. These measures remove the most common sources of stopped delay with the lowest relative costs. As transit signal priority is being implemented through a separate Agency effort, it is not addressed in this document.

## TRAVEL TIME SAVINGS

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Transit travel time savings can directly benefit customers through reduced travel times and can indirectly benefit the SFMTA through reduced operating costs. Many of the measures also improve transit reliability by reducing or eliminating sources of intermittent delays. Of the measures outlined in this report, only transit stop removal or consolidation may potentially increase total trip times for some customers due to an increased walking distance to/from transit stops. However, in many cases the additional time required to access a transit stop may be offset by reduced travel time onboard a transit vehicle. To maximize the potential operating cost savings resulting from travel time savings, scheduling must be monitored and adjusted. In

exceptional cases, travel time savings along a transit route may be significant enough to reduce the number of vehicles and operators required to maintain the same frequency of service. Methodology and Planning Assumptions

The estimated travel time savings and costs provided in this report are intended to communicate the relative benefits and costs of each element and may require further refinement as location-specific proposals are developed. The estimated travel time savings provided in this report are generally applicable to peak period conditions in the peak direction of transit travel and are based on a combination of SFMTA’s own analysis and experience, as well as industry reports on other agency experiences. The cost estimates provided in this report are based on past SFMTA projects, but construction costs can vary widely based on specific site conditions. Methodologies to estimate the monetary value of customers’ time have been proposed but are included in this report.

### Estimated Travel Time Savings and Costs by Measure

Measure	Scenario	Estimated Travel Time Savings*	Estimated Cost*
1. Remove or Consolidate Transit Stops	Bus, near-side at all-way STOP	5 seconds	\$3,000
	Bus, far-side or uncontrolled	15 seconds	
	Bus, nearside at traffic signal	20 seconds	
	Light rail vehicle, near-side at all-way STOP	15 seconds	\$3,000 if no boarding island / \$25,000 if need to remove boarding island
	Light rail vehicle, far-side at all-way STOP or uncontrolled	30 seconds	
	Light rail vehicle, at traffic signal	30 seconds	
2. Optimize Transit Stop Locations at Intersections	Move far-side bus stop to near-side at STOP sign	15 seconds	\$3,000 (no island) / Up to \$350,000 (with island, assumes adding key stop)
	Move near-side rail flag stop to far-side at signal; or near-side bus stop to far-side at signal	20 seconds	
	Move far-side rail flag stop to near-side at STOP sign	30 seconds	
3. Install Transit Bulbs	Install transit bulb at existing transit zone	5 seconds	\$200,000
	Extend existing transit bulb	(Time saved by extending zone)	\$100,000
	Remove existing transit bulb	(Time saved by removing stop)	\$50,000

Measure	Scenario	Estimated Travel Time Savings*	Estimated Cost*
4. Install Transit Boarding Islands	Low to moderate traffic delay (bus)	5 seconds	\$200,000
	Low to moderate traffic delay (rail, assumes key stop)	5 seconds	Up to \$500,000
	High volume right turning traffic delay (rail assumes key stop)	variable	\$100,000 (bus) / \$350,000 (rail)
	Extension of existing island (rail)	(Time saved by extending zone)	Up to \$350,000 (assumes addition of key stop)
5. Optimize Transit Stop Lengths	Extend transit zone to accommodate two vehicles at a time	2 seconds	\$3,000
6. Convert Flag Stops to Transit Zones	Adding a transit zone at an existing flag stop	5 seconds	\$3,000
7. Establish Transit-Only Lanes	Suitable corridor with high transit volume frequencies	5 to 30 seconds	\$10,000 (text and signage only)/ \$35,000 (colored pavement) per block per direction
8. Establish Transit Queue Jump/Bypass Lanes	Removal of parking where justified. Low right turning traffic friction delay.	5 seconds to 30 seconds	\$5,000; up to \$200,000 if signalized
9. Establish Dedicated Turn Lanes	High pedestrian activity or traffic volumes causing turn delay	5 seconds	\$3,000 for no signal modification; \$10,000 if already 2070 / \$30,000 if controller upgrade / \$200,000 if full upgrade
10. Widen Travel Lanes through Lane Reductions	Corridors with substandard lane widths	5 seconds to 30 seconds	\$10,000 per block per direction

Measure	Scenario	Estimated Travel Time Savings*	Estimated Cost*
11. Implement Turn Restrictions	High pedestrian activity or traffic volumes causing turn delay	5 seconds	\$3,000 per intersection for striping and signage; higher if other infrastructure added
12. Widen Travel Lanes through Parking Restrictions	Corridors with substandard lane widths	5 seconds to 30 seconds	\$10,000 per block per direction
13. Install Traffic Signals at Uncontrolled and Two-way STOP-Controlled Intersections		None	\$400,000
14. Install Traffic Signals at All-way STOP-Controlled Intersections	Bus at low volume intersection	10 seconds	\$400,000
	Bus at moderate volume major and low volume minor street, actuated; Rail at low volume intersection	20 seconds	
	Bus at congested major street; Rail at moderate volume or congested major street	30 seconds	
15. Replace All-Way STOP-Controlled Intersections with Traffic Calming Measures	Bus at low volume intersection	10 seconds	Varies by device
	Bus at moderate volume major and low volume minor street, actuated; Rail at low volume intersection	20 seconds	
	Bus at congested major street; Rail at moderate volume or congested major street	30 seconds	
16. Install Pedestrian Refuge Islands	Transit Stop	5 seconds	\$25,000
	Non-transit stop	2 seconds	\$25,000
17. Install Pedestrian Bulbs	Install pedestrian bulb	2 seconds	\$100,000
18. Widen Sidewalk		None	Varies

\*Generalized estimates; time savings and cost may vary by location.

## TRAVEL TIME REDUCTION MEASURES

### 1. REMOVE OR CONSOLIDATE TRANSIT STOPS

- What it is:** Removing closely spaced transit stops can decrease transit travel times by reducing the frequency that transit vehicles must stop to pick-up and drop-off customers. Consolidating transit stops involves removing two adjacent transit stops and establishing a new transit stop at an intermediate location.
- How it works:** The TEP's Planning Phase analysis found that about 70% of the SFMTA's transit stops were spaced closer than 800' along bus routes and 1000' along rail lines. Reducing the number of transit stops in accordance with transit stop-spacing guidelines developed as part of the TEP Policy Framework can reduce delays while maintaining a high level of customer access to transit stops. Where transit stops with established transit zones are removed, the resulting space can be used for parking, loading zones, bike corrals, parklets, parking restrictions at intersection approaches to improve pedestrian visibility and sight distance or other uses. Consolidating two transit stops into a new intermediate transit stop may require removal of parking at the new transit stop, but the net impact on parking can be minimized by restoring parking at removed transit stops. Establishing new transit stops where color curb zones exist may require converting nearby general parking into replacement color curb zones to continue to accommodate loading needs or disabled parking.
- Application:** Removal or consolidation of transit stops should be implemented in accordance with transit stop-spacing guidelines developed as part of the TEP Policy Framework.
- Estimated Cost:** \$3,000 per transit stop; \$25,000 per transit stop with boarding island removal.
- Time Savings:** Estimated travel time savings of 5 to 30 seconds per transit stop removed, depending on traffic controls and vehicular volumes and accounting for the likelihood that a given bus would need to stop and other factors. Past SFMTA experience indicates that a typical bus takes about 20 seconds to decelerate and come to a stop, open and close doors (not including dwell time between opening and closing doors), and merge back into traffic and resume normal speed. Dwell time savings are not included since they are expected to be offset by added dwell time at adjacent transit stops. Travel time savings are estimated to be greater for light rail vehicles due to their slower acceleration/deceleration and door cycling times. Travel time savings may be reduced where lightly used transit stops are removed or where transit stops located at the near-side of intersections controlled by STOP signs are removed, since transit vehicles would still be required to stop at these intersections. During off-peak periods travel time savings may be less at transit stops with low customer activity since not every stop is served by every transit vehicle.

<b>Scenario</b>		<b>Estimated Travel Time Savings</b>
Bus stop removal	Near-side at STOP sign	Up to 5 seconds
	Far-side at STOP sign or uncontrolled	Up to 15 seconds

	At traffic signal	Up to 20 seconds
Light rail vehicle stop removal	Near-side at STOP sign	Up to 15 seconds
	Far-side at STOP sign or uncontrolled	Up to 30 seconds
	At traffic signal	Up to 30 seconds

**Challenges:** In certain areas, hills, transfer points, block lengths, and sensitive land uses may make transit stop removal or consolidation impractical. Transit stop removal or consolidation should also consider the location of intersection controls that can make certain crossing points safer for pedestrians. Where transit stop removal or consolidation is feasible, travel time savings at some stops may not be as significant if transit vehicles rarely stop due to low customer activity.

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## 2. OPTIMIZE TRANSIT STOP LOCATIONS AT INTERSECTIONS

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**What it is:** Placement of a transit stop either near or far-side at an intersection to reduce STOP sign or traffic signal delay.

**How it works:** Optimizing transit stop locations at intersections can decrease transit travel times by reducing the number of times transit vehicles stop at intersections controlled by STOP signs or by reducing the likelihood of transit vehicles arriving on a red signal indication at intersections controlled by traffic signals.

**Application:** At STOP-controlled intersections, it is generally recommended that transit stops be located on the near-side of the intersection to enable transit vehicles to conduct customer pick-up and drop-off while stopped at the STOP sign, rather than needing to stop a second time to conduct customer pick-up and drop-off on the far-side of the intersection. At traffic signal-controlled intersections, it is generally recommended that transit stops be located on the far-side of the intersection to allow transit vehicles to take advantage of existing and planned transit signal priority improvements that could allow traffic signals to be programmed to hold green signals for approaching transit vehicles. These recommendations are based on the assumption that the bus is traveling straight through an intersection and may not apply when a bus turns due to geometric considerations to facilitate the movement of the bus through the intersection.

**Estimated Cost:** \$3,000 per transit stop; \$350,000 per light rail transit stop including new boarding island.

**Time Savings:** Estimated travel time savings of 15 to 30 seconds per transit stop, dependent on context and traffic control devices (see table below). Minimal travel time savings are estimated where lightly used transit stops are optimized.

Scenario	Estimated Travel Time Savings
Move far-side bus stop to near-side at STOP sign	15 seconds
Move near-side rail flag stop to far-side at signal; or near-side bus stop to far-side at signal	20 seconds
Move far-side rail flag stop to near-side at STOP sign	30 seconds

Challenges: In certain areas, transfer points, route turns, on-street parking, and sensitive land uses may make ideal zone locations impractical. Midblock transit stops may not be intuitive to customers as many expect stops to be at intersections. Heavy right-turning traffic volumes may add additional challenges to near-side stops. Zones longer than one standard transit vehicle may be difficult to approve in areas with high on-street parking demand.

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### 3. INSTALL TRANSIT BULBS

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- What it is:** Transit bulbs are sidewalk extensions at the location of a transit stop, typically about the same width as the adjoining parking lane.
- How it works:** Transit bulbs can reduce transit travel times on bus routes by eliminating the need for buses to exit and re-enter the flow of traffic<sup>1</sup> to access curbside transit stops and by facilitating accessible boarding by allowing buses to align directly with the curb. Transit bulbs can reduce transit travel times on rail lines by providing a place for boarding customers to wait directly adjacent to a stopped light rail vehicle (LRV), thereby eliminating the time needed for customers to walk from the curb across a parking lane to the LRV.
- Application:** Transit bulbs will generally provide the greatest travel time savings at bus stops with high merge delay. However, transit bulbs have multiple benefits, including:
- a) Provision of more space for transit shelters, landscaping and related transit stop amenities.
  - b) Reduced sidewalk crowding due to loading activities.
  - c) Increased customer comfort waiting for transit service.
  - d) Improved pedestrian safety through reduced street crossing distance for pedestrians, improved pedestrian visibility and reduced speed of turning traffic.
  - e) Improved on-board customer comfort by eliminating the bus weaving in and out of a zone.

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<sup>1</sup> Legislation to require motorists to yield to merging buses has not been adopted by the State of California

- f) Improved system safety by reducing sideswipe collisions between passing motor vehicles and stopped transit vehicles.
- g) Improved bus alignment (especially the rear of the bus) in the transit zone directly next to the curb, allowing boarding to occur directly onto the sidewalk, rather than into the street.

Dimensions will vary by site, but typical transit bulbs are 6 feet wide and use 10-foot and 20-foot transition radii. See DPW Standard Plans 87,175 for typical dimensions of transitions, available at

<http://www.sfdpw.org/ftp/uploadedfiles/sfdpw/boe/87,175.pdf>.

Typical approximate lengths for bus bulbs are shown in the table below (note that transit bulbs are not typically used for 30-foot buses as this fleet type is generally utilized on lower-volume, less frequent routes).

Stop Position (Bus Bulbs)	Type of Vehicle and Appropriate Zone Length (Ft.)			
	40' Bus	2x40' Bus	60' Bus	2x60' Bus
Midblock	35	80	55	115
Nearside	35	80	55	115
Farside	45	90	65	130
Farside (after right turn)	<i>Varies based on vehicle type (trolley or biodiesel) and lane configuration</i>			

**Estimated Cost:** \$100,000 to \$400,000 per bulb, depending on the location, with \$200,000 as a generalized estimate. Higher end estimates are based on requirements to relocate utilities, sewer catch basins, and fire hydrants. Decorative sidewalks and sub-sidewalk basements present the most significant design complications.

**Time Savings:** Estimated travel time savings of 5 seconds per bus bulb. Review of TCRP REPORT 65 "Evaluation of Bus Bulbs" indicated low travel time savings resulted from some projects. In general, transit bulbs provide the greatest travel time savings at bus stops with high merge delay. These delays can vary between a few seconds to 20 or more, depending on traffic conditions. Lower-end time savings are expected at locations with low traffic volumes and STOP sign controls. At many locations operators may not be fully pulling into transit zones consistently. At these locations, travel time may be saved through faster boarding times due to improved customer access to the transit vehicle rather than reduced merge delay.

**Challenges:** Transit bulbs require transit vehicles to block travel lanes while serving transit stops. On streets with one travel lane in a given direction there is the potential for intersections to become unintentionally blocked by motorists following the transit vehicle (far-side bulb) or for motorists to pass stopped transit vehicles on the left using an opposing traffic lane (near-side bulb). Some customer loading maneuvers



can require more than a minute to be completed. For this reason bulbs on two-lane roadways should be applied with caution. Factors to consider include the volume of affected through traffic, intersection traffic controls, and the frequency of transit service. Transit bulb design should be coordinated with the fire department to ensure access to fire hydrants is maintained and to review potential impacts to emergency response times.

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#### 4. INSTALL TRANSIT BOARDING ISLANDS

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What it is:	Transit boarding islands are raised islands within the street that allow transit vehicles to use a center lane within the roadway to pick-up and drop-off customers at transit stops.
How it works:	Transit boarding islands can reduce transit travel times on bus routes by eliminating the need for buses to exit and re-enter the flow of traffic to access curbside transit stops. Transit boarding islands also allow the bus to avoid the curb lane, which is generally slower as a result of parking maneuvers, right turns and illegal double parking. Transit boarding islands can reduce transit travel times on rail lines that operate on fixed guideways in the center of the street by providing a place for boarding customers to wait directly adjacent to a stopped LRV, thereby eliminating the time needed for customers to walk from the curb to the LRV.
Application:	New transit boarding islands require curb ramps. If the island is used by buses, it should be a minimum of eight-feet wide to allow for wheelchair lift deployment. Boarding islands typically used exclusively by LRVs should also be at least eight feet wide where feasible to allow for the occasional replacement of LRV service with substitute bus service. All new LRV boarding islands constructed must provide access to LRVS (e.g. high-level boarding or a mini-high platform) unless the grade of the street makes it structurally impracticable. Pedestrian railings may be included. Installation of boarding islands on streets with grades must be carefully reviewed to ensure accessibility requirements are met (typically slope cannot exceed 8.33%).
Estimated Cost:	\$50,000 to \$200,000 or more per island along bus routes, depending on drainage issues; Up to \$500,000 per island along rail lines with mini-high platform for accessible boarding.
Time Savings:	Estimated travel time savings of 5 seconds per island. Travel time savings will vary by intersection along bus routes depending on traffic conditions, particularly the level of traffic using curbside lanes versus center lanes.
Challenges:	Many streets do not have the necessary width required to accommodate transit boarding islands. Transit boarding islands can be less convenient for customers than curbside stops and in some locations sidewalks offer more space for customer amenities. Boarding islands may encourage pedestrians to cross outside crosswalks. At some intersections center lane may be congested as well, particularly from left turning traffic. Turning prohibitions can be considered but these may affect local circulation. The placement of boarding islands must consider vehicle access to driveways and vehicle turning movement; in particular far-side boarding islands may interfere with vehicles turning from cross streets onto the transit street.

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## 5. OPTIMIZE TRANSIT STOP LENGTHS

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- What it is:** Providing sufficient space at transit stops to allow all doors of transit vehicles to align with curb or boarding island and to allow multiple transit vehicles to serve stops concurrently.
- How it works:** Where transit stops serve multiple transit routes and/or routes with frequent service, transit stops would be designed to accommodate multiple transit vehicles at the same time, thereby reducing the delay associated with a second transit vehicle waiting to access a transit stop to pick-up and drop-off customers.
- Application:** Optimal transit stop length depends on multiple factors, including service frequency, vehicle type and location of stop. Typical approximate lengths for bus stops to accommodate two buses are shown in the table below. These lengths allow buses to pull into the transit zone parallel to the curb, and smoothly pull out of the zone. Far-side zones located after a right turn have a longer recommended length to allow the bus to straighten out after completing the turn.

Stop Position	Type of Bus and Appropriate Zone Length (Ft.)				
	30'	40'	2x40'	60'	2x60'
Midblock	100	120	185	140	205
Nearside	80	100	145	120	185
Farside	50	80	125	100	165
Farside* (After right turn)	100	120 to 140	160 to 180	140 to 160	200 to 220

*\*While suggested zone lengths are listed for zones after turns, the appropriate length varies broadly based on vehicle type (trolley or biodiesel) and lane configuration*

- Estimated Cost:** \$3,000 per transit stop.
- Time Savings:** Estimated average travel time savings of 2 seconds per transit stop (2 seconds is assumed but a more precise estimate could be made of how much delay each bus typically spends waiting for a bus ahead of it to conduct loading activities.)
- Challenges:** May require removal of on-street parking.

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## 6. CONVERT FLAG STOPS TO TRANSIT ZONES

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- What it is:** Converting flag stops to transit zones allows buses to pull into the zone to serve customers directly at the curb, rather than from the street.
- How it works:** Converting flag stops to transit zones can reduce transit travel times by allowing customers to be picked-up and dropped-off at the curb instead of in the street. Transit zones also provide transit operators with a clear line-of-sight to see waiting customers and to pull alongside the curb, improving transit accessibility and

customer convenience. Allowing customers to board directly from the curb reduces the height that customers must go up to board the vehicle, and aids in the deployment of the ADA ramp.

- Application:** At lightly-used transit stops. Not recommended at moderately- to highly- used transit stops. (Transit bulbs may be more appropriate for those locations.)
- Estimated Cost:** \$3,000 per transit stop.
- Time Savings:** Estimated travel time savings of 5 seconds per transit stop is assumed to reflect that most buses will no longer have to slow down to ensure that the operator can see any waiting customers, and customers will not need as much time to board the bus as they will have direct access to the bus from the curb.
- Challenges:** May require removal of on-street parking. Additionally, establishing a transit zone can add delay if buses have difficulty pulling out of the zone back into traffic.

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## 7. ESTABLISH TRANSIT-ONLY LANES

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- What it is:** A transit-only lane is a travel lane that is dedicated for the exclusive use of transit vehicles.
- How it works:** Transit-only lanes can reduce transit travel times by allowing transit vehicles to bypass traffic congestion and avoid conflicts with other vehicles in mixed travel lanes. Non-transit vehicles are typically permitted to enter transit-only lanes to access curbside parking or to complete a turn, unless specifically prohibited. Transit-only lanes could be dedicated full-time or only for certain hours of the day, such as during peak traffic hours. For example, transit-only lanes may be created in parking lanes with peak-period parking restrictions.
- Application:** Streets with space for two or more travel lanes in the same direction where transit vehicles experience congestion delay. Transit-only lanes are typically 11 to 13 feet wide and at least one block long. Contraflow transit lanes can be used on one-way streets with two or more travel lanes by reversing the direction of one of the lanes and limiting access to transit only.
- Estimated Cost:** \$10,000 per block per direction for “Transit Only” pavement markings and signs; \$35,000 per block per direction for a colored-pavement treatment (estimates based on 400-foot block lengths). Coloring transit-only lanes can improve compliance, but requires a significant capital investment and ongoing maintenance.
- Time Savings:** Estimated travel time savings are highly variable depending on traffic conditions. For right-side transit-only lanes, the amount of right-turning traffic and conflicting pedestrian volumes can influence travel time savings. Research in TCRP Synthesis 83 “Bus and Rail Transit Preferential Treatments in Mixed Traffic” suggests transit-only lanes can result widely-varying travel time savings, ranging from 0.5 to 5 minutes per mile. For our analysis, we have converted these per-mile assumptions to a per-block figure assuming 10 blocks per mile, thus a time savings of approximately five to 30 seconds or more per intersection approach.

**Challenges:** Impacts can include diversion of traffic to other streets, removal of on-street parking, or increased delay to other modes, including pedestrians if longer signal cycles are required to accommodate traffic demand with fewer lanes. Transit-only lanes require ongoing enforcement to maximize effectiveness.

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## 8. ESTABLISH TRANSIT QUEUE JUMP/BYPASS LANES

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**What it is:** A transit queue jump/bypass lane allows transit vehicles to bypass general traffic stopped at a signalized intersection and move through the intersection with an exclusive traffic signal phase ahead of general traffic.

**How it works:** Transit queue jump/bypass lanes can reduce transit travel times by providing priority to transit vehicles at signalized intersections. A transit queue jump/bypass lane may be created by restricting parking at an intersection approach to create a restricted lane for transit vehicles and right-turning vehicles.

**Application:** Transit queue jump/bypass lanes are typically 11 to 13 feet wide and 100 to 150 feet long. Transit queue jump/bypass lanes should be applied on a case by case basis depending on roadway geometry constraints and travel time savings opportunities.

**Estimated Cost:** \$10,000 per intersection for simple bypass lanes using signs and pavement markings only. Queue jumps that require traffic signal hardware changes or more complicated roadway striping changes will have higher capital costs ranging from \$25,000 to \$200,000.

**Time Savings:** Highly variable based on the application. Travel time savings depend on traffic queue lengths and length of bypass lane provided. At intersections with high right-turn volumes and high conflicting pedestrian volumes, potential travel time savings will be reduced.

**Challenges:** Removal of on-street parking. Increased delay to other modes resulting from exclusive transit signal phase.

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## 9. ESTABLISH DEDICATED TURN LANES

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**What it is:** Dedicated turn lanes can reduce transit travel times by providing a dedicated space for turning vehicles to queue at an intersection approach without blocking the thru-movement of transit vehicles and other traffic.

**How it works:** When vehicles are waiting to turn, they can be delayed by opposing traffic or pedestrians crossing the street. Providing dedicated turn lanes allows turning vehicles to queue without blocking thru traffic. A dedicated turn lane at an intersection controlled by a traffic signal may also include modifying the traffic signal phasing to provide a protected phase for turning traffic.

**Estimated Cost:** \$3,000 at intersections where no signal improvements are required. \$30,000 to \$300,000 per installation if signal hardware changes are required, with higher costs reflecting locations that require new underground conduits.

**Time Savings:** Estimated travel time savings of 5 to 30 seconds per intersection approach, depending on traffic volumes and pedestrian activity.

- Application:** Dedicated turn lanes are typically 9 to 12 feet wide and 100 to 150 feet long, but can be as short as 50 feet. Dedicated turn lanes are typically established at intersections with adequate roadway width and high turning traffic volumes and/or high levels of conflicting pedestrian activity causing turn delay.
- Challenges:** Removal of on-street parking. Some streets do not have the necessary width to provide dedicated turn lanes. Adding dedicated turn lanes may conflict with other planning goals, such as efforts to shorten pedestrian crossings by adding pedestrian bulbs. Adding exclusive turn phases to a traffic signal may not always be feasible or may degrade the operation of an intersection for other users.

## 10. WIDEN TRAVEL LANES THROUGH LANE REDUCTIONS

- What it is:** Widening travel lanes can decrease transit travel times and improve reliability by reducing friction with other vehicles, eliminating the need for buses and other large vehicles to straddle two travel lanes and providing additional space for maneuvering around parking vehicles.
- How it works:** On streets with two or more travel lanes in the same direction, removing one travel lane would allow for widening of the remaining lanes.
- Estimated Cost:** \$10,000 per block per direction.
- Time Savings:** Estimated travel time savings of 5 to 30 seconds per intersection approach, depending on traffic volumes, double parking, and parking maneuvers.
- Application:** Streets with two or more travel lanes in the same direction where transit vehicles are delayed due to narrow lane widths and parking maneuvers or loading activity.
- Challenges:** Removing travel lanes to provide wider lanes can result in an overall decrease in vehicle capacity on a street which may result in diversion of vehicular traffic to other streets, depending on the current traffic volumes relative to the available capacity.

## 11. IMPLEMENT TURN RESTRICTIONS

- What it is:** Turn restrictions can reduce transit travel times by preventing turning vehicles from blocking the thru-movement of transit vehicles and other traffic.
- How it works:** At locations where heavy traffic and/or pedestrian volumes result in few gaps for left-turning vehicles, turn restrictions would enhance overall intersection capacity, improve transit and traffic flow and reduce conflicts between turning vehicles and other traffic and pedestrians. Left-turn restrictions would generally be applied on two-way streets where right-of-way is not available to provide dedicated left-turn lanes (see Toolkit measure 9 above), or where left-turning vehicles are required to cross or enter a transit lane to complete a turn. Turn restrictions can be implemented part-time or full-time. In locations where turn restrictions are already in place, consistent hours would be considered at multiple intersections along a corridor to improve compliance and clarity.

Estimated Cost:	\$3,000 per intersection where implemented through signage and striping. Higher capital costs if concrete islands or other infrastructure is constructed to prevent illegal left turns.
Time Savings:	Estimated travel time savings of 5 to 30 seconds per intersection approach, depending on traffic volumes and pedestrian activity.
Application:	Intersections with turn delay resulting from turning traffic waiting for gaps in opposing traffic or conflicting pedestrian activity.
Challenges:	Restricting turns can impact local circulation and require vehicles to travel further to access destinations.

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## 12. WIDEN TRAVEL LANES THROUGH PARKING RESTRICTIONS

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What it is:	Widening travel lanes through parking restrictions can reduce transit travel times by eliminating the need for buses and other large vehicles to straddle two travel lanes, by reducing delays associated with parking maneuvers and by providing additional space for through-moving transit vehicles.
How it works:	On streets with narrow travel lanes and on-street parking, removing parking full-time or during certain hours of the day, such as during peak traffic hours, can allow for widening of the travel lanes and removal of conflicts with parking maneuvers and loading activity. Parking lanes are typically seven to nine feet wide.
Estimated Cost:	\$10,000 per block per direction.
Time Savings:	Estimated travel time savings of 5 to 30 seconds per intersection approach, depending on traffic volumes, double parking, and parking maneuvers.
Application:	Streets with on-street parking where transit vehicles are delayed due to narrow lane widths and parking maneuvers or loading activity.
Challenges:	Removal of on-street parking.

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## 13. INSTALL TRAFFIC SIGNALS AT UNCONTROLLED AND TWO-WAY STOP-CONTROLLED INTERSECTIONS

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What it is:	Adding traffic signals at uncontrolled intersections or replacing two-way STOP sign intersection controls with traffic signals.
How it works:	Installing traffic signals at some intersections that are uncontrolled or have STOP signs requiring only vehicles on the street without transit to stop can improve intersection safety and/or pedestrian access to transit stops. Traffic signals can clarify the right-of-way for pedestrians while minimizing travel time delays for transit vehicles.
Estimated Cost:	\$400,000 per intersection to design and construct.
Time Savings:	None.
Application:	The California Manual on Uniform Traffic Control Devices provides general warrants for the use of traffic signals and the SFMTA has internal guidelines for the installation

of STOP signs and traffic signals. Traffic signals are generally recommended along streets with relatively heavy traffic volumes, especially when adjacent intersections have traffic signals. Traffic signals would include pedestrian countdown signals and marked crosswalks. Traffic signals are typically fixed time, but may be actuated at low-volume intersections.

**Challenges:** Traffic signals may be perceived in some neighborhoods as speeding up traffic or changing the residential character of a neighborhood street. Safety and operational factors have to be considered before a traffic signal is recommended.

#### 14. INSTALL TRAFFIC SIGNALS AT ALL-WAY STOP-CONTROLLED INTERSECTIONS

- What it is:** Replacing all-way STOP sign intersection controls with traffic signals.
- How it works:** Installing traffic signals at all-way STOP-controlled intersections can reduce transit travel times by allowing transit vehicles to take advantage of planned transit signal priority improvements that could allow traffic signals to be programmed to hold green signals for approaching transit vehicles.
- Application:** The California Manual on Uniform Traffic Control Devices provides general warrants for the use of traffic signals and the SFMTA has internal guidelines for the installation of STOP signs and traffic signals. Traffic signals are generally recommended along streets with relatively heavy traffic volumes, especially when adjacent intersections have traffic signals. Traffic signals would include pedestrian countdown signals and marked crosswalks. Traffic signals are typically fixed time, but may be actuated at low-volume intersections.
- Estimated Cost:** \$400,000 per intersection to design and construct.
- Time Savings:** Estimated travel time savings of 10 to 30 seconds per intersection approach. Replacing STOP signs with traffic signals is generally expected to result in lower travel time savings along streets with lower traffic volumes, with savings primarily resulting from transit vehicles not having to come to a complete stop. Replacing STOP signs with traffic signals at congested intersections may result in higher travel time savings resulting from additional reductions in congestion delay. There may be more benefit to replacing STOP signs with traffic signals along light rail lines due to the slower acceleration/deceleration rates of light rail vehicles. Traffic signals can increase delay for transit in some situations, so STOP-controlled intersections should be reviewed for conversion to traffic signal control on a case-by-case basis.

Scenario	Assumed Time Benefit
Bus at low volume intersection	10 seconds
Bus at moderate volume major and low volume minor street, actuated; Rail at low volume intersection	20 seconds
Bus at congested major street; Rail at moderate volume or congested major street	30 seconds

Challenges: Traffic signals may be perceived in some neighborhoods as speeding up traffic or changing the residential character of a neighborhood street. Safety and operational factors have to be considered before a traffic signal is recommended.

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## 15. REPLACE ALL-WAY STOP-CONTROLLED INTERSECTIONS WITH TRAFFIC CALMING MEASURES

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What it is: Removing STOP signs and adding traffic calming measures at intersection approaches with transit service can reduce transit travel time along a corridor by allowing transit vehicles to proceed slowly through intersections without coming to a complete stop.

How it works: To maintain traffic control, STOP signs along streets where transit is not traveling (non-transit streets) would typically remain to create a two-way STOP controlled intersection, but may be removed depending on the type of traffic calming treatment. Traffic calming measures would be considered to maintain pedestrian safety – such measures would generally involve improving crossing conditions for pedestrians, slowing traffic, and reducing right-of-way conflicts between pedestrians and other traffic. Examples of traffic calming measures that could be applied in conjunction with STOP sign removal include, but are not limited to, the following:

- Traffic circles;
- Pedestrian refuge islands;
- Pedestrian bulbs;
- Median extensions through an intersection;
- Flashing beacons to alert roadway users of pedestrian crossings;
- Parking restrictions at intersection approaches to improve sight distance;
- Enhanced crosswalk markings and signs; and
- Speed humps.

Estimated Cost: Varies depending on level of traffic calming included. Low-end costs of \$5,000 per intersection for simple sign and striping improvements. High-end costs may exceed \$100,000 per intersection if hardscape elements such as pedestrian bulbs or traffic circles are included.

Time Savings: Estimated travel time savings of 10 to 30 seconds per intersection approach. Lower travel time savings anticipated along streets with lower traffic volumes, with savings primarily resulting from transit vehicles not having to come to a complete stop. Higher travel time savings anticipated at congested intersections resulting from additional reductions in congestion delay. Travel time savings are anticipated to be highest at intersections without transit stops.

Application: The California Manual on Uniform Traffic Control Devices provides general warrants for the use of STOP signs and the SFMTA has internal guidelines for the installation of STOP signs. Engineering studies would be required to determine which alternative measures are most appropriate if STOP signs were to be removed and not replaced by



traffic signals, depending on factors such as vehicle and pedestrian volumes, sight distances, street network and collision history.

**Challenges:** STOP sign removal would require significant outreach to the neighborhood. Previous STOP sign removals in San Francisco have been reversed over time. STOP sign removal would require notification to motorists and pedestrians that traffic control pattern has changed. There may be pedestrian and vehicular safety concerns from restoration of two-way STOP controls, as well as concerns about increased speeding through the intersection vehicles are no longer required to stop.

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## 16. INSTALL PEDESTRIAN REFUGE ISLANDS

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**What it is:** Pedestrian refuge islands are raised islands in the street that provide space for pedestrians to wait while crossing a street.

**How it works:** Pedestrian refuge islands can reduce transit travel time by shifting travel lanes toward the curb and eliminating the need for buses to exit and re-enter the flow of traffic to access curbside transit stops. Pedestrian refuge islands can also improve pedestrian safety by increasing pedestrian visibility and minimizing pedestrian exposure to vehicular traffic.

**Application:** Pedestrian refuge islands are preferably a minimum of 6 feet wide, but can be as narrow as 4 feet wide. For additional information on pedestrian refuge islands, see Section 5.4 of the San Francisco Better Streets Plan.

**Estimated Cost:** \$25,000 per island, but can be more expensive if they require significant hydraulic or grading work.

**Time Savings:** Estimated travel time savings of 2 seconds per direction per intersection at signalized intersections without transit stops – this savings is estimated to result from changes to traffic signal timing providing additional green time for the transit street as the amount of time required for the non-transit cross street is reduced due to the shorter pedestrian crossing distance. Estimated travel time savings of 5 seconds per direction per intersection at locations with transit stops where travel lanes are shifted toward the curb and eliminate the need for buses to exit and re-enter the flow of traffic to access curbside transit stops.

**Challenges:** On-street parking removal. Where pedestrian refuge islands result in transit vehicles blocking travel lanes while serving transit stops on streets with one travel lane in a given direction there is the potential for intersections to become unintentionally blocked by motorists following the transit vehicle (far-side stop) or for motorists to pass stopped transit vehicles on the left using an opposing traffic lane (near-side stop). Some customer loading maneuvers can require more than a minute to be completed. For this reason pedestrian refuge islands on two-lane roadways should be applied with caution. Factors to consider include the volume of affected through traffic, intersection traffic controls, and the frequency of transit service. Pedestrian refuge island design should be coordinated with the fire department to ensure access to fire hydrants is maintained and to review potential impacts to emergency response times.

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## 17. INSTALL PEDESTRIAN BULBS

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What it is:	Pedestrian bulbs are sidewalk extensions at non-transit stop intersection corners, typically about the same width as the adjoining parking lane.
How it works:	Pedestrian bulbs at signalized intersections can reduce transit travel time by reducing the roadway crossing distance, which can provide flexibility in traffic signal timing and reduce the likelihood of transit vehicles arriving on a red signal indication. Pedestrian bulbs can also improve pedestrian safety by shortening the street crossing distance, improving pedestrian visibility and reducing the speed of turning traffic.
Application:	Dimensions will vary by site, but typical pedestrian bulbs are 6 feet wide and use 10-foot and 20-foot transition radii. See DPW Standard Plans 87,175 for typical dimensions of transitions, available at <a href="http://www.sfdpw.org/ftp/uploadedfiles/sfdpw/boe/87.175.pdf">http://www.sfdpw.org/ftp/uploadedfiles/sfdpw/boe/87.175.pdf</a>
Estimated Cost:	\$50,000 to \$200,000 per bulb, depending on the location. Higher end estimates are based on requirements to relocate utilities, sewer catch basins, and fire hydrants. Decorative sidewalks and sub-sidewalk basements present the most significant design complications. A mid-range cost of \$100,000 will be assumed in this report.
Time Savings:	Estimated travel time savings of 2 seconds per pedestrian bulb - this savings is estimated to result from changes to traffic signal timing providing additional green time for the transit street as the amount of time required for the non-transit cross street is reduced due to the shorter pedestrian crossing distance.
Challenges:	On-street parking removal. Pedestrian bulb design should be coordinated with the fire department to ensure access to fire hydrants is maintained and to review potential impacts to emergency response times.

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## 18. WIDEN SIDEWALK

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What it is:	Extending sidewalks into street to provide additional pedestrian space.
How it works:	Widening sidewalks can improve conditions for pedestrians and transit passengers by providing additional pedestrian space and space for transit shelters, landscaping and other amenities. Sidewalk widening can also improve pedestrian safety by shortening the street crossing distance.
Estimated Cost:	Varies widely depending on dimensions and requirements to relocate utilities, sewer catch basins, and fire hydrants.
Time Savings:	None.
Application:	Sidewalk widening may require removal of parking or mixed-flow travel lanes on streets with multiple lanes in the same direction. Widths vary depending on site-specific conditions.
Challenges:	Removal of on-street parking.

# Appendix 4

## VISSIM Data Portfolio and VISSIM Outputs for All Scenarios



# *Van Ness Bus Rapid Transit Simulation*

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## **2015 Data Portfolio**

September 2010

**Prepared for:**  
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San Francisco, CA

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## Introduction

Data used to build the following 2015 PM-peak hour (5:00 – 6:00 pm) VISSIM models for the Van Ness BRT Corridor Study are outlined in this Data Portfolio.

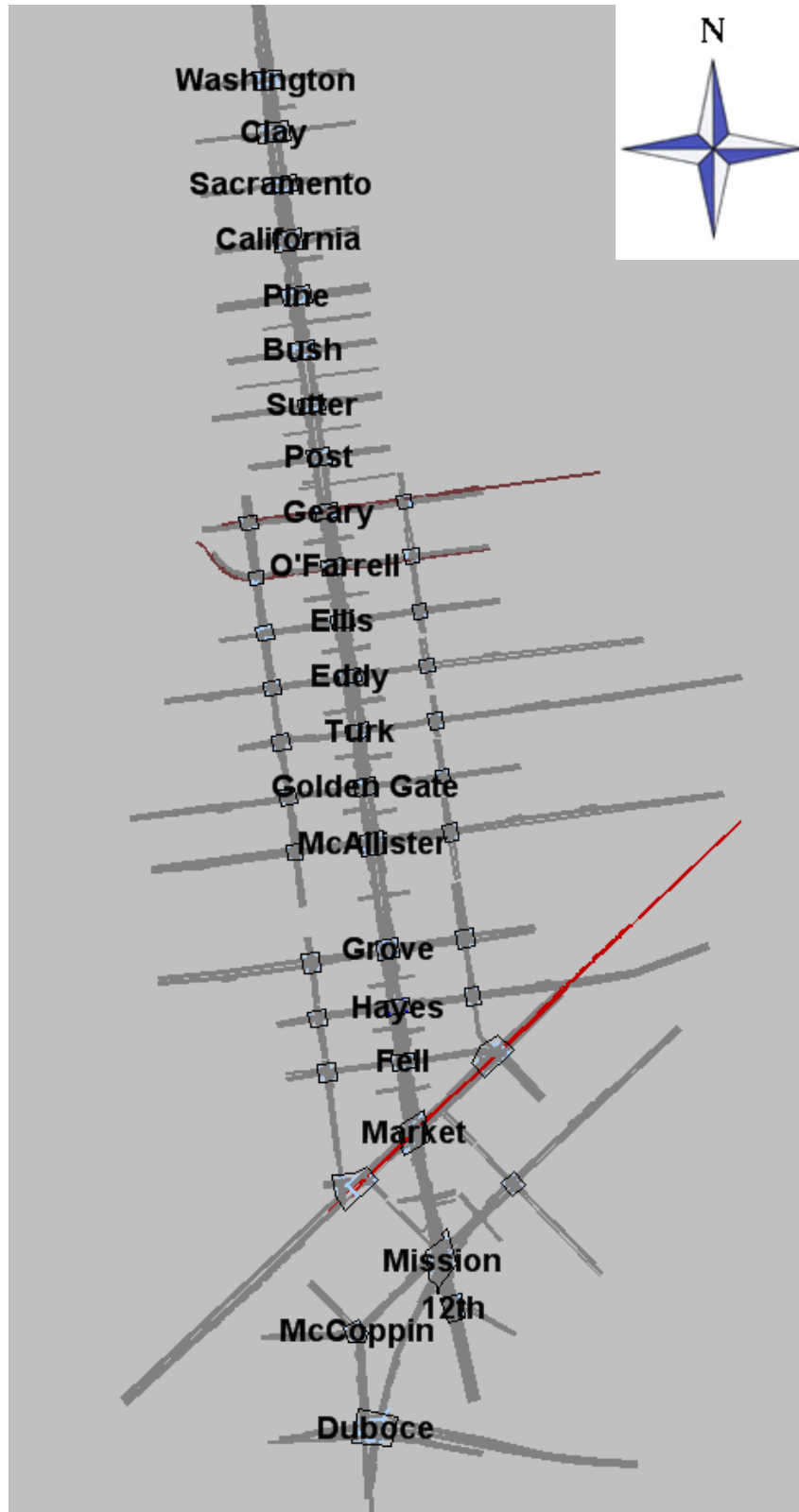
- No Project
- Side BRT (curb lane)
- Center A BRT
- Center B BRT (Center A + left turns eliminated along Van Ness)

## Study Area

The study area extends along Van Ness Avenue from Clay Street to Mission Street/Otis Street and then along Otis Street southwest to Duboce Avenue/13 Street, encompassing 21 study area signals (refer to Exhibit 1). The actual modeled area was expanded to Washington (not a study area signal) - one signalized intersection beyond the northern most study signal - to model platooned arrivals along Van Ness that result from progression. Non-study area signals (22) from the earlier BRT Feasibility Study were also included for similar reasons as the signal at Washington. The VISSIM model included the 43 signals listed in Exhibit 2.

Mid-block sinks and sources were also added to the study area. These sinks and sources were modeled as mid-block driveways to account for differences between the volume leaving an upstream signal and arriving at a downstream signal.

Exhibit 1. Study Area



**Exhibit 2. Signalized Intersections**

No.	Study Area Signals	No.	Non-Study Area Signals
1	Van Ness Avenue @ Clay Street	1	Van Ness Avenue @ Washington Street
2	Van Ness Avenue @ Sacramento Street	2	Franklin Street @ Geary Street
3	Van Ness Avenue @ California Street	3	Franklin Street @ Starr/King Street
4	Van Ness Avenue @ Pine Street	4	Franklin Street @ Ellis Street
5	Van Ness Avenue @ Bush Street	5	Franklin Street @ Eddy Street
6	Van Ness Avenue @ Sutter Street	6	Franklin Street @ Turk Street
7	Van Ness Avenue @ Post Street	7	Franklin Street @ Golden Gate Avenue
8	Van Ness Avenue @ Geary Street	8	Franklin Street @ McAllister Street
9	Van Ness Avenue @ O'Farrell Street	9	Franklin Street @ Grove Street
10	Van Ness Avenue @ Ellis Street	10	Franklin Street @ Hayes Street
11	Van Ness Avenue @ Eddy Street	11	Franklin Street @ Fell Street
12	Van Ness Avenue @ Turk Street	12	Franklin Street @ Market Street
13	Van Ness Avenue @ Golden Gate Avenue	13	Polk Street @ Geary Street
14	Van Ness Avenue @ McAllister Street	14	Polk Street @ O'Farrell Street
15	Van Ness Avenue @ Grove Street	15	Polk Street @ Ellis Street
16	Van Ness Avenue @ Hayes Street	16	Polk Street @ Eddy Street
17	Van Ness Avenue @ Fell Street	17	Polk Street @ Turk Street
18	Van Ness Avenue @ Market Street	18	Polk Street @ Golden Gate Avenue
19	Van Ness Avenue @ Mission Street	19	Polk Street @ McAllister Street
20	Otis Street @ Gough Street/McCoppin Street	20	Polk Street @ Grove Street
21	Mission Street @ Duboce Avenue/Otis Street	21	Polk Street @ Hayes Street
		22	Polk Street @ Fell Street/Market Street

**Lane Geometry and Speed Data**

*Source: CHS (Lane Geometry via Synchro File), PTV (Calibrated Speeds)*

Lane geometry for each study area signal is provided in Appendix A. The Side and Center BRT lanes extended from Clay to Mission.

In addition, transit lanes are located on Sutter, Post, Geary, O'Farrell and Market. With the exception of market, these transit lanes are located in the right most travel lane. General purpose traffic making a right turn on these four streets is permitted to use the transit lanes. On Market, the transit lane is located in the center of the roadway with one lane in each direction. General purpose traffic is not permitted to enter the transit lanes on Market.



Calibrated speed settings in the 2007 Existing Conditions model were carried forward in the 2015 models with the exception of the Center scenarios. An assumption was made that BRT operators would desire to travel at a slightly faster speed (+5 mph) in the exclusive BRT lanes since the exclusive lanes eliminated a number of unexpected events (e.g., autos making abrupt lane changes, autos unexpectedly stopping to park) that are common in general purpose travel lanes within a downtown environment. The desired speeds coded in VISSIM are provided in Exhibit 3.

**Exhibit 3. VISSIM Calibrated Desired Speed Settings**

Movements	2015 Scenario			
	No Project	Side BRT	Center A BRT	Center B BRT
<b>Southbound</b>				
#47	11.5	11.5	16.5	16.5
#49	11.5	11.5	16.5	16.5
Autos	19.5	19.5	19.5	19.5
<b>Northbound</b>				
#47	13.5	13.5	18.5	18.5
#49	10.0	10.0	15.0	15.0
Autos	21.0	21.0	21.0	21.0

**Volumes**

**Traffic Volumes**

Source: CHS (Synchro File)

Balanced PM-peak hour traffic volumes are located in Appendix A. Mid-block sinks and sources were used to balance volumes between signals.

**Truck Percentages**

Source: CHS (Synchro File)

Truck percentages were coded as 2% throughout the study area.

**Pedestrian Volumes**

Source: SFCTA

Pedestrian volumes for the 2015 No Build and 2015 BRT scenarios are shown in Exhibits 4 and 5.

**Exhibit 4. 2015 No Project PM-Peak Hour Pedestrian Volumes (peds/hour)<sup>1</sup>**

Intersection	Leg			
	North	South	East	West
Clay St.	135	270	270	270
Sacramento St.	142	144	272	86
California St.	158	188	360	212
Pine St.	140	140	0	280
Bush St.	140	140	280	0
Sutter St.	145	140	0	290
Post St.	150	150	300	0
Geary St.	220	156	428	332
O'Farrell St.	102	154	462	300
Ellis St.	187	187	374	374
Eddy St.	187	187	374	374
Turk St.	187	187	374	374
Golden Gate Ave.	193	193	387	387
McAllister St.	200	200	399	399
Grove St.	409	631	414	414
Hayes St.	224	0	0	449
Fell St.	224	224	449	449
Market St.	823	496	554	404
Mission St.	140	167	327	247 (Otis) 170 (Mission)
Duboce Ave./13 <sup>th</sup> St.	162 (Otis) 187 (Mission)	72	157 (right turn) 160 (freeway) 127 (13 <sup>th</sup> )	195

1. Hourly pedestrian volumes refer to total 2-way volumes crossing a given leg.

**Exhibit 5. 2015 BRT Scenarios - PM-Peak Hour Pedestrian Volumes (peds/hour)<sup>1</sup>**

Intersection	Leg			
	North	South	East	West
Clay St.	135	270	270	270
Sacramento St.	142	144	269	86
California St.	158	188	360	212
Pine St.	140	140	0	280
Bush St.	140	140	280	0
Sutter St.	145	140	0	290
Post St.	150	150	300	0
Geary St.	220	156	428	332
O'Farrell St.	102	154	462	300
Ellis St.	187	187	374	374
Eddy St.	187	187	374	374
Turk St.	187	187	374	374
Golden Gate Ave.	193	193	386	386
McAllister St.	199	199	398	398
Grove St.	408	631	414	414
Hayes St.	224	0	0	448
Fell St.	224	224	448	448
Market St.	822	496	554	404
Mission St.	139	167	327	247 (Otis) 170 (Mission)
Duboce Ave./13 <sup>th</sup> St.	163 (Otis) 188 (Mission)	73	158 (right turn) 160 (freeway) 128 (13 <sup>th</sup> )	195

1. Hourly pedestrian volumes refer to total 2-way volumes crossing a given leg.

## On-Street Parking

Source: SFCTA

To account for the effects of on-street parking along Van Ness Avenue, parking maneuvers were modeled along each block face. The number of parking vehicles during the PM-peak hour (5-6 pm) for each 2015 scenario is shown in Exhibit 6 and 7. A parking vehicle reflects two movements – pulling into a parking space and exiting a parking space.

### Exhibit 6. Southbound Parking Vehicles

Block Face		Number of Parking Vehicles per Hour <sup>1</sup>			
From	To	No Project	Side	Center A	Center B
Clay	Sacramento	5	4	4	4
Sacramento	California	14	4	14	14
California	Pine	4	4	4	4
Pine	Bush	15	14	0	14
Bush	Sutter	8	3	2	3
Sutter	Post	7	7	7	7
Post	Geary	1	1	1	1
Geary	O'Farrell	4	3	3	3
O'Farrell	Ellis	7	5	7	7
Ellis	Eddy	8	8	8	8
Eddy	Turk	7	7	7	7
Turk	Golden Gate	7	6	1	6
Golden Gate	McAllister	5	3	3	3
McAllister	Grove	16	12	16	16
Grove	Hayes	5	5	5	5
Hayes	Fell	10	9	1	9
Fell	Market	0	0	0	0
Market	Mission	8	6	6	6
Van Ness <sup>2</sup>	Gough/McCoppin	4	4	4	4
Gough/McCoppin <sup>2</sup>	Duboce/13 <sup>th</sup>	6	6	6	6

<sup>1</sup>Each vehicle represents two movements – entering and exiting a parking space.

<sup>2</sup>These block faces are located on Otis.

**Exhibit 7. Northbound Parking Vehicles**

Block Face		Number of Parking Vehicles per Hour <sup>1</sup>			
From	To	No Project	Side	Center A	Center B
Clay	Sacramento	14	0	10	10
Sacramento	California	12	12	12	12
California	Pine	4	3	1	1
Pine	Bush	10	9	1	9
Bush	Sutter	4	1	1	1
Sutter	Post	8	7	7	7
Post	Geary	2	1	1	1
Geary	O'Farrell	2	0	2	2
O'Farrell	Ellis	8	5	5	5
Ellis	Eddy	6	5	6	6
Eddy	Turk	8	8	8	8
Turk	Golden Gate	10	9	3	9
Golden Gate	McAllister	11	5	5	5
McAllister	Grove	16	11	11	11
Grove	Hayes	2	2	2	2
Hayes	Fell	0	0	0	0
Fell	Market	4	3	4	4
Market	Mission	19	14	11	11
Duboce/13 <sup>th</sup> 2	Van Ness	8	8	8	8

<sup>1</sup>Each vehicle represents two movements – entering and exiting a parking space.

<sup>2</sup>These block faces are located on Mission.

## **Non-Yielding Vehicles to Buses Exiting a Stop**

*Source: SFCTA*

As observed along Van Ness, a portion of the motorists do not yield to buses exiting a pull-out stop (bus bay). Field data revealed that roughly 57% of cars did not yield to buses exiting a stop. This same percentage was coded in VISSIM for the 2015 scenarios.

## **Signal Timing**

*Source: CHS (Synchro)*

CHS provided Synchro files with the signal timing data for each scenario modeled in VISSIM (refer to Appendix A). Fourth Dimension (a subconsultant to PTV) recoded the Synchro signal timings for the study area signals into the D4 virtual controllers. The D4 controllers were then incorporated in VISSIM. The D4 controllers reflect the actual timing plans and TSP logic that will be implemented in the field, thus, increasing the accuracy of the simulation to replicate field conditions.

## **Transit**

### **Routes, Vehicle Types, Frequencies**

*Source: SFCTA*

Exhibit 8 lists all transit routes modeled in the study area. The exhibit also identifies the transit vehicle types and frequencies. Transit routes are shown graphically in Exhibits 9 and 10.

### **Ridership**

*Source: SFCTA*

Exhibit 11 summarizes the average ridership per trip estimated for each non-BRT route. BRT ridership data is summarized in Exhibits 12 - 14.

Ridership levels were held constant for all non-BRT routes traveling through the study area for modeling purposes. The number of passengers on BRT routes, however, varied by the boarding and alighting activity estimated at each stop. Including boardings and alightings enables the model to capture the influence of bus bunching along the BRT routes. Ridership was also a key component in estimating person delay.

### **BRT Stops**

*Source: SFCTA*

BRT stop locations are also listed in Exhibits 12 - 14.

**Exhibit 8. PM-Peak Hour Transit Frequency**

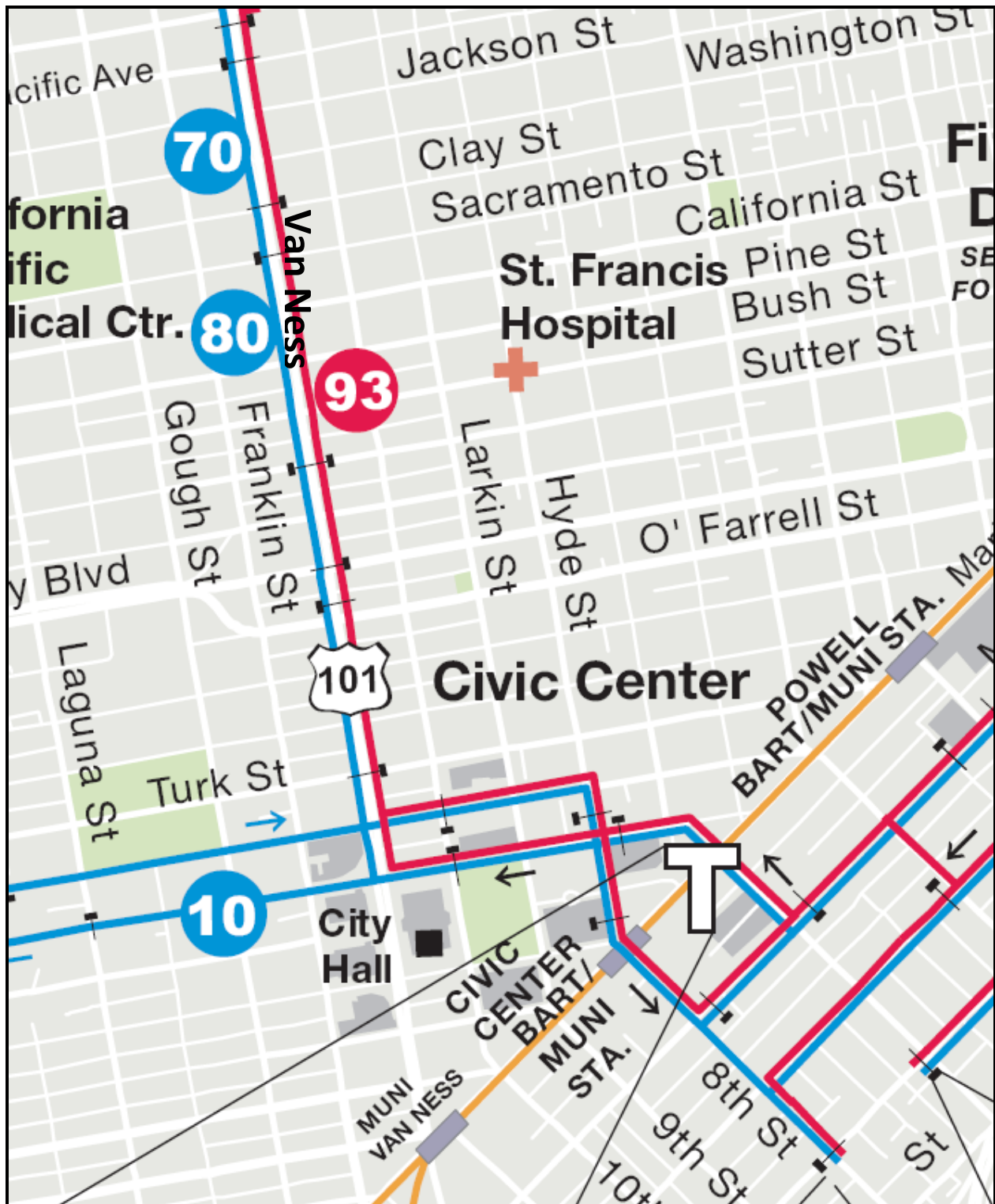
Route	Vehicle Length (feet)	Buses (buses/hr)	
		Eastbound/Northbound	Westbound/Southbound
1	40'	22	25
1AX	60'	no trips	4
1BX	60'	no trips	6
2	40'	6	6
3	40'	6	6
4	40'	4	4
5	40'	12	12
6	40'	6	6
7	40'	6	6
14	60'	10	10
16AX	40'	no trips	5
16BX	40'	no trips	6
21	40'	8	9
26	40'	3	3
31	60'	6	6
38	60'	10	12
38AX	40'	no trips	4
38BX	40'	no trips	4
38L	60'	9	8
47	40' (60') <sup>1</sup>	8	8
49	60'	8	8
71	40'	6	no trips
71L	40'	no trips	6
F	streetcar	10	12
GG-10	40'	1	1
GG-70/80/101	40'	3	4
GG-73	40'	1	no trips
GG-74	30'	no trips	no trips
GG-76	60'	1	no trips
GG-93	40'	1	no trips

<sup>1</sup>The #47 vehicle type changed from a 40-foot standard bus in the 2015 No Project scenario to a 60-foot articulated bus in all 2015 BRT scenarios.





Exhibit 10. Golden Gate Transit Routes



**Exhibit 11. 2015 PM-Peak Hour Non-BRT Transit Ridership**

Route	Average Ridership (riders/trip)					
	Eastbound/Northbound			Westbound/Southbound		
	No Project	Side	Center A/B	No Project	Side	Center A/B
1	23	17	17	22	24	25
1AX	no trips	no trips	no trips	20	15	15
1BX	no trips	no trips	no trips	16	15	14
2	19	19	18	32	29	29
3	16	15	15	24	22	21
4	20	20	19	17	15	15
5	15	16	16	43	43	43
6	13	13	14	30	30	30
7	15	15	16	18	18	18
14	27	11	24	36	10	23
16AX	no trips	no trips	no trips	48	38	40
16BX	no trips	no trips	no trips	31	29	29
21	13	13	12	33	31	30
26	2	2	4	13	11	11
31	17	19	20	33	29	32
38	43	45	44	59	59	57
38AX	no trips	no trips	no trips	39	33	30
38BX	no trips	no trips	no trips	36	30	30
38L	37	39	38	74	74	73
47	<i>Refer to Exhibits 12 - 14</i>					
49	<i>Refer to Exhibits 12 - 14</i>					
71	19	18	19	no trips	no trips	no trips
71L	no trips	no trips	no trips	39	38	38
F	11	7	6	19	17	18
GG-10	11	11	11	11	10	10
GG-70/80/101	32	21	21	9	13	13
GG-73	10	31	31	no trips	no trips	no trips
GG-74	no trips	no trips	no trips	no trips	no trips	no trips
GG-76	18	23	23	no trips	no trips	no trips
GG-93	21	14	14	no trips	no trips	no trips

**Exhibit 12. 2015 No Project BRT Ridership - Boardings and Alightings<sup>1</sup>**

Southbound					Northbound				
Bus Stop <sup>2</sup>	#47		#49		Bus Stop <sup>2</sup>	#47		#49	
	B	A	B	A		B	A	B	A
Passenger Load Entering	197		223		Passenger Load Entering	163		250	
NS Sacramento	18	25	30	15	FS Duboce	--		6	6
NS Pine	19	12	30	8	FS Mission	45	5	42	22
FS Sutter	20	21	34	16	FS Market	114	35	130	37
NS Geary	20	30	32	25	FS Grove	38	8	28	13
FS O'Farrell	20	16	33	13	NS McAllister	26	14	21	21
FS Eddy	20	22	35	16	FS Turk	14	10	14	22
FS McAllister	14	14	24	22	FS Eddy	20	27	8	47
FS Grove	2	19	7	17	FS O'Farrell	14	50	23	56
NS Oak	26	98	32	98	FS Geary	19	46	24	57
FS Van Ness (on Otis)	--	--	21	13	FS Sutter	17	40	13	46
NS Duboce (on Otis)	--	--	5	5	FS California	11	65	2	60
					FS Clay	2	29	6	30

<sup>1</sup>Boardings and alightings are reported in passengers/hour with "B" = boardings and "A" = alightings.

<sup>2</sup>FS = Far-Side; NS = Near-Side

**Exhibit 13. 2015 Side BRT Ridership - Boardings and Alightings<sup>1</sup>**

Southbound					Northbound				
Bus Stop <sup>2</sup>	#47		#49		Bus Stop <sup>2</sup>	#47		#49	
	B	A	B	A		B	A	B	A
Passenger Load Entering	184		362		Passenger Load Entering	340		366	
FS Sacramento	31	34	86	23	FS Mission	55	33	56	11
FS Sutter	30	32	60	22	FS Market	179	139	190	87
FS Geary	34	64	81	45	NS McAllister	36	34	33	41
FS Eddy	15	18	39	12	FS Eddy	20	28	19	32
FS McAllister	27	33	34	23	FS O'Farrell	57	87	53	136
NS Oak	112	13	89	179	FS Sutter	19	89	23	94
FS Van Ness (on Otis)	--	--	19	22	FS Sacramento	11	157	14	157

<sup>1</sup>Boardings and alightings are reported in passengers/hour with "B" = boardings and "A" = alightings.

<sup>2</sup>FS = Far-Side; NS = Near-Side

**Exhibit 14. 2015 Center A/B BRT Ridership - Boardings and Alightings<sup>1</sup>**

Southbound					Northbound				
Bus Stop <sup>2</sup>	#47		#49		Bus Stop <sup>2</sup>	#47		#49	
	B	A	B	A		B	A	B	A
Passenger Load Entering	194		408		Passenger Load Entering	524		433	
FS Sacramento	37	36	100	24	FS Mission	59	37	60	10
FS Sutter	29	36	61	24	FS Market	198	147	208	92
FS Geary	39	65	86	44	NS McAllister	39	34	35	40
FS Eddy	18	19	41	12	FS Eddy	17	27	16	33
FS McAllister	26	36	34	24	FS O'Farrell	59	90	54	133
NS Market	104	13	91	201	FS Sutter	19	83	24	96
FS Van Ness (on Otis)	--	--	19	22	FS Sacramento	11	170	13	173

<sup>1</sup>Boardings and alightings are reported in passengers/hour with "B" = boardings and "A" = alightings.

<sup>2</sup>FS = Far-Side; NS = Near-Side

**Dwell Times**

Source: SFTCA (boardings + alighting), PTV (HCM boarding + alighting rates)

Dwell time for routes 47 and 49 were calculated in VISSIM based on the number of passengers boarding and alighting each bus at each stop. The volume of boarding and alighting passengers at each stop is shown in Exhibits 12 - 14.

Boarding and alighting rates were extracted from Highway Capacity Manual (HCM 2000) and entered in VISSIM. The corresponding information is shown in Exhibit 15.

**Exhibit 15. Boarding and Alighting Rates**

Bus Characteristics	Route	
	#47 <sup>1</sup>	#49
Number of front doors	1	1
Number of rear doors	1	2
Boarding service rate (pax/sec)	2.80	2.80
Alighting service rate (pax/sec)	1.85	1.10

<sup>1</sup>The #47 vehicle type changed from a 40-foot standard bus in the 2015 No Project scenario to a 60-foot articulated bus in all 2015 BRT scenarios. Therefore, the characteristics of the #49 above applied to the #47 in all BRT scenarios.

The clearance time that reflects the time for the doors to open after the bus is stopped and the time between when the doors are closed and the bus driver is ready to leave the stop was also modeled. The HCM 2000 provides a clearance time range of 2 - 5 seconds. The value applied in VISSIM was 5 seconds.

Dwell times for the BRT scenarios were reduced by a factor of 10% to account for implementing a Proof-of-Payment (POP) system that allows for all door boarding.

### **Schedule Reliability**

Source: SFCTA

Schedule reliability data was provided by SFCTA based on earlier field data collected during the PM-peak period (additional details provided in the 2007 Existing Conditions Data Portfolio). The schedule reliability data for routes #47 and #49 are summarized in Exhibit 16.

#### **Exhibit 16. Schedule Reliability Distributions**

<b>Schedule Reliability</b>	<b>#47</b>	<b>#49</b>	<b>All Other Routes</b>
Average Delay (seconds)	130	67	60
Standard Deviation (seconds)	214	187	20

The schedule reliability distributions were applied in VISSIM by coding a “dummy” stop at the point where each route enters the network. Each bus was required to dwell at a “dummy” stop according to the distributions shown in Exhibit 16. The dummy stop added variability to the buses arrival at downstream stops which more closely reflects reality than applying the desired departure times in a schedule or a uniform headway.

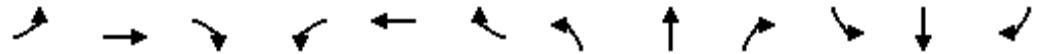
The schedule reliability distributions (average and standard deviation) for the #47 and #49 were reduced by 5% to reflect increased supervision and AVL line management. This reduction was applied to all 2015 scenarios include the No Project scenario.

### **Bus Bay Utilization**

Source: SFCTA

Data is provided in the 2007 Existing Conditions Data Portfolio that describes the frequency at which the #47 and #49 buses block a lane when a bus bay exists. 40-foot buses blocked the lane when a bay exists 28% of the time while a 60-foot bus blocked a lane 50% of the time. These same factors were applied in the 2015 No Project scenario. They were not applied in the Side and Center scenarios since the buses stopped in the BRT lane.

## Appendix A – Intersection Geometry, Volumes and Signal Timing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑↑		↕	↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1517	0	0	0	0	0	4481	0	1770	4658	0
Flt Permitted		0.998								0.082		
Satd. Flow (perm)	0	1507	0	0	0	0	0	4481	0	153	4658	0
Satd. Flow (RTOR)		4						16			10	
Volume (vph)	11	162	54	0	0	0	0	1537	94	49	1591	61
Lane Group Flow (vph)	0	291	0	0	0	0	0	1735	0	52	1739	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases										2		
Detector Phases	4	4						2		2		2
Minimum Initial (s)	4.0	4.0						4.0		4.0		4.0
Minimum Split (s)	33.0	33.0						48.5		48.5		48.5
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	42%	42%	0%	0%	0%	0%	0%	58%	0%	58%	58%	0%
Yellow Time (s)	3.5	3.5						3.5		3.5		3.5
All-Red Time (s)	2.2	2.2						0.9		0.9		0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max		Max
Act Effct Green (s)		35.0						49.0		49.0		49.0
Actuated g/C Ratio		0.39						0.54		0.54		0.54
v/c Ratio		0.49						0.71		0.63		0.68
Uniform Delay, d1		20.4						15.0		14.2		14.8
Delay		21.1						4.4		37.1		15.0
LOS		C						A		D		B
Approach Delay		21.1						4.4				15.7
Approach LOS		C						A				B

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 85 (94%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 63.7%	ICU Level of Service B

Splits and Phases: 1: Clay St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑			↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3174	0	1770	4712	0	0	4654	0
Flt Permitted					0.990		0.082					
Satd. Flow (perm)	0	0	0	0	3098	0	153	4712	0	0	4654	0
Satd. Flow (RTOR)					22						12	
Volume (vph)	0	0	0	138	455	120	78	1511	0	0	1570	75
Lane Group Flow (vph)	0	0	0	0	743	0	80	1558	0	0	1732	0
Turn Type				Split			Perm					
Protected Phases				4	4			2				2
Permitted Phases							2					
Detector Phases				4	4		2	2				2
Minimum Initial (s)				4.0	4.0		4.0	4.0				4.0
Minimum Split (s)				37.0	37.0		42.5	42.5				42.5
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	52.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	0%	0%	0%	42%	42%	0%	58%	58%	0%	0%	58%	0%
Yellow Time (s)				3.5	3.5		3.5	3.5				3.5
All-Red Time (s)				2.2	2.2		0.8	0.8				0.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max				Max
Act Effct Green (s)					35.0		49.0	49.0				49.0
Actuated g/C Ratio					0.39		0.54	0.54				0.54
v/c Ratio					0.60		0.96	0.61				0.68
Uniform Delay, d1					21.1		19.6	13.9				14.7
Delay					21.5		67.6	1.9				6.1
LOS					C		E	A				A
Approach Delay					21.5			5.1				6.1
Approach LOS					C			A				A

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 80 (89%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 8.5	Intersection LOS: A
Intersection Capacity Utilization 74.5%	ICU Level of Service C

Splits and Phases: 2: Sacramento St. & Van Ness Avenue







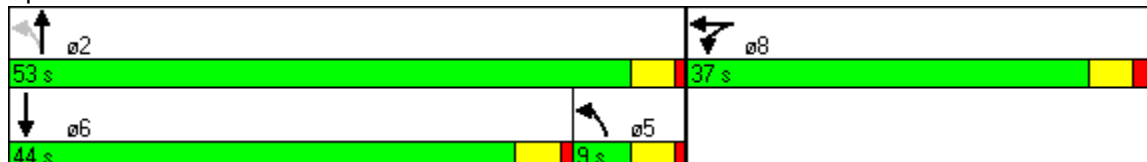


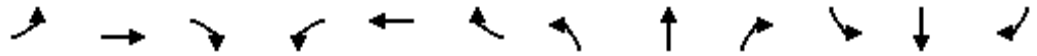
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↖	↑↑↑			↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	6224	0	1770	4746	0	0	4540	0
Flt Permitted					0.997		0.091					
Satd. Flow (perm)	0	0	0	0	6186	0	170	4746	0	0	4540	0
Satd. Flow (RTOR)					30						25	
Volume (vph)	0	0	0	102	1706	182	126	1406	0	0	1642	171
Lane Group Flow (vph)	0	0	0	0	2095	0	133	1480	0	0	1908	0
Turn Type				Split			pm+pt					
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	
Minimum Split (s)				37.0	37.0		7.0	21.0			33.0	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	9.0	53.0	0.0	0.0	44.0	0.0
Total Split (%)	0%	0%	0%	41%	41%	0%	10%	59%	0%	0%	49%	0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					34.0		50.0	50.0			41.0	
Actuated g/C Ratio					0.38		0.56	0.56			0.46	
v/c Ratio					0.88		0.66	0.56			0.92	
Uniform Delay, d1					25.8		25.8	12.9			22.6	
Delay					27.3		12.3	1.2			28.2	
LOS					C		B	A			C	
Approach Delay					27.3			2.1			28.2	
Approach LOS					C			A			C	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 20.4                      Intersection LOS: C  
 Intersection Capacity Utilization 87.0%                      ICU Level of Service D

**Splits and Phases: 4: Pine St. & Van Ness Avenue**



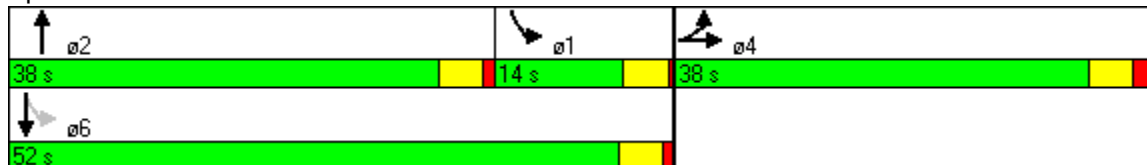


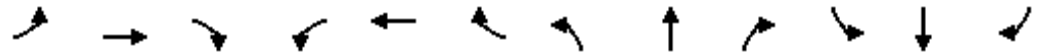
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↓	↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4947	0	0	0	0	0	4680	0	1770	4662	0
Flt Permitted		0.996								0.105		
Satd. Flow (perm)	0	4889	0	0	0	0	0	4680	0	196	4662	0
Satd. Flow (RTOR)		18						17				
Volume (vph)	121	1126	108	0	0	0	0	1451	120	284	1416	0
Lane Group Flow (vph)	0	1489	0	0	0	0	0	1785	0	323	1609	0
Turn Type	Split			pm+pt								
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	34.0	34.0						33.0		7.0	48.0	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	38.0	0.0	14.0	52.0	0.0
Total Split (%)	42%	42%	0%	0%	0%	0%	0%	42%	0%	16%	58%	0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.5	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		35.0						35.0		49.0	49.0	
Actuated g/C Ratio		0.39						0.39		0.54	0.54	
v/c Ratio		0.77						0.98		1.08	0.63	
Uniform Delay, d1		23.6						26.8		32.7	14.3	
Delay		23.9						25.3		62.2	1.5	
LOS		C						C		E	A	
Approach Delay		23.9						25.3			11.6	
Approach LOS		C						C			B	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 19.8  
 Intersection Capacity Utilization 95.4%  
 Intersection LOS: B  
 ICU Level of Service E

**Splits and Phases: 5: Bush St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑			↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3405	1583	0	4789	0	0	4618	0
Flt Permitted					0.994							
Satd. Flow (perm)	0	0	0	0	3352	1343	0	4789	0	0	4618	0
Satd. Flow (RTOR)						26					6	
Volume (vph)	0	0	0	123	982	107	0	1508	0	0	1414	110
Lane Group Flow (vph)	0	0	0	0	1163	113	0	1587	0	0	1604	0
Turn Type				Split		Perm						
Protected Phases				4	4			2				2
Permitted Phases						4						
Detector Phases				4	4	4		2				2
Minimum Initial (s)				4.0	4.0	4.0		4.0				4.0
Minimum Split (s)				33.0	33.0	33.0		20.0				20.0
Total Split (s)	0.0	0.0	0.0	35.0	35.0	35.0	0.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	0%	0%	0%	39%	39%	39%	0%	61%	0%	0%	61%	0%
Yellow Time (s)				3.5	3.5	3.5		3.5				3.5
All-Red Time (s)				2.2	2.2	2.2		0.9				0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max				Max
Act Effct Green (s)					32.0	32.0		52.0				52.0
Actuated g/C Ratio					0.36	0.36		0.58				0.58
v/c Ratio					0.96	0.23		0.57				0.60
Uniform Delay, d1					28.4	15.4		12.0				12.2
Delay					41.6	15.9		4.6				15.0
LOS					D	B		A				B
Approach Delay					39.3			4.6				15.0
Approach LOS					D			A				B

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 50 (56%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 71.0%	ICU Level of Service C

Splits and Phases: 6: Sutter St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4417	0	0	4553	0
Flt Permitted		0.995										
Satd. Flow (perm)	0	3476	1351	0	0	0	0	4417	0	0	4553	0
Satd. Flow (RTOR)			15					26				
Volume (vph)	71	678	103	0	0	0	0	1485	153	0	1641	0
Lane Group Flow (vph)	0	823	113	0	0	0	0	1671	0	0	1709	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			2	
Permitted Phases			4									
Detector Phases	4	4	4					2			2	
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	
Minimum Split (s)	35.0	35.0	35.0					22.0			22.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42%	42%	42%	0%	0%	0%	0%	58%	0%	0%	58%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.2	2.2	2.2					0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max			Max	
Act Effct Green (s)		35.0	35.0					49.0			49.0	
Actuated g/C Ratio		0.39	0.39					0.54			0.54	
v/c Ratio		0.60	0.21					0.69			0.69	
Uniform Delay, d1		21.9	15.7					14.7			14.9	
Delay		22.2	16.2					2.5			13.5	
LOS		C	B					A			B	
Approach Delay		21.5						2.5			13.5	
Approach LOS		C						A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 28 (31%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 66.5%	ICU Level of Service B

Splits and Phases: 7: Post St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↑	↑↑↑			↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	5055	1469	1770	4625	0	0	4355	0
Flt Permitted					0.994		0.095					
Satd. Flow (perm)	0	0	0	0	4972	1152	177	4625	0	0	4355	0
Satd. Flow (RTOR)						23					37	
Volume (vph)	0	0	0	100	804	163	167	1527	0	0	1566	225
Lane Group Flow (vph)	0	0	0	0	922	166	169	1542	0	0	1846	0
Turn Type				Split		Perm	pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases						4	2					
Detector Phases				4	4	4	5	2			6	
Minimum Initial (s)				4.0	4.0	4.0	2.0	4.0			4.0	
Minimum Split (s)				34.0	34.0	34.0	7.0	48.0			42.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	10.0	52.0	0.0	0.0	42.0	0.0
Total Split (%)	0%	0%	0%	42%	42%	42%	11%	58%	0%	0%	47%	0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2	0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					35.0	35.0	49.0	49.0			39.0	
Actuated g/C Ratio					0.39	0.39	0.54	0.54			0.43	
v/c Ratio					0.47	0.36	0.77	0.61			0.97	
Uniform Delay, d1					20.5	16.6	28.9	14.0			24.4	
Delay					20.7	17.3	14.0	1.2			31.3	
LOS					C	B	B	A			C	
Approach Delay					20.2			2.5			31.3	
Approach LOS					C			A			C	

**Intersection Summary**

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 22 (24%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 85

Control Type: Pretimed

Maximum v/c Ratio: 0.97

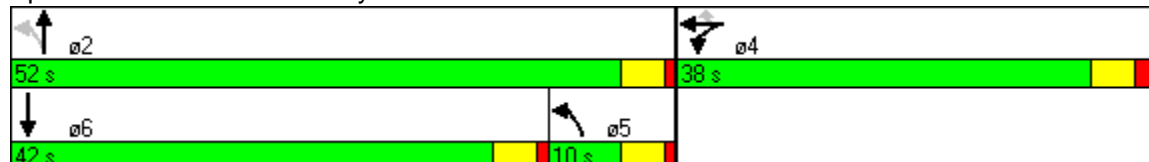
Intersection Signal Delay: 18.1

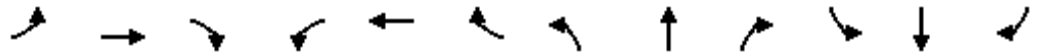
Intersection LOS: B

Intersection Capacity Utilization 82.4%

ICU Level of Service D

Splits and Phases: 8: Geary St. & Van Ness Avenue



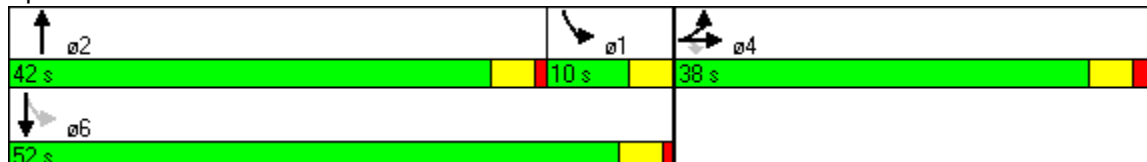


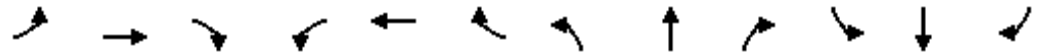
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔	↗					↕↕↕		↘	↕↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4391	0	1770	4601	0
Flt Permitted		0.995								0.095		
Satd. Flow (perm)	0	3485	1338	0	0	0	0	4391	0	177	4601	0
Satd. Flow (RTOR)			15					13				
Volume (vph)	114	958	160	0	0	0	0	1580	97	175	1491	0
Lane Group Flow (vph)	0	1128	168	0	0	0	0	1694	0	201	1714	0
Turn Type	Split		Perm							pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phases	4	4	4					2		1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	34.0	34.0	34.0					20.0		8.1	30.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	42.0	0.0	10.0	52.0	0.0
Total Split (%)	42%	42%	42%	0%	0%	0%	0%	47%	0%	11%	58%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2	2.2					0.9		0.0	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		35.0	35.0					39.0		49.0	49.0	
Actuated g/C Ratio		0.39	0.39					0.43		0.54	0.54	
v/c Ratio		0.82	0.32					0.89		0.91	0.68	
Uniform Delay, d1		24.7	17.3					23.3		31.1	14.9	
Delay		25.9	17.9					7.5		19.5	3.6	
LOS		C	B					A		B	A	
Approach Delay		24.8						7.5			5.2	
Approach LOS		C						A			A	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 11.2  
 Intersection Capacity Utilization 87.9%  
 Intersection LOS: B  
 ICU Level of Service D

Splits and Phases: 9: O'Farrell St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	4768	0	1770	4561	0	0	4430	0
Flt Permitted					0.996		0.082					
Satd. Flow (perm)	0	0	0	0	4693	0	153	4561	0	0	4430	0
Satd. Flow (RTOR)					2						13	
Volume (vph)	0	0	0	69	603	141	49	1548	0	0	1553	78
Lane Group Flow (vph)	0	0	0	0	894	0	53	1665	0	0	1717	0
Turn Type				Split			Perm					
Protected Phases				4	4			2				2
Permitted Phases							2					
Detector Phases				4	4		2	2				2
Minimum Initial (s)				4.0	4.0		4.0	4.0				4.0
Minimum Split (s)				33.0	33.0		48.0	48.0				48.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	52.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	0%	0%	0%	42%	42%	0%	58%	58%	0%	0%	58%	0%
Yellow Time (s)				3.5	3.5		3.5	3.5				3.5
All-Red Time (s)				2.2	2.2		0.9	0.9				0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max				Max
Act Effct Green (s)					35.0		49.0	49.0				49.0
Actuated g/C Ratio					0.39		0.54	0.54				0.54
v/c Ratio					0.48		0.64	0.67				0.71
Uniform Delay, d1					20.6		14.3	14.7				15.1
Delay					20.8		11.7	2.6				17.5
LOS					C		B	A				B
Approach Delay					20.8			2.9				17.5
Approach LOS					C			A				B

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 10 (11%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 65.1%	ICU Level of Service B

Splits and Phases: 10: Ellis St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑↑↑		↕	↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1722	0	0	1765	0	0	4331	0	1770	4359	0
Flt Permitted		0.962			0.947					0.082		
Satd. Flow (perm)	0	1648	0	0	1670	0	0	4331	0	153	4359	0
Satd. Flow (RTOR)		3			2			16			12	
Volume (vph)	34	298	95	16	138	27	0	1588	97	65	1510	72
Lane Group Flow (vph)	0	527	0	0	213	0	0	1702	0	65	1582	0
Turn Type	Perm		Perm					Perm				
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			48.0		48.0	48.0	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	42%	42%	0%	42%	42%	0%	0%	58%	0%	58%	58%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9		0.9	0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		35.0			35.0			49.0		49.0	49.0	
Actuated g/C Ratio		0.39			0.39			0.54		0.54	0.54	
v/c Ratio		0.82			0.33			0.72		0.78	0.66	
Uniform Delay, d1		24.5			19.0			15.2		16.2	14.5	
Delay		29.4			19.5			0.9		36.1	15.3	
LOS		C			B			A		D	B	
Approach Delay		29.4			19.5			0.9			16.1	
Approach LOS		C			B			A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 81 (90%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 105.7%	ICU Level of Service F

Splits and Phases: 11: Eddy St. & Van Ness Avenue



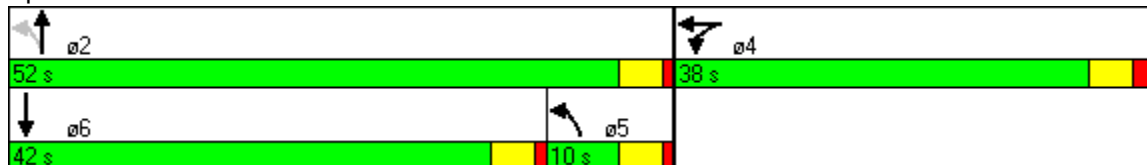


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	4976	0	1770	4496	0	0	4475	0
Flt Permitted					0.998		0.095					
Satd. Flow (perm)	0	0	0	0	4935	0	177	4496	0	0	4475	0
Satd. Flow (RTOR)					2						6	
Volume (vph)	0	0	0	52	992	65	137	1620	0	0	1573	48
Lane Group Flow (vph)	0	0	0	0	1206	0	144	1705	0	0	1654	0
Turn Type				Split			pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases							2					
Detector Phases				4	4		5	2			6	
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	
Minimum Split (s)				35.0	35.0		7.0	48.0			38.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	10.0	52.0	0.0	0.0	42.0	0.0
Total Split (%)	0%	0%	0%	42%	42%	0%	11%	58%	0%	0%	47%	0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					35.0		49.0	49.0			39.0	
Actuated g/C Ratio					0.39		0.54	0.54			0.43	
v/c Ratio					0.62		0.65	0.70			0.85	
Uniform Delay, d1					22.1		26.7	15.0			22.8	
Delay					22.4		11.6	0.8			23.0	
LOS					C		B	A			C	
Approach Delay					22.4			1.7			23.0	
Approach LOS					C			A			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 75 (83%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 14.5                      Intersection LOS: B  
 Intersection Capacity Utilization 76.6%                      ICU Level of Service C

Splits and Phases: 12: Turk St. & Van Ness Avenue



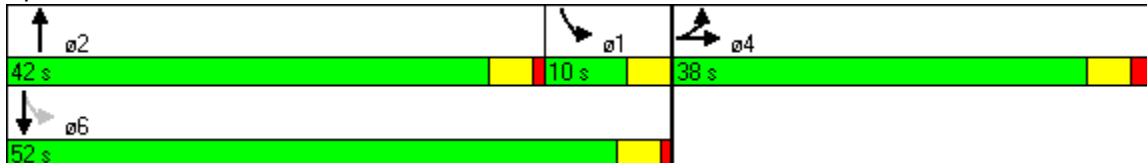


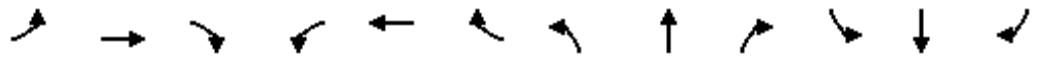
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↑	↑↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4769	0	0	0	0	0	4374	0	1770	4545	0
Flt Permitted		0.997								0.095		
Satd. Flow (perm)	0	4709	0	0	0	0	0	4374	0	177	4545	0
Satd. Flow (RTOR)		2						10				
Volume (vph)	61	695	157	0	0	0	0	1696	81	114	1511	0
Lane Group Flow (vph)	0	961	0	0	0	0	0	1870	0	120	1591	0
Turn Type	Split						pm+pt					
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		2.0	4.0	
Minimum Split (s)	35.0	35.0						38.0		6.0	48.0	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	42.0	0.0	10.0	52.0	0.0
Total Split (%)	42%	42%	0%	0%	0%	0%	0%	47%	0%	11%	58%	0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.0	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		35.0						39.0		49.0	49.0	
Actuated g/C Ratio		0.39						0.43		0.54	0.54	
v/c Ratio		0.52						0.98		0.55	0.64	
Uniform Delay, d1		21.0						25.0		24.0	14.4	
Delay		21.2						26.3		7.7	1.9	
LOS		C						C		A	A	
Approach Delay		21.2						26.3			2.3	
Approach LOS		C						C			A	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 16.2                      Intersection LOS: B  
 Intersection Capacity Utilization 78.2%                      ICU Level of Service C

Splits and Phases: 13: Golden Gate Ave. & Van Ness Avenue



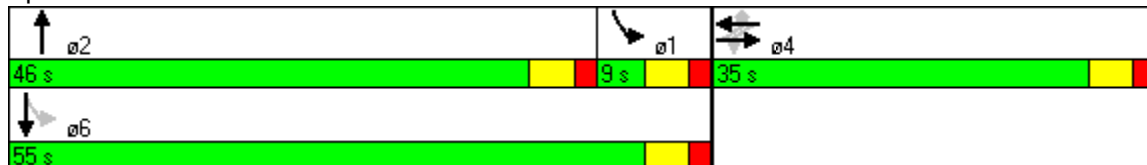


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕↕		↗	↕↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3356	0	0	3529	1425	0	4328	0	1770	4513	0
Flt Permitted		0.922			0.890					0.087		
Satd. Flow (perm)	0	3095	0	0	3134	1151	0	4328	0	162	4513	0
Satd. Flow (RTOR)		3				91		8			7	
Volume (vph)	14	364	66	44	654	158	0	1605	58	38	1588	42
Lane Group Flow (vph)	0	499	0	0	750	170	0	1732	0	40	1716	0
Turn Type	Perm			Perm		Perm				pm+pt		
Protected Phases		4			4			2		1	6	
Permitted Phases	4			4		4				6		
Detector Phases	4	4		4	4	4		2		1	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0		2.0	3.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0		31.0		7.3	30.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	0.0	46.0	0.0	9.0	55.0	0.0
Total Split (%)	39%	39%	0%	39%	39%	39%	0%	51%	0%	10%	61%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2	2.2		1.8		1.8	1.8	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max		Max	Max	
Act Effct Green (s)		32.0			32.0	32.0		43.0		52.0	52.0	
Actuated g/C Ratio		0.36			0.36	0.36		0.48		0.58	0.58	
v/c Ratio		0.45			0.67	0.36		0.84		0.20	0.66	
Uniform Delay, d1		22.1			24.6	9.4		20.3		10.7	12.9	
Delay		22.4			25.0	10.6		6.1		10.4	8.0	
LOS		C			C	B		A		B	A	
Approach Delay		22.4			22.3			6.1			8.0	
Approach LOS		C			C			A			A	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 68 (76%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 94.7%	ICU Level of Service E

Splits and Phases: 14: McAllister St. & Van Ness Avenue



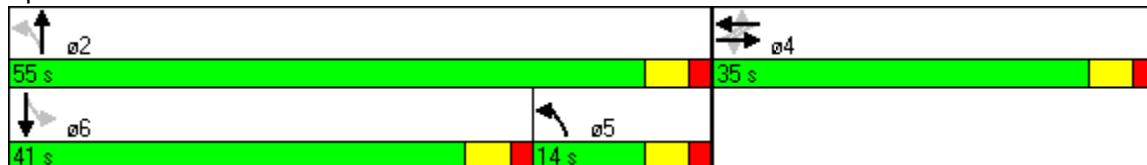


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕↕		↕	↕↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3263	0	0	3426	0	1770	4518	0	1770	4349	0
Flt Permitted		0.944			0.866		0.098			0.105		
Satd. Flow (perm)	0	3084	0	0	2982	0	183	4518	0	196	4349	0
Satd. Flow (RTOR)		18			2			1			5	
Volume (vph)	8	363	50	45	415	28	232	1627	84	42	1618	38
Lane Group Flow (vph)	0	489	0	0	542	0	247	1820	0	44	1725	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			4		5	2				6
Permitted Phases	4			4			2			6		
Detector Phases	4	4		4	4		5	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		9.3	35.0		35.0	35.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	14.0	55.0	0.0	41.0	41.0	0.0
Total Split (%)	39%	39%	0%	39%	39%	0%	16%	61%	0%	46%	46%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2		1.8	1.8		1.8	1.8	
Lead/Lag							Lag			Lead	Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		32.0			32.0		52.0	52.0		38.0	38.0	
Actuated g/C Ratio		0.36			0.36		0.58	0.58		0.42	0.42	
v/c Ratio		0.44			0.51		0.82	0.70		0.53	0.94	
Uniform Delay, d1		21.3			22.7		29.9	13.4		19.4	24.8	
Delay		21.6			23.1		31.6	9.9		31.4	38.4	
LOS		C			C		C	A		C	D	
Approach Delay		21.6			23.1			12.5			38.3	
Approach LOS		C			C			B			D	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 83.6%	ICU Level of Service D

Splits and Phases: 15: Grove St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕		↕	↕↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3441	0	0	0	0	0	4513	0	1770	4474	0
Flt Permitted		0.994								0.087		
Satd. Flow (perm)	0	3441	0	0	0	0	0	4513	0	162	4474	0
Satd. Flow (RTOR)		8						7			9	
Volume (vph)	84	552	38	0	0	0	0	1892	62	152	1510	48
Lane Group Flow (vph)	0	741	0	0	0	0	0	2015	0	158	1623	0
Turn Type	Split						pm+pt					
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	33.0	33.0						42.0		8.1	21.0	
Total Split (s)	35.5	35.5	0.0	0.0	0.0	0.0	0.0	46.0	0.0	8.5	54.5	0.0
Total Split (%)	39%	39%	0%	0%	0%	0%	0%	51%	0%	9%	61%	0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.9	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.5						43.0		51.5	51.5	
Actuated g/C Ratio		0.36						0.48		0.57	0.57	
v/c Ratio		0.59						0.93		0.83	0.63	
Uniform Delay, d1		23.1						22.0		28.4	12.8	
Delay		23.4						10.3		16.2	0.7	
LOS		C						B		B	A	
Approach Delay		23.4						10.3			2.1	
Approach LOS		C						B			A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 43 (48%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 85

Control Type: Pretimed

Maximum v/c Ratio: 0.93

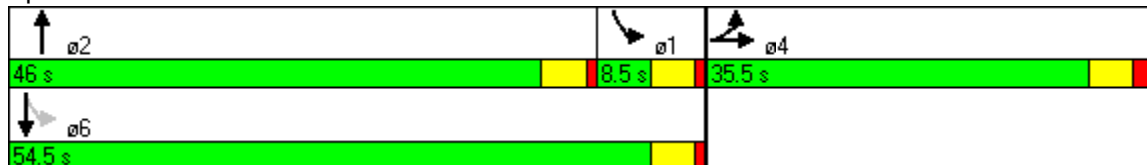
Intersection Signal Delay: 9.2

Intersection LOS: A

Intersection Capacity Utilization 84.9%

ICU Level of Service D

Splits and Phases: 17: Fell St. & Van Ness Avenue



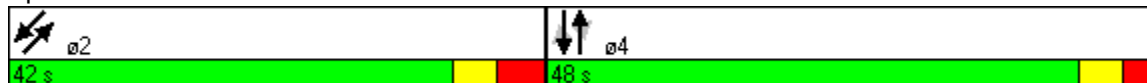


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑	↑		↑↑↑	↑		↑			↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4818	1425	0	4818	1583	0	1596	0	0	1619	0
Flt Permitted												
Satd. Flow (perm)	0	4818	594	0	4818	734	0	1596	0	0	1619	0
Satd. Flow (RTOR)			6					1				
Volume (vph)	0	1918	153	0	1394	239	0	478	45	0	573	36
Lane Group Flow (vph)	0	1937	155	0	1532	263	0	588	0	0	670	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2				2
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2				2
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0				4.0
Minimum Split (s)		48.0	48.0		48.0	48.0		42.0				42.0
Total Split (s)	0.0	48.0	48.0	0.0	48.0	48.0	0.0	42.0	0.0	0.0	42.0	0.0
Total Split (%)	0%	53%	53%	0%	53%	53%	0%	47%	0%	0%	47%	0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5				3.5
All-Red Time (s)		2.9	2.9		2.9	2.9		3.8				3.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max				Max
Act Effct Green (s)		45.0	45.0		45.0	45.0		39.0				39.0
Actuated g/C Ratio		0.50	0.50		0.50	0.50		0.43				0.43
v/c Ratio		0.80	0.52		0.64	0.72		0.85				0.95
Uniform Delay, d1		18.8	14.5		16.5	17.5		22.8				24.7
Delay		19.1	15.9		25.5	30.4		29.0				43.6
LOS		B	B		C	C		C				D
Approach Delay		18.9			26.2			29.0				43.6
Approach LOS		B			C			C				D

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 84 (93%), Referenced to phase 2:NESW, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service D

Splits and Phases: 18: Van Ness Avenue & Market St.



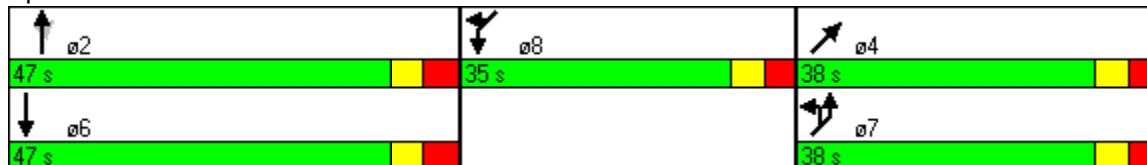


	↑	↗	↓	↙	↘	↖	↗	↘	↙	↘	↖
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Lane Configurations	↑↑↑	↗	↑↑↑		↘	↘↗	↖↑		↘	↗↗	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	4818	1478	4452	0	1610	2535	2282	0	1652	3610	0
Flt Permitted					0.950	0.950	0.977		0.950		
Satd. Flow (perm)	4818	943	4452	0	1610	2535	2282	0	1652	2598	0
Satd. Flow (RTOR)		84	16		219		7			4	
Volume (vph)	837	80	1333	135	213	1050	286	56	174	643	190
Lane Group Flow (vph)	881	84	1545	0	224	773	692	0	183	877	0
Turn Type		Perm			Prot	Prot			custom	custom	
Protected Phases	2		6		7	7	4		8	8	
Permitted Phases		2							8	8	
Detector Phases	2	2	6		7	7	4		8	8	
Minimum Initial (s)	1.0	1.0	2.0		4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	42.0	42.0	42.0		31.0	31.0	38.0		26.0	26.0	
Total Split (s)	47.0	47.0	47.0	0.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0
Total Split (%)	39%	39%	39%	0%	32%	32%	32%	0%	29%	29%	0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8		3.3	3.3	3.3		3.3	3.3	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	
Act Effct Green (s)	44.0	44.0	44.0		35.0	35.0	35.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37	0.37		0.29	0.29	0.29		0.27	0.27	
v/c Ratio	0.50	0.21	0.94		0.36	1.05	1.03		0.41	0.91	
Uniform Delay, d1	29.4	0.0	36.3		0.7	42.5	42.1		36.3	42.4	
Delay	29.6	5.5	42.3		0.2	40.1	35.1		36.9	48.5	
LOS	C	A	D		A	D	D		D	D	
Approach Delay	27.5		42.3				32.7				
Approach LOS	C		D				C				

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 110	
Control Type: Pretimed	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 37.4	Intersection LOS: D
Intersection Capacity Utilization 85.4%	ICU Level of Service D

Splits and Phases: 19: Otis St. & Mission St.



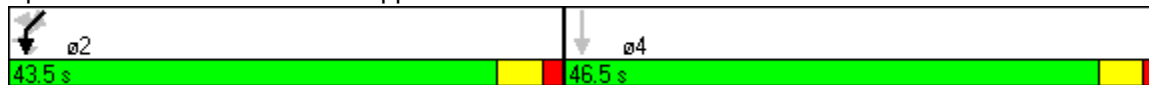


Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations	↖		↗					↕		↖↗	↖↗	↖
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	1770	0	1583	0	0	0	0	3497	0	4990	1362	0
Flt Permitted	0.492									0.950		
Satd. Flow (perm)	916	0	1583	0	0	0	0	3497	0	4990	1362	0
Satd. Flow (RTOR)			109					14		307	38	
Volume (vph)	7	0	98	0	0	0	0	800	68	718	179	94
Lane Group Flow (vph)	7	0	103	0	0	0	0	914	0	756	287	0
Turn Type	custom		custom									Perm
Protected Phases										2		
Permitted Phases	2		2					4				2
Detector Phases	2		2					4		2		2
Minimum Initial (s)	4.0		4.0					4.0		4.0		4.0
Minimum Split (s)	29.0		29.0					28.6		29.0		29.0
Total Split (s)	43.5	0.0	43.5	0.0	0.0	0.0	0.0	46.5	0.0	43.5	43.5	0.0
Total Split (%)	48%	0%	48%	0%	0%	0%	0%	52%	0%	48%	48%	0%
Yellow Time (s)	3.5		3.5					3.5		3.5		3.5
All-Red Time (s)	1.8		1.8					1.4		1.8		1.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max					Max		Max		Max
Act Effct Green (s)	40.5		40.5					43.5		40.5		40.5
Actuated g/C Ratio	0.45		0.45					0.48		0.45		0.45
v/c Ratio	0.02		0.13					0.54		0.31		0.45
Uniform Delay, d1	13.7		0.0					15.9		8.9		14.5
Delay	13.9		2.9					16.2		9.1		15.1
LOS	B		A					B		A		B
Approach Delay								16.2		10.7		
Approach LOS								B		B		

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 15 (17%), Referenced to phase 2:EBSWL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 56.7%	ICU Level of Service A

Splits and Phases: 20: McCoppin St. & Otis St.



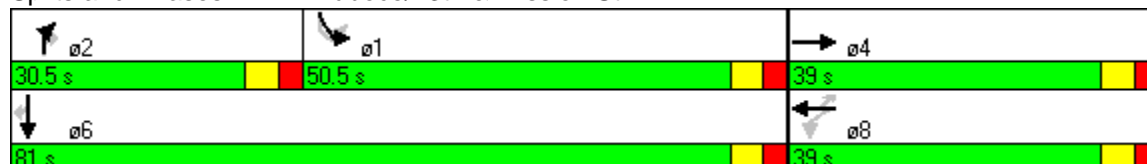


Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↑↑	↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	4983	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.929					0.950		
Satd. Flow (perm)	4983	0	0	4724	1070	3610	1088	0	3433	3256	903
Satd. Flow (RTOR)	9				533		48		11		1
Volume (vph)	574	39	13	1349	848	674	219	83	830	537	166
Lane Group Flow (vph)	645	0	0	1434	893	709	231	0	961	565	175
Turn Type			Perm		Perm		Perm	custom	custom		Perm
Protected Phases	4			8		2			1	6	
Permitted Phases			8		8	2	2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.1	10.1	59.0	59.0
Total Split (s)	39.0	0.0	39.0	39.0	39.0	30.5	30.5	50.5	50.5	81.0	81.0
Total Split (%)	33%	0%	33%	33%	33%	25%	25%	42%	42%	68%	68%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.9		2.9	2.9	2.9	2.6	2.6	2.6	2.6	2.6	2.6
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	36.0			36.0	36.0	27.5	27.5		47.5	78.0	78.0
Actuated g/C Ratio	0.30			0.30	0.30	0.23	0.23		0.40	0.65	0.65
v/c Ratio	0.43			1.01	1.29	0.86	0.81		0.70	0.27	0.30
Uniform Delay, d1	33.2			42.0	9.7	44.4	34.3		30.0	8.9	9.0
Delay	33.4			62.9	134.9	48.0	43.9		30.4	9.0	9.4
LOS	C			E	F	D	D		C	A	A
Approach Delay	33.4			90.6						21.1	
Approach LOS	C			F						C	

**Intersection Summary**

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 1:SBL and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 55.6	Intersection LOS: E
Intersection Capacity Utilization 116.9%	ICU Level of Service G

Splits and Phases: 21: Duboce/13th & Mission St.



2015 Side BRT  
1: Clay St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕	↗		↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1571	0	0	0	0	0	3362	1425	0	3230	1306
Flt Permitted		0.999										
Satd. Flow (perm)	0	1565	0	0	0	0	0	3362	554	0	3230	508
Satd. Flow (RTOR)		12							60			149
Volume (vph)	8	214	41	0	0	0	0	1039	126	0	1194	142
Lane Group Flow (vph)	0	337	0	0	0	0	0	1105	134	0	1257	149
Turn Type	Split						Perm				Perm	
Protected Phases	4	4						2			2	
Permitted Phases									2			2
Detector Phases	4	4						2	2		2	2
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	4.0
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	48.5
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	52.0
Total Split (%)	42%	42%	0%	0%	0%	0%	0%	58%	58%	0%	58%	58%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	0.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	Max
Act Effct Green (s)		35.0						49.0	49.0		49.0	49.0
Actuated g/C Ratio		0.39						0.54	0.54		0.54	0.54
v/c Ratio		0.55						0.60	0.41		0.71	0.43
Uniform Delay, d1		20.5						13.9	6.1		15.3	0.0
Delay		21.1						2.6	0.0		15.7	2.3
LOS		C						A	A		B	A
Approach Delay		21.1						2.3			14.3	
Approach LOS		C						A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service B

Splits and Phases: 1: Clay St. & Van Ness Avenue



2015 Side BRT  
2: Sacramento St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↕
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3225	0	0	3150	0	0	3186	1275
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	3168	0	0	3150	0	0	3186	1035
Satd. Flow (RTOR)					19							49
Volume (vph)	0	0	0	104	568	89	0	1076	0	0	1144	91
Lane Group Flow (vph)	0	0	0	0	793	0	0	1109	0	0	1204	96
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	0%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.61			0.66			0.71	0.17
Uniform Delay, d1					20.8			15.1			15.8	5.0
Delay					21.2			3.9			8.5	3.8
LOS					C			A			A	A
Approach Delay					21.2			3.9			8.2	
Approach LOS					C			A			A	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 61 (68%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 64.5%	ICU Level of Service B

Splits and Phases: 2: Sacramento St. & Van Ness Avenue



2015 Side BRT  
3: California St. & Van Ness Avenue

9/15/2010

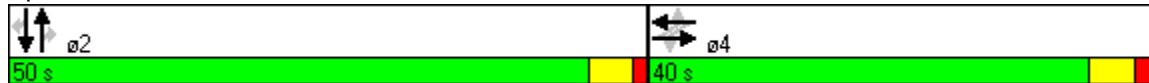


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3335	0	0	3357	0	0	3318	1385	0	3291	1362
Flt Permitted		0.909			0.860							
Satd. Flow (perm)	0	3033	0	0	2888	0	0	3318	907	0	3291	953
Satd. Flow (RTOR)		13			11				41			37
Volume (vph)	23	526	109	39	611	82	0	971	96	0	1179	69
Lane Group Flow (vph)	0	756	0	0	804	0	0	1001	99	0	1254	73
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	4.0
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	42.5
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0
Total Split (%)	44%	44%	0%	44%	44%	0%	0%	56%	56%	0%	56%	56%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	1.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		37.0			37.0			47.0	47.0		47.0	47.0
Actuated g/C Ratio		0.41			0.41			0.52	0.52		0.52	0.52
v/c Ratio		0.60			0.67			0.58	0.20		0.73	0.14
Uniform Delay, d1		20.3			21.2			14.7	6.4		16.6	5.3
Delay		20.7			21.7			2.2	0.2		22.3	12.8
LOS		C			C			A	A		C	B
Approach Delay		20.7			21.7			2.0			21.8	
Approach LOS		C			C			A			C	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 48 (53%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 75.5%	ICU Level of Service C

Splits and Phases: 3: California St. & Van Ness Avenue



2015 Side BRT  
4: Pine St. & Van Ness Avenue

9/15/2010

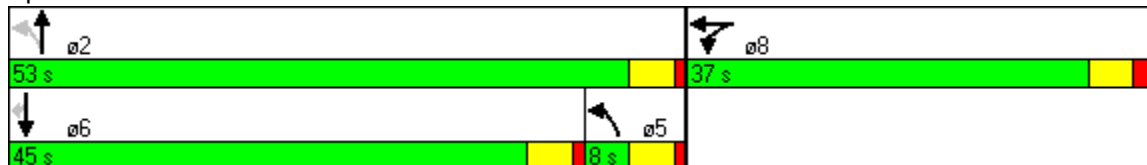


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	6273	0	1770	3203	0	0	3193	1280
Flt Permitted					0.998		0.113					
Satd. Flow (perm)	0	0	0	0	6243	0	210	3203	0	0	3193	850
Satd. Flow (RTOR)					20							37
Volume (vph)	0	0	0	75	1736	133	91	934	0	0	1147	180
Lane Group Flow (vph)	0	0	0	0	2046	0	96	983	0	0	1207	189
Turn Type				Split			pm+pt					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases							2					6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	4.0
Minimum Split (s)				36.0	36.0		7.0	48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	8.0	53.0	0.0	0.0	45.0	45.0
Total Split (%)	0%	0%	0%	41%	41%	0%	9%	59%	0%	0%	50%	50%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		1.0	1.0			1.0	1.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					34.0		50.0	50.0			42.0	42.0
Actuated g/C Ratio					0.38		0.56	0.56			0.47	0.47
v/c Ratio					0.86		0.47	0.55			0.81	0.45
Uniform Delay, d1					25.5		16.4	12.8			20.6	12.7
Delay					26.1		8.5	1.6			11.4	8.0
LOS					C		A	A			B	A
Approach Delay					26.1			2.2			10.9	
Approach LOS					C			A			B	

Intersection Summary

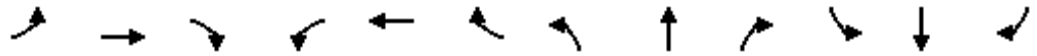
Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 15.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 79.2%  
 ICU Level of Service C

Splits and Phases: 4: Pine St. & Van Ness Avenue



2015 Side BRT  
5: Bush St. & Van Ness Avenue

9/15/2010

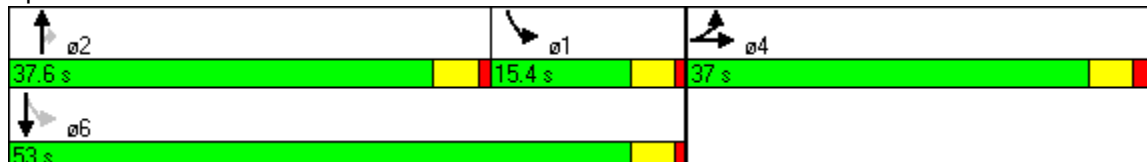


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↑	↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4986	0	0	0	0	0	3353	1417	1770	3123	0
Flt Permitted		0.997								0.106		
Satd. Flow (perm)	0	4946	0	0	0	0	0	3353	942	197	3123	0
Satd. Flow (RTOR)		12							40			
Volume (vph)	89	1175	80	0	0	0	0	975	83	209	982	0
Lane Group Flow (vph)	0	1477	0	0	0	0	0	1108	94	238	1116	0
Turn Type	Split						Perm pm+pt					
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.0	4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0	7.4	48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	37.6	37.6	15.4	53.0	0.0
Total Split (%)	41%	41%	0%	0%	0%	0%	0%	42%	42%	17%	59%	0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		34.0						34.6	34.6	50.0	50.0	
Actuated g/C Ratio		0.38						0.38	0.38	0.56	0.56	
v/c Ratio		0.78						0.86	0.24	0.73	0.64	
Uniform Delay, d1		24.5						25.5	10.4	28.8	13.8	
Delay		24.8						11.1	1.1	15.7	5.3	
LOS		C						B	A	B	A	
Approach Delay		24.8						10.3			7.1	
Approach LOS		C						B			A	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 42 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 14.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 85.3%  
 ICU Level of Service D

Splits and Phases: 5: Bush St. & Van Ness Avenue





2015 Side BRT  
6: Sutter St. & Van Ness Avenue

9/15/2010

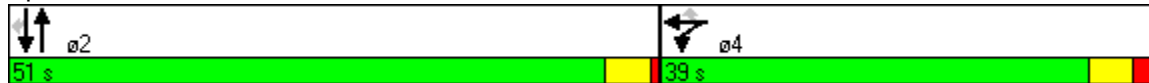


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3300	1370
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3300	866
Satd. Flow (RTOR)						76						8
Volume (vph)	0	0	0	93	1048	79	0	1016	0	0	985	77
Lane Group Flow (vph)	0	0	0	0	1201	83	0	1069	0	0	1037	81
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	43%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.88	0.14		0.62			0.59	0.17
Uniform Delay, d1					25.0	1.4		14.6			14.3	9.7
Delay					28.5	5.1		3.1			15.7	13.7
LOS					C	A		A			B	B
Approach Delay					27.0			3.1			15.5	
Approach LOS					C			A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 31 (34%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service B

Splits and Phases: 6: Sutter St. & Van Ness Avenue



2015 Side BRT  
7: Post St. & Van Ness Avenue

9/15/2010

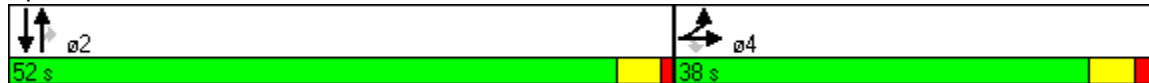


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	3160	913	0	3076	0
Satd. Flow (RTOR)			53						23			
Volume (vph)	53	714	77	0	0	0	0	996	234	0	1181	0
Lane Group Flow (vph)	0	843	85	0	0	0	0	1016	239	0	1230	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42%	42%	42%	0%	0%	0%	0%	58%	58%	0%	58%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		35.0	35.0					49.0	49.0		49.0	
Actuated g/C Ratio		0.39	0.39					0.54	0.54		0.54	
v/c Ratio		0.61	0.15					0.59	0.47		0.73	
Uniform Delay, d1		22.1	6.5					13.8	11.1		15.6	
Delay		22.4	8.6					2.9	2.0		14.5	
LOS		C	A					A	A		B	
Approach Delay		21.1						2.7			14.5	
Approach LOS		C						A			B	

Intersection Summary

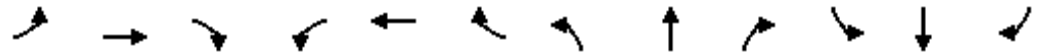
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 13 (14%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 66.2%	ICU Level of Service B

Splits and Phases: 7: Post St. & Van Ness Avenue



2015 Side BRT  
8: Geary St. & Van Ness Avenue

9/15/2010

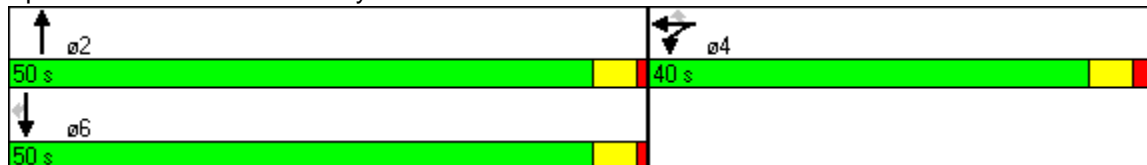


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	5065	1469	0	3177	0	0	3035	1583
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	5012	1152	0	3177	0	0	3035	1044
Satd. Flow (RTOR)						55						8
Volume (vph)	0	0	0	75	984	119	0	1153	0	0	1140	157
Lane Group Flow (vph)	0	0	0	0	1081	121	0	1165	0	0	1175	162
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	40.0	40.0	40.0	0.0	50.0	0.0	0.0	50.0	50.0
Total Split (%)	0%	0%	0%	44%	44%	44%	0%	56%	0%	0%	56%	56%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					37.0	37.0		47.0			47.0	47.0
Actuated g/C Ratio					0.41	0.41		0.52			0.52	0.52
v/c Ratio					0.52	0.24		0.70			0.74	0.30
Uniform Delay, d1					19.8	9.0		16.2			16.7	11.5
Delay					20.0	10.2		3.6			8.7	8.0
LOS					C	B		A			A	A
Approach Delay					19.0			3.6			8.6	
Approach LOS					B			A			A	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 13 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 10.4      Intersection LOS: B  
 Intersection Capacity Utilization 64.5%      ICU Level of Service B

Splits and Phases: 8: Geary St. & Van Ness Avenue



2015 Side BRT  
9: O'Farrell St. & Van Ness Avenue

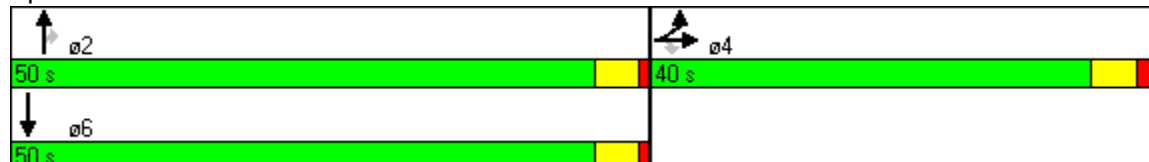
9/15/2010

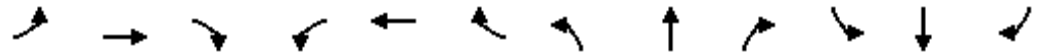
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	3110	794	0	3135	0
Satd. Flow (RTOR)			29						6			
Volume (vph)	85	1141	119	0	0	0	0	1068	92	0	1215	0
Lane Group Flow (vph)	0	1290	125	0	0	0	0	1079	93	0	1397	0
Turn Type	Split		Perm							Perm		
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	50.0	0.0
Total Split (%)	44%	44%	44%	0%	0%	0%	0%	56%	56%	0%	56%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		37.0	37.0					47.0	47.0		47.0	
Actuated g/C Ratio		0.41	0.41					0.52	0.52		0.52	
v/c Ratio		0.89	0.22					0.66	0.22		0.85	
Uniform Delay, d1		24.6	12.9					15.7	10.8		18.5	
Delay		28.3	13.4					3.0	2.2		22.4	
LOS		C	B					A	A		C	
Approach Delay		27.0						2.9			22.4	
Approach LOS		C						A			C	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 89 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 83.2%	ICU Level of Service D

Splits and Phases: 9: O'Farrell St. & Van Ness Avenue





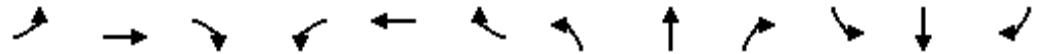
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	4851	0	0	3101	0	0	3110	1354
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	4795	0	0	3101	0	0	3110	836
Satd. Flow (RTOR)					9							21
Volume (vph)	0	0	0	51	658	104	0	1066	0	0	1122	195
Lane Group Flow (vph)	0	0	0	0	893	0	0	1146	0	0	1181	205
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				33.0	33.0			48.0			48.0	48.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0%	0%	0%	42%	42%	0%	0%	58%	0%	0%	58%	58%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					35.0			49.0			49.0	49.0
Actuated g/C Ratio					0.39			0.54			0.54	0.54
v/c Ratio					0.47			0.68			0.70	0.44
Uniform Delay, d1					20.3			14.8			15.1	10.8
Delay					20.5			2.7			10.8	9.2
LOS					C			A			B	A
Approach Delay					20.5			2.7			10.5	
Approach LOS					C			A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 86 (96%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 10.5	Intersection LOS: B
Intersection Capacity Utilization 64.0%	ICU Level of Service B

Splits and Phases: 10: Ellis St. & Van Ness Avenue





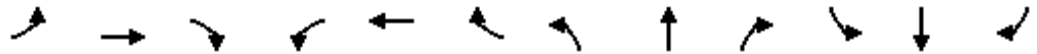
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1770	0	0	1791	0	0	3060	1306	0	3060	1306
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1724	0	0	1706	0	0	3060	451	0	3060	451
Satd. Flow (RTOR)		5			7				65			55
Volume (vph)	27	414	75	12	148	20	0	1055	78	0	1143	55
Lane Group Flow (vph)	0	637	0	0	212	0	0	1066	79	0	1143	55
Turn Type	Perm		Perm				Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0	48.0		48.0	48.0
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	0.0	48.0	48.0	0.0	48.0	48.0
Total Split (%)	47%	47%	0%	47%	47%	0%	0%	53%	53%	0%	53%	53%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9	0.9		0.9	0.9
Lead/Lag	Lead-Lag Optimize?											
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		39.0			39.0			45.0	45.0		45.0	45.0
Actuated g/C Ratio		0.43			0.43			0.50	0.50		0.50	0.50
v/c Ratio		0.85			0.29			0.70	0.31		0.75	0.22
Uniform Delay, d1		22.7			15.9			17.2	2.1		18.0	0.0
Delay		28.2			16.3			3.2	0.2		18.4	7.8
LOS		C			B			A	A		B	A
Approach Delay		28.2			16.3			3.0			17.9	
Approach LOS		C			B			A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 73 (81%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 102.4%	ICU Level of Service F

Splits and Phases: 11: Eddy St. & Van Ness Avenue



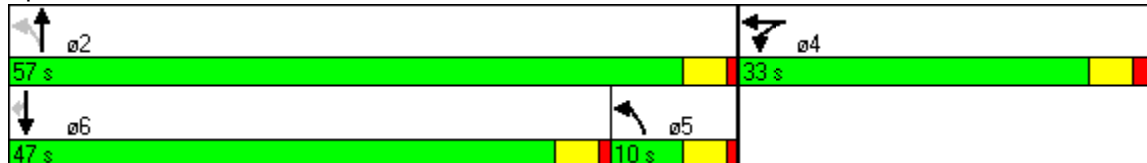


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↗	↕↕			↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	4996	0	1770	3034	0	0	3068	1314
Flt Permitted					0.998		0.131					
Satd. Flow (perm)	0	0	0	0	4965	0	244	3034	0	0	3068	823
Satd. Flow (RTOR)					8							66
Volume (vph)	0	0	0	38	1023	50	117	1083	0	0	1157	73
Lane Group Flow (vph)	0	0	0	0	1207	0	123	1140	0	0	1181	74
Turn Type				Split			pm+pt					Perm
Protected Phases				4	4		5	2			6	
Permitted Phases							2					6
Detector Phases				4	4		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	4.0
Minimum Split (s)				33.0	33.0		7.0	48.0			38.0	38.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	10.0	57.0	0.0	0.0	47.0	47.0
Total Split (%)	0%	0%	0%	37%	37%	0%	11%	63%	0%	0%	52%	52%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	0.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					30.0		54.0	54.0			44.0	44.0
Actuated g/C Ratio					0.33		0.60	0.60			0.49	0.49
v/c Ratio					0.72		0.46	0.63			0.79	0.17
Uniform Delay, d1					26.1		14.5	11.5			19.1	1.3
Delay					26.4		8.7	1.8			15.3	4.6
LOS					C		A	A			B	A
Approach Delay					26.4			2.5			14.6	
Approach LOS					C			A			B	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 14.3      Intersection LOS: B  
 Intersection Capacity Utilization 75.1%      ICU Level of Service C

**Splits and Phases: 12: Turk St. & Van Ness Avenue**



2015 Side BRT  
 13: Golden Gate Ave. & Van Ness Avenue

9/15/2010

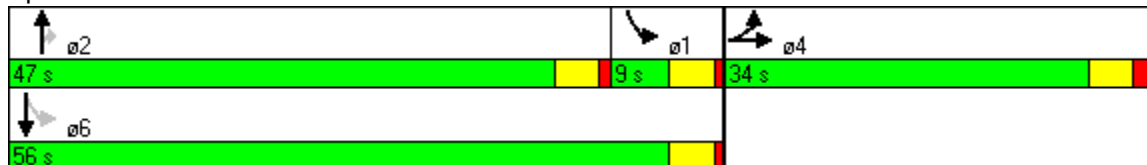


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕↕						↕↕	↗	↘	↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4850	0	0	0	0	0	3101	1346	1770	3085	0
Flt Permitted		0.997								0.121		
Satd. Flow (perm)	0	4804	0	0	0	0	0	3101	847	225	3085	0
Satd. Flow (RTOR)		12							29			
Volume (vph)	46	722	114	0	0	0	0	1154	59	101	1094	0
Lane Group Flow (vph)	0	928	0	0	0	0	0	1215	62	106	1152	0
Turn Type	Split						Perm pm+pt					
Protected Phases	4	4						2			1	6
Permitted Phases									2		6	
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0	6.4	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0	9.0	56.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	52%	52%	10%	62%	0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		31.0						44.0	44.0	53.0	53.0	
Actuated g/C Ratio		0.34						0.49	0.49	0.59	0.59	
v/c Ratio		0.55						0.80	0.14	0.45	0.63	
Uniform Delay, d1		23.5						19.3	6.5	14.4	12.1	
Delay		23.8						17.4	9.9	9.6	6.7	
LOS		C						B	A	A	A	
Approach Delay		23.8						17.0			6.9	
Approach LOS		C						B			A	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 15.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 74.9%  
 ICU Level of Service C

Splits and Phases: 13: Golden Gate Ave. & Van Ness Avenue





2015 Side BRT  
 14: McAllister St. & Van Ness Avenue

9/15/2010

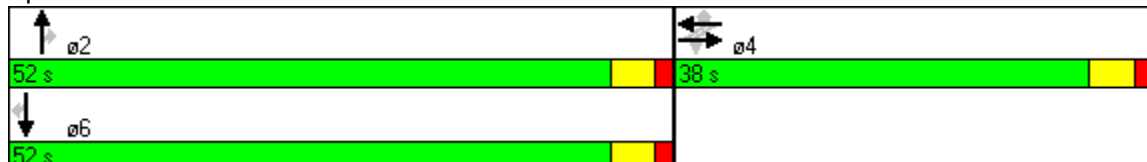


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕	↗		↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3422	0	0	3532	1425	0	2992	1482	0	3127	1370
Flt Permitted		0.937			0.904							
Satd. Flow (perm)	0	3206	0	0	3190	1142	0	2992	1000	0	3127	886
Satd. Flow (RTOR)		6				8			28			17
Volume (vph)	11	484	51	32	668	121	0	1081	45	0	1177	31
Lane Group Flow (vph)	0	613	0	0	752	130	0	1126	47	0	1239	33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4			2			6
Detector Phases	4	4		4	4	4		2	2		6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0	3.0		3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0	32.0		30.0	30.0
Total Split (s)	38.0	38.0	0.0	38.0	38.0	38.0	0.0	52.0	52.0	0.0	52.0	52.0
Total Split (%)	42%	42%	0%	42%	42%	42%	0%	58%	58%	0%	58%	58%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5	1.5		1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max	Max		Max	Max
Act Effct Green (s)		35.0			35.0	35.0		49.0	49.0		49.0	49.0
Actuated g/C Ratio		0.39			0.39	0.39		0.54	0.54		0.54	0.54
v/c Ratio		0.49			0.61	0.29		0.69	0.08		0.73	0.07
Uniform Delay, d1		20.5			22.0	17.7		15.0	3.9		15.5	4.6
Delay		20.8			22.3	18.3		3.0	0.4		5.2	2.7
LOS		C			C	B		A	A		A	A
Approach Delay		20.8			21.7			2.9			5.1	
Approach LOS		C			C			A			A	

Intersection Summary

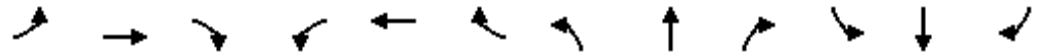
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 66 (73%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 90.2%	ICU Level of Service E

Splits and Phases: 14: McAllister St. & Van Ness Avenue



2015 Side BRT  
15: Grove St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕	↕		↕↕	↕
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3321	0	0	3459	0	1770	3160	1401	0	2976	1227
Flt Permitted		0.947			0.894		0.141					
Satd. Flow (perm)	0	3148	0	0	3102	0	263	3160	936	0	2976	820
Satd. Flow (RTOR)		7			5				1			5
Volume (vph)	6	395	37	33	456	22	58	1098	65	0	1204	56
Lane Group Flow (vph)	0	509	0	0	568	0	62	1168	69	0	1254	58
Turn Type	Perm			Perm			Perm		Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2		2			2
Detector Phases	4	4		4	4		2	2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	34.0	34.0		34.0	34.0		31.0	31.0	31.0		31.0	31.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	55.0	0.0	55.0	55.0
Total Split (%)	39%	39%	0%	39%	39%	0%	61%	61%	61%	0%	61%	61%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1		1.7	1.7	1.7		1.7	1.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		32.0			32.0		52.0	52.0	52.0		52.0	52.0
Actuated g/C Ratio		0.36			0.36		0.58	0.58	0.58		0.58	0.58
v/c Ratio		0.45			0.51		0.41	0.64	0.13		0.73	0.12
Uniform Delay, d1		21.9			22.6		10.5	12.7	8.5		13.8	7.8
Delay		22.2			23.0		7.4	6.8	6.1		21.9	14.7
LOS		C			C		A	A	A		C	B
Approach Delay		22.2			23.0			6.8			21.6	
Approach LOS		C			C			A			C	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 70	
Control Type: Pretimed	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 73.7%	ICU Level of Service C

Splits and Phases: 15: Grove St. & Van Ness Avenue



2015 Side BRT  
16: Hayes St. & Van Ness Avenue

9/15/2010

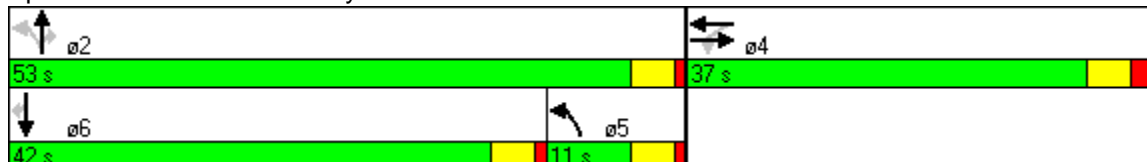


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔↔↔		↕	↕↕	↕		↕↕	↕
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1818	0	0	4568	0	1770	3362	1583	0	3101	1346
Flt Permitted					0.933		0.095					
Satd. Flow (perm)	0	1818	0	0	4266	0	177	3362	1583	0	3101	794
Satd. Flow (RTOR)		14			41				15			31
Volume (vph)	0	188	41	22	1238	209	184	991	22	0	1188	86
Lane Group Flow (vph)	0	241	0	0	1546	0	192	1032	23	0	1238	90
Turn Type				Perm			pm+pt		Perm			Perm
Protected Phases		4			4		5	2			6	
Permitted Phases				4			2		2			6
Detector Phases		4		4	4		5	2	2		6	6
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0	51.0		39.0	39.0
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	11.0	53.0	53.0	0.0	42.0	42.0
Total Split (%)	0%	41%	0%	41%	41%	0%	12%	59%	59%	0%	47%	47%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9	0.9		0.9	0.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		34.0			34.0		50.0	50.0	50.0		39.0	39.0
Actuated g/C Ratio		0.38			0.38		0.56	0.56	0.56		0.43	0.43
v/c Ratio		0.35			0.94		0.80	0.55	0.03		0.92	0.25
Uniform Delay, d1		18.8			26.3		29.6	12.8	3.1		24.0	10.3
Delay		19.2			34.2		19.4	1.4	0.0		21.6	7.4
LOS		B			C		B	A	A		C	A
Approach Delay		19.2			34.2			4.2			20.6	
Approach LOS		B			C			A			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 20.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 94.3%  
 ICU Level of Service E

Splits and Phases: 16: Hayes St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕	↕	↕	↕↕	↕
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3469	0	0	0	0	0	3127	1370	1770	3034	1583
Flt Permitted		0.995								0.138		
Satd. Flow (perm)	0	3469	0	0	0	0	0	3127	846	257	3034	1583
Satd. Flow (RTOR)		5							25			25
Volume (vph)	65	570	28	0	0	0	0	1089	48	121	1093	37
Lane Group Flow (vph)	0	728	0	0	0	0	0	1123	49	126	1139	39
Turn Type	Split						Perm			pm+pt		Perm
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		6
Detector Phases	4	4						2	2	1	6	6
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.6	4.0	4.0
Minimum Split (s)	35.0	35.0						42.0	42.0	8.1	50.0	50.0
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	45.0	45.0	10.0	55.0	55.0
Total Split (%)	39%	39%	0%	0%	0%	0%	0%	50%	50%	11%	61%	61%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.1	2.1						0.9	0.9	0.9	0.9	0.9
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	Max
Act Effct Green (s)		32.0						42.0	42.0	52.0	52.0	52.0
Actuated g/C Ratio		0.36						0.47	0.47	0.58	0.58	0.58
v/c Ratio		0.59						0.77	0.12	0.47	0.65	0.04
Uniform Delay, d1		23.4						19.9	6.4	15.7	12.8	2.9
Delay		23.8						1.3	0.0	4.8	0.9	0.0
LOS		C						A	A	A	A	A
Approach Delay		23.8						1.3			1.2	
Approach LOS		C						A			A	

**Intersection Summary**

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 44 (49%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.77

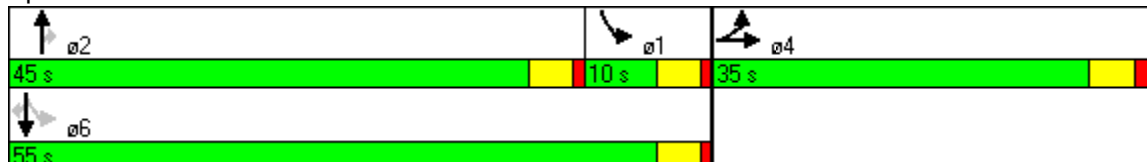
Intersection Signal Delay: 6.4

Intersection LOS: A

Intersection Capacity Utilization 74.2%

ICU Level of Service C

**Splits and Phases: 17: Fell St. & Van Ness Avenue**



2015 Side BRT  
 18: Van Ness Avenue & Market St.

9/15/2010



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑		↑↑	↑		↑			↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3353	1203	0	3353	1583	0	1613	0	0	1628	0
Flt Permitted												
Satd. Flow (perm)	0	3353	517	0	3353	748	0	1613	0	0	1628	0
Satd. Flow (RTOR)			10			1		2			1	
Volume (vph)	0	1109	119	0	1029	177	0	511	36	0	540	28
Lane Group Flow (vph)	0	1120	120	0	1131	195	0	614	0	0	624	0
Turn Type		Perm			Perm							
Protected Phases		4			4			2			2	
Permitted Phases		4			4						4	
Detector Phases		4		4		4		2			2	
Minimum Initial (s)		4.0		4.0		4.0		4.0			4.0	
Minimum Split (s)		43.0		43.0		43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0%	48%	48%	0%	48%	48%	0%	52%	0%	0%	52%	0%
Yellow Time (s)		3.5		3.5		3.5		3.5			3.5	
All-Red Time (s)		2.7		2.7		2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max		Max		Max			Max	
Act Effct Green (s)		40.0		40.0		40.0		44.0			44.0	
Actuated g/C Ratio		0.44		0.44		0.44		0.49			0.49	
v/c Ratio		0.75		0.51		0.76		0.59			0.78	
Uniform Delay, d1		20.8		16.2		20.9		18.7			19.0	
Delay		21.3		18.1		34.4		33.0			20.9	
LOS		C		B		C		C			C	
Approach Delay		21.0				34.2					20.9	
Approach LOS		C				C					C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 25.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 73.3%  
 ICU Level of Service C

Splits and Phases: 18: Van Ness Avenue & Market St.



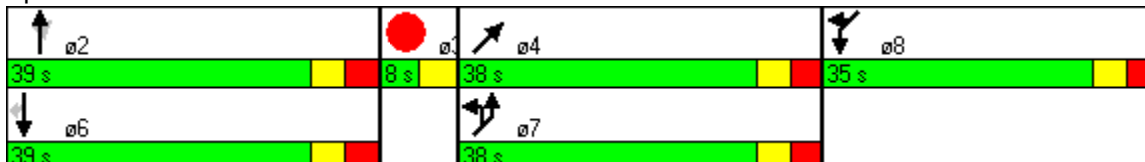


Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑	↑	↑↑	↑	↘	↘	↑↓		↘	↗↗		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	3353	1478	3241	1330	1770	3036	2679	0	1652	3610	0	
Flt Permitted					0.950	0.950			0.950			
Satd. Flow (perm)	3353	943	3241	899	1770	3036	2679	0	1652	1830	0	
Satd. Flow (RTOR)		36		94	187		15			17		
Volume (vph)	503	55	983	104	178	619	281	44	134	732	107	
Lane Group Flow (vph)	529	58	1035	109	187	652	342	0	141	884	0	
Turn Type		Perm		Perm	Prot	Prot			custom	custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases		2		6					8	8		
Detector Phases	2	2	6	6	7	7	4		8	8		
Minimum Initial (s)	1.0	1.0	2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0	38.0	38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	39.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	33%	33%	33%	33%	32%	32%	32%	0%	29%	29%	0%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8	3.8	3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0	36.0	36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.53	0.19	1.06	0.32	0.29	0.74	0.43		0.32	0.91		
Uniform Delay, d1	34.9	11.4	42.0	4.1	0.0	38.3	32.8		35.3	41.7		
Delay	35.2	15.3	81.2	8.7	4.6	38.8	33.2		35.9	47.6		
LOS	D	B	F	A	A	D	C		D	D		
Approach Delay	33.3		74.3				31.7					
Approach LOS	C		E				C					

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 48.0                      Intersection LOS: D  
 Intersection Capacity Utilization 80.4%                      ICU Level of Service D

Splits and Phases: 19: Otis St. & Mission St.



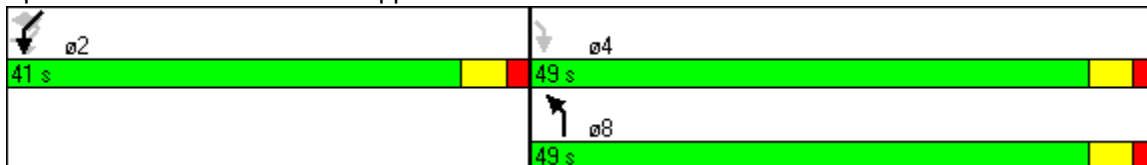


Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations	↖		↗	↖			↖	↗	↖	↗	↖
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	1770	0	1583	1770	0	0	2787	0	4990	1362	0
Flt Permitted	0.441			0.950					0.950		
Satd. Flow (perm)	821	0	1583	1770	0	0	2787	0	4990	1362	0
Satd. Flow (RTOR)			117				13			50	
Volume (vph)	7	0	97	191	0	0	819	71	707	179	128
Lane Group Flow (vph)	7	0	102	201	0	0	937	0	744	323	0
Turn Type	custom		custom	Prot			custom			Perm	
Protected Phases				8					2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2	8			4		2	2	
Minimum Initial (s)	4.0		4.0	4.0			4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5	25.5			25.5		25.5	25.5	
Total Split (s)	41.0	0.0	41.0	49.0	0.0	0.0	49.0	0.0	41.0	41.0	0.0
Total Split (%)	46%	0%	46%	54%	0%	0%	54%	0%	46%	46%	0%
Yellow Time (s)	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0	2.0			2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)	38.0		38.0	46.0			46.0		38.0	38.0	
Actuated g/C Ratio	0.42		0.42	0.51			0.51		0.42	0.42	
v/c Ratio	0.02		0.14	0.22			0.65		0.35	0.53	
Uniform Delay, d1	15.1		0.0	12.1			15.9		17.7	16.0	
Delay	15.4		2.6	6.3			16.3		17.8	16.7	
LOS	B		A	A			B		B	B	
Approach Delay				6.3					17.5		
Approach LOS				A					B		

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:EBSWL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 15.4                      Intersection LOS: B  
 Intersection Capacity Utilization 63.2%                      ICU Level of Service B

Splits and Phases: 20: McCoppin St. & Otis St.









Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↗		↑↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1571	0	0	0	0	0	3185	1267	0	2971	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	1565	0	0	0	0	0	3185	493	0	2971	0
Satd. Flow (RTOR)		11							34		25	
Volume (vph)	8	215	41	0	0	0	0	1136	126	0	1178	141
Lane Group Flow (vph)	0	339	0	0	0	0	0	1209	134	0	1388	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases									2			
Detector Phases	4	4						2	2			2
Minimum Initial (s)	4.0	4.0						4.0	4.0			4.0
Minimum Split (s)	33.0	33.0						48.5	48.5			48.5
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	37%	37%	0%	0%	0%	0%	0%	63%	63%	0%	63%	0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.64						0.63	0.43		0.77	
Uniform Delay, d1		24.5						11.6	6.9		13.1	
Delay		25.3						2.1	0.5		13.6	
LOS		C						A	A		B	
Approach Delay		25.3						1.9			13.6	
Approach LOS		C						A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 81 (90%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 9.8	Intersection LOS: A
Intersection Capacity Utilization 69.4%	ICU Level of Service B

Splits and Phases: 1: Clay St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3224	0	0	3150	0	0	3186	1275
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	3166	0	0	3150	0	0	3186	1035
Satd. Flow (RTOR)					20							55
Volume (vph)	0	0	0	103	557	90	0	1172	0	0	1128	91
Lane Group Flow (vph)	0	0	0	0	781	0	0	1208	0	0	1187	96
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	0%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.60			0.72			0.70	0.17
Uniform Delay, d1					20.7			15.9			15.6	4.4
Delay					21.0			2.5			13.7	7.2
LOS					C			A			B	A
Approach Delay					21.0			2.5			13.2	
Approach LOS					C			A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 64.6%	ICU Level of Service B

Splits and Phases: 2: Sacramento St. & Van Ness Avenue





2015 Center A  
4: Pine St. & Van Ness Avenue

9/15/2010

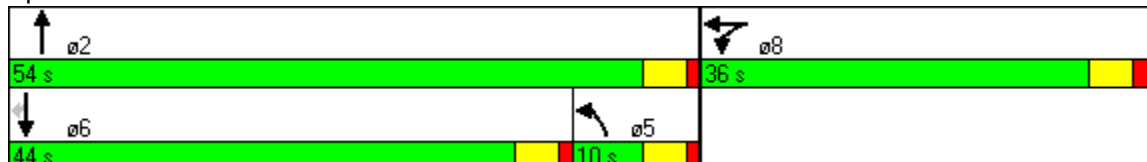


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←		←	↑ ↑			↑ ↑	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	6273	0	1770	3345	0	0	3193	1280
Flt Permitted					0.998		0.950					
Satd. Flow (perm)	0	0	0	0	6243	0	1659	3345	0	0	3193	850
Satd. Flow (RTOR)					20							33
Volume (vph)	0	0	0	75	1740	134	92	1030	0	0	1141	169
Lane Group Flow (vph)	0	0	0	0	2052	0	97	1084	0	0	1201	178
Turn Type				Split			Prot					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases												6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	4.0
Minimum Split (s)				36.0	36.0		7.0	48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	10.0	54.0	0.0	0.0	44.0	44.0
Total Split (%)	0%	0%	0%	40%	40%	0%	11%	60%	0%	0%	49%	49%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		1.0	1.0			1.0	1.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					33.0		7.0	51.0			41.0	41.0
Actuated g/C Ratio					0.37		0.08	0.57			0.46	0.46
v/c Ratio					0.89		0.70	0.57			0.83	0.44
Uniform Delay, d1					26.5		40.5	12.5			21.4	13.2
Delay					28.2		31.3	1.5			22.0	16.1
LOS					C		C	A			C	B
Approach Delay					28.2			4.0			21.2	
Approach LOS					C			A			C	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 19.9      Intersection LOS: B  
 Intersection Capacity Utilization 79.1%      ICU Level of Service C

Splits and Phases: 4: Pine St. & Van Ness Avenue



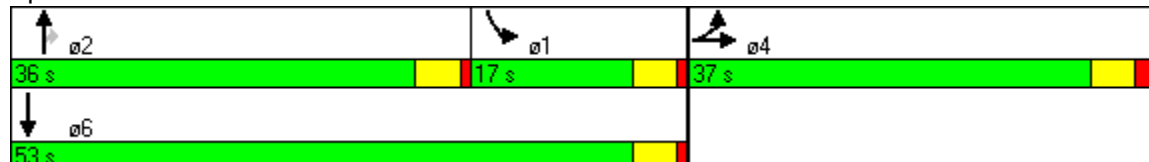


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕↕						↕↕	↗	↘	↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4985	0	0	0	0	0	3353	1417	1770	3362	0
Flt Permitted		0.997								0.950		
Satd. Flow (perm)	0	4945	0	0	0	0	0	3353	942	1661	3362	0
Satd. Flow (RTOR)		13							35			
Volume (vph)	89	1153	80	0	0	0	0	1066	83	208	977	0
Lane Group Flow (vph)	0	1453	0	0	0	0	0	1211	94	236	1110	0
Turn Type	Split						Perm			Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.0	4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0	7.4	48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	36.0	36.0	17.0	53.0	0.0
Total Split (%)	41%	41%	0%	0%	0%	0%	0%	40%	40%	19%	59%	0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		34.0						33.0	33.0	14.0	50.0	
Actuated g/C Ratio		0.38						0.37	0.37	0.16	0.56	
v/c Ratio		0.77						0.99	0.26	0.86	0.59	
Uniform Delay, d1		24.3						28.2	12.1	37.0	13.3	
Delay		24.6						30.0	1.0	25.9	3.4	
LOS		C						C	A	C	A	
Approach Delay		24.6						27.9			7.3	
Approach LOS		C						C			A	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 57 (63%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 20.0  
 Intersection Capacity Utilization 87.6%  
 Intersection LOS: B  
 ICU Level of Service D

**Splits and Phases: 5: Bush St. & Van Ness Avenue**



2015 Center A  
6: Sutter St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3336	1401
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3336	886
Satd. Flow (RTOR)					59							9
Volume (vph)	0	0	0	93	1026	80	0	1106	0	0	981	76
Lane Group Flow (vph)	0	0	0	0	1178	84	0	1164	0	0	1033	80
Turn Type				Split			Perm					Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	43%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.86	0.15		0.67			0.58	0.17
Uniform Delay, d1					24.7	4.9		15.3			14.2	9.4
Delay					27.5	7.3		9.5			20.9	17.0
LOS					C	A		A			C	B
Approach Delay					26.1			9.5			20.7	
Approach LOS					C			A			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 40 (44%), Referenced to phase 2:NBSB, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.86

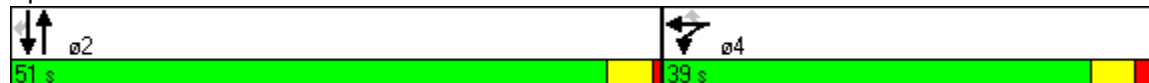
Intersection Signal Delay: 18.9

Intersection LOS: B

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Splits and Phases: 6: Sutter St. & Van Ness Avenue



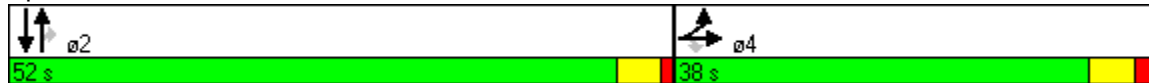


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	3160	913	0	3076	0
Satd. Flow (RTOR)			53						23			
Volume (vph)	53	710	76	0	0	0	0	1086	236	0	1177	0
Lane Group Flow (vph)	0	838	84	0	0	0	0	1108	241	0	1226	0
Turn Type	Split		Perm							Perm		
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42%	42%	42%	0%	0%	0%	0%	58%	58%	0%	58%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		35.0	35.0					49.0	49.0		49.0	
Actuated g/C Ratio		0.39	0.39					0.54	0.54		0.54	
v/c Ratio		0.61	0.15					0.64	0.47		0.73	
Uniform Delay, d1		22.0	6.3					14.4	11.2		15.5	
Delay		22.4	8.4					3.7	1.6		13.9	
LOS		C	A					A	A		B	
Approach Delay		21.1						3.4			13.9	
Approach LOS		C						A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 22 (24%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service B

Splits and Phases: 7: Post St. & Van Ness Avenue







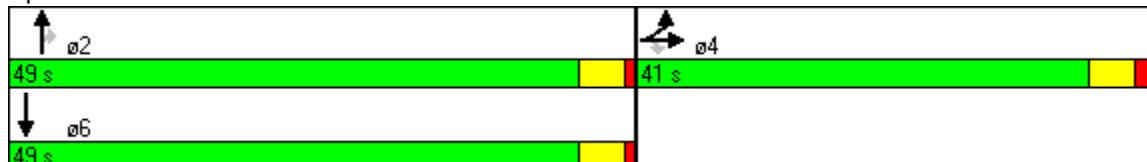


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	3110	794	0	3135	0
Satd. Flow (RTOR)			27						7			
Volume (vph)	85	1140	118	0	0	0	0	1159	92	0	1210	0
Lane Group Flow (vph)	0	1289	124	0	0	0	0	1171	93	0	1391	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	41.0	41.0	41.0	0.0	0.0	0.0	0.0	49.0	49.0	0.0	49.0	0.0
Total Split (%)	46%	46%	46%	0%	0%	0%	0%	54%	54%	0%	54%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		38.0	38.0					46.0	46.0		46.0	
Actuated g/C Ratio		0.42	0.42					0.51	0.51		0.51	
v/c Ratio		0.87	0.21					0.74	0.23		0.87	
Uniform Delay, d1		23.7	12.7					17.2	11.1		19.3	
Delay		26.1	13.1					3.2	1.8		25.0	
LOS		C	B					A	A		C	
Approach Delay		24.9						3.1			25.0	
Approach LOS		C						A			C	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 89 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 18.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 83.0%  
 ICU Level of Service D

Splits and Phases: 9: O'Farrell St. & Van Ness Avenue





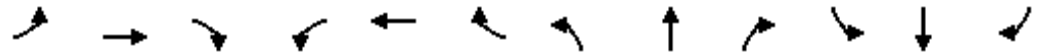
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑			↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	4862	0	0	3135	0	0	2830	0
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	4809	0	0	3135	0	0	2830	0
Satd. Flow (RTOR)					11						8	
Volume (vph)	0	0	0	51	698	104	0	1157	0	0	1117	195
Lane Group Flow (vph)	0	0	0	0	937	0	0	1244	0	0	1381	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Detector Phases				4	4			2			2	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0%	0%	0%	37%	37%	0%	0%	63%	0%	0%	63%	0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.58			0.66			0.81	
Uniform Delay, d1					24.4			11.9			13.9	
Delay					24.7			1.7			10.5	
LOS					C			A			B	
Approach Delay					24.7			1.7			10.5	
Approach LOS					C			A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 80 (89%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 72.1%	ICU Level of Service C

Splits and Phases: 10: Ellis St. & Van Ness Avenue



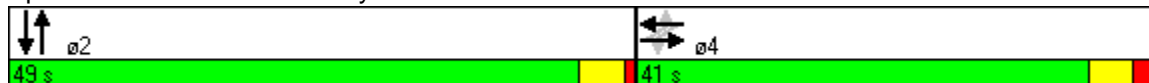


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1770	0	0	1787	0	0	2958	0	0	2946	0
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1724	0	0	1703	0	0	2958	0	0	2946	0
Satd. Flow (RTOR)		6			6			11			8	
Volume (vph)	27	411	75	12	147	21	0	1145	78	0	1138	55
Lane Group Flow (vph)	0	633	0	0	212	0	0	1236	0	0	1193	0
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	46%	46%	0%	46%	46%	0%	0%	54%	0%	0%	54%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.87			0.29			0.81			0.79	
Uniform Delay, d1		23.4			16.6			18.2			17.9	
Delay		30.1			17.0			14.0			24.0	
LOS		C			B			B			C	
Approach Delay		30.1			17.0			14.0			24.0	
Approach LOS		C			B			B			C	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 70 (78%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 105.8%	ICU Level of Service F

Splits and Phases: 11: Eddy St. & Van Ness Avenue





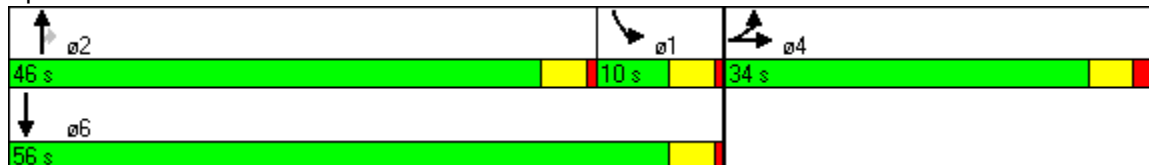


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕↕						↕↕	↗	↘	↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	4850	0	0	0	0	0	3101	1346	1770	3177	0
Flt Permitted		0.997								0.950		
Satd. Flow (perm)	0	4803	0	0	0	0	0	3101	847	1770	3177	0
Satd. Flow (RTOR)		12							26			
Volume (vph)	47	718	113	0	0	0	0	1244	59	101	1089	0
Lane Group Flow (vph)	0	924	0	0	0	0	0	1309	62	106	1146	0
Turn Type	Split						Perm			Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0	6.4	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	46.0	46.0	10.0	56.0	0.0
Total Split (%)	38%	38%	0%	0%	0%	0%	0%	51%	51%	11%	62%	0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		31.0						43.0	43.0	7.0	53.0	
Actuated g/C Ratio		0.34						0.48	0.48	0.08	0.59	
v/c Ratio		0.55						0.88	0.15	0.77	0.61	
Uniform Delay, d1		23.5						21.2	7.5	40.7	11.9	
Delay		23.7						21.9	10.7	24.6	1.2	
LOS		C						C	B	C	A	
Approach Delay		23.7						21.4			3.2	
Approach LOS		C						C			A	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 15.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 77.7%  
 ICU Level of Service C

Splits and Phases: 13: Golden Gate Ave. & Van Ness Avenue



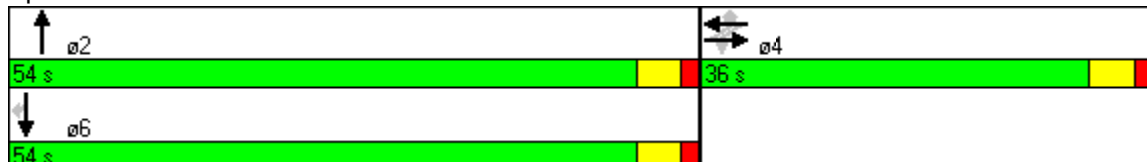


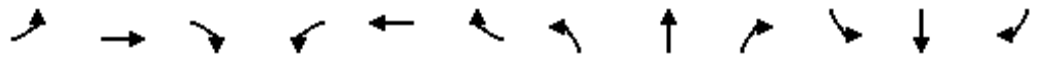
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3428	0	0	3532	1425	0	2939	0	0	3127	1370
Flt Permitted		0.937			0.902							
Satd. Flow (perm)	0	3212	0	0	3183	1142	0	2939	0	0	3127	886
Satd. Flow (RTOR)		7			7			7				15
Volume (vph)	11	505	51	32	665	121	0	1171	45	0	1171	31
Lane Group Flow (vph)	0	636	0	0	749	130	0	1267	0	0	1233	33
Turn Type	Perm			Perm		Perm						Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4						6
Detector Phases	4	4		4	4	4		2			6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0			3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	30.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	36.0	0.0	54.0	0.0	0.0	54.0	54.0
Total Split (%)	40%	40%	0%	40%	40%	40%	0%	60%	0%	0%	60%	60%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max			Max	Max
Act Effct Green (s)		33.0			33.0	33.0		51.0			51.0	51.0
Actuated g/C Ratio		0.37			0.37	0.37		0.57			0.57	0.57
v/c Ratio		0.54			0.64	0.31		0.76			0.70	0.06
Uniform Delay, d1		22.2			23.6	19.1		14.7			13.9	4.7
Delay		22.5			24.0	19.8		5.3			7.1	3.4
LOS		C			C	B		A			A	A
Approach Delay		22.5			23.4			5.3			7.0	
Approach LOS		C			C			A			A	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 74 (82%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 12.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 94.8%  
 ICU Level of Service E

Splits and Phases: 14: McAllister St. & Van Ness Avenue



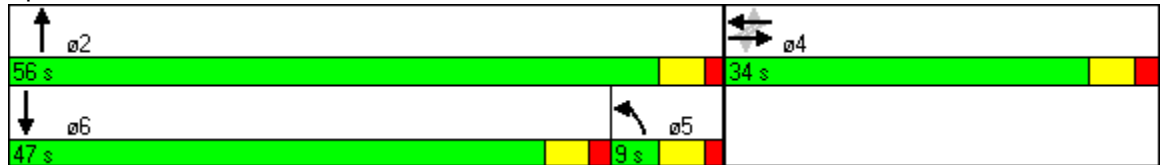


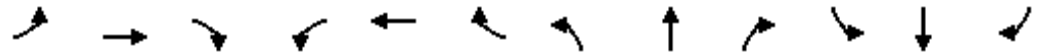
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↖	↕↕			↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3321	0	0	3459	0	1770	3072	0	0	2854	0
Flt Permitted		0.947			0.893		0.950					
Satd. Flow (perm)	0	3148	0	0	3098	0	1770	3072	0	0	2854	0
Satd. Flow (RTOR)		12			5			1			7	
Volume (vph)	6	393	37	33	453	22	60	1188	66	0	1198	56
Lane Group Flow (vph)	0	507	0	0	564	0	64	1334	0	0	1306	0
Turn Type	Perm			Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		3.8	4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0		9.0	31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	9.0	56.0	0.0	0.0	47.0	0.0
Total Split (%)	38%	38%	0%	38%	38%	0%	10%	62%	0%	0%	52%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1		1.7	1.7			1.7	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		31.0			31.0		6.0	53.0			44.0	
Actuated g/C Ratio		0.34			0.34		0.07	0.59			0.49	
v/c Ratio		0.46			0.53		0.54	0.74			0.93	
Uniform Delay, d1		22.4			23.4		40.6	13.4			21.5	
Delay		22.7			23.7		37.0	11.1			43.3	
LOS		C			C		D	B			D	
Approach Delay		22.7			23.7			12.3			43.3	
Approach LOS		C			C			B			D	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service C

**Splits and Phases:** 15: Grove St. & Van Ness Avenue



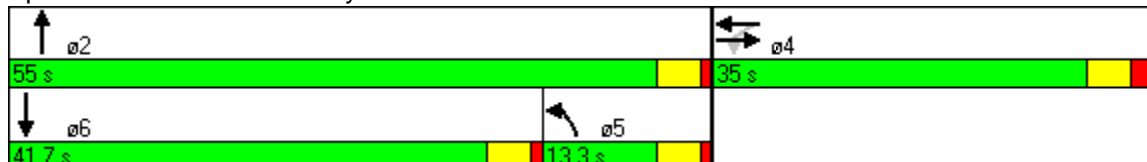


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑		↑	↑↑			↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1818	0	0	4567	0	1770	3352	0	0	2985	0
Flt Permitted					0.933		0.950					
Satd. Flow (perm)	0	1818	0	0	4265	0	1770	3352	0	0	2985	0
Satd. Flow (RTOR)		14			40			4			10	
Volume (vph)	0	187	41	22	1243	211	184	1082	22	0	1182	86
Lane Group Flow (vph)	0	240	0	0	1553	0	192	1150	0	0	1321	0
Turn Type				Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases				4								
Detector Phases		4		4	4		5	2			6	
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0			39.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	13.3	55.0	0.0	0.0	41.7	0.0
Total Split (%)	0%	39%	0%	39%	39%	0%	15%	61%	0%	0%	46%	0%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		32.0			32.0		10.3	52.0			38.7	
Actuated g/C Ratio		0.36			0.36		0.11	0.58			0.43	
v/c Ratio		0.37			1.01		0.95	0.59			1.02	
Uniform Delay, d1		20.1			28.2		39.5	12.1			25.4	
Delay		20.6			49.3		37.5	2.4			32.4	
LOS		C			D		D	A			C	
Approach Delay		20.6			49.3			7.4			32.4	
Approach LOS		C			D			A			C	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 52 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 98.0%	ICU Level of Service E

Splits and Phases: 16: Hayes St. & Van Ness Avenue





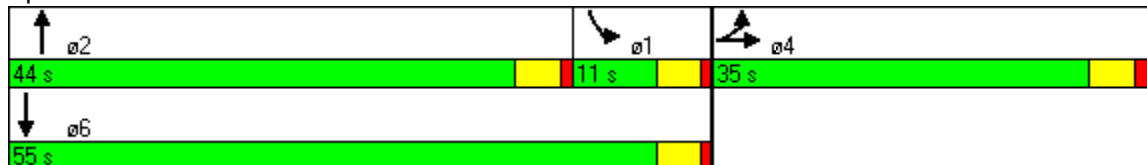


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕		↕	↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3468	0	0	0	0	0	3054	0	1770	3153	0
Flt Permitted		0.995								0.950		
Satd. Flow (perm)	0	3468	0	0	0	0	0	3054	0	1770	3153	0
Satd. Flow (RTOR)		5						6		6		
Volume (vph)	65	565	28	0	0	0	0	1180	48	121	1087	37
Lane Group Flow (vph)	0	723	0	0	0	0	0	1265	0	126	1171	0
Turn Type	Split						Prot					
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	35.0	35.0						42.0		8.1	50.0	
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0	11.0	55.0	0.0
Total Split (%)	39%	39%	0%	0%	0%	0%	0%	49%	0%	12%	61%	0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.1	2.1						0.9		0.9	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.0						41.0		8.0	52.0	
Actuated g/C Ratio		0.36						0.46		0.09	0.58	
v/c Ratio		0.58						0.91		0.80	0.64	
Uniform Delay, d1		23.4						22.6		40.2	12.7	
Delay		23.7						8.8		28.6	1.0	
LOS		C						A		C	A	
Approach Delay		23.7						8.8			3.7	
Approach LOS		C						A			A	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 56 (62%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 79.0%	ICU Level of Service C

Splits and Phases: 17: Fell St. & Van Ness Avenue



2015 Center A  
 18: Van Ness Avenue & Market St.

9/15/2010

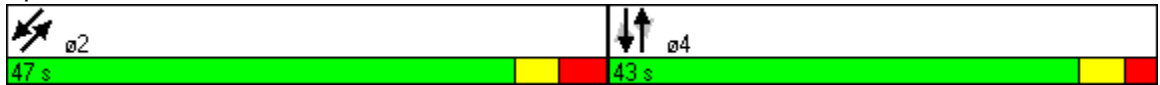


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		↑↑	↑		↑↑	↑		↑			↑		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Satd. Flow (prot)	0	3353	1243	0	3353	1583	0	1611	0	0	1627	0	
Flt Permitted													
Satd. Flow (perm)	0	3353	534	0	3353	748	0	1611	0	0	1627	0	
Satd. Flow (RTOR)			11			1		2					
Volume (vph)	0	1199	119	0	1023	176	0	476	36	0	540	29	
Lane Group Flow (vph)	0	1211	120	0	1124	193	0	575	0	0	625	0	
Turn Type		Perm					Perm						
Protected Phases		4			4			2			2		
Permitted Phases		4				4				4			
Detector Phases		4		4		4		4		2		2	
Minimum Initial (s)		4.0		4.0		4.0		4.0		4.0		4.0	
Minimum Split (s)		43.0		43.0		43.0		43.0		47.0		47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0	
Total Split (%)	0%	48%	48%	0%	48%	48%	0%	52%	0%	0%	52%	0%	
Yellow Time (s)		3.5		3.5		3.5		3.5		3.5		3.5	
All-Red Time (s)		2.7		2.7		2.7		2.7		3.8		3.8	
Lead/Lag													
Lead-Lag Optimize?													
Recall Mode		Max	Max		Max	Max		Max			Max		
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0		
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49		
v/c Ratio		0.81	0.49		0.75	0.58		0.73			0.79		
Uniform Delay, d1		21.7	15.9		20.9	18.6		18.2			19.1		
Delay		22.3	17.6		27.6	26.6		19.1			21.4		
LOS		C		B		C		C		B		C	
Approach Delay		21.9		27.5		27.5		19.1		21.4		21.4	
Approach LOS		C			C			B			C		

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 23.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.8%  
 ICU Level of Service C

Splits and Phases: 18: Van Ness Avenue & Market St.





Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↗	↖	↖	↗		↖	↗↗		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	3208	0	3241	1330	1770	1424	2581	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.978		0.950			
Satd. Flow (perm)	3208	0	3241	899	1770	1424	2581	0	1652	1830	0	
Satd. Flow (RTOR)	8			95	187		7			21		
Volume (vph)	598	55	977	104	178	597	279	44	133	715	124	
Lane Group Flow (vph)	687	0	1028	109	187	344	624	0	140	884	0	
Turn Type				Perm	Prot	Prot			custom	custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6					8	8		
Detector Phases	2		6	6	7	7	4		8	8		
Minimum Initial (s)	1.0		2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	33%	0%	33%	33%	32%	32%	32%	0%	29%	29%	0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.06	0.32	0.29	0.83	0.82		0.32	0.90		
Uniform Delay, d1	36.9		42.0	3.8	0.0	39.7	39.1		35.2	41.5		
Delay	37.3		79.0	8.5	4.6	46.9	41.7		35.8	47.2		
LOS	D		E	A	A	D	D		D	D		
Approach Delay	37.3		72.2				37.2					
Approach LOS	D		E				D					

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 49.3                      Intersection LOS: D  
 Intersection Capacity Utilization 80.6%                      ICU Level of Service D

Splits and Phases: 19: Otis St. & Mission St.



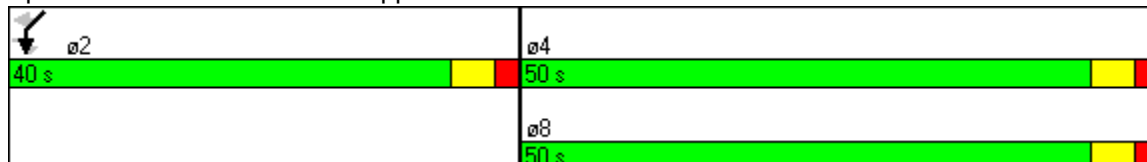


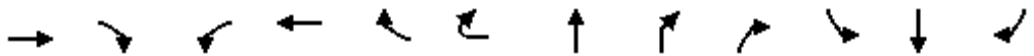
Lane Group	EBL	EBR	NBL	NBR	SWL	SWR	ø4	ø8
Lane Configurations		↗			↖↖↖	↗		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Satd. Flow (prot)	0	1611	0	0	4990	1362		
Flt Permitted					0.950			
Satd. Flow (perm)	0	1611	0	0	4990	1362		
Satd. Flow (RTOR)		1091			3076	189		
Volume (vph)	0	98	0	0	706	180		
Lane Group Flow (vph)	0	103	0	0	743	189		
Turn Type	custom				Perm			
Protected Phases					2		4	8
Permitted Phases		2				2		
Detector Phases		2			2	2		
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0
Minimum Split (s)		25.5			25.5	25.5	25.5	25.5
Total Split (s)	0.0	40.0	0.0	0.0	40.0	40.0	50.0	50.0
Total Split (%)	0%	44%	0%	0%	44%	44%	56%	56%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5
All-Red Time (s)		2.0			2.0	2.0	2.0	2.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode		Max			Max	Max	Max	Max
Act Effct Green (s)		37.0			37.0	37.0		
Actuated g/C Ratio		0.41			0.41	0.41		
v/c Ratio		0.08			0.19	0.28		
Uniform Delay, d1		0.0			0.0	0.0		
Delay		0.0			0.0	2.8		
LOS		A			A	A		
Approach Delay					0.6			
Approach LOS					A			

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 22 (24%), Referenced to phase 2:SWL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	
Maximum v/c Ratio: 0.28	
Intersection Signal Delay: 0.5	Intersection LOS: A
Intersection Capacity Utilization 27.2%	ICU Level of Service A

Splits and Phases: 20: McCoppin St. & Otis St.





Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑	↑	↑↑	↑	↑↑	↑↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	4995	0	0	5029	0	1583	1517	2882	1583	3433	2957	0
Flt Permitted				0.931						0.950		
Satd. Flow (perm)	4995	0	0	4682	0	1109	1517	2882	1175	3433	2957	0
Satd. Flow (RTOR)	12				565				31		2	
Volume (vph)	561	38	13	1331	111	591	63	507	222	841	614	168
Lane Group Flow (vph)	631	0	0	1532	0	622	222	378	234	885	823	0
Turn Type	Perm				Perm		Split		Permcust			
Protected Phases	4			8				2	2	1		6
Permitted Phases			8				8		2		1	
Detector Phases	4	8		8		8		2	2	2	1	6
Minimum Initial (s)	4.0		4.0		4.0		4.0		4.0		4.0	
Minimum Split (s)	31.0		31.0		31.0		31.0		29.0		29.0	
Total Split (s)	31.0	0.0	31.0	31.0	0.0	31.0	29.0	29.0	29.0	30.0	59.0	0.0
Total Split (%)	34%	0%	34%	34%	0%	34%	32%	32%	32%	33%	66%	0%
Yellow Time (s)	4.0		4.0		4.0		4.0		4.0		4.0	
All-Red Time (s)	2.0		2.0		2.0		0.0		0.0		0.0	
Lead/Lag							Lead	Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max		Max		Max		Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0		28.0		28.0		26.0	26.0	26.0	27.0	56.0	
Actuated g/C Ratio	0.31		0.31		0.31		0.29	0.29	0.29	0.30	0.62	
v/c Ratio	0.40		1.05		0.85		0.51	0.45	0.65	0.86	0.45	
Uniform Delay, d1	23.9		31.0		2.2		26.6	26.2	24.0	29.7	8.9	
Delay	24.1		64.6		9.3		27.4	26.6	25.1	33.5	9.0	
LOS	C		E		A		C	C	C	C	A	
Approach Delay	24.1		48.6				26.4				21.7	
Approach LOS	C		D				C				C	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 33.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 82.9%  
 ICU Level of Service D

Splits and Phases: 21: Duboce/13th & Mission St.



2015 BRT Center B  
1: Clay St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕	↗		↕↔	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1575	0	0	0	0	0	3185	1267	0	2961	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	1569	0	0	0	0	0	3185	493	0	2961	0
Satd. Flow (RTOR)		11							33		26	
Volume (vph)	8	225	41	0	0	0	0	1076	126	0	1137	141
Lane Group Flow (vph)	0	351	0	0	0	0	0	1145	134	0	1345	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases									2			
Detector Phases	4	4						2	2			2
Minimum Initial (s)	4.0	4.0						4.0	4.0			4.0
Minimum Split (s)	33.0	33.0						48.5	48.5			48.5
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	37%	37%	0%	0%	0%	0%	0%	63%	63%	0%	63%	0%
Yellow Time (s)	3.5	3.5						3.5	3.5			3.5
All-Red Time (s)	2.1	2.1						0.8	0.8			0.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.66						0.60	0.43		0.75	
Uniform Delay, d1		24.7						11.2	6.9		12.8	
Delay		25.6						2.7	0.7		13.3	
LOS		C						A	A		B	
Approach Delay		25.6						2.5			13.3	
Approach LOS		C						A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 81 (90%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 68.8%	ICU Level of Service B

Splits and Phases: 1: Clay St. & Van Ness Avenue



2015 BRT Center B  
 2: Sacramento St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3224	0	0	3150	0	0	3186	1275
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	3166	0	0	3150	0	0	3186	1035
Satd. Flow (RTOR)					20							57
Volume (vph)	0	0	0	103	557	90	0	1112	0	0	1045	133
Lane Group Flow (vph)	0	0	0	0	781	0	0	1146	0	0	1100	140
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	0%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.60			0.68			0.65	0.24
Uniform Delay, d1					20.7			15.4			15.0	6.3
Delay					21.0			4.6			13.0	7.9
LOS					C			A			B	A
Approach Delay					21.0			4.6			12.4	
Approach LOS					C			A			B	

Intersection Summary

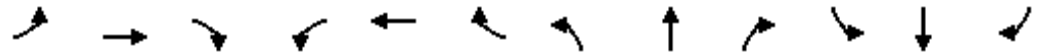
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 62.9%	ICU Level of Service B

Splits and Phases: 2: Sacramento St. & Van Ness Avenue



2015 BRT Center B  
 3: California St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3352	0	0	3358	0	0	3336	1401	0	2983	0
Flt Permitted		0.897			0.835							
Satd. Flow (perm)	0	3009	0	0	2805	0	0	3336	918	0	2983	0
Satd. Flow (RTOR)		26			14				29		20	
Volume (vph)	23	534	98	39	612	82	0	1007	115	0	1038	110
Lane Group Flow (vph)	0	753	0	0	806	0	0	1038	119	0	1221	0
Turn Type	Perm			Perm				Perm				
Protected Phases		4			4			2				2
Permitted Phases	4			4					2			
Detector Phases	4	4		4	4			2	2			2
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0			4.0
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5			42.5
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	0.0	53.0	53.0	0.0	53.0	0.0
Total Split (%)	41%	41%	0%	41%	41%	0%	0%	59%	59%	0%	59%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5			3.5
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2			1.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max			Max
Act Effct Green (s)		34.0			34.0			50.0	50.0			50.0
Actuated g/C Ratio		0.38			0.38			0.56	0.56			0.56
v/c Ratio		0.65			0.75			0.56	0.23			0.73
Uniform Delay, d1		22.2			23.9			12.9	7.5			14.7
Delay		22.6			24.4			2.9	0.8			6.0
LOS		C			C			A	A			A
Approach Delay		22.6			24.4			2.7				6.0
Approach LOS		C			C			A				A

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 71 (79%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 12.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 75.9%  
 ICU Level of Service C

Splits and Phases: 3: California St. & Van Ness Avenue





2015 BRT Center B  
4: Pine St. & Van Ness Avenue

9/15/2010

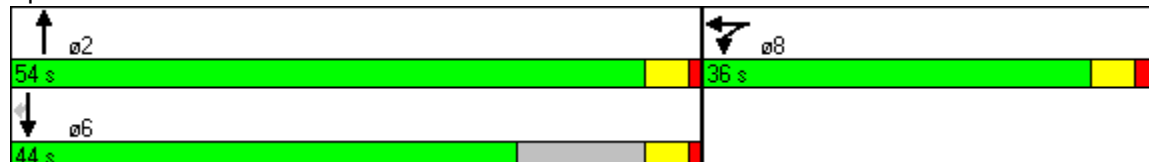


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4↑↑↑			↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	6284	0	0	3345	0	0	3193	1280
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	6254	0	0	3345	0	0	3193	850
Satd. Flow (RTOR)					18							
Volume (vph)	0	0	0	75	1768	124	0	998	0	0	964	211
Lane Group Flow (vph)	0	0	0	0	2071	0	0	1051	0	0	1015	222
Turn Type				Split							Perm	
Protected Phases				8	8			2			6	
Permitted Phases												6
Detector Phases				8	8			2			6	6
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				36.0	36.0			48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	54.0	0.0	0.0	44.0	44.0
Total Split (%)	0%	0%	0%	40%	40%	0%	0%	60%	0%	0%	49%	49%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.2	2.2			1.0			1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					33.0			51.0			51.0	51.0
Actuated g/C Ratio					0.37			0.57			0.57	0.57
v/c Ratio					0.89			0.55			0.56	0.46
Uniform Delay, d1					26.6			12.3			12.4	11.4
Delay					28.6			1.7			14.1	13.3
LOS					C			A			B	B
Approach Delay					28.6			1.7			14.0	
Approach LOS					C			A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 61 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 66.5%	ICU Level of Service B

Splits and Phases: 4: Pine St. & Van Ness Avenue





2015 BRT Center B  
6: Sutter St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3336	1401
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3336	886
Satd. Flow (RTOR)						55						8
Volume (vph)	0	0	0	93	1054	52	0	1010	0	0	970	97
Lane Group Flow (vph)	0	0	0	0	1207	55	0	1063	0	0	1021	102
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	43%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.88	0.10		0.62			0.57	0.21
Uniform Delay, d1					25.0	0.0		14.6			14.1	10.1
Delay					28.9	5.1		9.3			11.5	9.8
LOS					C	A		A			B	A
Approach Delay					27.8			9.3			11.3	
Approach LOS					C			A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 40 (44%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service B

Splits and Phases: 6: Sutter St. & Van Ness Avenue



2015 BRT Center B  
7: Post St. & Van Ness Avenue

9/15/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	3160	913	0	3076	0
Satd. Flow (RTOR)			55						23			
Volume (vph)	53	710	71	0	0	0	0	990	236	0	1166	0
Lane Group Flow (vph)	0	838	78	0	0	0	0	1010	241	0	1215	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42%	42%	42%	0%	0%	0%	0%	58%	58%	0%	58%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		35.0	35.0					49.0	49.0		49.0	
Actuated g/C Ratio		0.39	0.39					0.54	0.54		0.54	
v/c Ratio		0.61	0.14					0.59	0.47		0.73	
Uniform Delay, d1		22.0	5.0					13.7	11.2		15.4	
Delay		22.4	7.8					3.3	1.6		18.4	
LOS		C	A					A	A		B	
Approach Delay		21.1						3.0			18.4	
Approach LOS		C						A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 22 (24%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 65.8%	ICU Level of Service B

Splits and Phases: 7: Post St. & Van Ness Avenue



2015 BRT Center B  
8: Geary St. & Van Ness Avenue

9/15/2010

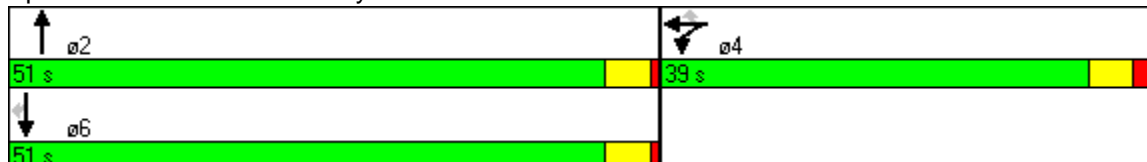


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	5070	1469	0	3152	0	0	3035	1583
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	5017	1152	0	3152	0	0	3035	1044
Satd. Flow (RTOR)						58						7
Volume (vph)	0	0	0	74	988	110	0	1158	0	0	1120	156
Lane Group Flow (vph)	0	0	0	0	1084	112	0	1170	0	0	1155	161
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0%	0%	0%	43%	43%	43%	0%	57%	0%	0%	57%	57%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.53	0.23		0.70			0.71	0.29
Uniform Delay, d1					20.6	8.2		15.6			15.8	11.0
Delay					20.8	9.6		3.1			18.3	15.8
LOS					C	A		A			B	B
Approach Delay					19.8			3.1			18.0	
Approach LOS					B			A			B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 9 (10%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 64.4%	ICU Level of Service B

Splits and Phases: 8: Geary St. & Van Ness Avenue



2015 BRT Center B  
 9: O'Farrell St. & Van Ness Avenue

9/15/2010

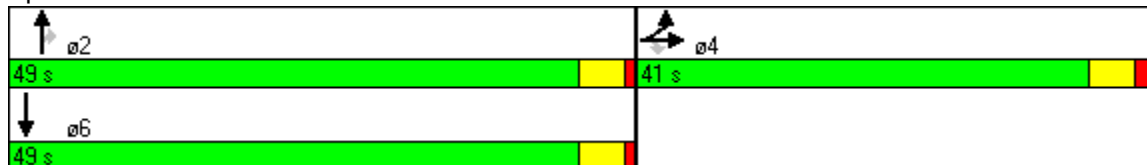


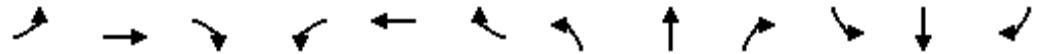
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	3110	794	0	3135	0
Satd. Flow (RTOR)			29						7			
Volume (vph)	85	1140	113	0	0	0	0	1073	92	0	1194	0
Lane Group Flow (vph)	0	1289	119	0	0	0	0	1084	93	0	1372	0
Turn Type	Split		Perm							Perm		
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	41.0	41.0	41.0	0.0	0.0	0.0	0.0	49.0	49.0	0.0	49.0	0.0
Total Split (%)	46%	46%	46%	0%	0%	0%	0%	54%	54%	0%	54%	0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		38.0	38.0					46.0	46.0		46.0	
Actuated g/C Ratio		0.42	0.42					0.51	0.51		0.51	
v/c Ratio		0.87	0.20					0.68	0.23		0.86	
Uniform Delay, d1		23.7	12.2					16.5	11.1		19.1	
Delay		26.1	12.6					3.0	1.7		24.4	
LOS		C	B					A	A		C	
Approach Delay		24.9						2.9			24.4	
Approach LOS		C						A			C	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 89 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 18.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 82.5%  
 ICU Level of Service D

Splits and Phases: 9: O'Farrell St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑			↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	4887	0	0	3135	0	0	2824	0
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	4834	0	0	3135	0	0	2824	0
Satd. Flow (RTOR)					13						8	
Volume (vph)	0	0	0	51	712	90	0	1085	0	0	1096	195
Lane Group Flow (vph)	0	0	0	0	937	0	0	1167	0	0	1359	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Detector Phases				4	4			2			2	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0%	0%	0%	37%	37%	0%	0%	63%	0%	0%	63%	0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.57			0.62			0.80	
Uniform Delay, d1					24.3			11.5			13.7	
Delay					24.5			1.7			10.3	
LOS					C			A			B	
Approach Delay					24.5			1.7			10.3	
Approach LOS					C			A			B	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 80 (89%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 71.5%	ICU Level of Service C

Splits and Phases: 10: Ellis St. & Van Ness Avenue



2015 BRT Center B  
 11: Eddy St. & Van Ness Avenue

9/15/2010

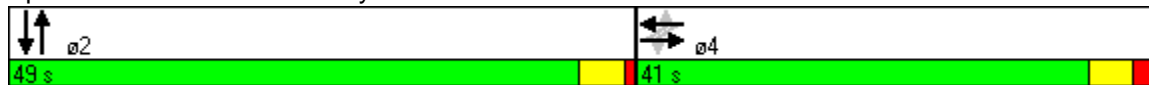


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	1783	0	0	1787	0	0	2925	0	0	2913	0
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1737	0	0	1703	0	0	2925	0	0	2913	0
Satd. Flow (RTOR)		7			7			14			10	
Volume (vph)	27	422	64	12	147	21	0	1073	90	0	1102	70
Lane Group Flow (vph)	0	633	0	0	212	0	0	1175	0	0	1172	0
Turn Type	Perm				Perm							
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	46%	46%	0%	46%	46%	0%	0%	54%	0%	0%	54%	0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.86			0.29			0.78			0.78	
Uniform Delay, d1		23.3			16.5			17.7			17.8	
Delay		29.4			16.9			18.7			24.3	
LOS		C			B			B			C	
Approach Delay		29.4			16.9			18.7			24.3	
Approach LOS		C			B			B			C	

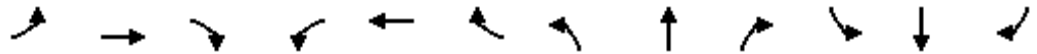
Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 70 (78%), Referenced to phase 2:NBSB, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 104.0%	ICU Level of Service F

Splits and Phases: 11: Eddy St. & Van Ness Avenue





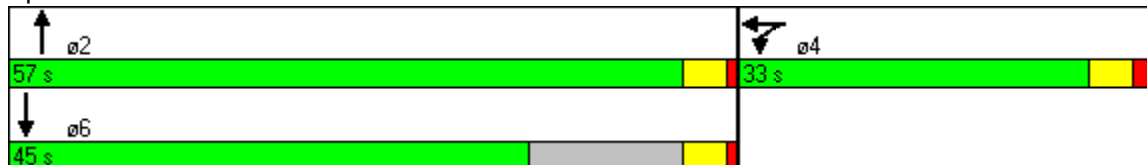


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑			↑↑			↑↑	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	0	0	0	5003	0	0	3135	0	0	2970	0
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	4973	0	0	3135	0	0	2970	0
Satd. Flow (RTOR)					8						1	
Volume (vph)	0	0	0	38	1083	50	0	1113	0	0	1105	73
Lane Group Flow (vph)	0	0	0	0	1272	0	0	1172	0	0	1202	0
Turn Type				Split								
Protected Phases				4	4			2			6	
Permitted Phases												
Detector Phases				4	4			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			38.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	45.0	0.0
Total Split (%)	0%	0%	0%	37%	37%	0%	0%	63%	0%	0%	50%	0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.76			0.62			0.67	
Uniform Delay, d1					26.6			11.5			12.1	
Delay					26.9			2.4			1.9	
LOS					C			A			A	
Approach Delay					26.9			2.4			1.9	
Approach LOS					C			A			A	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 72 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 67.8%	ICU Level of Service B

Splits and Phases: 12: Turk St. & Van Ness Avenue



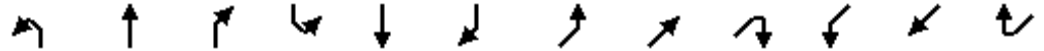










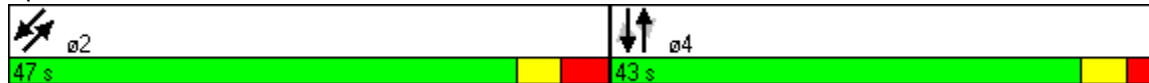


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↗		↑↑	↗		↘			↘	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	0	3353	1243	0	3353	1583	0	1611	0	0	1627	0
Flt Permitted												
Satd. Flow (perm)	0	3353	534	0	3353	748	0	1611	0	0	1627	0
Satd. Flow (RTOR)			11			1		2			1	
Volume (vph)	0	959	119	0	1023	176	0	476	36	0	540	29
Lane Group Flow (vph)	0	969	120	0	1124	193	0	575	0	0	625	0
Turn Type		Perm			Perm							
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0%	48%	48%	0%	48%	48%	0%	52%	0%	0%	52%	0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		0.65	0.49		0.75	0.58		0.73			0.79	
Uniform Delay, d1		19.5	15.9		20.9	18.6		18.2			19.0	
Delay		19.9	17.6		24.8	24.4		19.1			21.4	
LOS		B	B		C	C		B			C	
Approach Delay		19.6			24.8			19.1			21.4	
Approach LOS		B			C			B			C	

**Intersection Summary**

Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NESW, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 73.2%	ICU Level of Service C

Splits and Phases: 18: Van Ness Avenue & Market St.

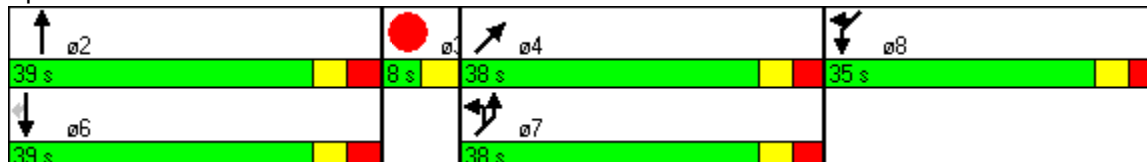


	↑	↗	↓	↙	↘	↖	↗	↘	↙	↖	↗	↘
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↗	↘	↘	↗		↘	↗↗		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Satd. Flow (prot)	3208	0	3241	1330	1770	1424	2573	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.987		0.950			
Satd. Flow (perm)	3208	0	3241	899	1770	1424	2573	0	1652	1830	0	
Satd. Flow (RTOR)	8			95			9			21		
Volume (vph)	598	55	977	104	178	357	279	44	133	715	124	
Lane Group Flow (vph)	687	0	1028	109	187	254	462	0	140	884	0	
Turn Type				Perm	Prot	Prot			custom	custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6					8	8		
Detector Phases	2		6	6	7	7	4		8	8		
Minimum Initial (s)	1.0		2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	33%	0%	33%	33%	32%	32%	32%	0%	29%	29%	0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.06	0.32	0.36	0.61	0.61		0.32	0.90		
Uniform Delay, d1	36.9		42.0	3.8	33.6	36.6	35.8		35.2	41.5		
Delay	37.3		79.0	8.5	34.2	37.5	36.3		35.8	47.2		
LOS	D		E	A	C	D	D		D	D		
Approach Delay	37.3		72.2				36.2					
Approach LOS	D		E				D					

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 49.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 77.8%  
 ICU Level of Service C

Splits and Phases: 19: Otis St. & Mission St.











2007 Existing

No.	Signal	Intersection Average Delay						BRT Concurrent Movement Average Delay							BRT Conflicting Movement Average Delay					BRT Stops	
		All Vehs	Persons	Persons	All Buses	BRT Buses	Peds	All Vehs	Persons	Persons	All Buses	BRT Buses	Peds			All Vehs	Persons	Persons	All Buses	Peds	All
		No Peds	In Vehs	All		BRT		No Peds	In Vehs	All		All	SB	NB		No Peds	In Vehs	All			
		sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/veh	sec/veh	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/pers	stops/int
1	Clay	17.7	16.8	17.5	15.3	13.3	21.7	17.8	16.5	16.7	12.1	13.3	25.3	2.1	18.4	17.1	19.0	21.4	22.0	28.7	
2	Sacramento	6.0	11.1	12.3	23.3	26.0	22.6	3.3	7.6	8.4	20.2	26.0	27.5	24.6	17.8	17.7	22.1	23.2	28.4	28.7	
3	California	15.7	13.5	14.6	4.0	5.0	22.3	12.0	9.6	10.6	4.0	5.0	6.4	3.8	18.2	21.2	21.2	22.3		29.0	
4	Pine	18.1	18.8	19.5	22.2	27.4	28.6	13.9	15.7	16.2	21.1	27.4	54.2	1.2	24.5	23.4	23.5	24.3	24.6	32.8	
5	Bush	18.1	18.8	19.4	22.2	22.6	25.7	14.2	16.3	16.6	22.2	22.6	15.5	29.5	20.1	23.9	23.8	24.7		31.2	
6	Sutter	12.0	11.7	12.7	11.1	8.7	23.0	5.5	5.8	6.6	6.6	8.7	16.0	1.4	16.2	25.9	25.4	26.2	23.0	31.4	
7	Post	9.3	11.0	11.8	15.9	17.6	22.0	6.2	8.6	9.2	13.6	17.6	21.0	14.1	18.3	18.6	19.2	20.2	22.0	29.3	
8	Geary	15.6	20.2	20.4	26.0	32.9	21.4	13.2	17.4	17.3	24.9	32.9	43.3	22.5	16.6	20.2	24.0	24.7	27.9	31.3	
9	O'Farrell	11.5	12.2	13.4	13.0	13.2	21.7	7.7	9.3	10.6	11.6	13.2	10.3	16.2	18.5	18.9	18.1	19.4	16.1	31.1	
10	Ellis	11.6	12.8	14.0	13.8	18.1	22.1	8.6	10.9	11.8	13.8	18.1	20.1	16.1	18.7	20.7	20.6	22.3		28.9	
11	Eddy	8.1	9.6	11.1	11.6	12.9	21.7	7.3	8.6	9.6	10.1	12.9	8.1	17.7	17.8	11.8	13.7	17.1	16.8	29.4	
12	Turk	14.5	13.0	14.1	11.9	12.4	22.7	12.0	10.2	11.0	9.5	12.4	24.5	0.6	17.6	19.8	20.0	21.8	21.4	33.2	
13	Golden Gate	11.2	12.5	13.9	15.7	13.9	22.9	11.5	13.1	13.7	16.1	13.9	10.4	17.3	18.3	10.4	10.3	14.6	7.1	32.2	
14	McAllister	15.0	16.9	17.7	19.1	18.0	24.0	12.9	14.5	14.7	18.0	18.0	17.6	18.5	16.1	19.7	21.5	23.5	20.0	39.7	
15	Grove	15.0	15.1	17.6	17.9	15.4	28.2	11.8	12.5	12.7	15.4	15.4	17.6	13.1	14.3	25.5	25.8	31.3	29.4	39.1	
16	Hayes	14.9	14.4	15.0	14.3	11.4	24.4	9.4	9.4	10.2	11.4	11.4	21.1	1.5	21.1	21.9	22.1	22.6	24.3	31.2	
17	Fell	16.2	16.9	17.8	19.5	19.5	24.7	13.6	15.3	15.5	19.5	19.5	16.8	22.4	18.6	24.3	24.3	25.9		31.2	
18	Market	16.1	19.0	20.9	30.9	22.5	28.9	14.4	15.5	16.3	22.5	22.5	28.1	16.6	20.8	20.8	25.5	28.2	35.4	34.8	
19	Mission	32.4	33.5	34.7	37.4	36.8	44.4	34.5	34.8	35.8	37.4	36.8	41.9	31.9	51.5	26.5	27.6	30.6		38.7	
20	McCoppin	15.2	16.4	16.4	19.7	19.7		17.6	18.5	18.5	19.7	19.7	19.7			12.6	12.5	12.5			
21	Duboce	19.4	21.7	21.8	28.6	45.8	24.4	17.9	24.9	24.7	28.6	45.8	12.8	79.4	22.8	19.8	19.8	20.0		32.1	
	<b>All Signals</b>	14.6	15.7	16.6	18.7	18.2	24.0	12.5	13.9	14.5	17.4	19.1	22.1	16.0	19.5	20.6	21.5	23.2	25.4	33.3	

Stops added after 2009 scenario. They are provided for all 2015 scenarios.

All Movements

Concurrent Movements

SB+NB

SB

NB

Conflicting Movements

0.322222  
 0.655556  
 0.344444  
 0.675  
 0.425  
 0.325

2015 No Project

No.	Signal	Intersection Average Delay						BRT Concurrent Movement Average Delay								BRT Conflicting Movement Average Delay					BRT Stops
		All Vehs	Persons	Persons	All Buses	BRT Buses	Peds	All Vehs	Persons	Persons	All Buses	BRT Buses		Peds	All Vehs	Persons	Persons	All Buses	Peds	All	
		No Peds	In Vehs	All		BRT		No Peds	In Vehs	All		All	SB	NB	No Peds	In Vehs	All				
		sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/veh	sec/veh	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/pers	stops/int
1	Clay	7.9	9.3	11.4	14.0	6.4	23.1	7.2	7.2	8.0	7.6	6.4	9.9	2.9	14.8	18.9	22.9	27.0	25.4	34.1	0.23
2	Sacramento	10.6	14.4	15.4	25.6	27.3	24.7	8.2	11.3	11.6	24.8	27.3	24.8	30.0	14.6	21.2	23.4	25.7	26.6	37.2	0.98
3	California	13.3	12.1	13.7	4.9	5.6	24.5	9.4	8.3	9.4	4.9	5.6	8.2	2.9	18.0	22.2	22.1	24.4	0.0	35.2	0.21
4	Pine	18.3	18.5	19.4	18.9	18.0	32.5	13.9	14.0	14.7	15.1	18.0	34.0	1.8	26.2	24.8	25.2	26.3	25.2	38.5	0.64
5	Bush	11.9	13.4	14.7	18.3	21.1	29.8	5.9	9.1	10.1	18.3	21.0	4.1	38.8	24.6	22.6	22.6	24.1	0.0	35.1	0.53
6	Sutter	14.5	14.0	15.0	10.9	12.7	25.6	9.2	9.5	9.7	10.9	12.7	23.4	1.5	14.0	27.2	27.3	28.9	0.0	37.1	0.60
7	Post	11.3	12.7	14.0	18.9	16.9	26.4	8.7	10.0	10.4	14.8	17.0	25.0	8.7	16.9	20.9	22.4	25.0	28.2	36.1	0.63
8	Geary	14.3	18.9	19.6	29.5	38.0	24.3	10.5	15.9	16.3	32.1	38.0	46.5	29.2	18.7	24.1	24.2	25.6	24.0	35.4	1.16
9	O'Farrell	10.2	12.1	13.6	15.7	4.7	23.8	7.8	7.2	9.0	5.3	4.7	1.4	8.1	19.9	15.5	21.5	22.9	35.9	35.2	0.18
10	Ellis	11.9	12.6	14.0	16.1	18.8	21.0	10.1	11.3	11.8	16.1	18.8	27.8	9.5	14.9	18.9	19.0	23.0	0.0	33.2	0.90
11	Eddy	10.2	13.7	15.0	20.5	24.7	21.6	9.7	13.4	13.7	21.6	24.7	18.2	31.5	15.3	12.8	14.9	20.1	16.9	34.2	0.82
12	Turk	12.9	13.4	14.9	16.1	16.8	24.0	10.8	11.1	12.1	14.2	16.8	30.7	2.5	18.2	18.3	19.1	21.8	22.4	35.6	0.57
13	Golden Gate	8.0	7.4	10.1	7.0	3.8	23.7	9.0	8.1	9.6	7.2	3.8	1.6	6.1	18.5	4.9	4.9	11.9	1.3	33.7	0.13
14	McAllister	13.8	16.6	18.0	20.7	25.6	26.0	11.4	14.9	15.6	25.7	25.7	23.4	28.0	19.6	19.5	20.0	22.7	16.1	38.9	0.91
15	Grove	19.8	19.9	22.7	17.7	22.3	32.1	20.1	20.5	21.0	22.3	22.3	26.5	18.0	24.2	19.0	17.9	26.3	0.7	38.3	0.81
16	Hayes	15.4	16.6	17.6	22.4	21.6	29.0	4.5	7.7	9.1	21.6	21.6	40.1	2.7	24.4	33.0	32.1	32.6	25.2	38.2	0.57
17	Fell	20.0	19.5	20.3	15.9	15.9	23.5	19.2	18.7	18.5	15.9	15.9	8.2	23.8	17.3	23.6	23.5	27.4	0.0	35.9	0.65
18	Market	25.3	25.5	27.3	26.6	22.9	33.1	30.8	29.7	29.0	22.9	22.9	21.3	24.4	25.6	7.9	17.0	24.6	28.6	38.5	1.02
19	Mission	41.9	42.4	42.7	44.8	47.2	44.7	44.3	44.2	44.8	44.8	47.2	47.6	46.9	49.8	31.5	31.0	32.8	0.0	36.9	1.84
20	McCoppin (on Otis)	16.0	17.5	17.5	22.7	23.8	0.0	18.8	20.2	20.2	22.7	23.8	23.8	0.0	0.0	13.2	13.2	13.2	0.0	0.0	0.83
21	Duboce (on Mission)	37.5	36.0	36.0	29.1	31.8	36.3	24.2	25.3	27.6	29.1	31.8	13.4	50.4	35.9	43.2	43.2	43.1	0.0	40.5	0.76
	<b>All Signals -Duboce</b>	<b>15.8</b>	<b>16.8</b>	<b>18.3</b>	<b>20.4</b>	<b>19.5</b>	<b>27.4</b>	<b>13.9</b>	<b>15.0</b>	<b>15.6</b>	<b>18.8</b>	<b>19.5</b>	<b>22.2</b>	<b>16.7</b>	<b>20.9</b>	<b>21.0</b>	<b>21.8</b>	<b>24.7</b>	<b>24.5</b>	<b>36.5</b>	<b>0.7</b>

2015 Side

No.	Signal	Intersection Average Delay						BRT Concurrent Movement Average Delay						BRT Conflicting Movement Average Delay						BRT Stops			
		All Vehs	Persons	Persons	All Buses	BRT Buses	Peds	All Vehs	Persons	Persons	All Buses	BRT Buses		Peds	All Vehs	Persons	Persons	All Buses	Peds	All	SB	NB	
		No Peds	In Vehs	All		BRT		No Peds	In Vehs	All		All	SB	NB	No Peds	In Vehs	All						
		sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/veh	sec/veh	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/pers	stops/int	stops/int	stops/int
1	Clay	11.3	11.7	13.8	14.1	10.9	23.8	10.4	10.4	11.1	11.8	10.9	4.5	17.2	15.7	19.6	19.1	25.2	18.8	34.6	0.46	0.27	0.65
2	Sacramento	15.4	15.0	16.6	15.4	12.2	30.2	16.2	14.9	16.2	13.4	12.2	11.4	13.0	30.8	12.9	15.2	17.4	18.2	29.4	0.65	0.57	0.73
3	California	20.8	19.2	20.2	15.2	13.8	26.0	20.3	18.2	18.7	15.2	13.8	11.3	16.2	21.7	21.6	21.5	23.5	0.0	33.2	0.65	0.38	0.93
4	Pine	24.5	23.2	23.9	20.7	14.4	32.6	23.5	20.4	20.8	15.5	14.4	11.6	17.3	26.6	25.6	27.0	28.1	32.0	38.5	0.69	0.61	0.78
5	Bush	21.3	21.5	22.9	22.4	21.9	36.3	18.0	19.3	20.3	22.4	21.9	16.6	27.3	33.9	25.8	25.7	27.4	0.0	38.6	0.89	0.95	0.82
6	Sutter	14.0	10.9	12.4	2.9	2.1	25.9	8.5	6.0	6.7	2.9	2.1	2.5	1.6	16.7	23.6	23.6	25.5	0.0	35.3	0.13	0.13	0.12
7	Post	13.4	10.9	12.5	9.2	4.1	26.3	10.9	8.1	8.8	5.0	4.1	3.1	5.1	17.3	20.3	20.0	22.9	19.5	35.3	0.26	0.25	0.27
8	Geary	10.3	12.8	14.7	14.2	9.7	25.6	6.0	7.8	9.9	10.4	9.7	2.6	17.1	21.4	19.1	21.0	22.7	23.1	33.9	0.38	0.13	0.64
9	O'Farrell	10.1	12.9	14.4	18.9	13.1	24.2	10.1	10.8	12.4	13.3	13.1	15.9	10.3	21.0	10.0	16.6	18.3	30.9	34.3	0.62	0.67	0.57
10	Ellis	13.8	12.2	14.1	7.7	8.3	23.0	10.0	9.3	10.5	7.7	8.3	3.1	13.7	17.1	24.5	24.7	27.4	0.0	34.6	0.36	0.21	0.52
11	Eddy	9.9	11.4	13.8	14.3	14.9	25.2	9.3	10.9	12.5	13.7	14.9	17.8	12.0	21.2	11.6	13.2	18.2	16.2	32.9	0.66	0.78	0.55
12	Turk	12.3	11.9	14.1	11.4	7.7	26.1	6.0	6.5	8.4	7.3	7.7	12.7	2.7	19.5	24.1	24.5	27.0	26.3	39.0	0.31	0.46	0.16
13	Golden Gate	8.8	7.8	11.1	8.5	6.8	26.4	9.8	8.1	9.9	7.1	6.8	7.7	6.0	20.0	6.5	7.0	14.7	18.7	39.1	0.40	0.49	0.32
14	McAllister	10.4	11.0	13.5	10.9	8.5	26.9	8.8	8.8	11.0	8.5	8.5	2.0	15.0	22.4	13.1	14.8	17.7	13.1	35.8	0.31	0.09	0.53
15	Grove	20.9	17.3	20.8	14.4	7.1	30.8	16.0	12.4	14.0	7.1	7.1	6.7	7.5	21.8	33.5	34.2	36.0	44.3	38.1	0.33	0.26	0.40
16	Hayes	16.1	15.1	16.5	12.9	8.2	30.3	8.6	8.5	10.3	8.2	8.2	10.3	6.2	26.2	25.1	25.4	26.5	28.1	38.7	0.31	0.36	0.27
17	Fell	15.0	13.5	16.6	9.7	9.7	27.7	6.7	7.6	10.2	9.7	9.7	6.2	13.0	21.7	39.1	38.8	39.0	0.0	39.4	0.37	0.29	0.44
18	Market	22.4	21.8	25.4	20.1	21.3	35.2	23.9	22.7	24.2	21.3	21.3	23.6	19.1	30.9	19.1	20.3	26.9	19.5	38.3	0.72	0.73	0.70
19	Mission	36.0	34.2	35.2	35.7	26.0	43.5	36.3	31.6	31.6	26.0	26.0	19.5	32.7	0.0	35.5	38.2	39.9	48.2	43.5	0.96	1.15	0.77
20	McCoppin (on Otis)	17.1	19.9	19.9	28.0	35.1	0.0	21.6	24.9	24.9	28.0	35.1	35.1	0.0	0.0	13.1	13.0	13.0	0.0	0.0	0.97	0.97	0.00
21	Duboce (on Mission)	27.5	26.3	26.3	23.7	19.7	26.6	15.9	17.6	19.2	23.7	19.7	4.5	35.1	26.2	32.7	32.6	32.6	0.0	30.1	0.50	0.22	0.79
<b>All Signals Minus Duboce</b>		<b>16.5</b>	<b>16.4</b>	<b>18.3</b>	<b>15.8</b>	<b>12.1</b>	<b>28.9</b>	<b>13.8</b>	<b>13.1</b>	<b>14.3</b>	<b>12.8</b>	<b>12.1</b>	<b>10.4</b>	<b>13.9</b>	<b>22.5</b>	<b>23.1</b>	<b>23.5</b>	<b>26.1</b>	<b>23.8</b>	<b>37.3</b>	<b>0.51</b>	<b>0.47</b>	<b>0.54</b>

2015 Center A

No.	Signal	Intersection Average Delay						BRT Concurrent Movement Average Delay						BRT Conflicting Movement Average Delay					BRT Stops				
		All Vehs	Persons	Persons	All Buses	BRT Buses	Peds	All Vehs	Persons	Persons	All Buses	BRT Buses		Peds	All Vehs	Persons	Persons	All Buses	Peds	All	SB	NB	
		No Peds	In Vehs	All		BRT		No Peds	In Vehs	All		All	SB	NB	No Peds	In Vehs	All						
		sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/veh	sec/veh	sec/pers	sec/veh	sec/pers	sec/bus	sec/pers	stops/int	stops/int	stops/int	
1	Clay	7.3	9.6	12.2	16.0	11.2	26.1	5.4	7.3	8.3	12.3	11.2	3.5	18.8	16.2	26.6	25.1	30.6	23.5	39.3	0.35	0.14	0.55
2	Sacramento	14.6	15.9	17.0	20.9	10.2	27.4	11.9	10.9	11.6	8.9	10.2	8.7	11.6	20.3	23.4	29.3	30.4	36.8	36.3	0.34	0.34	0.35
3	California	14.7	12.4	14.3	7.5	7.9	26.7	8.7	7.5	9.0	7.5	7.9	15.5	0.5	20.8	25.3	25.3	27.2	0.0	36.3	0.24	0.48	0.01
4	Pine	19.1	16.3	17.4	12.1	5.4	31.7	12.5	9.3	10.3	5.3	5.4	10.2	0.7	24.5	27.0	27.1	28.2	27.2	38.9	0.18	0.35	0.02
5	Bush	15.6	19.3	20.6	28.6	27.8	35.1	8.7	16.6	17.5	28.6	27.8	28.1	27.6	31.1	25.3	25.2	27.1	0.0	39.0	0.62	0.67	0.57
6	Sutter	16.5	12.2	13.6	3.1	2.9	26.9	12.0	8.0	8.7	3.1	2.9	2.3	3.4	18.1	24.8	24.8	26.7	0.0	36.0	0.17	0.07	0.26
7	Post	11.9	10.0	11.5	9.7	6.1	26.6	9.0	7.2	7.8	5.7	6.1	10.2	2.1	17.7	20.7	20.4	23.3	19.5	35.5	0.20	0.32	0.09
8	Geary	12.3	15.2	16.6	17.3	12.6	25.8	8.6	11.0	12.4	13.4	12.6	3.0	22.0	21.1	20.6	23.1	24.7	26.3	35.4	0.37	0.11	0.62
9	O'Farrell	10.3	12.3	14.0	18.8	15.0	26.1	8.7	9.4	11.3	14.1	15.0	23.8	6.5	23.3	13.4	18.1	19.8	28.9	34.6	0.50	0.69	0.31
10	Ellis	12.9	9.4	11.4	2.3	2.3	21.8	9.2	6.2	7.2	2.3	2.3	2.5	2.1	13.4	23.9	23.9	27.9	0.0	38.8	0.11	0.13	0.09
11	Eddy	13.4	16.5	18.2	20.3	20.2	26.6	11.6	15.5	16.4	19.8	20.2	17.7	22.6	22.3	19.9	21.0	24.5	22.0	35.2	0.57	0.63	0.52
12	Turk	14.7	15.5	17.1	17.6	14.7	26.0	8.9	11.1	12.2	13.7	14.7	18.6	10.9	19.4	25.9	26.0	28.1	25.4	39.0	0.38	0.44	0.32
13	Golden Gate	9.0	9.8	13.4	12.2	9.5	32.0	6.8	8.6	11.3	12.3	9.5	6.8	12.2	28.2	14.4	14.3	20.6	8.1	39.5	0.24	0.18	0.30
14	McAllister	11.0	12.3	14.3	13.9	9.9	26.6	8.9	9.6	11.4	9.9	9.9	3.5	16.1	21.6	14.9	17.0	19.8	17.7	36.7	0.23	0.12	0.34
15	Grove	24.2	21.8	24.7	21.6	15.4	33.8	20.0	18.0	19.4	15.4	15.4	11.6	19.1	27.4	34.8	35.5	37.0	46.0	39.0	0.37	0.27	0.47
16	Hayes	21.4	19.8	20.7	18.9	11.6	30.1	11.3	11.4	12.8	11.6	11.6	10.1	13.0	26.3	34.0	34.9	35.2	43.4	37.6	0.29	0.22	0.36
17	Fell	14.2	14.8	17.5	14.5	14.5	28.4	6.5	10.1	12.3	14.5	14.5	2.3	26.3	23.2	37.6	37.4	37.9	0.0	39.0	0.34	0.11	0.57
18	Market	25.0	23.7	26.5	22.9	22.2	35.1	29.7	26.1	26.9	22.2	22.2	22.7	21.6	30.6	14.6	18.9	25.9	23.4	38.3	0.52	0.46	0.59
19	Mission	40.0	36.7	38.5	38.3	24.6	46.6	24.6	24.0	24.0	24.6	24.6	15.0	34.2	0.0	40.1	40.4	41.4	47.6	0.0	0.66	0.61	0.72
20	McCoppin (on Otis)	18.1	19.9	19.9	27.2	26.2	0.0	21.9	23.6	23.6	27.2	26.2	26.2	0.0	0.0	14.9	14.9	14.9	0.0	0.0	0.67	0.67	0.00
21	Duboce (on Mission)	67.0	59.3	56.0	24.1	19.1	26.3	16.3	18.3	18.6	24.1	19.1	8.1	30.4	20.8	90.4	90.5	84.9	0.0	31.0	0.54	0.31	0.78
<b>All Signals Minus Duboce</b>		<b>16.6</b>	<b>16.4</b>	<b>18.2</b>	<b>17.5</b>	<b>13.1</b>	<b>29.9</b>	<b>11.3</b>	<b>11.9</b>	<b>13.1</b>	<b>13.1</b>	<b>13.1</b>	<b>11.8</b>	<b>14.3</b>	<b>22.8</b>	<b>25.9</b>	<b>26.6</b>	<b>28.9</b>	<b>29.0</b>	<b>33.3</b>	<b>0.36</b>	<b>0.34</b>	<b>0.37</b>

2015 Center B

No.	Signal	Intersection Average Delay						BRT Concurrent Movement Average Delay						BRT Conflicting Movement Average Delay					BRT Stops				
		All Vehs	Persons	All Buses	BRT Buses	Peds		All Vehs	Persons	Persons	All Buses	BRT Buses		Peds	All Vehs	Persons	Persons	All Buses	Peds	All	SB	NB	
		No Peds	In Vehs	All	BRT		No Peds	In Vehs	All	All Buses	All	SB	NB	No Peds	In Vehs	All	All Buses	Peds	stops/int	stops/int	stops/int		
		sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/pers	sec/veh	sec/pers	sec/pers	sec/bus	sec/bus	sec/veh	sec/veh	sec/pers	sec/veh	sec/pers	sec/bus	sec/pers	stops/int	stops/int	stops/int	
1	Clay	7.3	9.2	11.9	15.3	9.8	25.5	5.2	6.7	7.7	10.9	9.8	2.9	16.8	15.3	26.5	25.2	30.6	24.1	39.3	0.30	0.13	0.46
2	Sacramento	14.1	16.3	17.5	22.0	11.5	28.1	11.1	11.2	12.0	10.6	11.5	8.2	14.8	21.2	23.8	29.7	30.7	37.0	36.7	0.42	0.33	0.51
3	California	14.6	12.6	14.6	8.8	9.0	27.2	8.2	7.7	9.3	8.8	9.0	15.4	2.7	21.5	25.3	25.3	27.3	0.0	36.7	0.29	0.48	0.10
4	Pine	15.9	13.8	14.9	11.0	4.0	28.3	7.3	5.7	6.4	4.2	4.0	5.4	2.6	17.6	25.8	26.1	27.3	25.8	39.1	0.17	0.24	0.10
5	Bush	15.8	14.5	15.8	10.7	10.2	29.8	8.5	9.1	9.9	10.6	10.2	8.0	12.4	21.0	26.1	26.1	27.7	0.0	38.5	0.25	0.28	0.22
6	Sutter	16.4	12.9	14.3	5.9	6.0	26.9	11.3	8.5	9.1	5.9	6.0	8.4	3.7	18.1	25.7	25.8	27.5	0.0	36.1	0.36	0.46	0.26
7	Post	11.7	11.5	13.1	13.3	11.0	28.8	8.4	8.7	9.5	10.1	11.0	17.4	4.5	21.2	21.7	21.6	24.5	21.0	36.4	0.39	0.52	0.26
8	Geary	12.5	15.4	16.8	18.0	13.8	25.5	8.6	11.3	12.6	14.6	13.8	4.7	22.8	20.7	20.7	23.0	24.6	25.9	35.3	0.43	0.24	0.61
9	O'Farrell	10.2	11.8	13.4	18.0	10.4	24.1	10.5	9.1	10.7	10.2	10.4	17.4	3.6	20.8	9.6	17.3	18.9	34.6	33.9	0.33	0.52	0.14
10	Ellis	12.0	8.6	10.7	2.3	2.4	21.5	8.1	5.3	6.4	2.3	2.4	3.3	1.5	13.0	23.2	23.2	27.4	0.0	38.9	0.10	0.15	0.05
11	Eddy	13.1	16.5	18.2	20.2	18.3	27.0	11.5	15.7	16.7	19.8	18.3	11.4	24.9	22.9	18.6	19.9	23.7	21.7	35.3	0.49	0.37	0.61
12	Turk	13.7	14.4	15.8	19.8	11.6	23.8	7.4	8.4	9.5	11.9	11.6	16.8	6.7	16.0	26.6	28.5	30.3	35.2	39.5	0.39	0.56	0.23
13	Golden Gate	5.8	5.5	9.5	6.9	4.0	29.6	4.0	4.3	7.2	6.9	4.0	3.8	4.2	24.5	10.4	10.3	17.8	7.9	39.5	0.14	0.14	0.13
14	McAllister	11.4	13.4	15.5	14.9	13.1	28.1	9.1	11.3	13.2	13.1	13.1	5.3	20.6	23.6	15.5	17.1	19.9	16.6	37.0	0.41	0.22	0.59
15	Grove	22.8	17.3	20.6	12.7	5.4	30.8	17.9	12.4	13.5	5.4	5.4	8.7	2.2	20.3	35.8	36.2	37.5	41.5	39.2	0.15	0.23	0.08
16	Hayes	14.9	13.7	15.2	12.5	5.8	29.5	6.7	6.7	8.5	5.8	5.8	2.1	9.3	25.4	25.9	26.8	27.8	34.6	37.7	0.21	0.07	0.35
17	Fell	11.7	12.6	16.1	12.6	12.6	29.5	4.0	8.2	11.0	12.6	12.6	1.7	23.2	24.8	33.4	33.4	35.2	0.0	38.9	0.29	0.06	0.50
18	Market	22.4	22.3	25.6	23.6	23.1	35.0	26.2	24.1	25.3	23.1	23.1	23.7	22.4	30.6	14.2	18.9	26.0	23.9	38.3	0.54	0.49	0.60
19	Mission	36.5	34.4	36.1	35.5	24.0	46.1	24.0	24.0	24.0	24.0	24.0	12.9	35.2	0.0	36.6	37.6	38.9	44.5	0.0	0.67	0.61	0.73
20	McCoppin (on Otis)	16.1	18.1	18.1	26.6	27.0	0.0	21.7	23.3	23.3	26.6	27.0	27.0	0.0	0.0	12.0	11.9	11.9	0.0	0.0	0.67	0.67	0.00
21	Duboce (on Mission)	82.6	71.2	66.5	22.6	18.6	26.3	15.7	17.5	17.8	22.6	18.6	7.4	30.1	20.8	111.6	111.4	103.4	0.0	31.0	0.50	0.27	0.74
<b>All Signals Minus Duboce</b>		<b>15.1</b>	<b>15.0</b>	<b>16.9</b>	<b>16.3</b>	<b>11.1</b>	<b>29.2</b>	<b>10.0</b>	<b>10.3</b>	<b>11.6</b>	<b>11.3</b>	<b>11.1</b>	<b>9.8</b>	<b>12.4</b>	<b>21.5</b>	<b>24.0</b>	<b>25.2</b>	<b>27.8</b>	<b>29.2</b>	<b>33.3</b>	<b>0.34</b>	<b>0.33</b>	<b>0.34</b>





# Appendix 5

## Diversion Analysis





# MEMORANDUM

DATE: May 18, 2009  
TO: Margaret Cortes  
FROM: Chi-Hsin Shao  
RE: Van Ness Avenue Diversion Analysis, Updated

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This memo outlines the process we will use to refine the diversion data we received from SFCTA. The data provided by SFCTA were based on the runs from SF CHAMP, SFCTA's travel forecasting model, which show approximately 6-49 percent of the Van Ness Avenue diverted trips were actually diverted within the study area. We recognize that the SF CHAMP model does not recognize the steepness of roadway grades in San Francisco, and roadway levels of services, thus, model traffic assignment needs manual adjustments.

## Step 1 – Initial Assessment

CHS will assess the origins and destination patterns for the trips to, from, and within Van Ness Avenue. SFCTA will provide 20 by 20 zonal trip tables from the select link analysis for three segments in the Van Ness corridor study area (Lombard to California, California to Eddy, and Eddy to Market). Based on the travel pair, CHS will assess whether the model screenline analysis can be adjusted.

## Step 2 – Traffic Diversion Refinement

CHS will use the following three criteria to assess whether the model assignment was reasonable and can be modified as seen in Table 1 and Table 2 below:

- Connectivity – If a north-south link in a section is discontinuous (Connected = 0 and highlighted in purple) because of a park, then it would be regarded as undesirable for diversion. This means that the trips that were diverted to this link by the SF CHAMP model will be diverted back to links within the study area
- Grade – If the north-south link was continuous but there are more than two blocks along a north-south link in a section with more than 18% grade (highlighted in blue), it will be regarded as undesirable for diversion. This means that the trips that were diverted to this link by the SF CHAMP model will be diverted back to links within the study area.
- Levels of Services – The SFCTA monitoring counts will be used for this analysis. If the north-south link was continuous and did not have more than two block with 18% grade, but the LOS is at F level (highlighted in orange), it will be regarded as undesirable for diversion. This means that the trips that were diverted to this link by the SF CHAMP model will be diverted back to links within the study area.

All the trips diverted back to the study area from streets east of Van Ness will be added to Larkin St and Hyde St uniformly (50%-50% volume split) if both streets are continuous in this section. If one of

them is discontinuous, then all the diverted trips will be added to the continuous street.

All the trips diverted back to the study area from streets west of Van Ness will be added to Gough St and Franklin St uniformly (50%-50% volume split) if both streets are continuous in a section. If one of them is discontinuous, then all the diverted trips will be added to the continuous street.. In order to keep the analysis simple, no traffic volumes will be added to Polk St and its diverted volumes will remain unchanged.

These diverted trips to Larkin St, Hyde St, Gough St and Franklin St will be added to the Van Ness trips already diverted to these streets by the SF CHAMP model for 2015 Center and 2015 Side scenarios as seen in Figure 1 and 2. These total diverted trips (trips diverted from Van Ness by SF CHAMP model + trips diverted in the diversion analysis performed above) will replace the diverted trips from the SF CHAMP model in the volume balancing spreadsheets at locations where the north-south streets of Larkin St, Hyde St, Gough St and Franklin St intersect the east-west streets of Lombard St, California St, Eddy St and Market St. The volumes at these intersections will be balanced and this will be used as input into the 2015 Center and 2015 Side Synchro models.

### Findings

#### **For 2015 Center**

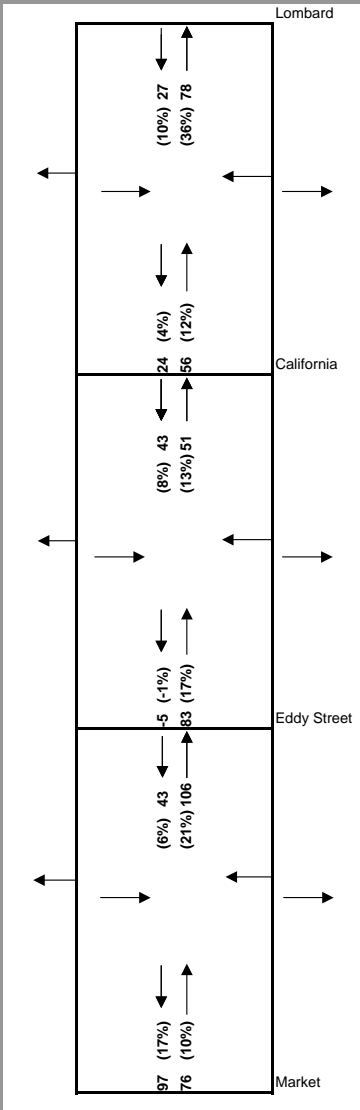
The northern section between Lombard and Eddy experiences a large diversion of volume in the diversion analysis (between 40 to 100 vehicles). The central and southern sections experience moderate diversion of volume in the diversion analysis (between 0 and 70 veh).

#### **For 2015 Side**

The northern section between Lombard and Eddy experiences a large diversion of volume in the diversion analysis (between 40 to 70 vehicles). The central and southern sections experience moderate diversion of volume in the diversion analysis (between 0 and 55 vehs).

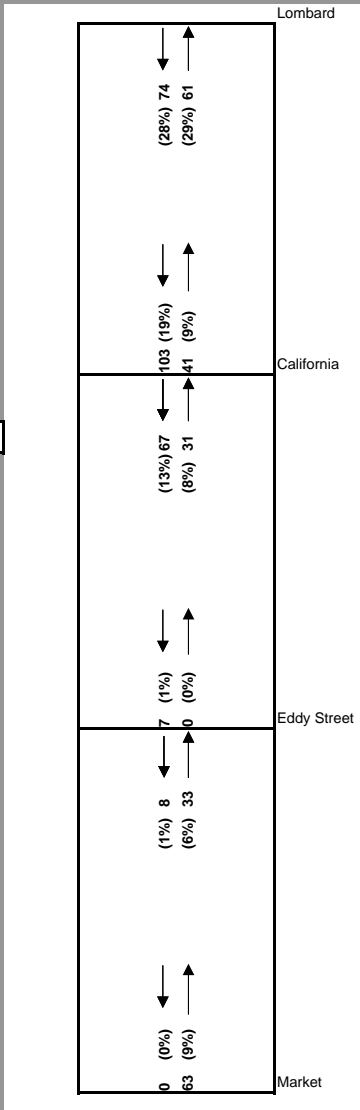
Figure 1: PM Peak Period Screenlines Traffic Volume Changes (CENTER RUNNING)

**VN Trips Diverted within Corridor by SF CHAMP**



+

**VN Trips Diverted back to the Study Area by Diversion Analysis**



=

**VN Total Diverted Trips (SF CHAMP diverted trips + Trips diverted to Study Area after Diversion Analysis)**

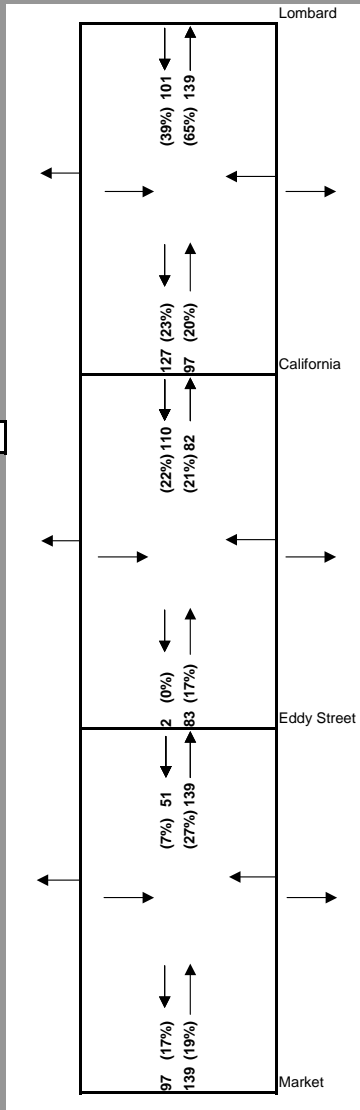
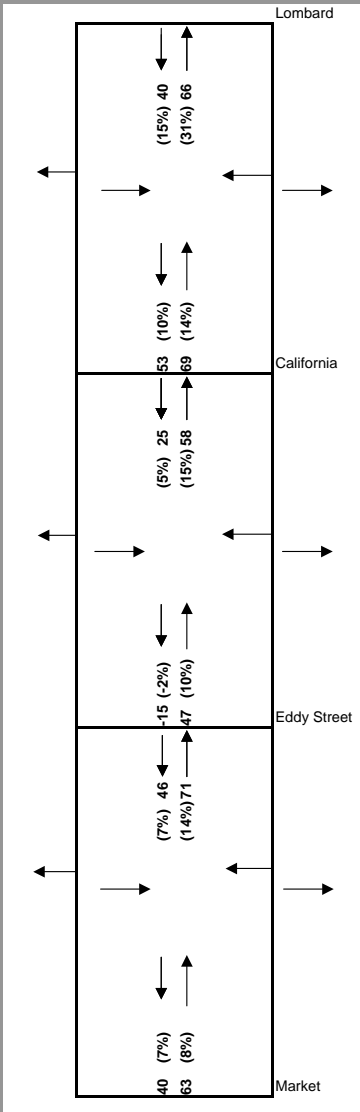


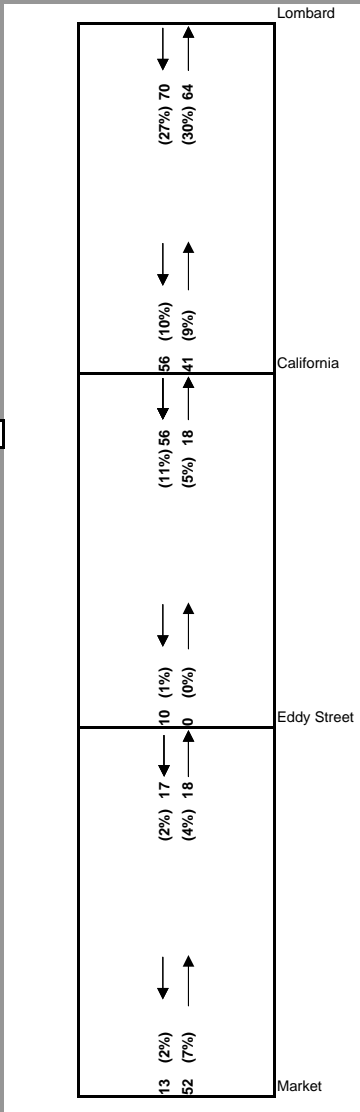
Figure 2: PM Peak Period Screenlines Traffic Volume Changes (SIDE RUNNING)

VN Trips Diverted within Corridor by SF CHAMP



+

VN Trips Diverted back to the Study Area by Diversion Analysis



=

VN Total Diverted Trips (SF CHAMP diverted trips + Trips diverted to Study Area after Diversion Analysis)

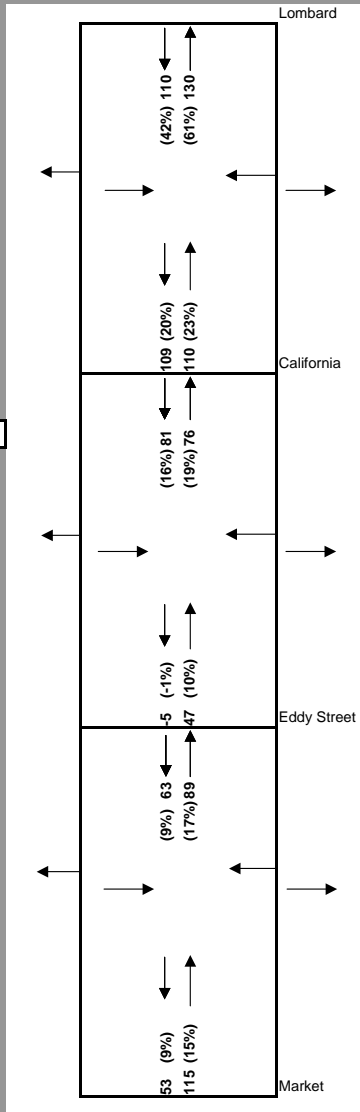




Table 2: 2015 Side BRT Diversion Analysis

SIDE RUNNING	Connected?			Blocks with Grade over 18%			LOS		Difference in Traffic Volume (2015 Side - 2015 Baseline) before Diversion Analysis												Traffic Volume Changes after Diversion Analysis																					
	NS: Connected b/w Lombard and California	MS: Connected b/w California and Eddy	SS: Connected b/w Eddy and Market	NS: # of Blocks with Grade over 18%	MS: # of Blocks with Grade over 18%	SS: # of Blocks with Grade over 18%	All: LOS from 2007 CMP Monitoring Report		Volume Changes (PM 1) south of Lombard		Volume Changes (PM 1) north of California		Volume Changes (PM 1) south of California		Volume Changes (PM 1) north of Eddy		Volume Changes (PM 1) south of Eddy		Volume Changes (PM 1) north of Market		Volume Changes (PM 1) south of Lombard		Volume Changes (PM 1) north of California		Volume Changes (PM 1) south of California		Volume Changes (PM 1) north of Eddy		Volume Changes (PM 1) south of Eddy		Volume Changes (PM 1) north of Market											
							SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB								
25th/Lincoln	1	1	1	0	0	0			-36	10																																
Park Presidio	1	1	1	0	0	0	A	C	-2	0	5	13	16	-1																												
Presidio	0	0	0	0	0	0			11	-3	5	-8	-8	-7																												
Lyon	0	0	0	2	1	0			0	0	0	0	-6	1																												
Baker	0	0	0	3	0	0			-1	9	14	1	21	3																												
Broderick	0	0	0	1	0	0			8	-1	2	-3	-15	-7	5	-12	2	-2																								
Divisadero	1	1	1	6	0	0	D	D	17	-9	14	27	20	2	-19	16	-23	12																								
Scott	1	1	0	1	0	0			28	-8	3	-2	-8	-6	-3	2	-5	4																								
Pierce	0	0	0	3	0	0			8	8	-2	-6	8	-1	-4	-12	-4	-25																								
Steiner	1	1	1	1	0	0			-2	22	1	4	-5	-7	-10	-2	-4	0																								
Fillmore	1	1	0	2	0	0			37	12	32	20	9	21	24	16	13	9																								
Webster	1	1	1	2	0	0			-3	15	-8	1	14	3	13	3	2	-9																								
Buchanan	0	0	0	2	0	0			-2	13	5	-4	-6	0	5	-6	0	1																								
Laguna	1	1	1	2	0	0			20	28	13	-3	-9	-4	-5	-4	-7	-1	-6																							
Octavia	0	0	0	2	0	0			15	21	8	6	15	12				13	41																							
Gough	1	1	1	1	0	0	D		17	8	49	NA	3	NA	5	NA	36	NA	-14	NA																						
Franklin	1	1	1	0	0	0		B	NA	67	NA	40	NA	43	NA	-15	NA	22	NA	30																						
Polk	1	1	1	0	0	0			29	3	6	14	10	1	-5	62	-14	52	26	0																						
Larkin	1	1	1	0	0	0			-11	-13	-1	1	NA	14	NA	0	NA	-3	NA	33																						
Hyde	1	1	1	0	0	0			5	1	-1	14	12	NA	-15	NA	24	NA	28	NA																						
Leavenworth	1	1	0	2	0	0			-1	-1		-8		6		8		2	0	0																						
Jones	1	1	1	3	1	0			5	6	-1	-2	1	1	19		-2		15																							
Taylor	1	1	1	5	1	0			-4	-1	-5	4		0		-3		-5		2																						
Mason	1	1	1	3	2	0			4	6	0	2	-12		6		0		0																							
Powell	1	0	0	0	0	0			8	-2	10	8	12	2	0	0	2	2	0	0																						
Stockton	1	1	1	0	0	0			-1	0	0	0	-2	0					-18																							
Grant	1	1	1	1	0	0				0	0	0		4						-2																						
Kearny	0	1	0	2	0	0		D	2	1		-14		-21						7																						
Montgomery/Columbus	0	1	1	3	0	0	F		0	0	8		-21						2																							
Sansome	1	1	1	0	0	0				-7	0	-13	0	-24																												
Battery	1	1	1	0	0	0			8		5		7							4																						
Front	0	1	0	0	0	0						1		5						-9																						
Davis	0	1	0	0	0	0						-8		-11						-11																						
Embarcadero	1	1	1	0	0	0	C	C	21	-1	1	-12	0	-11						1																						
Change in traffic volumes along north-south streets prallel to Van Ness based on SF CHAMP model									218	174	150	68	29	30	16	53	20	59	40	116																						
% Change based on SF CHAMP									83%	81%	27%	14%	6%	8%	2%	11%	3%	12%	7%	15%																						
VN trips diverted back to the Study Area based on Diversion Analysis																																										
Change in traffic volumes along north-south streets in the Study Area									40	66	53	69	25	58	-15	47	46	71	40	63																						
% Change within Study Area Corridor									15%	31%	10%	14%	5%	15%	-2%	10%	7%	14%	7%	8%																						
Van Ness									-262	-214	-548	-478	-508	-393	-715	-493	-703	-512	-580	-750																						

Notes:  
 Connected: 1- Connected, 0- Blocked  
 1. Highlight all sections with connection = 0 in purple  
 Blocks with Grade over 18%. No of sections with grade over 18% along the north-south corridor in that section  
 2. Highlight all sections that have connection = 1 but grade > 2 in blue  
 3. Highlight all sections with LOS F in orange



Table 3: 2035 Center BRT Diversion Analysis

CENTER RUNNING	Connected?			Blocks with Grade over 18%			LOS		Difference in Traffic Volume (2015 Center - 2015 Baseline) before Diversion Analysis						Traffic Volume Changes after Diversion Analysis																	
	NS: Connected b/w Lombard and California	MS: Connected b/w California and Eddy	SS: Connected b/w Eddy and Market	NS: # of Blocks with Grade over 18%	MS: # of Blocks with Grade over 18%	SS: # of Blocks with Grade over 18%	All: LOS from 2007 CMP Monitoring Report		Volume Changes (PM 1) south of Lombard		Volume Changes (PM 1) north of California		Volume Changes (PM 1) south of California		Volume Changes (PM 1) north of Eddy		Volume Changes (PM 1) south of Eddy		Volume Changes (PM 1) north of Market		Volume Changes (PM 1) south of Lombard		Volume Changes (PM 1) north of California		Volume Changes (PM 1) south of California		Volume Changes (PM 1) north of Eddy		Volume Changes (PM 1) south of Eddy		Volume Changes (PM 1) north of Market	
							SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
Presidio	0	0	0	0	0	0			-4	-4	18	9	14	11	0	0	0	0	0	0	0	0	0	0	18	9	14	11	0	0	0	0
Lyon	0	0	0	2	1	0			0	10	0	23	4	2	0	0	0	0	0	0	0	0	0	0	10	23	4	2	0	0	0	0
Baker	0	0	0	3	0	0			2	0	41	0	5	-1	0	0	0	0	0	0	0	0	0	41	0	5	-1	0	0	0	0	
Broderick	0	0	0	1	0	0			-2	6	1	0	6	1	11	19	6	10	0	0	0	0	6	10	6	1	11	19	6	10		
Divisadero	1	1	1	6	0	0	D	D	10	6	34	30	31	21	41	27	40	38	0	0	0	0	10	6	34	30						
Scott	1	1	0	1	0	0			16	6	5	3	1	8	3	2	1	0	0	0	0	0	16	6	5	3						
Pierce	0	0	0	3	0	0			-9	2	6	2	1	6	11	10	7	11	0	0	0	0	-9	2	6	2						
Steiner	1	1	1	1	0	0			2	-12	7	5	6	1	11	4	7	4	0	0	0	0	2	-12	7	5						
Fillmore	1	1	0	2	0	0			37	11	22	14	13	13	6	8	11	0	0	0	0	37	11	22	14							
Webster	1	1	1	2	0	0			13	4	9	6	24	11	65	45	65	31	0	0	0	0	13	4	9	6						
Buchanan	0	0	0	2	0	0			18	7	8	3	3	2	6	3	1	3	NA	1	1	18	7	8	3							
Laguna	1	1	1	2	0	0			20	20	10	6	12	8	7	5	12	9	-7	8	8	20	20	10	6							
Octavia	0	0	0	2	0	0			3	-6	16	7	11	6	NA	NA	NA	NA	23	49	49	3	-6	16	7							
Gough	1	1	1	1	0	0	D		9	19	70	NA	56	NA	101	NA	103	NA	106	NA	9	19	70	NA								
Franklin	1	1	1	0	0	0		B	NA	105	NA	157	NA	101	NA	39	NA	72	NA	85	NA	NA	105	NA	157							
Polk	1	1	1	0	0	0			78	13	13	21	7	17	0	55	-8	6	9	NA	78	13	13	21								
Larkin	1	1	1	0	0	0			-30	6	4	5	NA	31	NA	70	NA	56	NA	97	-30	6	4	5								
Hyde	1	1	1	0	0	0			5	11	3	12	11	NA	78	NA	69	NA	89	NA	5	11	3	12								
Leavenworth	1	1	0	2	0	0			0	1	NA	2	NA	11	NA	39	NA	35	NA	NA	0	1	NA	2								
Jones	1	1	1	3	1	0			1	0	5	0	23	NA	85	NA	80	NA	40	NA	1	0	5	0								
Taylor	1	1	1	5	1	0			8	-3	6	0	NA	6	NA	7	NA	16	NA	3	8	-3	6	0								
Mason	1	1	1	3	2	0			-4	0	1	2	-3	NA	15	NA	4	NA	4	NA	-4	0	1	2								
Powell	1	0	0	0	0	0			-7	-4	3	4	15	1	NA	NA	NA	NA	NA	NA	-7	-4	3	4								
Stockton	1	1	1	0	0	0			-4	-2	0	0	-1	8	0	0	0	0	43	NA	-4	-2	0	0								
Grant	1	1	1	1	0	0			NA	1	NA	0	NA	1	0	0	0	0	NA	-3	NA	1	NA	0								
Kearny	0	1	0	2	0	0		D	NA	NA	NA	43	NA	46	0	0	0	0	NA	50	NA	NA	NA	43								
Montgomery/Columbus	0	1	1	3	0	0	F		0	0	54	NA	44	NA	0	0	0	33	NA	0	0	54	NA	44	NA							
Sansome	1	1	1	0	0	0			NA	11	NA	17	NA	10	0	0	0	NA	NA	NA	NA	11	NA	17								
Battery	1	1	1	0	0	0			NA	NA	37	NA	34	NA	0	0	0	11	NA	NA	NA	NA	37	NA								
Front	0	1	0	0	0	0			NA	NA	NA	-2.59	NA	0	0	0	0	NA	29.6	NA	NA	NA	NA	-2.59								
Davis	0	1	0	0	0	0			NA	NA	12.95	NA	6.66	NA	0	0	0	6.66	NA	NA	NA	NA	12.95	NA								
Embarcadero	1	1	1	0	0	0	C	C	20	36	23	27	23	27	0	0	0	23	27	27	20	36	23	27								
Change in traffic volumes along north-south streets in the Study Area									63	155	90	195	74	148	179	164	164	134	204	181	104	186	293	313	177	178	207	195	187	204	234	311
% Change within Study Area Corridor									19%	52%	-16%	-35%	15%	31%	-24%	-29%	23%	25%	38%	29%	32%	63%	53%	56%	35%	37%	28%	35%	26%	39%	44%	49%
Van Ness Diverted trips from SF CHAMP									-329	-297	-554	-558	-506	-482	-740	-560	-711	-527	-535	-633	-329	-297	-554	-558	-506	-482	-740	-560	-711	-527	-535	-633

Notes:  
 Connected: 1- Connected, 0 - Blocked  
 1. Highlight all sections with connection = 0 in purple  
 Blocks with Grade over 18%: No of sections with grade over 18% along the north-south corridor in that section  
 2. Highlight all sections that have connection = 1 but grade > 2 in blue  
 3. Highlight all sections with LOS F in orange  
 4. Different formulas for different criteria

Table 4: 2035 Side BRT Diversion Analysis

CENTER RUNNING	Connected?			Blocks with Grade over 18%			LOS		Difference in Traffic Volume (2015 Center - 2015 Baseline) before Diversion Analysis												Traffic Volume Changes after Diversion Analysis																							
	NS: Connected b/w Lombard and California	MS: Connected b/w California and Eddy	SS: Connected b/w Eddy and Market	NS: # of Blocks with Grade over 18%	MS: # of Blocks with Grade over 18%	SS: # of Blocks with Grade over 18%	All: LOS from 2007 CMP Monitoring Report		Volume Changes (PM 1) south of Lombard		Volume Changes (PM 1) north of California		Volume Changes (PM 1) south of California		Volume Changes (PM 1) north of Eddy		Volume Changes (PM 1) south of Eddy		Volume Changes (PM 1) north of Market		Volume Changes (PM 1) south of Lombard		Volume Changes (PM 1) north of California		Volume Changes (PM 1) south of California		Volume Changes (PM 1) north of Eddy		Volume Changes (PM 1) south of Eddy		Volume Changes (PM 1) north of Market													
							SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB								
Presidio	0	0	0	0	0	0			-5	-6	22	7	18	7	0	0	0	0	0	0	0	0	0	0	22	7	18	7	0	0	0	0												
Lyon	0	0	0	2	1	0			0	14	-2	23	1	4	0	0	0	0	0	0	0	0	0	0	14	0	23	1	4	0	0	0	0											
Baker	0	0	0	3	0	0			-1	3	41	1	4	3	0	0	0	0	0	0	0	0	0	3	41	1	4	3	0	0	0	0												
Broderick	0	0	0	1	0	0			-1	0	2	2	5	0	10	18	6	7	0	0	0	0	0	2	2	5	0	10	18	6	7	0	0											
Divisadero	1	1	1	6	0	0	D	D	8	6	27	32	31	22	49	22	46	32	0	0	0	0	8	6	27	32	31	22	49	22	46	32	0	0										
Scott	1	1	0	1	0	0			13	0	3	4	1	11	4	5	3	3	0	0	0	0	13	0	3	4	1	11	4	5	3	3	0	0										
Pierce	0	0	0	3	0	0			-6	-3	5	3	4	4	11	7	6	8	0	0	0	0	-6	-3	5	3	4	4	11	7	6	8	0	0										
Steiner	1	1	1	1	0	0			4	-8	7	7	5	7	13	4	9	5	0	0	0	0	4	-8	7	7	5	7	13	4	9	5	0	0										
Fillmore	1	1	0	2	0	0			47	11	17	16	12	9	14	5	7	13	0	0	0	0	47	11	17	16	12	9	14	5	7	13	0	0										
Webster	1	1	1	2	0	0			14	6	7	1	21	16	71	46	65	27	0	0	0	0	14	6	7	1	21	16	71	46	65	27	0	0										
Buchanan	0	0	0	2	0	0			14	3	8	4	5	1	9	4	3	2	NA	5	5	5	14	3	8	4	5	1	9	4	3	2	NA	5	5									
Laguna	1	1	1	2	0	0			21	9	8	7	14	9	7	3	12	4	-4	11	11	11	21	9	8	7	14	9	7	3	12	4	-4	11	11									
Octavia	0	0	0	2	0	0			6	3	11	7	5	5	NA	NA	NA	NA	18	49	49	49	6	3	11	7	5	5	NA	NA	NA	NA	18	49	49									
Gough	1	1	1	1	0	0	D		6	23	67	NA	67	NA	108	NA	110	NA	97	NA	NA	6	23	67	NA	67	NA	108	NA	110	NA	97	NA	NA										
Franklin	1	1	1	0	0	0		B	NA	106	NA	152	NA	100	NA	42	NA	74	NA	86	86	NA	106	NA	152	NA	100	NA	42	NA	74	NA	86	86	NA									
Polk	1	1	1	0	0	0			71	11	12	16	7	19	-1	56	-8	0	13	NA	NA	71	11	12	16	7	19	-1	56	-8	0	13	NA	NA										
Larkin	1	1	1	0	0	0			-31	3	5	3	NA	18	NA	56	NA	54	NA	93	93	-31	3	5	3	NA	18	NA	56	NA	54	NA	93	93	NA									
Hyde	1	1	1	0	0	0			2	17	1	13	-1	NA	65	NA	83	NA	91	NA	NA	2	17	1	13	-1	NA	65	NA	83	NA	91	NA	NA										
Leavenworth	1	1	0	2	0	0			-1	1	NA	2	NA	7	NA	37	NA	32	NA	NA	NA	-1	1	NA	2	NA	7	NA	37	NA	32	NA	NA	NA										
Jones	1	1	1	3	1	0			2	0	5	1	21	NA	85	NA	84	NA	41	NA	NA	2	0	5	1	21	NA	85	NA	84	NA	41	NA	NA										
Taylor	1	1	1	5	1	0			10	-2	9	0	NA	7	NA	5	NA	17	NA	3	3	10	-2	9	0	NA	7	NA	5	NA	17	NA	3	3	NA									
Mason	1	1	1	3	2	0			-2	1	1	1	0	NA	13	NA	7	NA	7	NA	NA	-2	1	1	1	0	NA	13	NA	7	NA	7	NA	NA										
Powell	1	0	0	0	0	0			-7	-3	1	1	16	-3	NA	NA	NA	NA	NA	NA	NA	-7	-3	1	1	16	-3	NA	NA	NA	NA	NA	NA	NA	NA									
Stockton	1	1	1	0	0	0			-4	-5	0	0	-1	5	0	0	0	0	41	NA	NA	-4	-5	0	0	-1	5	0	0	0	0	41	NA	NA	NA									
Grant	1	1	1	1	0	0			NA	3	NA	1	NA	1	0	0	0	0	NA	-1	-1	NA	3	NA	1	NA	1	0	0	0	0	NA	-1	-1	NA									
Kearny	0	1	0	2	0	0		D	NA	NA	NA	46	NA	44	0	0	0	0	NA	52	52	NA	NA	NA	NA	46	NA	44	0	0	0	0	NA	52	52									
Montgomery/Columbus	0	1	1	3	0	0	F		NA	NA	50	NA	41	NA	0	0	0	0	40	NA	NA	NA	NA	NA	NA	NA	50	NA	41	NA	0	0	0	40	NA									
Sansome	1	1	1	0	0	0			NA	9	NA	14	NA	7	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
Battery	1	1	1	0	0	0			NA	NA	20	NA	26	NA	0	0	0	0	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
Front	0	1	0	0	0	0			NA	NA	NA	0.74	NA	-3.33	0	0	0	0	NA	24.42	24.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24									
Davis	0	1	0	0	0	0			NA	NA	14.8	NA	8.51	NA	0	0	0	0	8.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA									
Embarcadero	1	1	1	0	0	0	C	C	31	15	26	23	26	23	0	0	0	0	26	23	23	31	15	26	23	26	23	0	0	0	0	26	23	23	23									
<b>Change in traffic volumes along north-south streets in the Study Area</b>									<b>47</b>	<b>160</b>	<b>85</b>	<b>184</b>	<b>73</b>	<b>137</b>	<b>173</b>	<b>153</b>	<b>185</b>	<b>128</b>	<b>201</b>	<b>179</b>	<b>88</b>	<b>190</b>	<b>282</b>	<b>313</b>	<b>173</b>	<b>161</b>	<b>203</b>	<b>181</b>	<b>211</b>	<b>193</b>	<b>227</b>	<b>309</b>	<b>88</b>	<b>190</b>	<b>282</b>	<b>313</b>	<b>173</b>	<b>161</b>	<b>203</b>	<b>181</b>	<b>211</b>	<b>193</b>	<b>227</b>	<b>309</b>
<b>% Change within Study Area Corridor</b>									<b>14%</b>	<b>54%</b>	<b>-15%</b>	<b>-33%</b>	<b>14%</b>	<b>28%</b>	<b>-23%</b>	<b>-27%</b>	<b>26%</b>	<b>24%</b>	<b>38%</b>	<b>28%</b>	<b>27%</b>	<b>64%</b>	<b>51%</b>	<b>56%</b>	<b>34%</b>	<b>33%</b>	<b>27%</b>	<b>32%</b>	<b>30%</b>	<b>37%</b>	<b>42%</b>	<b>49%</b>	<b>27%</b>	<b>64%</b>	<b>51%</b>	<b>56%</b>	<b>34%</b>	<b>33%</b>	<b>27%</b>	<b>32%</b>	<b>30%</b>	<b>37%</b>	<b>42%</b>	<b>49%</b>
Van Ness Diverted trips from SF CHAMP									-329	-297	-554	-558	-506	-482	-740	-560	-711	-527	-535	-633	-329	-297	-554	-558	-506	-482	-740	-560	-711	-527	-535	-633	-329	-297	-554	-558	-506	-482	-740	-560	-711	-527	-535	-633

Notes:  
 Connected: 1- Connected, 0 - Blocked  
 1. Highlight all sections with connection = 0 in purple  
 Blocks with Grade over 18%: No of sections with grade over 18% along the north-south corridor in that section  
 2. Highlight all sections that have connection = 1 but grade > 2 in blue  
 3. Highlight all sections with LOS F in orange  
 4. Different formulas for different criteria

# Appendix 6

## Build Alternative 2 and 3 with Design Option B Diversions



Pine Street (NBL - 92 vph)  
All Numbers represent percentage of NBL volume

XX - Reduction %  
XX - Addition %



Bush St (SBL - 208 vph)  
All numbers represent percentage of SBL vol



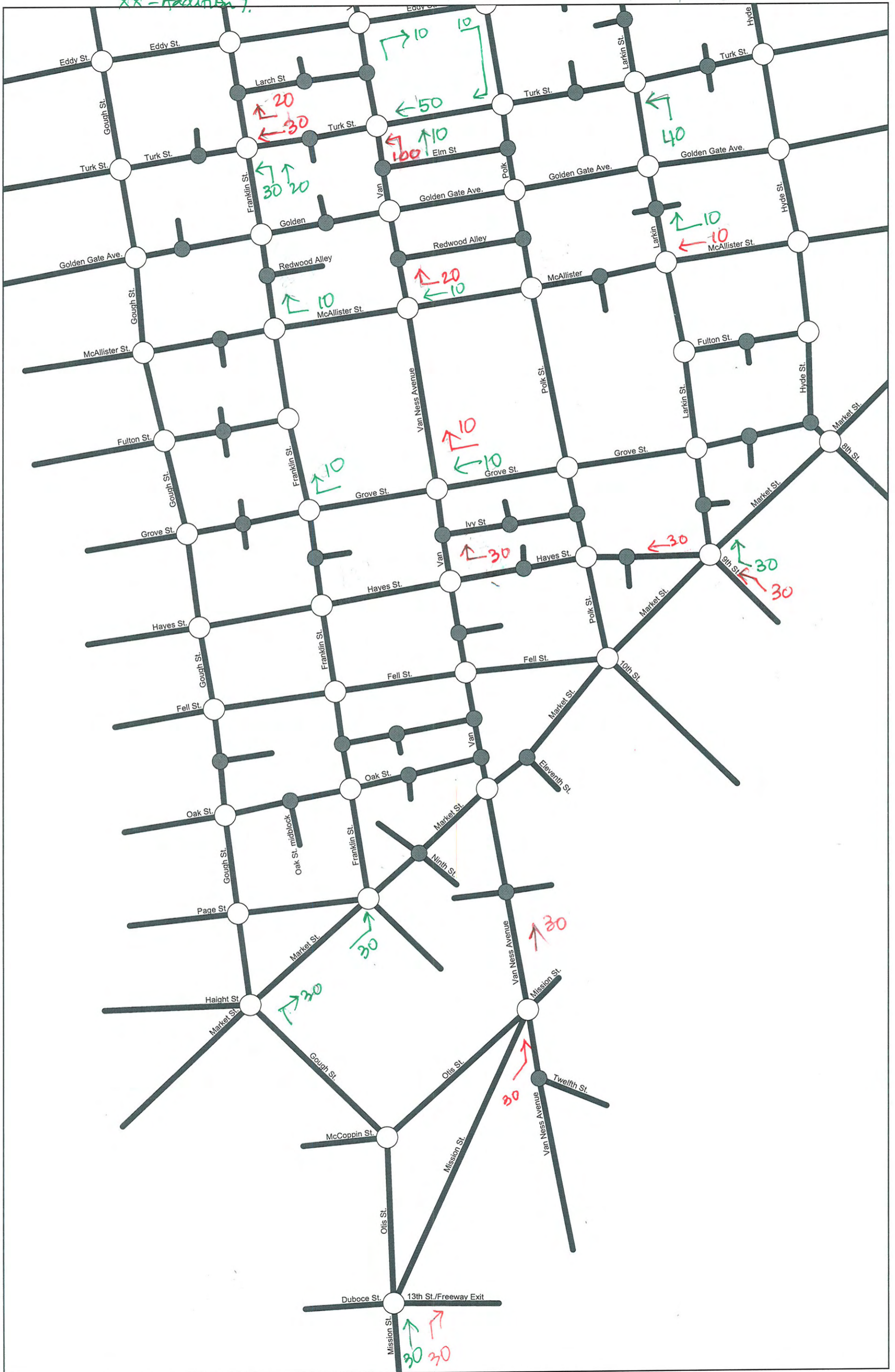
# Turk Street (NBL - 118 vph)

2015 Center BRT

xx - Reduction %  
xx - Addition %

All numbers represent percentage of NBL volume

PM PEAK



Union St (NBL) - 101 vph

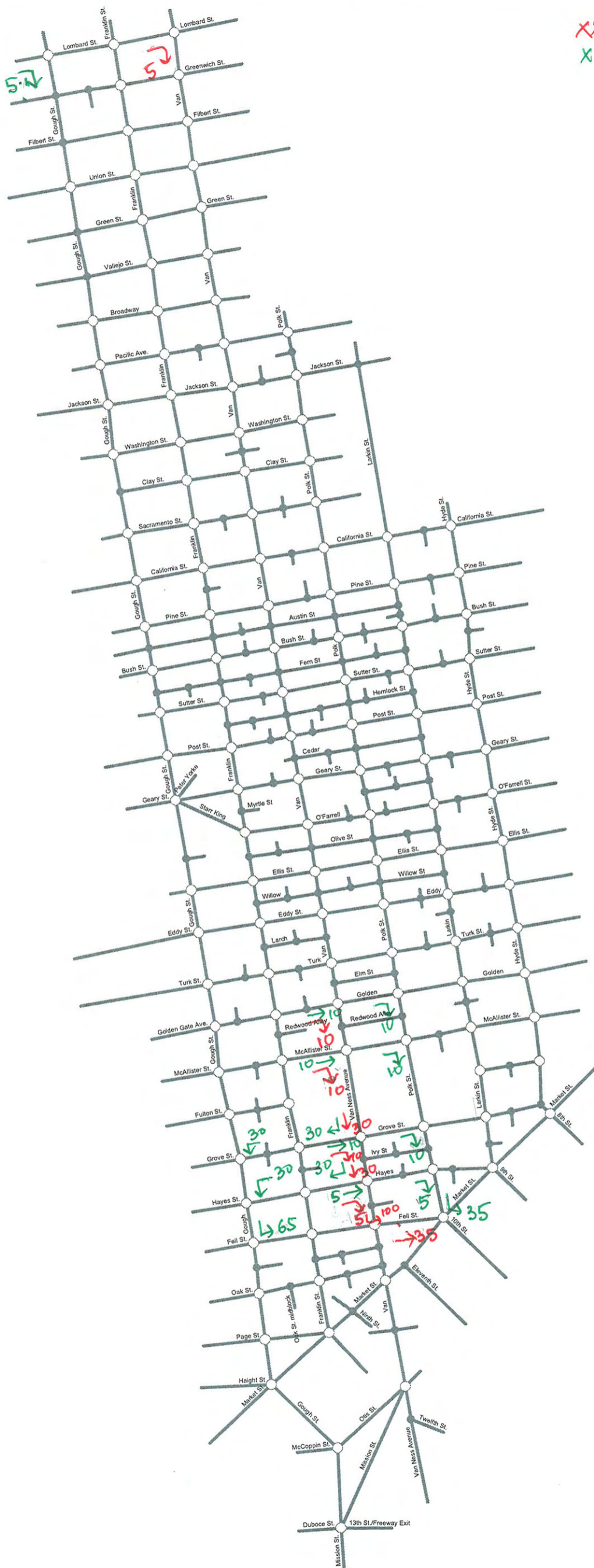
(All Numbers shown, indicate percentages of NBL)

→ Reduction %  
→ Addition %



Fell St. (882L - 121 vph)  
 (All numbers represent percentage of 882L volume)

XX → Reduction %  
 XX → Addition %





# Hayes Street (NBL - 184 VPH)

All numbers represent percentage of NBL volume



XX → Reduction %  
XX → Addition %

Grove Street (NBL - 60 vph)

All Numbers represent percentage of NBL vol



# Golden Gate Ave (8BL - 101 vph)

All numbers represent percentage of 8BL vol

XX - Reduction %  
XX - Addition %



# Appendix 7

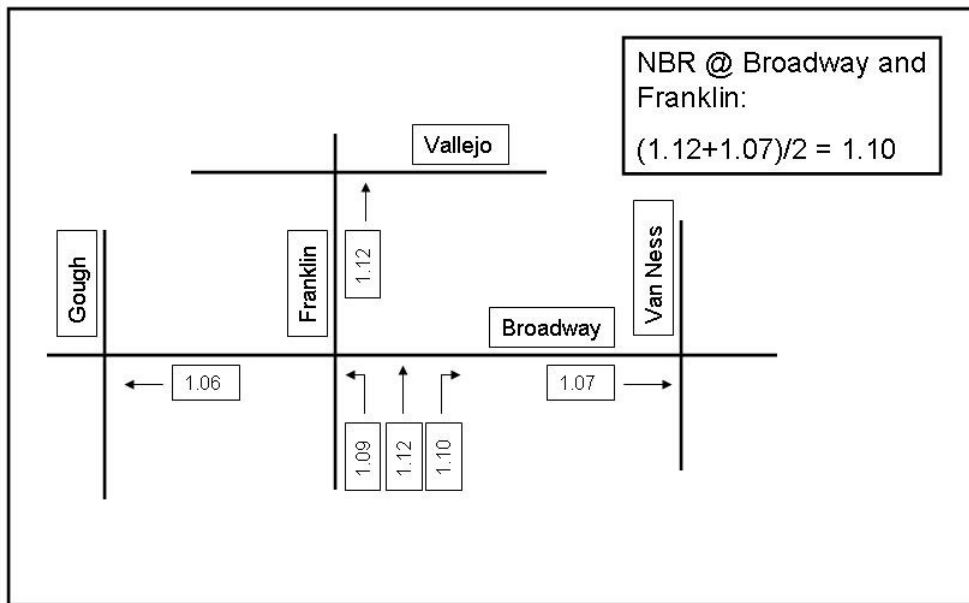
## Vehicular Traffic Volume Balancing Memorandum



## Balancing Traffic Volumes for Future Scenarios

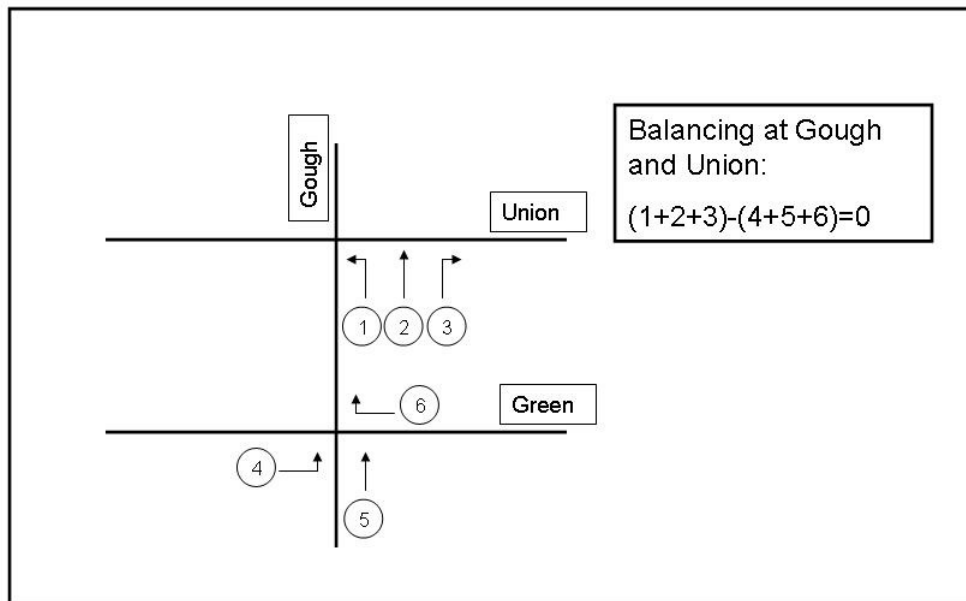
### *No Build Scenario*

1. The 2007 balanced volumes were used to grow both 2015 Baseline and 2035 Baseline volumes to minimize cumulative estimation errors.
2. For all movements the growth factor utilized was an average of the upstream and downstream link growth factors for a particular movement to account for upstream and downstream growth factors. Figure below shows an example.



In this example the NBR turn growth factor at Franklin and Broadway was calculated by averaging the growth factor for NB Franklin approach from the TA model (1.12) at the current intersection and the growth factor for the EB Broadway approach from the TA model (1.07). This is because Broadway and Van Ness intersection is the upstream intersection for the right turning vehicles from NB Franklin @ Broadway.

3. Once a future scenario traffic volume was calculate, three iterations of volume balancing were conducted. In the first iteration, the Thru volumes along the N-S corridor approaches were balanced. This was done such that the direction inflow volume at the current intersection minus the directional outflow at the downstream intersection equaled zero. For example at NB Gough @ Union, the NB inflow (NBR+NBT+NBL) at NB Gough approach - the NB outflow from Gough @ Green (NBT+EBL+WBR) = 0



The right and left turn volumes were modified while balancing only at locations where the turn volumes were significant w.r.t. the total approach volume.

In the second iteration, the E-W corridor approaches were balanced using the same approach as that for N-S corridors. Any change E-W turn movements affected the N-S balancing as the turn movements fed the N-S approaches.

Hence, a third iteration of balancing was performed where the N-S corridors were again balanced to reach an equilibrium of zero. These volumes were used in the Synchro model for Baseline scenarios.

4. The final step involved calculating the total volumes on the N-S corridors by adding the North Through movements and South Through movements along each N-S corridor. For Baseline, a corridor growth factor was calculated by dividing the Baseline totals for each corridor by 2007 totals for each corridor. These values were compared to the average growth factor for the TA model for each N-S corridor (average of all four sections). The above calculated volumes were input into the Synchro model only if the growth factors from the balanced volumes were similar to the growth factors from the TA model. If the growth factors were not similar, then step 3 is repeated until the growth factors are similar.

### ***Build Scenarios***

1. The balanced 2015 Baseline and 2035 Baseline volumes calculated above were used to estimate the 2015 and 2035 Center and Side volumes respectively.
2. For all movements except Van Ness Avenue turning movements, the growth factor utilized was an average of the upstream and downstream link growth factors for that particular movement similar to Step 2 under No Build scenario above.

3. For the right turn and left turn movements from Van Ness and to Van Ness from E-W streets, growth factors were estimated based on roadway capacity change and TA growth factors. A ratio of the total number of lanes along the current approach and the directional upstream intersection for a tuning movement for a build alternative and corresponding year baseline was estimated. For example at Van Ness and Union NBL under Center Lane BRT alternative, there would be 1 NBL lane, 3 NBT lanes and 2 WBT lanes (Total 6 lanes) under Baseline condition. For the Center scenario, there would be 1NBL lane, 2 NBT lanes and 2 WBT lanes (total of 5 lanes). Thus, it was assumed that 5/6 of the NBL trips would desire to grow based on Van Ness NB GF and the remaining 1/6 trips would desire to grow based on Union WB GF. Please note that the SBR turn was not considered in this calculation as it did not affect the desirability of a vehicle making a NBL turn. Also, please note that the left turn and right turn storage lanes were considered during these calculations.
4. Next, traffic volumes were balanced iteratively as discussed under Step 3 of No Build scenario above.
5. Additional volume balancing was performed for build alternatives to account for the diversion analysis as follows:
  - a. The difference between balanced build and balanced No Build volumes were calculated for each movement. The volumes estimated based on diversion analysis then replaced the difference in volumes calculated at appropriate locations.
  - b. The Center and Side volumes were recalculated by adding the No Build volumes and the difference volumes estimated in Step 5a above.
  - c. The three iteration volume balancing discussed under Step 3 of No Build scenario was performed again.
  - d. For locations where the left turns were removed along Van Ness in the Center and Side scenarios, the volumes from Step 5c above were manually reassigned as follows
    - Approximately one-third of the left turning volume (33%) was diverted to the upstream intersection within 2 blocks of the original destination if available
    - Approximately one-third of the left turning volume (33%) was diverted to the downstream intersection within 2 blocks of the original destination if available
    - The remaining trips (34%) would circulate the block to arrive westbound or eastbound on the original street. Additionally, if upstream and downstream left-turn opportunities are unavailable within two-blocks of the affected intersection, then traffic would circle the block.
6. Similar to developing the baseline volumes, the final step involved calculating the total volumes on the N-S corridors by adding the North Through movements and South Through movements along each N-S corridor. For Center and Side, the growth factor was calculated by dividing the Center and Side totals for each corridor by Baseline totals for each corridor. These values were compared to the average growth factor for the TA model for each N-S corridor (average of all four sections). The above calculated volumes were input into the Synchro model only

if the growth factors from the balanced volumes were similar to the growth factors from the TA model. If the growth factors were not similar, then steps 4 and 5 are repeated until the growth factors are similar.





# Appendix 8

## Existing Condition Turning Movement Counts and Pedestrians Counts



File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-broadway-p.ppd

Start Date: 6/13/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			BROADWAY Westbound			GOUGH ST Northbound			BROADWAY Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	1	100	10	4	80	40	3	8	0	5	40	1	
16:15	3	115	8	6	96	34	0	5	1	8	36	0	
16:30	2	126	5	6	71	37	1	4	0	8	44	0	
16:45	4	104	13	5	85	40	2	8	1	4	45	1	
17:00	4	120	11	11	96	43	1	8	0	11	52	0	
17:15	3	125	15	4	100	48	4	6	0	7	54	3	
17:30	4	103	12	6	102	47	7	7	1	11	45	0	
17:45	2	115	12	4	126	61	1	11	6	13	44	2	
5:00-6:00	13	463	50	25	424	199	13	32	7	42	195	5	1468

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-vallejo-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			VALLEJO ST Westbound			GOUGH ST Northbound			VALLEJO ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	4	105	3	1	13	8	3	13	1	8	13	2	
16:15	2	121	1	2	14	3	2	11	1	6	7	0	
16:30	4	126	7	1	13	4	0	7	0	5	10	2	
16:45	4	108	6	3	13	7	0	13	0	5	11	1	
17:00	4	120	2	3	18	7	3	12	0	3	12	0	
17:15	4	127	3	2	15	7	2	15	2	7	14	0	
17:30	3	138	8	4	28	6	1	12	0	3	19	1	
17:45	4	123	7	2	22	8	2	20	2	6	12	3	
5:00-6:00	15	508	20	11	83	28	8	59	4	19	57	4	816

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-union-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			UNION ST Westbound			GOUGH ST Northbound			UNION ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	3	81	2	7	66	8	2	14	3	17	45	3	
16:15	8	92	7	2	63	10	0	13	3	14	42	2	
16:30	7	83	5	3	72	13	2	9	2	26	46	4	
16:45	9	91	6	3	64	8	3	12	4	16	50	1	
17:00	4	90	5	5	59	13	4	13	3	11	52	0	
17:15	6	105	3	6	84	11	2	8	3	18	51	5	
17:30	8	110	10	5	76	17	1	13	7	18	59	5	
17:45	2	102	6	7	52	10	6	30	4	9	40	2	
5:00-6:00	20	407	24	23	271	51	13	64	17	56	202	12	1160

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\gough-turk-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			TURK ST Westbound			GOUGH ST Northbound			TURK ST Eastbound				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
16:00	10	463	0	0	0	200	53	0	0	0	0	0	0	
16:15	12	477	0	0	0	196	49	0	0	0	0	0	0	
16:30	18	500	0	0	0	209	40	0	0	0	0	0	0	
16:45	15	477	0	0	0	193	37	0	0	0	0	0	0	
17:00	28	512	0	0	0	226	67	0	0	0	0	0	0	
17:15	38	419	0	0	0	261	43	0	0	0	0	0	0	
17:30	48	466	0	0	0	237	44	0	0	0	0	0	0	
17:45	38	417	0	0	0	238	37	0	0	0	0	0	0	
5:00-6:00	152	1814	0	0	0	962	191	0	0	0	0	0	0	3119

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\gough-sutter-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			SUTTER ST Westbound			GOUGH ST Northbound			SUTTER ST Eastbound				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
16:00	8	382	0	0	62	60	0	0	0	0	27	0	0	
16:15	10	355	0	0	73	81	0	0	0	0	26	0	0	
16:30	11	375	0	0	65	84	0	0	0	0	14	0	0	
16:45	12	360	0	0	84	67	0	0	0	0	21	0	0	
17:00	11	369	0	0	99	94	0	0	0	0	24	0	0	
17:15	17	409	0	0	106	88	0	0	0	0	19	0	0	
17:30	15	415	0	0	111	94	0	0	0	0	29	0	0	
17:45	8	435	0	0	92	96	0	0	0	0	27	0	0	
5:00-6:00	51	1628	0	0	408	372	0	0	0	0	99	0	0	2558

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\gough-sacto-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			SACRAMENTO ST Westbound			GOUGH ST Northbound			SACRAMENTO ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	5	170	0	4	25	36	0	0	0	23	0	8	
16:15	7	196	0	5	44	47	0	0	0	21	0	19	
16:30	9	187	0	10	32	38	0	0	0	17	0	12	
16:45	9	201	0	7	30	42	0	0	0	16	0	12	
17:00	3	209	0	2	40	55	0	0	0	20	0	12	
17:15	6	200	0	3	57	64	0	0	0	24	0	14	
17:30	6	207	0	10	51	59	0	0	0	12	0	9	
17:45	5	203	0	5	55	76	0	0	0	29	8	14	
5:00-6:00	20	819	0	20	203	254	0	0	0	85	8	49	1458

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\gough-post-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			POST ST Westbound			GOUGH ST Northbound			POST ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	6	427	39	0	0	0	0	0	0	28	73	0
16:15	5	396	47	0	0	0	0	0	0	35	70	0
16:30	7	414	55	0	0	0	0	0	0	26	67	0
16:45	11	390	46	0	0	0	0	0	0	27	68	0
17:00	7	437	40	0	0	0	0	0	0	31	88	0
17:15	12	466	35	0	0	0	0	0	0	23	90	0
17:30	19	461	50	0	0	0	0	0	0	22	74	0
17:45	11	442	51	0	0	0	0	0	0	18	73	0
5:00-6:00	49	1806	176	0	0	0	0	0	0	94	325	0 2450





File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-pacific-p.ppd

Start Date: 6/13/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			PACIFIC AV Westbound			GOUGH ST Northbound			PACIFIC AV Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	1	130	9	2	41	9	4	9	0	6	16	1	
16:15	0	150	4	1	18	8	3	2	0	7	28	0	
16:30	2	164	11	0	20	8	3	3	3	3	36	1	
16:45	1	145	4	4	20	7	5	4	0	2	19	3	
17:00	0	168	5	3	34	10	7	7	0	6	24	1	
17:15	3	170	3	2	40	9	6	8	0	3	15	1	
17:30	4	153	4	4	29	11	6	14	0	8	18	0	
17:45	2	172	8	5	32	7	3	7	0	6	19	0	
5:00-6:00	9	663	20	14	135	37	22	36	0	23	76	2	1037

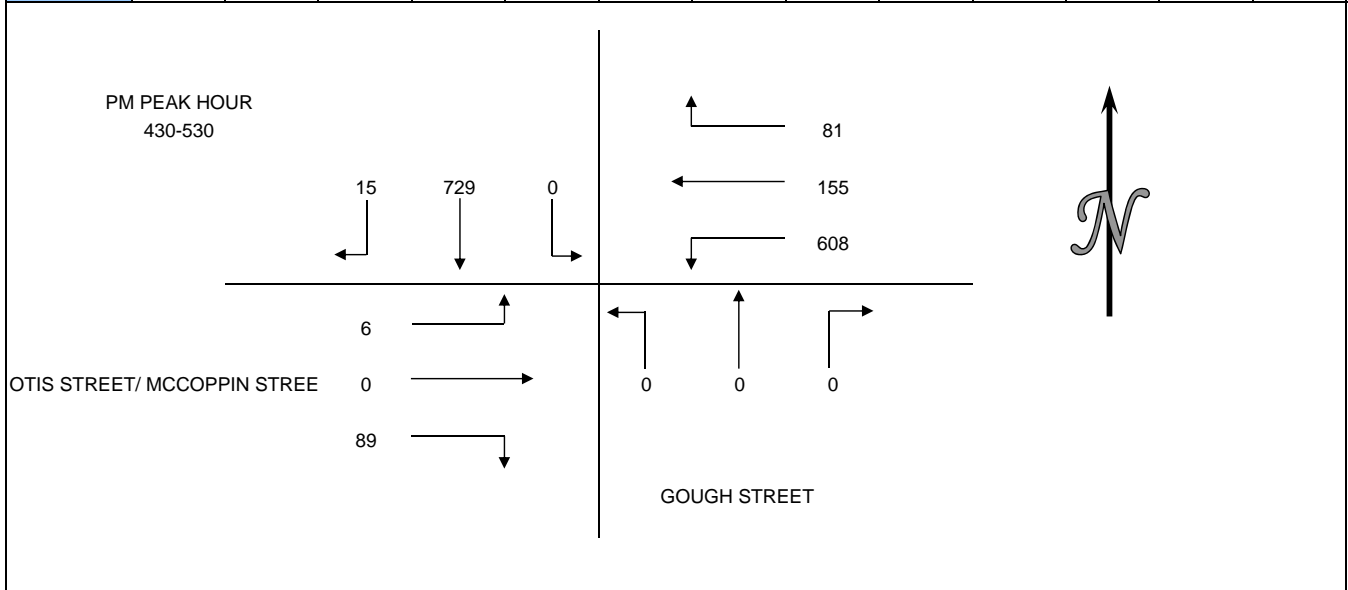
# WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CHS CONSULTING GROUP  
 PROJECT: VAN NESS BRT  
 DATE: TUESDAY JULY 15, 2008  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S GOUGH STREET  
 E/W OTIS STREET/ MCCOPPIN STREET  
 CITY: SAN FRANCISCO

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	5	179	0	15	29	139	0	0	0	24	0	1	392
415-430	2	187	0	19	31	142	0	0	0	26	0	1	408
430-445	3	184	0	18	40	145	0	0	0	27	0	3	420
445-500	3	163	0	18	26	138	0	0	0	22	0	1	371
500-515	5	192	0	21	51	177	0	0	0	20	0	1	467
515-530	4	190	0	24	38	148	0	0	0	20	0	1	425
530-545	7	143	0	28	37	138	0	0	0	16	0	5	374
545-600	2	163	0	18	38	129	0	0	0	12	0	2	364
HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	13	713	0	70	126	564	0	0	0	99	0	6	1591
415-515	13	726	0	76	148	602	0	0	0	95	0	6	1666
430-530	15	729	0	81	155	608	0	0	0	89	0	6	1683
445-545	19	688	0	91	152	601	0	0	0	78	0	8	1637
500-600	18	688	0	91	164	592	0	0	0	68	0	9	1630



File Name: C:\Petra Pro\S\_francisco\Citywide\gough-oak-p.ppd

Start Date: 5/17/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			OAK ST Westbound			GOUGH ST Northbound			OAK ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	323	21	0	0	0	0	0	0	51	226	0
16:15	0	342	16	0	0	0	0	0	0	45	223	0
16:30	0	262	23	0	0	0	0	0	0	28	251	0
16:45	0	314	19	0	0	0	0	0	0	35	269	0
17:00	0	354	17	0	0	0	0	0	0	45	288	0
17:15	0	314	10	0	0	0	9	0	0	48	238	0
17:30	0	354	13	0	0	0	0	0	0	41	291	0
17:45	0	360	13	0	0	0	0	0	0	40	309	0
5:00-6:00	0	1382	53	0	0	0	9	0	0	174	1126	0

2744

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\gough-mcallister-p.ppd

Start Date: 4/25/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

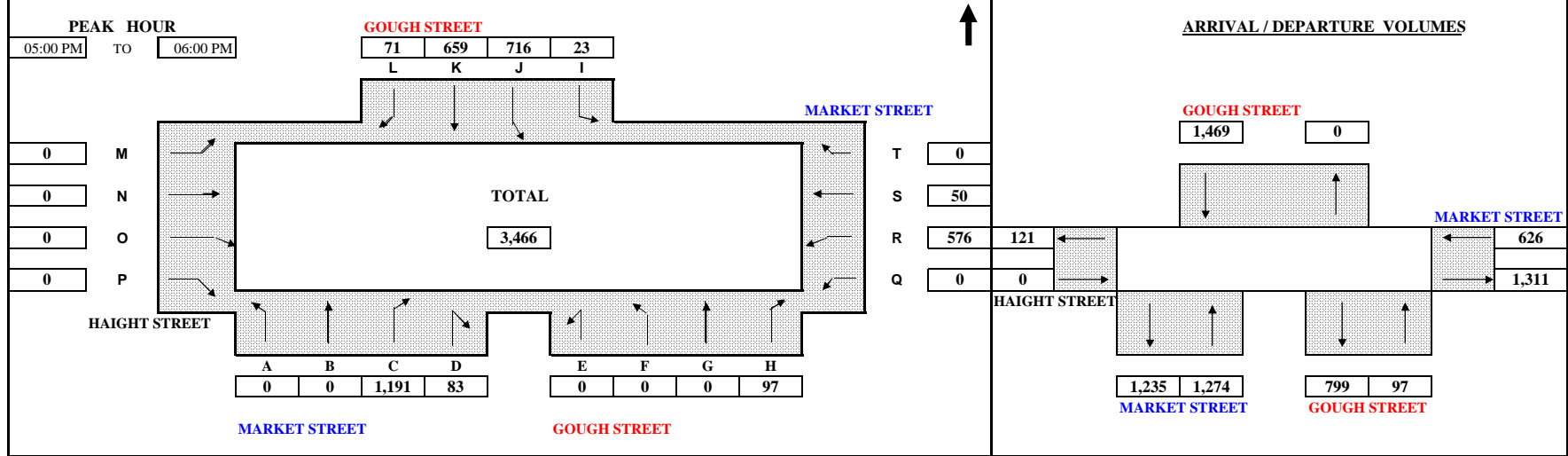
Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			McALLISTER ST Westbound			GOUGH ST Northbound			McALLISTER ST Eastbound				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
16:00	12	440	15	0	43	35	0	0	0	0	2	16	0	
16:15	12	483	16	0	43	26	0	0	0	0	4	18	0	
16:30	12	448	11	0	44	26	0	0	0	0	3	21	0	
16:45	17	440	17	0	54	25	0	0	0	0	1	29	0	
17:00	17	462	17	0	45	33	0	0	0	0	7	22	0	
17:15	31	392	15	0	71	19	0	0	0	0	9	18	0	
17:30	23	476	17	0	51	20	0	0	0	0	9	28	0	
17:45	20	455	24	0	54	23	0	0	0	0	9	23	0	
5:00-6:00	91	1785	73	0	221	95	0	0	0	0	34	91	0	2390

# B . A . Y . M . E . T . R . I . C . S .

## INTERSECTION TURNING MOVEMENT SUMMARY

PROJECT:	SAN FRANCISCO TRAFFIC STUDY	SURVEY DATE:	6/4/2009	DAY:	THURSDAY
N-S Approach:	OCTAVIA BOULEVARD	SURVEY TIME:	4:00 PM	TO	6:00 PM
E-W Approach:	HAIGHT STREET / MARKET STREET	CITY:	SAN FRANCISCO	FILE:	2906042-4PM



TIME PERIOD	From	To	MARKET STREET				GOUGH STREET				GOUGH STREET				HAIGHT STREET				MARKET STREET				TOTAL
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	

SURVEY DATA																							
4:00 PM	---	4:15 PM	0	0	253	25	0	0	0	16	18	173	124	13	0	0	0	0	0	95	9	0	726
4:15 PM	---	4:30 PM	0	0	559	46	0	0	0	40	26	347	262	24	0	0	0	0	0	207	23	0	1,534
4:30 PM	---	4:45 PM	0	0	828	65	0	0	0	62	35	549	394	36	0	0	0	0	0	342	35	0	2,346
4:45 PM	---	5:00 PM	0	0	1,101	83	0	0	0	83	41	714	565	47	0	0	0	0	0	438	44	0	3,116
5:00 PM	---	5:15 PM	0	0	1,335	102	0	0	0	108	50	902	709	64	0	0	0	0	0	579	56	0	3,905
5:15 PM	---	5:30 PM	0	0	1,689	125	0	0	0	139	56	1,081	879	82	0	0	0	0	0	694	69	0	4,814
5:30 PM	---	5:45 PM	0	0	1,983	142	0	0	0	153	61	1,253	1,055	101	0	0	0	0	0	851	82	0	5,681
5:45 PM	---	6:00 PM	0	0	2,292	166	0	0	0	180	64	1,430	1,224	118	0	0	0	0	0	1,014	94	0	6,582

TOTAL BY PERIOD																							
4:00 PM	---	4:15 PM	0	0	253	25	0	0	0	16	18	173	124	13	0	0	0	0	0	95	9	0	726
4:15 PM	---	4:30 PM	0	0	306	21	0	0	0	24	8	174	138	11	0	0	0	0	0	112	14	0	808
4:30 PM	---	4:45 PM	0	0	269	19	0	0	0	22	9	202	132	12	0	0	0	0	0	135	12	0	812
4:45 PM	---	5:00 PM	0	0	273	18	0	0	0	21	6	165	171	11	0	0	0	0	0	96	9	0	770
5:00 PM	---	5:15 PM	0	0	234	19	0	0	0	25	9	188	144	17	0	0	0	0	0	141	12	0	789
5:15 PM	---	5:30 PM	0	0	354	23	0	0	0	31	6	179	170	18	0	0	0	0	0	115	13	0	909
5:30 PM	---	5:45 PM	0	0	294	17	0	0	0	14	5	172	176	19	0	0	0	0	0	157	13	0	867
5:45 PM	---	6:00 PM	0	0	309	24	0	0	0	27	3	177	169	17	0	0	0	0	0	163	12	0	901

HOURLY TOTALS																							
4:00 PM	---	5:00 PM	0	0	1,101	83	0	0	0	83	41	714	565	47	0	0	0	0	0	438	44	0	3,116
4:15 PM	---	5:15 PM	0	0	1,082	77	0	0	0	92	32	729	585	51	0	0	0	0	0	484	47	0	3,179
4:30 PM	---	5:30 PM	0	0	1,130	79	0	0	0	99	30	734	617	58	0	0	0	0	0	487	46	0	3,280
4:45 PM	---	5:45 PM	0	0	1,155	77	0	0	0	91	26	704	661	65	0	0	0	0	0	509	47	0	3,335
5:00 PM	---	6:00 PM	0	0	1,191	83	0	0	0	97	23	716	659	71	0	0	0	0	0	576	50	0	3,466

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-lombard-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			LOMBARD ST Westbound			GOUGH ST Northbound			LOMBARD ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	7	35	3	8	451	0	1	5	7	42	272	0	
16:15	4	41	1	8	472	0	3	4	9	41	252	0	
16:30	2	50	3	12	467	0	0	5	5	36	294	0	
16:45	4	35	1	12	505	0	1	3	7	50	270	0	
17:00	9	40	3	11	487	0	1	9	5	40	283	0	
17:15	9	59	5	10	520	0	0	9	4	59	325	0	
17:30	5	49	3	9	537	0	0	13	10	71	328	0	
17:45	16	59	0	10	525	0	2	6	6	74	337	0	
5:00-6:00	39	207	11	40	2069	0	3	37	25	244	1273	0	3948

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\gough-jackson-p.ppd

Start Date: 5/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			JACKSON ST Westbound			GOUGH ST Northbound			JACKSON ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	3	149	0	2	20	20	0	10	1	14	0	5	
16:15	2	158	0	3	22	15	0	3	1	12	0	2	
16:30	6	150	0	2	30	17	0	10	0	7	0	4	
16:45	3	165	0	6	30	10	0	9	1	17	0	9	
17:00	4	158	0	3	28	20	0	7	0	11	0	2	
17:15	1	174	0	1	27	11	0	4	1	11	0	7	
17:30	1	168	0	4	32	12	0	6	1	3	0	5	
17:45	3	164	0	3	38	30	0	9	0	10	0	8	
5:00-6:00	9	664	0	11	125	73	0	26	2	35	0	22	967



File Name: C:\Petra Pro\S\_francisco\Citywide\week1\gough-hayes-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			HAYES ST Westbound			GOUGH ST Northbound			HAYES ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	7	462	0	0	78	134	0	0	0	31	0	0	
16:15	5	488	0	0	67	139	0	0	0	30	0	0	
16:30	7	466	0	0	69	128	0	0	0	28	0	0	
16:45	6	437	0	0	79	160	0	0	0	19	0	0	
17:00	7	458	0	0	86	216	0	0	0	29	0	0	
17:15	2	420	0	0	89	231	0	0	0	41	0	0	
17:30	6	456	0	0	98	224	0	0	0	31	0	0	
17:45	5	456	0	0	84	208	0	0	0	25	0	0	
5:00-6:00	20	1790	0	0	357	879	0	0	0	126	0	0	3172

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\gough-grove-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			GROVE ST Westbound			GOUGH ST Northbound			GROVE ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	11	441	28	0	21	18	0	0	0	17	26	0
16:15	6	462	28	0	30	25	0	0	0	8	24	0
16:30	18	439	27	0	38	23	0	0	0	13	25	0
16:45	13	436	35	0	31	24	0	0	0	17	39	0
17:00	13	430	38	0	40	28	0	0	0	20	29	0
17:15	19	383	28	0	49	26	0	0	0	14	41	0
17:30	11	431	27	0	36	26	0	0	0	15	36	0
17:45	15	434	33	0	52	27	0	0	0	11	38	0
5:00-6:00	58	1678	126	0	177	107	0	0	0	60	144	0

2350

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-greenwich-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			GREENWICH ST Westbound			GOUGH ST Northbound			GREENWICH ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	3	71	2	2	27	3	0	11	3	9	20	0	
16:15	2	84	1	1	29	3	1	9	3	6	16	3	
16:30	1	77	3	1	24	7	1	10	4	9	16	1	
16:45	4	81	3	1	38	2	2	8	7	13	12	2	
17:00	7	71	2	3	42	1	0	9	5	13	16	4	
17:15	2	107	6	0	35	4	2	9	2	10	20	3	
17:30	3	107	4	0	40	6	2	18	4	17	5	3	
17:45	10	117	9	5	29	4	3	15	6	6	14	2	
5:00-6:00	22	402	21	8	146	15	7	51	17	46	55	12	802

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-green-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			GREEN ST Westbound			GOUGH ST Northbound			GREEN ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	11	95	2	4	28	7	1	12	4	8	21	2	
16:15	6	105	2	2	32	6	1	11	0	10	15	1	
16:30	9	114	1	3	32	5	1	8	1	13	14	3	
16:45	10	110	6	2	16	8	0	20	2	4	14	8	
17:00	3	111	2	3	31	5	0	15	3	10	15	1	
17:15	11	117	2	3	40	5	1	13	2	14	17	2	
17:30	11	128	8	3	52	14	3	13	1	6	17	5	
17:45	9	110	7	3	44	10	2	15	8	12	17	0	
5:00-6:00	34	466	19	12	167	34	6	56	14	42	66	8	924

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\gough-golden-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			GOLDEN GATE AVE Westbound			GOUGH ST Northbound			GOLDEN GATE AVE Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	457	62	0	0	0	0	0	0	32	109	0
16:15	0	487	80	0	0	0	0	0	0	15	121	0
16:30	0	473	77	0	0	0	0	0	0	23	116	0
16:45	0	454	52	0	0	0	0	0	0	31	123	0
17:00	0	435	70	0	0	0	0	0	0	32	135	0
17:15	0	405	75	0	0	0	0	0	0	26	122	0
17:30	0	406	75	0	0	0	0	0	0	19	128	0
17:45	0	409	68	0	0	0	0	0	0	22	135	0
5:00-6:00	0	1655	288	0	0	0	0	0	0	99	520	0

2562

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\gough-geary-p.ppd

Start Date: 5/9/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			PETER YORKE ST Southwestbound		GEARY ST Westbound				GOUGH ST Northbound			GEARY ST Eastbound		
	RT	TH	LT	RT	LT	RT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	33	367	6	3	0	2	0	298	0	0	0	0	84	209	0
16:15	56	323	8	4	0	5	0	314	0	0	0	0	113	221	0
16:30	43	404	3	5	0	2	0	252	0	0	0	0	113	243	0
16:45	46	367	5	7	0	4	0	306	0	0	0	0	96	251	0
17:00	69	407	5	8	0	3	0	350	0	0	0	0	84	274	0
17:15	78	431	8	6	0	1	0	369	0	0	0	0	92	254	0
17:30	69	400	3	4	0	1	0	338	0	0	0	0	75	251	0
17:45	80	425	5	5	0	0	0	345	0	0	0	0	71	256	0
5:00-6:00	296	1663	21	23	0	5	0	1402	0	0	0	0	322	1035	0

4767

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\gough-fulton-p.ppd

Start Date: 4/25/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			FULTON ST Westbound			GOUGH ST Northbound			FULTON ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	13	454	2	0	18	3	0	0	0	20	20	0
16:15	21	479	3	0	19	4	0	0	0	22	19	0
16:30	17	449	4	0	29	4	0	0	0	21	28	0
16:45	13	451	4	0	24	10	0	0	0	24	26	0
17:00	19	460	7	0	23	10	0	0	0	19	25	0
17:15	16	392	5	0	32	11	0	0	0	25	32	0
17:30	20	457	11	0	31	20	0	0	0	24	27	0
17:45	28	461	6	0	34	17	0	0	0	17	36	0
5:00-6:00	83	1770	29	0	120	58	0	0	0	85	120	0

2265

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-filbert-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			FILBERT ST Westbound			GOUGH ST Northbound			FILBERT ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	3	80	3	2	23	4	5	11	7	11	19	1	
16:15	4	84	5	2	25	4	2	11	1	8	29	0	
16:30	5	84	3	1	25	7	2	12	4	8	16	3	
16:45	1	86	6	3	32	5	2	12	5	13	16	3	
17:00	5	79	1	3	18	5	3	11	4	10	16	0	
17:15	5	106	6	2	34	10	3	10	6	10	20	2	
17:30	12	104	8	5	45	10	4	18	2	16	23	4	
17:45	16	103	6	4	28	4	7	18	5	12	22	1	
5:00-6:00	38	392	21	14	125	29	17	57	17	48	81	7	846





File Name: C:\Petra Pro\S\_francisco\Citywide\week2\gough-ellis-p.ppd

Start Date: 5/9/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			ELLIS ST Westbound			GOUGH ST Northbound			ELLIS ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	10	474	0	0	53	41	0	0	0	14	0	0	
16:15	7	455	0	0	37	40	0	0	0	10	0	0	
16:30	7	528	0	0	31	37	0	0	0	13	0	0	
16:45	7	484	0	0	38	49	0	0	0	6	0	0	
17:00	9	476	0	0	50	60	0	0	0	13	0	0	
17:15	7	506	0	0	43	41	0	0	0	6	0	0	
17:30	6	464	0	0	35	47	0	0	0	6	0	0	
17:45	7	481	0	0	35	41	0	0	0	4	0	0	
5:00-6:00	29	1927	0	0	163	189	0	0	0	29	0	0	2337

File Name: C:\Petra Pro\S\_francisco\Citywide\week3\gough-eddy-p.ppd

Start Date: 5/17/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			EDDY ST Westbound			GOUGH ST Northbound			EDDY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	6	430	27	0	17	13	0	0	0	12	27	0	
16:15	5	466	30	0	20	8	0	0	0	5	24	0	
16:30	9	480	20	0	21	8	0	0	0	10	34	0	
16:45	6	497	29	0	21	10	0	0	0	7	34	0	
17:00	11	509	23	0	22	12	0	0	0	14	31	0	
17:15	27	422	42	0	22	5	0	0	0	10	34	0	
17:30	25	471	39	0	19	4	0	0	0	4	30	0	
17:45	23	491	37	0	22	10	0	0	0	5	30	0	
5:00-6:00	86	1893	141	0	85	31	0	0	0	33	125	0	2394

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\gough-clay-p.ppd

Start Date: 5/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			CLAY ST Westbound			GOUGH ST Northbound			CLAY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	190	4	2	0	6	8	11	0	0	0	0	
16:15	0	202	5	1	0	3	13	4	0	0	0	0	
16:30	0	188	2	1	0	7	11	9	0	0	0	0	
16:45	0	186	5	2	0	9	15	10	0	0	0	0	
17:00	0	198	8	2	0	5	6	7	0	0	0	0	
17:15	0	209	5	3	0	10	11	4	0	0	0	0	
17:30	0	211	4	2	0	11	7	10	0	0	0	0	
17:45	0	222	4	2	0	12	9	12	0	0	0	0	
5:00-6:00	0	840	21	9	0	38	33	33	0	0	0	0	974

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-california-p.ppd

Start Date: 6/12/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			CALIFORNIA ST Westbound			GOUGH ST Northbound			CALIFORNIA ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	4	189	18	0	73	24	0	0	0	21	77	0
16:15	12	180	16	0	76	26	0	0	0	12	131	0
16:30	18	206	18	0	92	42	0	0	0	16	111	0
16:45	6	204	26	0	96	31	0	0	0	20	106	0
17:00	12	232	14	0	126	19	0	0	0	22	121	0
17:15	8	199	24	0	104	24	0	0	0	18	99	0
17:30	16	174	18	0	146	36	0	0	0	28	99	0
17:45	12	231	15	0	144	30	0	0	0	26	116	0
5:00-6:00	48	836	71	0	520	109	0	0	0	94	435	0

2113

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\gough-bush-p.ppd

Start Date: 5/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			BUSH ST Westbound			GOUGH ST Northbound			BUSH ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	295	30	0	0	0	0	0	0	49	213	0
16:15	0	314	36	0	0	0	0	0	0	54	182	0
16:30	0	314	23	0	0	0	0	0	0	67	218	0
16:45	0	333	24	0	0	0	0	0	0	49	200	0
17:00	0	320	31	0	0	0	0	0	0	72	240	0
17:15	0	336	28	0	0	0	0	0	0	62	270	0
17:30	0	368	30	0	0	0	0	0	0	77	267	0
17:45	0	351	38	0	0	0	0	0	0	71	242	0
5:00-6:00	0	1375	127	0	0	0	0	0	0	282	1019	0 2803

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\gough-washington-p.ppd

Start Date: 6/12/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	GOUGH ST Southbound			WASHINGTON ST Westbound			GOUGH ST Northbound			WASHINGTON ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	1	155	5	0	0	0	5	6	0	24	13	0	
16:15	2	170	7	0	0	0	3	8	0	25	9	0	
16:30	4	171	5	0	0	0	9	7	0	26	9	0	
16:45	4	154	2	0	0	0	6	3	0	26	8	0	
17:00	1	195	6	0	0	0	1	4	0	25	18	3	
17:15	3	170	5	0	0	0	8	8	0	16	10	1	
17:30	6	188	2	0	0	0	6	10	0	22	15	1	
17:45	1	180	3	0	0	0	7	12	0	25	8	0	
5:00-6:00	11	733	16	0	0	0	22	34	0	88	51	5	960

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\franklin-union-p.ppd

Start Date: 5/31/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			UNION ST Westbound			FRANKLIN ST Northbound			UNION ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	12	36	0	38	355	40	0	19	4	
16:15	0	0	0	15	48	0	19	375	26	0	50	0	
16:30	0	0	0	10	42	0	32	415	34	0	56	4	
16:45	0	0	0	24	26	0	24	378	40	0	46	7	
17:00	0	0	0	16	52	0	16	412	36	0	30	10	
17:15	0	0	0	16	44	0	18	431	28	0	50	6	
17:30	0	0	0	16	48	0	18	404	45	0	36	2	
17:45	0	0	0	12	62	0	16	446	34	0	40	10	
5:00-6:00	0	0	0	60	206	0	68	1693	143	0	156	28	2354



File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-turk-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			TURK ST Westbound			FRANKLIN ST Northbound			TURK ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	0	0	32	167	0	0	523	55	0	0	0
16:15	0	0	0	40	159	0	0	545	47	0	0	0
16:30	0	0	0	50	159	0	0	491	59	0	0	0
16:45	0	0	0	49	142	0	0	563	48	0	0	0
17:00	0	0	0	53	185	0	0	546	77	0	0	0
17:15	0	0	0	60	192	0	0	604	68	0	0	0
17:30	0	0	0	49	198	0	0	606	56	0	0	0
17:45	0	0	0	60	198	0	0	577	39	0	0	0
5:00-6:00	0	0	0	222	773	0	0	2333	240	0	0	0

3568

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\franklin-sutter-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			SUTTER ST Westbound			FRANKLIN ST Northbound			SUTTER ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	46	96	0	0	545	22	0	0	0	
16:15	0	0	0	60	129	0	0	533	29	0	0	0	
16:30	0	0	0	51	109	0	0	522	40	0	0	0	
16:45	0	0	0	55	110	0	0	543	42	0	0	0	
17:00	0	0	0	54	154	0	0	590	41	0	0	0	
17:15	0	0	0	70	154	0	0	615	27	0	0	0	
17:30	0	0	0	52	170	0	0	624	34	0	0	0	
17:45	0	0	0	75	156	0	0	623	29	0	0	0	
5:00-6:00	0	0	0	251	634	0	0	2452	131	0	0	0	3468

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\franklin-sacto-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			SACRAMENTO ST Westbound			FRANKLIN ST Northbound			SACRAMENTO ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	20	54	0	0	559	17	0	0	0	
16:15	0	0	0	24	64	0	0	520	14	0	0	0	
16:30	0	0	0	26	56	0	0	514	16	0	0	0	
16:45	0	0	0	32	60	0	0	568	17	0	0	0	
17:00	0	0	0	32	86	0	0	570	12	0	0	0	
17:15	0	0	0	26	84	0	0	531	16	0	0	0	
17:30	0	0	0	20	88	0	0	630	22	0	0	0	
17:45	0	0	0	10	88	0	0	612	21	0	0	0	
5:00-6:00	0	0	0	88	346	0	0	2343	71	0	0	0	2848

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\franklin-post-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			POST ST Westbound			FRANKLIN ST Northbound			POST ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	0	0	0	0	50	501	0	0	101	21
16:15	0	0	0	0	0	0	0	55	528	0	0	88	24
16:30	0	0	0	0	0	0	0	60	528	0	0	95	24
16:45	0	0	0	0	0	0	0	53	577	0	0	120	30
17:00	0	0	0	0	0	0	0	79	563	0	0	103	19
17:15	0	0	0	0	0	0	0	72	611	0	0	96	26
17:30	0	0	0	0	0	0	0	100	644	0	0	86	31
17:45	0	0	0	0	0	0	0	81	622	0	0	120	22
5:00-6:00	0	0	0	0	0	0	0	332	2440	0	0	405	98

3275

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\franklin-pine-p.ppd

Start Date: 5/22/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			PINE ST Westbound			FRANKLIN ST Northbound			PINE ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	85	260	0	0	459	52	0	0	0	0
16:15	0	0	0	73	282	0	0	479	50	0	0	0	0
16:30	0	0	0	93	281	0	0	488	55	0	0	0	0
16:45	0	0	0	81	323	0	0	490	66	0	0	0	0
17:00	0	0	0	82	315	0	0	498	65	0	0	0	0
17:15	0	0	0	126	346	0	0	553	57	0	0	0	0
17:30	0	0	0	92	270	0	0	564	36	0	0	0	0
17:45	0	0	0	85	260	0	0	459	52	0	0	0	0
5:00-6:00	0	0	0	385	1191	0	0	2074	210	0	0	0	3860

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\franklin-ofarrell-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			O'FARRELL ST Westbound			FRANKLIN ST Northbound			O'FARRELL ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	0	0	0	0	0	32	693	0	0	208	74
16:15	0	0	0	0	0	0	46	681	0	0	211	74
16:30	0	0	0	0	0	0	37	621	0	0	223	88
16:45	0	0	0	0	0	0	44	710	0	0	213	83
17:00	0	0	0	0	0	0	39	701	0	0	253	102
17:15	0	0	0	0	0	0	32	745	0	0	228	68
17:30	0	0	0	0	0	0	46	776	0	0	220	84
17:45	0	0	0	0	0	0	37	800	0	0	260	81
5:00-6:00	0	0	0	0	0	0	154	3022	0	0	961	335

4472

File Name: C:\Petra Pro\S\_francisco\Citywide\week3\franklin-oak-p.ppd

Start Date: 5/17/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			OAK ST Westbound			FRANKLIN ST Northbound			OAK ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	12	0	0	0	226	0	0	0	251	
16:15	0	0	0	11	0	0	0	221	0	0	0	263	
16:30	0	0	0	11	0	0	0	250	0	0	0	240	
16:45	0	0	0	7	0	0	0	249	0	0	0	260	
17:00	0	0	0	9	0	0	0	304	0	0	0	246	
17:15	0	0	0	11	0	0	0	315	0	0	0	286	
17:30	0	0	0	9	0	0	0	306	0	0	0	256	
17:45	0	0	0	12	0	0	0	295	0	0	0	283	
5:00-6:00	0	0	0	41	0	0	0	1220	0	0	0	1071	2332

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-mcallister-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

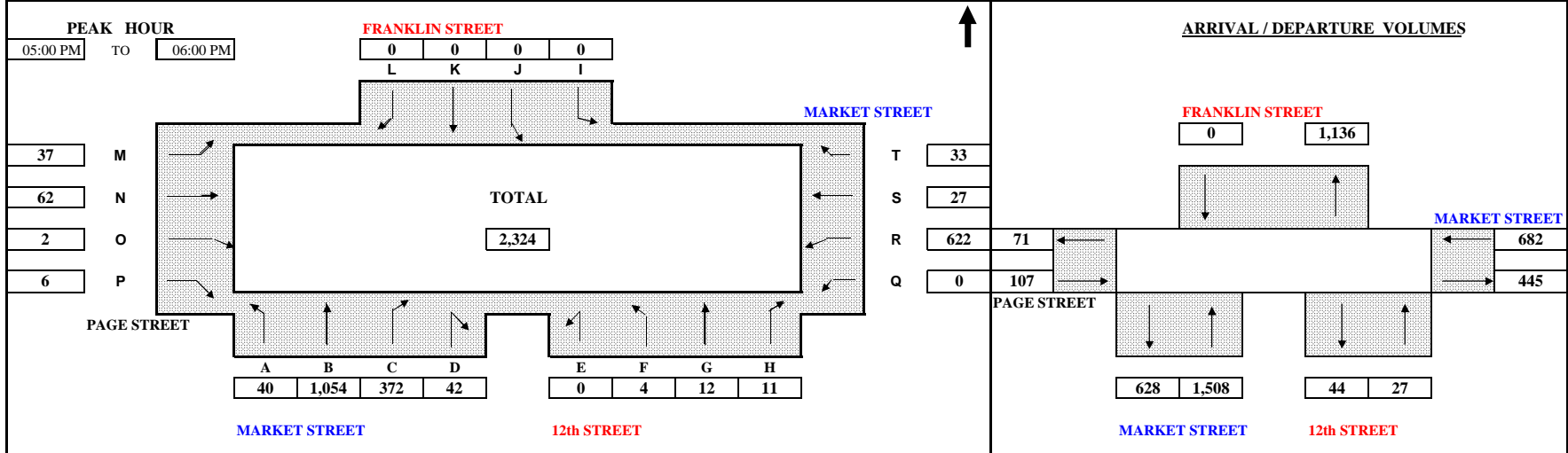
Start Time	FRANKLIN ST Southbound			McALLISTER ST Westbound			FRANKLIN ST Northbound			McALLISTER ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	63	61	0	36	507	16	0	39	7	
16:15	0	0	0	53	64	0	27	515	9	0	42	8	
16:30	0	0	0	48	73	0	27	490	5	0	44	4	
16:45	0	0	0	63	73	0	34	539	11	0	30	10	
17:00	0	0	0	59	63	0	35	551	11	0	45	3	
17:15	0	0	0	77	83	0	42	586	7	0	42	6	
17:30	0	0	0	83	78	0	39	559	5	0	41	7	
17:45	0	0	0	59	64	0	23	543	13	0	30	2	
5:00-6:00	0	0	0	278	288	0	139	2239	36	0	158	18	3156



# B . A . Y . M . E . T . R . I . C . S .

## INTERSECTION TURNING MOVEMENT SUMMARY

<b>PROJECT:</b>	SAN FRANCISCO TRAFFIC STUDY	<b>SURVEY DATE</b>	6/4/2009	<b>DAY:</b>	THURSDAY
<b>N-S Approach:</b>	FRANKLIN STREET / 12th STREET	<b>SURVEY TIME:</b>	4:00 PM	<b>TO</b>	6:00 PM
<b>E-W Approach:</b>	PAGE STREET / MARKET STREET	<b>CITY:</b>	SAN FRANCISCO	<b>FILE:</b>	2906042-5PM



TIME PERIOD	From	To	MARKET STREET				12th STREET				FRANKLIN STREET				PAGE STREET				MARKET STREET				TOTAL
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	

SURVEY DATA																							
4:00 PM	---	4:15 PM	12	219	100	19	0	0	0	3	0	0	0	0	9	15	1	7	0	120	9	5	519
4:15 PM	---	4:30 PM	22	458	174	30	0	1	5	7	0	0	0	0	13	33	4	12	0	220	11	8	998
4:30 PM	---	4:45 PM	32	691	262	42	0	2	8	11	0	0	0	0	18	54	4	15	0	357	19	12	1,527
4:45 PM	---	5:00 PM	45	898	364	57	0	4	12	12	0	0	0	0	22	63	4	18	0	469	23	19	2,010
5:00 PM	---	5:15 PM	52	1,186	472	75	0	5	15	17	0	0	0	0	36	74	5	20	0	615	27	22	2,621
5:15 PM	---	5:30 PM	64	1,416	553	84	0	5	19	18	0	0	0	0	38	93	6	20	0	753	35	29	3,133
5:30 PM	---	5:45 PM	77	1,697	652	93	0	8	23	21	0	0	0	0	42	111	6	21	0	953	41	45	3,790
5:45 PM	---	6:00 PM	85	1,952	736	99	0	8	24	23	0	0	0	0	59	125	6	24	0	1,091	50	52	4,334

TOTAL BY PERIOD																							
4:00 PM	---	4:15 PM	12	219	100	19	0	0	0	3	0	0	0	0	9	15	1	7	0	120	9	5	519
4:15 PM	---	4:30 PM	10	239	74	11	0	1	5	4	0	0	0	0	4	18	3	5	0	100	2	3	479
4:30 PM	---	4:45 PM	10	233	88	12	0	1	3	4	0	0	0	0	5	21	0	3	0	137	8	4	529
4:45 PM	---	5:00 PM	13	207	102	15	0	2	4	1	0	0	0	0	4	9	0	3	0	112	4	7	483
5:00 PM	---	5:15 PM	7	288	108	18	0	1	3	5	0	0	0	0	14	11	1	2	0	146	4	3	611
5:15 PM	---	5:30 PM	12	230	81	9	0	0	4	1	0	0	0	0	2	19	1	0	0	138	8	7	512
5:30 PM	---	5:45 PM	13	281	99	9	0	3	4	3	0	0	0	0	4	18	0	1	0	200	6	16	657
5:45 PM	---	6:00 PM	8	255	84	6	0	0	1	2	0	0	0	0	17	14	0	3	0	138	9	7	544

HOURLY TOTALS																							
4:00 PM	---	5:00 PM	45	898	364	57	0	4	12	12	0	0	0	0	22	63	4	18	0	469	23	19	2,010
4:15 PM	---	5:15 PM	40	967	372	56	0	5	15	14	0	0	0	0	27	59	4	13	0	495	18	17	2,102
4:30 PM	---	5:30 PM	42	958	379	54	0	4	14	11	0	0	0	0	25	60	2	8	0	533	24	21	2,135
4:45 PM	---	5:45 PM	45	1,006	390	51	0	6	15	10	0	0	0	0	24	57	2	6	0	596	22	33	2,263
5:00 PM	---	6:00 PM	40	1,054	372	42	0	4	12	11	0	0	0	0	37	62	2	6	0	622	27	33	2,324

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\franklin-lombard-p.ppd

Start Date: 5/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			LOMBARD ST Westbound			FRANKLIN ST Northbound			LOMBARD ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	1	0	0	7	266	0	5	72	171	0	265	0	
16:15	12	0	0	3	325	0	12	82	208	0	293	0	
16:30	13	0	0	6	251	0	11	82	210	0	251	0	
16:45	19	0	0	6	285	0	9	83	197	0	310	1	
17:00	8	0	0	7	335	0	8	122	211	0	263	0	
17:15	17	0	0	8	358	0	5	84	202	0	317	2	
17:30	17	0	0	9	386	0	4	110	249	0	278	0	
17:45	9	0	0	10	360	0	4	77	193	0	360	0	
5:00-6:00	51	0	0	34	1439	0	21	393	855	0	1218	2	4013

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-hayes-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			HAYES ST Westbound			FRANKLIN ST Northbound			HAYES ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	193	196	0	0	322	15	0	0	0	
16:15	0	0	0	198	188	0	0	351	13	0	0	0	
16:30	0	0	0	201	215	0	0	329	12	0	0	0	
16:45	0	0	0	213	240	0	0	356	14	0	0	0	
17:00	0	0	0	206	261	0	0	391	30	0	0	0	
17:15	0	0	0	178	281	0	0	358	28	0	0	0	
17:30	0	0	0	217	292	0	0	351	14	0	0	0	
17:45	0	0	0	175	267	0	0	311	28	0	0	0	
5:00-6:00	0	0	0	776	1101	0	0	1411	100	0	0	0	3388

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-grove-p.ppd

Start Date: 4/25/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			GROVE ST Westbound			FRANKLIN ST Northbound			GROVE ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	34	25	0	25	465	6	0	32	18	
16:15	0	0	0	28	29	0	15	492	4	0	43	18	
16:30	0	0	0	32	40	0	22	495	3	0	37	14	
16:45	0	0	0	39	40	0	29	486	11	0	44	16	
17:00	0	0	0	33	42	0	18	539	8	0	52	17	
17:15	0	0	0	31	41	0	24	520	7	0	41	11	
17:30	0	0	0	24	45	0	11	515	11	0	55	13	
17:45	0	0	0	33	43	0	15	514	4	0	42	15	
5:00-6:00	0	0	0	121	171	0	68	2088	30	0	190	56	2724

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-golden-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			GOLDEN GATE AVE Westbound			FRANKLIN ST Northbound			GOLDEN GATE AVE Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	0	0	0	38	533	0	0	149	28	
16:15	0	0	0	0	0	0	24	562	0	0	175	27	
16:30	0	0	0	0	0	0	31	512	0	0	177	30	
16:45	0	0	0	0	0	0	45	592	0	0	150	26	
17:00	0	0	0	0	0	0	35	584	0	0	182	32	
17:15	0	0	0	0	0	0	32	635	0	0	175	25	
17:30	0	0	0	0	0	0	32	626	0	0	176	20	
17:45	0	0	0	0	0	0	26	614	0	0	187	22	
5:00-6:00	0	0	0	0	0	0	125	2459	0	0	720	99	3403

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\franklin-geary-p.ppd

Start Date: 5/9/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			GEARY ST Westbound			FRANKLIN ST Northbound			GEARY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	33	191	0	0	609	113	0	0	0	
16:15	0	0	0	32	195	0	0	588	116	0	0	0	
16:30	0	0	0	43	176	0	0	585	81	0	0	0	
16:45	0	0	0	40	217	0	0	588	112	0	0	0	
17:00	0	0	0	42	219	0	0	633	128	0	0	0	
17:15	0	0	0	46	248	0	0	659	124	0	0	0	
17:30	0	0	0	49	221	0	0	660	127	0	0	0	
17:45	0	0	0	50	222	0	0	659	119	0	0	0	
5:00-6:00	0	0	0	187	910	0	0	2611	498	0	0	0	4206

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-fulton-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			FULTON ST Westbound			FRANKLIN ST Northbound			FULTON ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	0	0	0	0	512	20	0	0	37	
16:15	0	0	0	0	0	0	0	508	25	0	0	46	
16:30	0	0	0	0	0	0	0	527	29	0	0	33	
16:45	0	0	0	0	0	0	0	583	30	0	0	47	
17:00	0	0	0	0	0	0	0	528	35	0	0	47	
17:15	0	0	0	0	0	0	0	550	42	0	0	49	
17:30	0	0	0	0	0	0	0	535	46	0	0	55	
17:45	0	0	0	0	0	0	0	530	31	0	0	74	
5:00-6:00	0	0	0	0	0	0	0	2143	154	0	0	225	2522

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-fell-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			FELL ST Westbound			FRANKLIN ST Northbound			FELL ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	0	0	0	0	157	345	72	0	52	8
16:15	0	0	0	0	0	0	0	120	359	48	0	62	3
16:30	0	0	0	0	0	0	0	139	360	46	0	54	6
16:45	0	0	0	0	0	0	0	112	384	42	0	41	7
17:00	0	0	0	0	0	0	0	126	370	52	0	58	7
17:15	0	0	0	0	0	0	0	96	399	56	0	45	2
17:30	0	0	0	0	0	0	0	185	343	46	0	45	9
17:45	0	0	0	0	0	0	0	150	387	49	0	51	13
5:00-6:00	0	0	0	0	0	0	0	557	1499	203	0	199	31

2489



File Name: C:\Petra Pro\S\_francisco\Citywide\week2\franklin-ellis-p.ppd

Start Date: 5/9/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			ELLIS ST Westbound			FRANKLIN ST Northbound			ELLIS ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	0	0	42	68	0	0	586	20	0	0	0
16:15	0	0	0	62	60	0	0	620	16	0	0	0
16:30	0	0	0	47	50	0	0	558	17	0	0	0
16:45	0	0	0	56	74	0	0	580	24	0	0	0
17:00	0	0	0	69	81	0	0	602	21	0	0	0
17:15	0	0	0	64	72	0	0	646	15	0	0	0
17:30	0	0	0	88	73	0	0	580	28	0	0	0
17:45	0	0	0	67	81	0	0	584	22	0	0	0
5:00-6:00	0	0	0	288	307	0	0	2412	86	0	0	0

3093

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\franklin-eddy-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			EDDY ST Westbound			FRANKLIN ST Northbound			EDDY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	5	21	0	29	527	6	0	55	5	
16:15	0	0	0	7	17	0	26	575	8	0	50	9	
16:30	0	0	0	9	23	0	17	558	4	0	58	8	
16:45	0	0	0	5	13	0	34	586	8	0	43	10	
17:00	0	0	0	5	25	0	22	571	11	0	42	12	
17:15	0	0	0	4	17	0	24	598	6	0	69	10	
17:30	0	0	0	14	20	0	24	570	6	0	70	17	
17:45	0	0	0	5	17	0	25	574	6	0	44	10	
5:00-6:00	0	0	0	28	79	0	95	2313	29	0	225	49	2818

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\franklin-california-p.ppd

Start Date: 5/30/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			CALIFORNIA ST Westbound			FRANKLIN ST Northbound			CALIFORNIA ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	24	112	0	37	418	27	0	93	13	
16:15	0	0	0	21	104	0	47	393	27	0	150	21	
16:30	0	0	0	19	152	0	30	487	21	0	155	28	
16:45	0	0	0	19	108	0	39	501	25	0	99	25	
17:00	0	0	0	20	136	0	28	595	8	0	160	19	
17:15	0	0	0	15	130	0	36	651	23	0	103	18	
17:30	0	0	0	21	244	0	31	689	23	0	144	26	
17:45	0	0	0	26	231	0	33	976	24	0	245	27	
5:00-6:00	0	0	0	82	741	0	128	2911	78	0	652	90	4682

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\franklin-bush-p.ppd

Start Date: 6/12/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			BUSH ST Westbound			FRANKLIN ST Northbound			BUSH ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	0	0	0	70	469	0	0	212	46	
16:15	0	0	0	0	0	0	81	491	0	0	163	54	
16:30	0	0	0	0	0	0	50	506	0	0	199	58	
16:45	0	0	0	0	0	0	82	539	0	0	221	49	
17:00	0	0	0	0	0	0	75	513	0	0	239	68	
17:15	0	0	0	0	0	0	69	643	0	0	261	56	
17:30	0	0	0	0	0	0	94	669	0	0	227	66	
17:45	0	0	0	0	0	0	102	648	0	0	228	68	
5:00-6:00	0	0	0	0	0	0	340	2473	0	0	955	258	4026

File Name: C:\Petra Pro\S\_francisco\Citywide\week6\franklin-broadway-p.ppd

Start Date: 6/7/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			BROADWAY ST Westbound			FRANKLIN ST Northbound			BROADWAY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	46	99	0	64	387	9	0	56	2	
16:15	0	0	0	43	96	0	63	406	14	0	50	3	
16:30	0	0	0	50	109	0	56	406	7	0	52	1	
16:45	0	0	0	66	110	0	45	437	24	0	57	2	
17:00	0	0	0	53	132	0	50	435	18	0	67	3	
17:15	0	0	0	52	134	0	56	452	26	0	49	3	
17:30	0	0	0	55	136	0	64	484	30	0	61	5	
17:45	0	0	0	51	151	0	33	461	19	0	68	1	
5:00-6:00	0	0	0	211	553	0	203	1832	93	0	245	12	3149

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\franklin-washington-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	FRANKLIN ST Southbound			WASHINGTON ST Westbound			FRANKLIN ST Northbound			WASHINGTON ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	0	0	0	15	509	0	0	22	3	
16:15	0	0	0	0	0	0	11	456	0	0	12	4	
16:30	0	0	0	0	0	0	19	434	0	0	18	7	
16:45	0	0	0	0	0	0	19	522	0	0	15	5	
17:00	0	0	0	0	0	0	18	518	0	0	15	8	
17:15	0	0	0	0	0	0	19	506	0	0	17	2	
17:30	0	0	0	0	0	0	17	573	0	0	10	8	
17:45	0	0	0	0	0	0	22	547	0	0	31	7	
5:00-6:00	0	0	0	0	0	0	76	2144	0	0	73	25	2318

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-vallejo-p.ppd

Start Date: 5/30/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			VALLEJO ST Westbound			VAN NESS AV Northbound			VALLEJO ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	8	356	0	9	21	8	15	343	0	10	17	2	
16:15	8	281	0	10	9	12	11	330	0	14	14	1	
16:30	11	376	0	9	9	14	12	325	0	14	12	0	
16:45	16	366	0	1	20	12	13	340	0	13	11	1	
17:00	11	381	0	6	12	6	14	353	0	13	21	3	
17:15	5	424	0	8	24	17	13	363	0	18	15	3	
17:30	7	420	0	1	17	17	18	365	0	9	18	1	
17:45	6	411	0	2	15	18	14	358	0	10	13	1	
5:00-6:00	29	1636	0	17	68	58	59	1439	0	50	67	8	3431

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-union-p.ppd

Start Date: 5/31/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			UNION ST Westbound			VAN NESS AV Northbound			UNION ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	10	296	0	5	34	7	14	298	16	13	33	1	
16:15	8	293	0	11	31	15	9	352	25	28	37	4	
16:30	10	301	0	5	38	14	12	314	14	26	49	3	
16:45	9	301	0	11	30	10	4	298	20	29	44	5	
17:00	6	346	0	9	38	15	8	352	26	11	26	6	
17:15	7	357	0	5	39	11	12	342	25	16	37	1	
17:30	10	356	0	14	34	18	11	357	16	17	26	2	
17:45	9	344	0	10	51	21	9	343	27	15	34	1	
5:00-6:00	32	1403	0	38	162	65	40	1394	94	59	123	10	3420



File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-turk-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code:

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			TURK ST Westbound			VAN NESS AVE Northbound			TURK ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	24	371	0	20	149	13	0	318	38	0	0	0	
16:15	11	337	0	18	141	8	0	333	39	0	0	0	
16:30	13	355	0	18	156	14	0	271	38	0	0	0	
16:45	13	358	0	20	141	11	0	343	35	0	0	0	
17:00	10	372	0	15	173	15	0	388	31	0	0	0	
17:15	17	364	0	14	199	18	0	331	31	0	0	0	
17:30	8	363	0	13	174	9	0	354	37	0	0	0	
17:45	10	351	0	19	197	7	0	388	30	0	0	0	
5:00-6:00	45	1450	0	61	743	49	0	1461	129	0	0	0	3938

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\vanness-sutter-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			SUTTER ST Westbound			VAN NESS AVE Northbound			SUTTER ST Eastbound				
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
16:00	18	339	0	33	116	29	0	291	0	0	0	0	0	
16:15	37	327	0	17	149	26	0	320	0	0	0	0	0	
16:30	31	309	0	24	124	25	0	280	0	0	0	0	0	
16:45	33	319	0	25	129	21	0	352	0	0	0	0	0	
17:00	26	317	0	22	147	25	0	369	0	0	0	0	0	
17:15	24	338	0	19	186	28	0	361	0	0	0	0	0	
17:30	21	323	0	29	187	33	0	334	0	0	0	0	0	
17:45	30	303	0	29	186	27	0	357	0	0	0	0	0	
5:00-6:00	101	1281	0	99	706	113	0	1421	0	0	0	0	0	3721

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\vanness-sacto-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			SACRAMENTO ST Westbound			VAN NESS AV Northbound			SACRAMENTO ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	14	320	0	23	54	31	0	306	11	0	0	0	
16:15	14	336	0	20	59	18	0	279	27	0	0	0	
16:30	22	326	0	21	49	21	0	304	16	0	0	0	
16:45	30	322	0	14	58	15	0	339	18	0	0	0	
17:00	19	325	0	27	73	32	0	330	22	0	0	0	
17:15	16	364	0	22	75	22	0	346	20	0	0	0	
17:30	13	341	0	22	73	32	0	348	13	0	0	0	
17:45	16	352	0	32	64	32	0	365	12	0	0	0	
5:00-6:00	64	1382	0	103	285	118	0	1389	67	0	0	0	3408

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\vanness-post-p.ppd

Start Date: 5/10/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			POST ST Westbound			VAN NESS AVE Northbound			POST ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	360	0	0	0	0	29	293	0	23	113	10	
16:15	0	360	0	0	0	0	28	302	0	24	106	11	
16:30	0	333	0	0	0	0	23	296	0	17	115	7	
16:45	0	341	0	0	0	0	27	339	0	25	105	7	
17:00	0	363	0	0	0	0	32	348	0	28	136	16	
17:15	0	377	0	0	0	0	39	342	0	17	128	17	
17:30	0	349	0	0	0	0	37	314	0	25	143	12	
17:45	0	352	0	0	0	0	33	345	0	25	151	21	
5:00-6:00	0	1441	0	0	0	0	141	1349	0	95	558	66	3650

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\vanness-pine-p.ppd

Start Date: 6/13/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			PINE ST Westbound			VAN NESS AV Northbound			PINE ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	25	366	0	29	297	29	0	292	34	0	0	0	
16:15	37	305	0	48	315	17	0	322	29	0	0	0	
16:30	46	330	0	41	333	19	0	304	23	0	0	0	
16:45	32	319	0	40	345	23	0	312	27	0	0	0	
17:00	47	324	0	25	341	24	0	307	33	0	0	0	
17:15	42	358	0	16	333	26	0	296	24	0	0	0	
17:30	26	314	0	29	391	29	0	309	29	0	0	0	
17:45	45	307	0	31	311	17	0	293	32	0	0	0	
5:00-6:00	160	1303	0	101	1376	96	0	1205	118	0	0	0	4359

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\vanness-pacific-p.ppd

Start Date: 6/13/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			PACIFIC AV Westbound			VAN NESS AV Northbound			PACIFIC AV Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	4	342	0	2	24	7	19	288	5	13	38	2	
16:15	2	340	0	4	23	11	12	332	8	14	39	1	
16:30	11	346	0	9	22	10	20	317	13	7	35	1	
16:45	6	287	0	3	12	11	20	310	11	18	35	0	
17:00	4	330	0	6	14	12	12	290	10	8	28	3	
17:15	6	258	0	8	20	8	14	314	10	10	42	2	
17:30	8	340	0	16	20	10	16	297	16	23	38	4	
17:45	6	336	0	26	40	10	12	304	4	20	40	0	
5:00-6:00	24	1264	0	56	94	40	54	1205	40	61	148	9	2995

File Name: C:\Petra Pro\S\_francisco\Citywide\vanness-ofarrell-p.ppd

Start Date: 5/9/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound					O'FARRELL ST Westbound					VAN NESS AVE Northbound					O'FARRELL ST Eastbound				
	RT	TH	LT	Ped		RT	TH	LT	Ped		RT	TH	LT	Ped		RT	TH	LT	Ped	
16:00	0	358	33	0	0	0	0	0	0	0	28	329	0	0	0	45	127	24	0	
16:15	0	321	30	0	0	0	0	0	0	0	34	317	0	0	0	47	155	14	0	
16:30	0	303	25	0	0	0	0	0	0	0	22	292	0	0	0	36	150	22	0	
16:45	0	319	30	0	0	0	0	0	0	0	19	329	0	0	0	50	165	20	0	
17:00	0	330	44	0	0	0	0	0	0	0	22	359	0	0	0	30	192	27	0	
17:15	0	392	43	0	0	0	0	0	0	0	15	362	0	0	0	44	163	25	0	
17:30	0	315	35	0	0	0	0	0	0	0	25	359	0	0	0	43	150	31	0	
17:45	0	312	41	0	0	0	0	0	0	0	29	343	0	0	0	32	182	23	0	
5:00-6:00	0	1349	163	0	0	0	0	0	0	0	91	1423	0	0	0	149	687	106	0	

3968

File Name: C:\Petra Pro\S\_francisco\Citywide\week8\vanness-mission-p.ppd

Start Date: 6/20/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound					MISSION ST Westbound				VAN NESS AVE Northbound				MISSION ST Eastbound				12th ST Southeastbound			
	to 12th	RT	TH	LT		RT	TH	LT		RT	TH	LT		RT	TH	LT	U-turn	RT	TH		
16:00	1	21	342		2	49	109	33		10	167		0	5	66	177	21		5	1	
16:15	2	10	349		3	31	115	28		24	179		0	6	66	199	24		6	3	
16:30	1	14	315		2	43	125	22		19	183		0	8	62	188	31		5	1	
16:45	3	29	406		2	53	119	35		35	170		0	12	62	162	33		7	2	
17:00	4	63	323		1	42	135	43		19	204		0	13	43	159	49		7	2	
17:15	0	24	387		2	52	143	36		27	211		0	9	50	211	41		8	3	
17:30	1	17	365		4	36	154	44		9	187		0	4	57	206	48		4	2	
17:45	0	16	422		1	40	144	38		14	233		0	4	57	218	53		3	2	
5:00-6:00	5	120	1497		8	170	576	161		69	835		0	30	207	794	191		22	9	3678



File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-mcallister-p.ppd

Start Date: 4/25/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			McALLISTER ST Westbound			VAN NESS AVE Northbound			McALLISTER ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	8	336	5	33	78	8	12	326	0	7	41	2	
16:15	9	340	5	35	118	8	12	317	0	7	35	6	
16:30	13	340	6	35	90	14	10	291	0	11	45	10	
16:45	12	341	8	32	105	12	16	317	0	12	46	1	
17:00	5	373	7	36	119	5	25	349	0	16	65	1	
17:15	9	372	14	36	132	12	9	377	0	12	51	2	
17:30	11	350	8	30	117	15	11	386	0	14	51	4	
17:45	11	331	6	34	125	6	9	363	0	15	64	5	
5:00-6:00	36	1426	35	136	493	38	54	1475	0	57	231	12	3993

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\vanness-market-p.ppd

Start Date: 6/13/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			MARKET ST Westbound			VAN NESS AVE Northbound			MARKET ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	52	314	0	11	111	0	36	349	0	6	79	0
16:15	46	338	0	12	98	0	52	473	0	16	88	0
16:30	47	323	0	16	101	0	25	393	0	11	92	0
16:45	33	319	0	16	127	0	45	407	0	10	94	0
17:00	54	359	0	5	131	0	46	469	0	8	82	0
17:15	47	361	0	9	118	0	42	450	0	13	82	0
17:30	56	291	0	7	149	0	34	412	0	8	104	0
17:45	64	277	0	12	136	0	20	469	0	13	90	0
5:00-6:00	221	1288	0	33	534	0	142	1800	0	42	358	0

4418

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-lombard-p.ppd

Start Date: 5/31/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			LOMBARD ST Westbound			VAN NESS AV Northbound			LOMBARD ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	28	103	0	2	19	0	8	45	252	197	41	28	
16:15	46	83	0	1	23	0	6	68	281	161	45	29	
16:30	35	93	0	2	22	0	10	56	264	202	34	42	
16:45	34	115	0	5	22	0	14	65	235	181	39	39	
17:00	45	127	0	5	29	0	18	90	261	191	38	33	
17:15	32	106	0	3	21	0	10	72	284	221	33	28	
17:30	35	109	0	2	26	0	14	81	300	213	39	33	
17:45	44	120	0	4	28	0	11	65	285	200	28	28	
5:00-6:00	156	462	0	14	104	0	53	308	1130	825	138	122	3312

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-jackson-p.ppd

Start Date: 5/30/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			JACKSON ST Westbound			VAN NESS AV Northbound			JACKSON ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	10	303	0	9	25	16	0	325	16	0	0	0	
16:15	8	274	0	12	23	16	0	306	13	0	0	0	
16:30	17	348	0	6	29	16	0	300	8	0	0	0	
16:45	11	327	0	10	28	22	0	310	11	0	0	0	
17:00	10	332	0	7	27	18	0	341	6	0	0	0	
17:15	11	397	0	8	34	26	0	340	14	0	0	0	
17:30	22	394	0	10	32	22	0	354	20	0	0	0	
17:45	18	280	0	16	26	26	0	382	4	0	0	0	
5:00-6:00	61	1403	0	41	119	92	0	1417	44	0	0	0	3177

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-hayes-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			HAYES ST Westbound			VAN NESS AVE Northbound			HAYES ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	17	330	0	47	263	14	0	294	106	0	0	0	
16:15	14	356	0	50	231	14	0	281	134	0	0	0	
16:30	14	311	0	49	305	12	0	341	103	0	0	0	
16:45	16	348	0	49	320	14	0	301	105	0	0	0	
17:00	20	372	0	55	356	7	0	331	106	0	0	0	
17:15	17	367	0	62	361	2	0	389	111	0	0	0	
17:30	24	340	0	78	361	11	0	385	122	0	0	0	
17:45	22	338	0	62	348	9	0	386	118	0	0	0	
5:00-6:00	83	1417	0	257	1426	29	0	1491	457	0	0	0	5160

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-grove-p.ppd

Start Date: 4/25/2007

Start Time: 4:00:00 PM

Site Code:

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			GROVE ST Westbound			VAN NESS AVE Northbound			GROVE ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	4	334	18	3	25	9	29	337	31	9	43	4	
16:15	2	327	8	5	35	8	21	303	24	14	40	3	
16:30	5	346	7	3	47	13	19	284	18	8	63	11	
16:45	12	355	11	3	43	7	29	310	21	13	60	2	
17:00	12	369	5	10	51	7	18	357	23	19	52	0	
17:15	6	373	12	7	39	16	19	349	21	10	40	2	
17:30	13	353	11	2	40	11	26	375	24	7	52	3	
17:45	4	333	11	7	48	8	15	344	27	10	47	2	
5:00-6:00	35	1428	39	26	178	42	78	1425	95	46	191	7	3590

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-greenwich-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			GREENWICH ST Westbound			VAN NESS AV Northbound			GREENWICH ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	4	342	0	3	6	2	1	300	0	11	6	1	
16:15	5	321	0	2	3	2	0	301	0	12	8	2	
16:30	5	287	0	3	5	0	4	266	0	13	8	1	
16:45	3	306	0	3	6	2	2	338	0	11	7	3	
17:00	4	358	0	1	9	2	4	336	0	7	16	3	
17:15	7	300	0	3	3	3	3	391	0	19	9	2	
17:30	3	347	0	3	5	2	1	352	0	11	10	1	
17:45	8	324	0	3	7	2	3	334	0	8	5	1	
5:00-6:00	22	1329	0	10	24	9	11	1413	0	45	40	7	2910

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-green-p.ppd

Start Date: 5/31/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			GREEN ST Westbound			VAN NESS AV Northbound			GREEN ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	6	326	0	11	12	2	8	307	13	16	21	2	
16:15	9	339	0	8	17	3	6	363	4	8	27	3	
16:30	5	337	0	8	10	4	6	336	11	12	15	0	
16:45	7	328	0	6	14	8	6	315	5	16	16	1	
17:00	4	373	0	3	19	3	10	360	18	22	20	1	
17:15	4	380	0	8	22	4	8	366	12	14	12	1	
17:30	10	376	0	8	19	3	7	357	12	22	17	0	
17:45	13	364	0	8	23	7	13	354	13	10	20	1	
5:00-6:00	31	1493	0	27	83	17	38	1437	55	68	69	3	3321



File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-golden-p.ppd

Start Date: 4/25/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			GOLDEN GATE AV Westbound			VAN NESS AV Northbound			GOLDEN GATE AV Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	324	26	0	0	0	17	309	0	26	155	11
16:15	0	309	18	0	0	0	28	341	0	19	137	11
16:30	0	324	21	0	0	0	22	282	0	26	145	9
16:45	0	323	24	0	0	0	30	340	0	29	172	10
17:00	0	328	21	0	0	0	21	340	0	44	177	15
17:15	0	354	33	0	0	0	20	361	0	34	157	13
17:30	0	319	20	0	0	0	22	419	0	38	152	11
17:45	0	301	32	0	0	0	12	320	0	31	177	18
5:00-6:00	0	1302	106	0	0	0	75	1440	0	147	663	57

3790

File Name: C:\Petra Pro\S\_francisco\Citywide\week2\vanness-geary-p.ppd

Start Date: 5/9/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			GEARY ST Westbound			VAN NESS AVE Northbound			GEARY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	35	358	0	39	144	13	309	40	0	0	0	0	
16:15	35	304	0	39	158	29	304	40	0	0	0	0	
16:30	34	320	0	25	172	23	276	29	0	0	0	0	
16:45	40	341	0	23	171	14	321	41	0	0	0	0	
17:00	48	361	0	29	201	16	351	36	0	0	0	0	
17:15	59	373	0	47	190	21	342	45	0	0	0	0	
17:30	53	376	0	40	192	31	341	39	0	0	0	0	
17:45	51	359	0	37	201	26	349	37	0	0	0	0	
5:00-6:00	211	1469	0	153	784	94	1383	157	0	0	0	0	4251

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-filbert-p.ppd

Start Date: 5/31/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			FILBERT ST Westbound			VAN NESS AV Northbound			FILBERT ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	6	331	8	1	8	6	3	296	0	9	8	3	
16:15	3	251	9	2	5	6	5	331	0	15	40	2	
16:30	3	277	14	3	3	7	7	304	0	12	15	2	
16:45	3	288	20	4	4	4	8	293	0	21	23	2	
17:00	5	335	11	2	9	4	7	350	0	16	11	2	
17:15	2	337	17	6	15	6	6	344	0	14	30	2	
17:30	8	321	17	3	10	9	1	348	0	26	11	2	
17:45	4	339	14	5	9	13	8	364	0	21	16	2	
5:00-6:00	19	1332	59	16	43	32	22	1406	0	77	68	8	3082

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-fell-p.ppd

Start Date: 4/24/2007

Start Time: 4:00:00 PM

Site Code:

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			FELL ST Westbound			VAN NESS AVE Northbound			FELL ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	328	13	0	0	0	11	417	0	17	163	12	
16:15	0	344	19	0	0	0	4	378	0	12	159	9	
16:30	0	315	19	0	0	0	15	423	0	12	165	9	
16:45	0	336	34	0	0	0	17	388	0	8	161	12	
17:00	0	349	30	0	0	0	16	429	0	15	160	9	
17:15	0	340	25	0	0	0	14	468	0	6	138	13	
17:30	0	337	46	0	0	0	15	472	0	7	177	20	
17:45	0	307	36	0	0	0	11	459	0	6	161	34	
5:00-6:00	0	1333	137	0	0	0	56	1828	0	34	636	76	4100

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\vanness-ellis-p.ppd

Start Date: 5/22/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			ELLIS ST Westbound			VAN NESS AVE Northbound			ELLIS ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	10	354	0	24	99	15	0	290	8	0	0	0	
16:15	17	341	0	30	88	18	0	304	7	0	0	0	
16:30	25	323	0	24	83	17	0	286	17	0	0	0	
16:45	14	327	0	23	93	13	0	283	9	0	0	0	
17:00	23	375	0	28	90	11	0	322	13	0	0	0	
17:15	17	358	0	45	104	14	0	339	9	0	0	0	
17:30	16	355	0	30	108	15	0	364	10	0	0	0	
17:45	11	324	0	18	112	19	0	329	10	0	0	0	
5:00-6:00	67	1412	0	121	414	59	0	1354	42	0	0	0	3469

File Name: C:\Petra Pro\S\_francisco\Citywide\week1\vanness-eddy-p.ppd

Start Date: 4/26/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			EDDY ST Westbound			VAN NESS AVE Northbound			EDDY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	14	403	17	3	14	2	26	304	0	12	59	9	
16:15	17	344	16	3	15	2	22	343	0	12	53	8	
16:30	13	360	18	3	24	3	15	277	0	16	58	9	
16:45	12	346	13	6	9	4	17	362	0	13	58	8	
17:00	15	351	15	7	20	4	20	374	0	19	40	6	
17:15	13	352	10	5	15	3	19	332	0	20	65	5	
17:30	20	329	13	8	20	3	26	361	0	26	69	7	
17:45	14	345	18	3	13	4	19	374	0	17	46	11	
5:00-6:00	62	1377	56	23	68	14	84	1441	0	82	220	29	3456

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\vanness-clay-p.ppd

Start Date: 5/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			CLAY ST Westbound			VAN NESS AVE Northbound			CLAY ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	7	355	5	0	0	0	21	315	0	17	34	3	
16:15	5	334	6	0	0	0	23	311	0	23	32	3	
16:30	6	364	6	0	0	0	20	319	0	16	38	2	
16:45	11	386	17	0	0	0	22	338	0	15	34	4	
17:00	2	370	7	0	0	0	20	320	0	11	34	5	
17:15	9	380	13	0	0	0	22	372	0	17	46	4	
17:30	11	353	15	0	0	0	18	337	0	14	35	1	
17:45	12	350	10	0	0	0	27	368	0	8	35	0	
5:00-6:00	34	1453	45	0	0	0	87	1397	0	50	150	10	3226

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\vanness-california-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AVE Southbound			CALIFORNIA ST Westbound			VAN NESS AVE Northbound			CALIFORNIA ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	15	346	0	21	101	12	25	295	0	31	92	2	
16:15	23	341	0	9	93	11	31	264	0	32	102	12	
16:30	18	324	0	21	96	8	37	308	0	28	101	9	
16:45	16	311	0	19	86	7	27	327	0	35	76	8	
17:00	15	343	0	20	125	12	42	325	0	26	90	7	
17:15	20	336	0	28	131	11	32	329	0	35	111	11	
17:30	25	350	0	24	136	14	25	331	0	36	110	5	
17:45	25	372	0	29	149	11	29	346	0	36	131	6	
5:00-6:00	85	1401	0	101	541	48	128	1331	0	133	442	29	4239



File Name: C:\Petra Pro\S\_francisco\Citywide\week4\vanness-bush-p.ppd

Start Date: 5/22/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			BUSH ST Westbound			VAN NESS AV Northbound			BUSH ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	317	43	0	0	0	31	294	0	22	212	15	
16:15	0	335	41	0	0	0	23	317	0	34	204	12	
16:30	0	308	55	0	0	0	24	321	0	31	190	21	
16:45	0	343	50	0	0	0	35	332	0	33	197	19	
17:00	0	306	54	0	0	0	21	311	0	18	213	41	
17:15	0	376	76	0	0	0	26	395	0	22	281	34	
17:30	0	329	63	0	0	0	41	348	0	37	249	20	
17:45	0	309	72	0	0	0	24	313	0	24	270	18	
5:00-6:00	0	1320	265	0	0	0	112	1367	0	101	1013	113	4291

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\vanness-broadway-p.ppd

Start Date: 5/30/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			BROADWAY Westbound			VAN NESS AV Northbound			BROADWAY Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	9	296	73	79	152	1	16	299	0	15	101	0	
16:15	9	248	66	76	159	2	30	289	0	16	92	0	
16:30	11	338	64	64	171	3	20	292	0	13	125	0	
16:45	11	310	90	88	160	5	29	327	0	14	105	0	
17:00	13	299	74	82	174	2	35	309	0	19	154	0	
17:15	12	376	104	92	220	0	25	347	0	10	105	0	
17:30	14	350	110	85	235	4	31	320	0	26	116	0	
17:45	16	343	114	65	196	0	46	336	0	22	113	0	
5:00-6:00	55	1368	402	324	825	6	137	1312	0	77	488	0	4994

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\vanness-washington-p.ppd

Start Date: 5/24/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	VAN NESS AV Southbound			WASHINGTON ST Westbound			VAN NESS AV Northbound			WASHINGTON ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	0	345	15	0	0	0	11	296	0	12	22	2
16:15	0	343	13	0	0	0	14	313	0	10	21	3
16:30	0	369	15	0	0	0	11	310	0	17	20	4
16:45	0	377	20	0	0	0	14	349	0	16	23	9
17:00	0	376	13	0	0	0	13	303	0	8	14	10
17:15	0	390	22	0	0	0	12	358	0	5	22	5
17:30	0	377	27	0	0	0	9	329	0	5	27	3
17:45	0	356	23	0	0	0	6	376	0	4	22	4
5:00-6:00	0	1499	85	0	0	0	40	1366	0	22	85	22

3119

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\polk-mcallister-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	POLK ST Southbound			McALLISTER ST Westbound			POLK ST Northbound			McALLISTER ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	15	152	11	11	92	13	6	0	1	25	49	8	
16:15	14	155	9	12	94	18	1	7	1	18	42	4	
16:30	7	169	18	12	131	19	5	6	2	19	38	6	
16:45	14	155	16	12	121	24	10	10	1	16	45	6	
17:00	11	162	13	8	150	30	6	10	1	39	54	2	
17:15	11	198	11	29	145	16	7	8	0	24	45	5	
17:30	10	170	12	19	147	23	4	7	1	23	42	3	
17:45	11	144	9	18	133	20	1	4	0	29	41	9	
5:00-6:00	43	674	45	74	575	89	18	29	2	115	182	19	1865

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\polk-hayes-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	POLK ST Southbound			HAYES ST Westbound			POLK ST Northbound			HAYES ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	19	227	0	0	283	13	0	0	0	0	0	0
16:15	17	194	0	0	346	21	0	0	0	0	0	0
16:30	20	184	0	0	350	19	0	0	0	0	0	0
16:45	16	240	0	0	379	16	0	0	0	0	0	0
17:00	18	233	0	0	382	14	0	0	0	0	0	0
17:15	19	231	0	0	451	17	0	0	0	0	0	0
17:30	16	222	0	0	436	18	0	0	0	0	0	0
17:45	13	171	0	0	440	28	0	0	0	0	0	0
5:00-6:00	66	857	0	0	1709	77	0	0	0	0	0	0

2709

File Name: C:\Petra Pro\S\_francisco\Citywide\week8\polk-california-p.ppd

Start Date: 6/20/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	POLK ST Southbound			CALIFORNIA ST Westbound			POLK ST Northbound			CALIFORNIA ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	11	69	11	7	90	2	10	58	3	30	93	2
16:15	5	80	14	4	91	4	6	61	5	18	97	3
16:30	9	75	13	15	107	2	17	50	5	22	95	1
16:45	13	72	10	10	101	2	17	65	1	25	102	2
17:00	9	80	17	14	137	0	8	55	5	23	117	3
17:15	14	70	8	22	182	2	12	70	6	20	114	2
17:30	7	74	17	15	171	2	8	64	3	23	114	2
17:45	8	88	20	18	148	6	15	46	3	23	150	2
5:00-6:00	38	312	62	69	638	10	43	235	17	89	495	9

2017

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\polk-bush-p.ppd

Start Date: 5/23/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	POLK ST Southbound			BUSH ST Westbound			POLK ST Northbound			BUSH ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	83	20	0	0	0	21	51	0	17	260	13	
16:15	0	94	12	0	0	0	12	49	0	16	263	13	
16:30	0	94	17	0	0	0	13	39	0	18	198	12	
16:45	0	87	8	0	0	0	12	49	0	30	267	13	
17:00	0	91	22	0	0	0	13	56	0	24	241	11	
17:15	0	88	24	0	0	0	25	45	0	17	294	12	
17:30	0	87	15	0	0	0	15	47	0	21	290	12	
17:45	0	86	15	0	0	0	15	53	0	23	311	10	
5:00-6:00	0	352	76	0	0	0	68	201	0	85	1136	45	1963

File Name: C:\Petra Pro\S\_francisco\Citywide\week4\polk-pine-p.ppd

Start Date: 5/22/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	POLK ST Southbound			PINE ST Westbound			POLK ST Northbound			PINE ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	20	77	0	15	296	22	0	55	11	0	0	0	
16:15	21	69	0	9	322	16	0	48	5	0	0	0	
16:30	17	75	0	15	342	16	0	53	8	0	0	0	
16:45	18	89	0	14	384	26	0	48	5	0	0	0	
17:00	18	66	0	17	409	13	0	40	8	0	0	0	
17:15	20	68	0	25	419	29	0	44	17	0	0	0	
17:30	29	76	0	20	412	21	0	55	15	0	0	0	
17:45	15	90	0	14	420	15	0	50	7	0	0	0	
5:00-6:00	82	300	0	76	1660	78	0	189	47	0	0	0	2432



File Name: C:\Petra Pro\S\_francisco\Citywide\week6\larkin-turk-p.ppd

Start Date: 6/5/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	LARKIN ST Southbound			TURK ST Westbound			LARKIN ST Northbound			TURK ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	0	0	0	29	116	0	0	245	56	0	0	0	
16:15	0	0	0	16	132	0	0	257	71	0	0	0	
16:30	0	0	0	25	104	0	0	268	62	0	0	0	
16:45	0	0	0	27	133	0	0	266	47	0	0	0	
17:00	0	0	0	20	136	0	0	256	91	0	0	0	
17:15	0	0	0	26	158	0	0	261	93	0	0	0	
17:30	0	0	0	27	169	0	0	276	86	0	0	0	
17:45	0	0	0	21	157	0	0	272	88	0	0	0	
5:00-6:00	0	0	0	94	620	0	0	1065	358	0	0	0	2137

File Name: C:\Petra Pro\S\_francisco\Citywide\week7\larkin-california-p.ppd

Start Date: 6/14/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

Comment 4: Mietek 916-806-0250

Start Time	LARKIN ST Southbound			CALIFORNIA ST Westbound			LARKIN ST Northbound			CALIFORNIA ST Eastbound			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
16:00	10	0	9	2	90	0	16	59	20	0	123	6	
16:15	8	0	12	6	106	0	31	69	15	0	143	4	
16:30	8	0	12	4	100	0	30	62	11	0	135	5	
16:45	7	0	14	3	133	0	26	85	16	0	142	7	
17:00	8	0	11	1	100	0	24	71	23	0	153	8	
17:15	7	0	10	2	138	0	36	75	21	0	152	3	
17:30	10	0	18	6	142	0	39	66	20	0	151	10	
17:45	10	0	16	6	161	0	34	65	21	0	124	5	
5:00-6:00	35	0	55	15	541	0	133	277	85	0	580	26	1747

File Name: C:\Petra Pro\S\_francisco\Citywide\week5\hyde-turk-p.ppd

Start Date: 5/31/2007

Start Time: 4:00:00 PM

Site Code: 00000000

Comment 1: CITY OF SAN FRANCISCO

Comment 2:

Comment 3: CIT

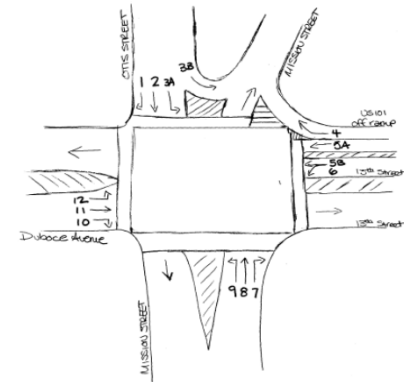
Comment 4: Mietek 916-806-0250

Start Time	HYDE ST Southbound			TURK ST Westbound			HYDE ST Northbound			TURK ST Eastbound		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
16:00	28	262	0	0	103	17	0	0	0	0	0	0
16:15	37	321	0	0	138	20	0	0	0	0	0	0
16:30	29	238	0	0	125	32	0	0	0	0	0	0
16:45	32	264	0	0	121	38	0	0	0	0	0	0
17:00	44	269	0	0	137	27	0	0	0	0	0	0
17:15	20	318	0	0	151	22	0	0	0	0	0	0
17:30	26	302	0	0	167	15	0	0	0	0	0	0
17:45	45	290	0	0	149	34	0	0	0	0	0	0
5:00-6:00	135	1179	0	0	604	98	0	0	0	0	0	0

2016

## 5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CHS CONSULTING GROUP  
 PROJECT: VAN NESS BRT  
 DATE: TUESDAY JULY 15, 2008  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S MISSION STREET/OTIS STREET  
 E/W DUBOCE AVENUE/13TH STREET/ US 101 OFF RAMP  
 SAN FRANCISCO



15 MIN COUNTS																					
	SB OTIS STREET				WB US 101 OFF RAMP				WB 13TH STREET				NB MISSION STREET				EB DUBOCE AVENUE				
PERIOD	1	2	3A	3B	4	5A			5B	6			7	8	9		10	11	12	TOTALS	
400-415	36	133	178	11	161	109			227	0			62	106	0		3	129	0	1155	
415-430	30	113	176	10	161	105			205	4			69	112	3		9	116	0	1113	
430-445	39	110	173	27	158	113			220	6			52	124	2		8	159	0	1191	
445-500	25	123	169	21	112	89			224	2			31	93	0		14	121	0	1024	
500-515	50	151	203	15	136	105			202	0			41	103	3		6	142	0	1157	
515-530	30	109	154	7	140	108			265	3			46	122	1		10	100	0	1095	
530-545	39	115	162	2	110	106			231	1			35	103	3		5	114	0	1026	
545-600	30	108	147	1	130	94			279	1			73	112	2		8	109	0	1094	
HOUR TOTALS																					
	SB OTIS STREET				WB US 101 OFF RAMP				WB 13TH STREET				NB MISSION STREET				EB DUBOCE AVENUE				
PERIOD	1	2	3A	3B	4	5A			5B	6			7	8	9		10	11	12	TOTALS	
400-500	130	479	696	69	592	416			876	12			214	435	5		34	525	0	4483	
415-500	144	497	721	73	567	412			851	12			193	432	8		37	538	0	4485	
430-530	144	493	699	70	546	415			911	11			170	442	6		38	522	0	4467	
445-545	144	498	688	45	498	408			922	6			153	421	7		35	477	0	4302	
500-600	149	483	666	25	516	413			977	5			195	440	9		29	465	0	4372	

PEDESTRIAN COUNTS										
LOCATION	Date	15 MIN COUNTS	NORTH	EAST	SOUTH	WEST	TOTAL			
	Name	PERIOD	LEG	LEG	LEG	LEG				
Union	6/10/2008	515-530	45	18	14	24	101			
		530-545	31	22	49	17	119			
		HOURLY	<b>152</b>	<b>80</b>	<b>126</b>	<b>82</b>	<b>440</b>			
Broadway	6/10/2008	515-530	18	19	17	22	76			
		530-545	24	21	3	17	65			
		HOURLY	<b>84</b>	<b>80</b>	<b>40</b>	<b>78</b>	<b>282</b>			
Sacramento	6/11/2008	515-530	36	75	35	15	161			
		530-545	35	61	37	28	161			
		HOURLY	<b>142</b>	<b>272</b>	<b>144</b>	<b>86</b>	<b>644</b>			
California	6/11/2008	515-530	40	93	45	41	219			
		530-545	39	87	49	65	240			
		HOURLY	<b>158</b>	<b>360</b>	<b>188</b>	<b>212</b>	<b>918</b>			
Geary	6/25/2008	515-530	55	112	40	86	293			
		530-545	55	102	38	80	275			
		HOURLY	<b>220</b>	<b>428</b>	<b>156</b>	<b>332</b>	<b>1136</b>			
O'Farrell	7/8/2008	515-530	22	126	45	76	269			
		530-545	29	105	32	74	240			
		HOURLY	<b>102</b>	<b>462</b>	<b>154</b>	<b>300</b>	<b>1018</b>			
Grove	6/12/2008	515-530	79	78	110	108	375			
		530-545	85	88	143	58	374			
		HOURLY	<b>328</b>	<b>332</b>	<b>506</b>	<b>332</b>	<b>1498</b>			
Oak	6/26/2008	515-530				185	185			
		530-545				163	163			
		HOURLY				<b>696</b>	<b>696</b>			
Market	7/10/2008	515-530	145	127	106	75	453			
		530-545	185	95	93	87	460			
		HOURLY	<b>660</b>	<b>444</b>	<b>398</b>	<b>324</b>	<b>1826</b>			
Mission	7/9/2008	515-530	27	75	40	59	38	239		
		530-545	29	56	27	40	30	182		
		HOURLY	<b>112</b>	<b>262</b>	<b>134</b>	<b>198</b>	<b>136</b>	<b>842</b>		
Duboce	10/9/2008	515-530	37	49	42	42	33	18	38	259
		530-545	28	26	21	22	18	11	40	166
		HOURLY	<b>130</b>	<b>150</b>	<b>126</b>	<b>128</b>	<b>102</b>	<b>58</b>	<b>156</b>	<b>850</b>

# Appendix 9

## Comparison of Existing Condition Counts and Synchro Volumes



Van Ness Avenue Bus Rapid Transit Project  
 Gough Street - Comparison of 2007 Existing Condition Field Counts and Synchro Traffic Volumes

PM Peak Hour (5-6 PM)

Intersection	Southbound			Westbound			Northbound			Eastbound			Total	SB Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Gough Lombard	39	207	11	40	2069	0	3	37	25	244	1273	0	3948	257
Synchro	39	207	11	40	2262	0	8	45	29	238	1114	0	3993	257
Greenwich	22	402	21	8	146	15	7	51	17	46	55	12	802	445
Synchro	22	402	21	8	215	15	7	62	17	46	104	12	931	445
Filbert	38	392	21	14	125	29	17	57	17	48	81	7	846	451
Synchro	46	396	21	14	135	29	17	65	17	48	100	7	895	463
Union	20	407	24	23	271	51	13	64	17	56	202	12	1160	451
Synchro	25	424	24	23	297	51	13	64	17	56	202	12	1208	473
Green	34	466	19	12	167	34	6	56	14	42	66	8	924	519
Synchro	40	472	19	15	222	34	4	67	11	42	165	12	1103	531
Vallejo	15	508	20	11	83	28	8	59	4	19	57	4	816	543
Synchro	20	508	20	16	93	28	8	62	4	19	57	4	839	548
Broadway	13	463	50	25	424	199	13	32	7	42	195	5	1468	526
Synchro	13	492	50	25	538	199	13	44	7	42	331	5	1759	555
Pacific	9	663	20	14	135	37	22	36	0	23	76	2	1037	692
Synchro	9	704	20	14	135	37	22	48	0	23	110	2	1124	733
Jackson	9	664	0	11	125	73	0	26	2	35	0	22	967	673
Synchro	85	679	0	11	242	73	0	37	2	35	0	22	1186	764
Washington	11	733	16	0	0	0	22	34	0	88	51	5	960	760
Synchro	11	760	16	0	0	0	22	34	0	88	104	5	1040	787
Clay	0	840	21	9	0	38	33	33	0	0	0	0	974	861
Synchro	0	827	21	13	0	38	33	43	0	0	0	0	975	848
Sacramento	20	819	0	20	203	254	0	0	0	85	8	49	1458	839
Synchro	46	819	0	23	203	254	0	0	0	85	0	53	1483	865
California	48	836	71	0	520	109	0	0	0	94	435	0	2113	955
Synchro	48	1039	71	0	520	109	0	0	0	94	536	0	2417	1158
Pine	103	1040	0	0	1484	274	0	0	0	0	0	0	2901	1143
Synchro	161	1081	0	0	1484	274	0	0	0	0	0	0	3000	1242
Bush	0	1375	127	0	0	0	0	0	0	282	1019	0	2803	1502
Synchro	0	1285	127	0	0	0	0	0	0	282	1086	0	2780	1412
Sutter	51	1628	0	0	408	372	0	0	0	99	0	0	2558	1679
Synchro	51	1592	0	0	527	382	0	0	0	119	0	0	2671	1643
Post	49	1806	176	0	0	0	0	0	0	94	325	0	2450	2031
Synchro	49	1868	176	0	0	0	0	0	0	94	392	0	2579	2093
Ellis	29	1927	0	0	163	189	0	0	0	29	0	0	2337	1956
Synchro	29	2043	0	0	204	189	0	0	0	29	0	0	2494	2072
Eddy	86	1893	141	0	85	31	0	0	0	33	125	0	2394	2120
Synchro	86	2034	141	0	155	31	0	0	0	83	176	0	2706	2261
Turk	152	1814	0	0	962	191	0	0	0	0	0	0	3119	1966
Synchro	129	2019	0	0	917	191	0	0	0	0	0	0	3256	2148
Golden Gate	0	1655	288	0	0	0	0	0	0	99	520	0	2562	1943
Synchro	0	1922	288	0	0	0	0	0	0	195	553	0	2958	2210
McAllister	91	1785	73	0	221	95	0	0	0	34	91	0	2390	1949
Synchro	91	1953	73	0	266	95	0	0	0	34	183	0	2695	2117
Fulton	83	1770	29	0	120	58	0	0	0	85	120	0	2265	1882
Synchro	83	1970	29	0	120	58	0	0	0	85	196	0	2541	2082
Grove	58	1678	126	0	177	107	0	0	0	60	144	0	2350	1862
Synchro	58	1929	126	0	177	107	0	0	0	60	256	0	2713	2113
Hayes	20	1790	0	0	357	879	0	0	0	126	0	0	3172	1810
Synchro	36	2060	0	0	411	879	0	0	0	126	0	0	3512	2096
Fell	1147	1370	203	0	149	87	0	0	0	0	0	0	2956	2720
Synchro	1180	1655	230	0	149	87	0	0	0	0	0	0	3301	3065
Oak	0	1244	69	0	0	0	9	0	0	156	1046	0	2524	1313
Synchro	0	1382	53	0	0	0	9	0	0	174	1126	0	2744	1435

Corridor Total		
SB Counts	33795	
SB Synchro	36693	109%

Intersection	Southbound			Southwestbound		Westbound			Northbound			Eastbound			Total		
	RT	TH	LT	RT	LT	RT	RT	TH	LT	RT	TH	LT	RT	RT		TH	LT
Gough Geary	296	1663	21	23	0	5	0	1402	0	0	0	0	322	1035	0	4767	
Synchro	286	1676	0	0	0	0	0	1463	0	0	0	0	0	322	1035	0	4782

Intersection	Southbound				Westbound		Northbound			Eastbound			Total
	RT	RT	TH	LT	RT	TH	RT	TH	LT	RT	TH	LT	
Gough Market	71	659	716	23	83	1191	97	0	0	50	576	0	3466
Synchro	71	894	711	23	52	642	92	0	0	83	1445	0	4013

Van Ness Avenue Bus Rapid Transit Project  
Franklin Street - Comparison of 2007 Existing Condition Field Counts and Synchro Traffic Volumes

PM Peak Hour (5-6 PM)

Intersection	Southbound			Westbound			Northbound			Eastbound			Total	NB Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Franklin Lombard	51	0	0	34	1439	0	21	393	855	0	1218	2	4013	1269
<i>Synchro</i>	51	0	0	34	1356	0	42	405	895	0	1131	2	3916	1342
Union	0	0	0	60	206	0	68	1693	143	0	156	28	2354	1904
<i>Synchro</i>	0	0	0	60	228	0	68	1640	143	0	211	28	2378	1851
Broadway	0	0	0	211	553	0	203	1832	93	0	245	12	3149	2128
<i>Synchro</i>	0	0	0	211	669	0	203	1770	93	0	382	12	3340	2066
Washington	0	0	0	0	0	0	76	2144	0	0	73	25	2318	2220
<i>Synchro</i>	0	0	0	0	0	0	76	2229	0	0	117	25	2447	2305
Sacramento	0	0	0	88	346	0	0	2343	71	0	0	0	2848	2414
<i>Synchro</i>	0	0	0	88	409	0	0	2374	71	0	0	0	2942	2445
California	0	0	0	82	741	0	128	2911	78	0	652	90	4682	3117
<i>Synchro</i>	0	0	0	82	551	0	128	2273	78	0	517	90	3719	2479
Pine	0	0	0	385	1191	0	0	2074	210	0	0	0	3860	2284
<i>Synchro</i>	0	0	0	385	1548	0	0	2094	210	0	0	0	4237	2304
Bush	0	0	0	0	0	0	340	2473	0	0	955	258	4026	2813
<i>Synchro</i>	0	0	0	0	0	0	340	2083	0	0	955	258	3636	2423
Sutter	0	0	0	251	634	0	0	2452	131	0	0	0	3468	2583
<i>Synchro</i>	0	0	0	251	778	0	0	2222	131	0	0	0	3382	2353
Post	0	0	0	0	0	0	332	2440	0	0	405	98	3275	2772
<i>Synchro</i>	0	0	0	0	0	0	332	2340	0	0	470	98	3240	2672
Geary	0	0	0	187	910	0	0	2611	498	0	0	0	4206	3109
<i>Synchro</i>	0	0	0	187	965	0	0	2485	498	0	0	0	4135	2983
O'Farrell	0	0	0	0	0	0	154	3022	0	0	961	335	4472	3176
<i>Synchro</i>	0	0	0	0	0	0	154	2573	0	0	977	335	4039	2727
Ellis	0	0	0	288	307	0	0	2412	86	0	0	0	3093	2498
<i>Synchro</i>	0	0	0	288	307	0	0	2439	86	0	0	0	3120	2525
Eddy	0	0	0	28	79	0	95	2313	29	0	225	49	2818	2437
<i>Synchro</i>	0	0	0	28	157	0	95	2448	29	0	268	49	3074	2572
Turk	0	0	0	222	773	0	0	2333	240	0	0	0	3568	2573
<i>Synchro</i>	0	0	0	222	868	0	0	2333	240	0	0	0	3663	2573
Golden Gate	0	0	0	0	0	0	125	2459	0	0	720	99	3403	2584
<i>Synchro</i>	0	0	0	0	0	0	125	2474	0	0	742	99	3440	2599
McAllister	0	0	0	278	288	0	139	2239	36	0	158	18	3156	2414
<i>Synchro</i>	0	0	0	278	325	0	139	2215	36	0	238	18	3249	2390
Fulton	0	0	0	0	0	0	0	2143	154	0	0	225	2522	2297
<i>Synchro</i>	0	0	0	0	0	0	0	2165	178	0	0	225	2568	2343
Grove	0	0	0	121	171	0	68	2088	30	0	190	56	2724	2186
<i>Synchro</i>	0	0	0	121	254	0	68	2166	30	0	326	56	3021	2264
Hayes	0	0	0	776	1101	0	0	1411	100	0	0	0	3388	1511
<i>Synchro</i>	0	0	0	776	1190	0	0	1430	100	0	0	0	3496	1530
Fell	0	0	0	0	0	0	557	1499	203	0	199	31	2489	2259
<i>Synchro</i>	0	0	0	0	0	0	557	1499	236	0	199	31	2522	2292
Oak	0	0	0	41	0	0	0	1220	0	0	0	1071	2332	1220
<i>Synchro</i>	0	0	0	41	0	0	0	1220	0	0	0	1179	2440	1220

Corridor Total		
NB Counts	51768	
NB Synchro	50258	97%

Intersection	Southbou			Westbou			Northbou			Northeast			Eastbound			Total	
	RT	TH	LT	RT2	RT	TH	RT	TH	LT	RT	TH	LT	RT2	RT	TH		LT
Franklin Market	0	0	0	33	27	622	11	12	4	1054	372	42	6	2	62	37	2284
<i>Synchro</i>	0	0	0	37	30	688	11	0	0	42	372	1146	6	2	62	37	2433



Van Ness Avenue Bus Rapid Transit Project  
 Van Ness Avenue - Comparison of 2007 Existing Condition Field Counts and Synchro Traffic Volumes

PM Peak Hour (5-6 PM)

Intersection	Southbound			Westbound			Northbound			Eastbound			Total	NB Total	SB Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT			
Van Ness Lombard	156	462	0	14	104	0	53	308	1130	825	138	122	3312	1491	618
<i>Synchro</i>	156	606	0	14	104	0	53	253	1130	825	226	122	3489	1436	762
Greenwich	22	1329	0	10	24	9	11	1413	0	45	40	7	2910	1424	1351
<i>Synchro</i>	22	1409	0	10	84	9	11	1419	0	45	122	7	3138	1430	1431
Filbert	19	1332	59	16	43	32	22	1406	0	77	68	8	3082	1428	1410
<i>Synchro</i>	19	1385	59	16	43	46	22	1406	0	97	129	8	3230	1428	1463
Union	32	1403	0	38	162	65	40	1394	94	59	123	10	3420	1528	1435
<i>Synchro</i>	32	1496	0	38	162	62	40	1380	94	59	210	10	3583	1514	1528
Green	31	1493	0	27	83	17	38	1437	55	68	69	3	3321	1530	1524
<i>Synchro</i>	31	1586	0	27	83	24	38	1484	55	88	69	3	3488	1577	1617
Vallejo	29	1636	0	17	68	58	59	1439	0	50	67	8	3431	1498	1665
<i>Synchro</i>	29	1669	0	17	110	79	59	1552	0	70	77	8	3670	1611	1698
Broadway	55	1368	402	324	825	6	137	1312	0	77	488	0	4994	1449	1825
<i>Synchro</i>	55	1361	402	324	825	0	137	1287	0	97	488	0	4976	1424	1818
Pacific	24	1264	0	56	94	40	54	1205	40	61	148	9	2995	1299	1288
<i>Synchro</i>	24	1434	0	56	122	60	54	1359	40	90	177	9	3425	1453	1458
Jackson	61	1403	0	41	119	92	0	1417	44	0	0	0	3177	1461	1464
<i>Synchro</i>	61	1523	0	41	157	92	0	1412	44	0	0	0	3330	1456	1584
Washington	0	1499	85	0	0	0	40	1366	0	22	85	22	3119	1406	1584
<i>Synchro</i>	0	1530	85	0	0	0	40	1434	0	22	149	22	3282	1474	1615
Clay	34	1453	45	0	0	0	87	1397	0	50	150	10	3226	1484	1532
<i>Synchro</i>	57	1450	45	0	0	0	87	1397	0	50	157	10	3253	1484	1552
Sacramento	64	1382	0	103	285	118	0	1389	67	0	0	0	3408	1456	1446
<i>Synchro</i>	64	1436	0	103	366	118	0	1381	67	0	0	0	3535	1448	1500
California	85	1401	0	101	541	48	128	1331	0	133	442	29	4239	1459	1486
<i>Synchro</i>	85	1469	0	101	548	48	128	1318	0	133	483	29	4342	1446	1554
Pine	160	1303	0	101	1376	96	0	1205	118	0	0	0	4359	1323	1463
<i>Synchro</i>	160	1490	0	171	1655	96	0	1275	118	0	0	0	4965	1393	1650
Bush	0	1320	265	0	0	0	112	1367	0	101	1013	113	4291	1479	1585
<i>Synchro</i>	0	1281	265	0	0	0	112	1317	0	101	1081	113	4270	1429	1546
Sutter	101	1281	0	99	706	113	0	1421	0	0	0	0	3721	1421	1382
<i>Synchro</i>	101	1281	0	99	928	113	0	1371	0	0	0	0	3893	1371	1382
Post	0	1441	0	0	0	0	141	1349	0	95	558	66	3650	1490	1441
<i>Synchro</i>	0	1490	0	0	0	0	141	1349	0	95	641	66	3782	1490	1490
Geary	211	1469	0	153	784	94	1383	157	0	0	0	0	4251	1540	1680
<i>Synchro</i>	211	1418	0	153	840	94	1384	157	0	0	0	0	4257	1541	1629
O'Farrell	0	1349	163	0	0	0	91	1423	0	149	687	106	3968	1514	1512
<i>Synchro</i>	0	1349	163	0	0	0	91	1435	0	149	876	106	4169	1526	1512
Ellis	67	1412	0	121	414	59	0	1354	42	0	0	0	3469	1396	1479
<i>Synchro</i>	67	1412	0	121	486	59	0	1416	42	0	0	0	3603	1458	1479
Eddy	62	1377	56	23	68	14	84	1441	0	82	220	29	3456	1525	1495
<i>Synchro</i>	62	1377	56	23	123	14	84	1453	0	82	252	29	3555	1537	1495
Turk	45	1450	0	61	743	49	0	1461	129	0	0	0	3938	1590	1495
<i>Synchro</i>	45	1428	0	61	916	49	0	1476	129	0	0	0	4104	1605	1473
Golden Gate	0	1302	106	0	0	0	75	1440	0	147	663	57	3790	1515	1408
<i>Synchro</i>	0	1371	106	0	0	0	75	1548	0	147	663	57	3967	1623	1477
McAllister	36	1426	35	136	493	38	54	1475	0	57	231	12	3993	1529	1497
<i>Synchro</i>	36	1447	36	136	567	38	54	1475	0	57	308	12	4166	1529	1519
Grove	35	1428	39	26	178	42	78	1425	95	46	191	7	3590	1598	1502
<i>Synchro</i>	35	1468	39	26	245	42	78	1496	95	46	341	7	3918	1669	1542
Hayes	83	1417	0	257	1426	29	0	1491	457	0	0	0	5160	1948	1500
<i>Synchro</i>	83	1473	0	257	1426	29	0	1391	457	0	0	0	5116	1848	1556
Fell	0	1333	137	0	0	0	56	1828	0	34	636	76	4100	1884	1470
<i>Synchro</i>	0	1365	137	0	0	0	56	1718	0	34	646	76	4032	1774	1502
Market	221	1288	0	33	534	0	142	1800	0	42	358	0	4418	1942	1509
<i>Synchro</i>	221	1258	0	33	534	0	142	1741	0	42	358	0	4329	1883	1479

Corridor Total		
NB Counts	42607	
NB Synchro	42857	101%
SB Counts	41046	
SB Synchro	42311	103%

Intersection	Southbound				Westbound			Northbound			Eastbound				Southeastbound		Total
	to 12th	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	U-turn	RT	TH	
Van Ness Mission	5	120	1497	8	170	576	161	69	835	0	30	207	794	191	22	9	4694
<i>Synchro</i>	0	125	1201	0	170	576	161	69	728	0	52	216	985	191			4474



Van Ness Avenue Bus Rapid Transit Project  
 Larkin Street - Comparison of 2007 Existing Condition Field Counts and Synchro Traffic Volumes

PM Peak Hour (5-6 PM)

Intersection		Southbound			Westbound			Northbound			Eastbound			Total
		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Larkin	California	35	0	55	15	541	0	133	277	85	0	580	26	1747
	<i>Synchro</i>	35	0	55	15	591	0	133	277	85	0	601	26	1818
	Turk	0	0	0	94	620	0	0	1065	358	0	0	0	2137
	<i>Synchro</i>	0	0	0	94	762	0	0	1247	358	0	0	0	2461



# Appendix 10

## Synchro Model Inputs and Outputs for All Scenarios



# 2007 EXISTING CONDITION





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.515								0.950		
Satd. Flow (perm)	959	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			135				13		380	38	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	6	0	89	0	0	0	729	65	642	164	86
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	6	0	94	0	0	0	835	0	676	264	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	43.5	0.0	43.5	0.0	0.0	0.0	46.5	0.0	43.5	43.5	0.0
Total Split (%)	48.3%	0.0%	48.3%	0.0%	0.0%	0.0%	51.7%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	40.5		40.5				43.5		40.5	40.5	
Actuated g/C Ratio	0.45		0.45				0.48		0.45	0.45	
v/c Ratio	0.01		0.12				0.62		0.28	0.42	
Control Delay	14.0		1.4				37.7		6.8	16.6	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	14.0		1.4				37.7		6.8	16.6	
LOS	B		A				D		A	B	
Approach Delay									9.5		

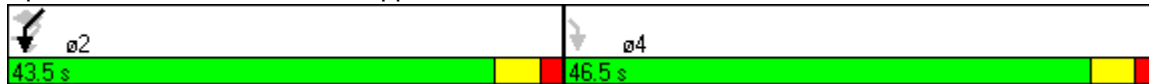


Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Approach LOS										A	
Queue Length 50th (ft)	2		0				255		33	83	
Queue Length 95th (ft)	9		13				333		56	147	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	432		787				1354		2455	634	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	
Storage Cap Reductn	0		0				0		0	0	
Reduced v/c Ratio	0.01		0.12				0.62		0.28	0.42	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	66 (73%), Referenced to phase 2:EBSWL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	21.7
Intersection LOS:	C
Intersection Capacity Utilization	49.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 12: McCoppin St. & Otis St.







Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↑↑	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%						0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	5004	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.930					0.950		
Satd. Flow (perm)	5004	0	0	4729	1229	3610	1278	0	3433	3256	1181
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	9				543		68		11		2
Link Speed (mph)	25			25							25
Link Distance (ft)	326			387							614
Travel Time (s)	8.9			10.6							16.7
Volume (vph)	538	37	12	1263	778	593	193	73	734	506	147
Confl. Peds. (#/hr)		58			150		128				156
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	605	0	0	1342	819	624	203	0	850	533	155
Turn Type			Perm		Perm	custom	custom	custom	custom		Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	8.0	8.0	59.0	59.0
Total Split (s)	39.0	0.0	39.0	39.0	39.0	30.5	30.5	50.5	50.5	81.0	81.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	32.5%	25.4%	25.4%	42.1%	42.1%	67.5%	67.5%
Yellow Time (s)	4.0		4.0	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	36.0			36.0	36.0	27.5	27.5		47.5	78.0	78.0
Actuated g/C Ratio	0.30			0.30	0.30	0.23	0.23		0.40	0.65	0.65
v/c Ratio	0.40			0.95	1.09	0.75	0.59		0.62	0.25	0.20
Control Delay	33.9			55.4	76.1	49.8	34.8		31.1	9.2	9.1
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	33.9			55.4	76.1	49.8	34.8		31.1	9.2	9.1
LOS	C			E	E	D	C		C	A	A
Approach Delay	33.9			63.2						21.3	















Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Approach LOS	C			E			C				
Queue Length 50th (ft)	134			371	~402	198	93		265	83	44
Queue Length 95th (ft)	171			#469	#648	255	177		332	110	75
Internal Link Dist (ft)	246			307						534	
Turn Bay Length (ft)											50
Base Capacity (vph)	1508			1419	749	827	345		1366	2116	768
Starvation Cap Reductn	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0			0	0	0	0		0	0	0
Storage Cap Reductn	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.40			0.95	1.09	0.75	0.59		0.62	0.25	0.20

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 32 (27%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 44.4                      Intersection LOS: D  
 Intersection Capacity Utilization 109.0%                      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 18: Duboce St. &**

ø2	ø1	ø4
30.5 s	50.5 s	39 s
ø6		ø8
81 s		39 s

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑	↗		↑↑↑	↗		↘			↘	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4818	1124	0	4818	1583	0	1586	0	0	1623	0
Flt Permitted												
Satd. Flow (perm)	0	4818	804	0	4818	1026	0	1586	0	0	1623	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20			2		4			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1741	142	0	1258	221	0	358	42	0	534	33
Confl. Peds. (#/hr)			444			324			398			660
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			38									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1759	143	0	1382	243	0	449	0	0	623	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		48.5	48.5		48.5	48.5		41.5			41.5	
Total Split (s)	0.0	48.5	48.5	0.0	48.5	48.5	0.0	41.5	0.0	0.0	41.5	0.0
Total Split (%)	0.0%	53.9%	53.9%	0.0%	53.9%	53.9%	0.0%	46.1%	0.0%	0.0%	46.1%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0			2.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		45.5	45.5		45.5	45.5		38.5			38.5	
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.43			0.43	
v/c Ratio		0.72	0.34		0.57	0.47		0.66			0.90	
Control Delay		19.5	14.2		12.0	13.3		22.6			37.9	
Queue Delay		0.0	0.0		0.1	0.0		0.0			0.0	
Total Delay		19.5	14.2		12.1	13.3		22.6			37.9	
LOS		B	B		B	B		C			D	
Approach Delay		19.1			12.3			22.6			37.9	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS	B			B			C			D		
Queue Length 50th (ft)	271	39		87	41		264			387		
Queue Length 95th (ft)	328	83		89	55		365			m#531		
Internal Link Dist (ft)	306			37			263			106		
Turn Bay Length (ft)												
Base Capacity (vph)	2436	416		2436	520		681			695		
Starvation Cap Reductn	0	0		132	0		0			0		
Spillback Cap Reductn	0	0		0	0		0			0		
Storage Cap Reductn	0	0		0	0		0			0		
Reduced v/c Ratio	0.72	0.34		0.60	0.47		0.66			0.90		

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 12 (13%), Referenced to phase 2:NESW, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 19.6

Intersection LOS: B

Intersection Capacity Utilization 73.2%

ICU Level of Service D

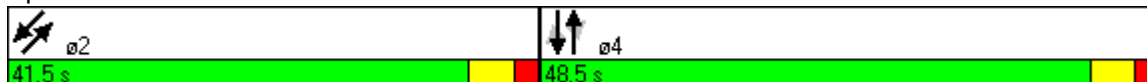
Analysis Period (min) 15













# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.



						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					20	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	839	0	617	475	100	567
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	883	0	649	500	105	597
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	50.0	50.0	50.0	40.0	40.0	40.0
Total Split (%)	55.6%	55.6%	55.6%	44.4%	44.4%	44.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	47.0		47.0	37.0	37.0	37.0
Actuated g/C Ratio	0.52		0.52	0.41	0.41	0.41
v/c Ratio	0.36		0.35	0.65	0.16	0.81
Control Delay	3.3		13.3	27.7	14.0	33.6
Queue Delay	0.0		0.0	0.0	0.0	0.3
Total Delay	3.3		13.3	27.7	14.0	34.0
LOS	A		B	C	B	C
Approach Delay			13.3	25.3		34.0





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>577</del>	<del>776</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1546	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1546	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			38			13		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	96	1218	1507	146	475	471	78	72
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1383	1740	0	500	654	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.57	0.71		0.76	1.04		
Control Delay		11.7	13.5		25.5	64.2		
Queue Delay		0.0	0.0		0.0	21.2		
Total Delay		11.7	13.5		25.5	85.4		
LOS		B	B		C	F		
Approach Delay		12.7			25.5	85.4		



Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	B				C	F		
Queue Length 50th (ft)	118	161			150	~41		
Queue Length 95th (ft)	156	212			#296	m#431		
Internal Link Dist (ft)	272				455	524		
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2435			654	626		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	20	0			0	32		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.58	0.71			0.76	1.10		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 42 (70%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.04  
 Intersection Signal Delay: 25.3                      Intersection LOS: C  
 Intersection Capacity Utilization 79.1%                      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5029	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5029	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24							4			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	38	1766	124	0	0	0	0	397	224	0	497	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2030	0	0	0	0	0	418	236	0	523	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		0.88						0.60	0.34		0.64	
Control Delay		20.9						14.0	9.3		17.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		20.9						14.0	9.3		17.4	
LOS		C						B	A		B	
Approach Delay		20.9						12.3			17.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7										5
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		210			245			375			200	
Travel Time (s)		5.7			6.7			10.2			5.5	
Volume (vph)	0	1126	224	0	0	0	0	0	0	53	1659	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1452	0	0	0	0	0	0	0	0	1783	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		42.0									42.0	
Actuated g/C Ratio		0.47									0.47	
v/c Ratio		0.63									1.01	
Control Delay		19.7									38.8	
Queue Delay		0.0									0.0	
Total Delay		19.7									38.8	
LOS		B									D	
Approach Delay		19.7									38.8	

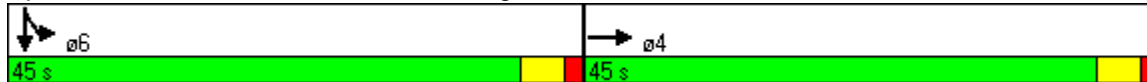


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									D	
Queue Length 50th (ft)		219									~490	
Queue Length 95th (ft)		267									#624	
Internal Link Dist (ft)		130			165			295			120	
Turn Bay Length (ft)												
Base Capacity (vph)		2290									1759	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.63									1.01	

**Intersection Summary**

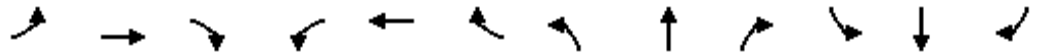
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	14 (16%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	1.01
Intersection Signal Delay:	30.2
Intersection LOS:	C
Intersection Capacity Utilization:	58.3%
ICU Level of Service:	B
Analysis Period (min):	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖↖					↗		↖↖↖				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	59					21						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			409			169	
Travel Time (s)		6.2			6.0			11.2			4.6	
Volume (vph)	1179	0	0	0	0	41	0	1220	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1254	0	0	0	0	48	0	1258	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	48.0	0.0	0.0	0.0	0.0	48.0	0.0	42.0	0.0	0.0	0.0	0.0
Total Split (%)	53.3%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	46.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	45.0					45.0		39.0				
Actuated g/C Ratio	0.50					0.50		0.43				
v/c Ratio	0.55					0.07		0.63				
Control Delay	1.4					7.9		5.8				
Queue Delay	0.0					0.0		0.1				
Total Delay	1.4					7.9		5.9				
LOS	A					A		A				
Approach Delay								5.9				

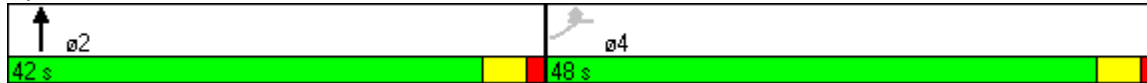


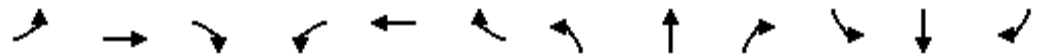
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									A				
Queue Length 50th (ft)	6						8	30					
Queue Length 95th (ft)	m8						23	68					
Internal Link Dist (ft)	146			141			329			89			
Turn Bay Length (ft)													
Base Capacity (vph)	2275					736		1983					
Starvation Cap Reductn	0					0		112					
Spillback Cap Reductn	0					0		0					
Storage Cap Reductn	0					0		0					
Reduced v/c Ratio	0.55					0.07		0.67					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 3.8      Intersection LOS: A  
 Intersection Capacity Utilization 62.3%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 405: Oak St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3413	0	0	0	0	0	4041	1117
Flt Permitted					0.982						0.995	
Satd. Flow (perm)	0	0	0	0	3413	0	0	0	0	0	4041	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											128	317
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		203			451			192			308	
Travel Time (s)		5.5			12.3			5.2			8.4	
Volume (vph)	0	0	0	87	149	0	0	0	0	230	1655	1180
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	303	0	0	0	0	0	2444	715
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	0.0	0.0	0.0	69.0	69.0	69.0
Total Split (%)	0.0%	0.0%	0.0%	23.3%	23.3%	0.0%	0.0%	0.0%	0.0%	76.7%	76.7%	76.7%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					18.0						66.0	66.0
Actuated g/C Ratio					0.20						0.73	0.73
v/c Ratio					0.44						0.82	0.79
Control Delay					31.6						5.4	5.4
Queue Delay					0.0						30.2	12.1
Total Delay					31.6						35.6	17.4
LOS					C						D	B
Approach Delay					31.6						31.5	

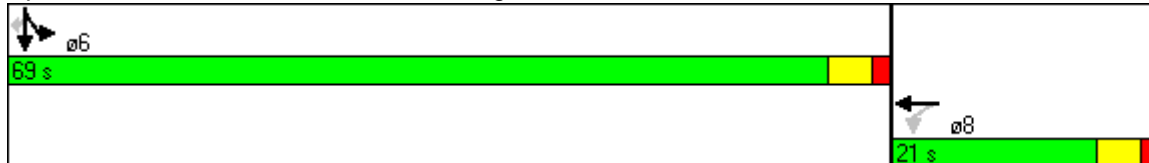


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											C	C
Queue Length 50th (ft)					57						31	1
Queue Length 95th (ft)					77						m27	m0
Internal Link Dist (ft)		123			371			112			228	
Turn Bay Length (ft)												
Base Capacity (vph)					683						2998	904
Starvation Cap Reductn					0						694	175
Spillback Cap Reductn					0						0	0
Storage Cap Reductn					0						0	0
Reduced v/c Ratio					0.44						1.06	0.98

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 88 (98%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 31.5                      Intersection LOS: C  
 Intersection Capacity Utilization 62.0%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 406: Fell St. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50	50			
Trailing Detector (ft)	0	0					0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3514	0	0	0	0	0	4744	1137	0	0	0
Flt Permitted		0.993						0.994				
Satd. Flow (perm)	0	3514	0	0	0	0	0	4744	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								21	259			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	31	199	0	0	0	0	236	1499	557	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	255	0	0	0	0	0	1898	489	0	0	0
Turn Type	Split						Split		Perm			
Protected Phases	4	4					2	2				
Permitted Phases									2			
Detector Phases	4	4					2	2	2			
Minimum Initial (s)	10.0	10.0					10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0					20.0	20.0	20.0			
Total Split (s)	21.0	21.0	0.0	0.0	0.0	0.0	69.0	69.0	69.0	0.0	0.0	0.0
Total Split (%)	23.3%	23.3%	0.0%	0.0%	0.0%	0.0%	76.7%	76.7%	76.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5					3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5					0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max					Max	Max	Max			
Act Effct Green (s)		18.0						66.0	66.0			
Actuated g/C Ratio		0.20						0.73	0.73			
v/c Ratio		0.36						0.54	0.54			
Control Delay		25.8						4.6	3.7			
Queue Delay		0.0						0.2	0.3			
Total Delay		25.8						4.8	3.9			
LOS		C						A	A			
Approach Delay		25.8						4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		56							129	26			
Queue Length 95th (ft)		m75							165	98			
Internal Link Dist (ft)		371				406			115			243	
Turn Bay Length (ft)													
Base Capacity (vph)		703							3485	903			
Starvation Cap Reductn		0							643	83			
Spillback Cap Reductn		0							152	0			
Storage Cap Reductn		0							0	0			
Reduced v/c Ratio		0.36							0.67	0.60			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 55 (61%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.54  
 Intersection Signal Delay: 6.7                      Intersection LOS: A  
 Intersection Capacity Utilization 52.9%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 407: Fell St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4968	0	0	0	0	0	4520	0	1770	4496	0
Flt Permitted		0.995								0.087		
Satd. Flow (perm)	0	4968	0	0	0	0	0	4520	0	162	4496	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9						7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	76	646	34	0	0	0	0	1718	56	137	1365	0
Confl. Peds. (#/hr)			180			180			360			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		20	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	831	0	0	0	0	0	1829	0	143	1422	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	31.0	31.0						42.0		8.1	50.0	
Total Split (s)	35.5	35.5	0.0	0.0	0.0	0.0	0.0	46.0	0.0	8.5	54.5	0.0
Total Split (%)	39.4%	39.4%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	0.0%	9.4%	60.6%	0.0%
Yellow Time (s)	3.5	3.5						4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0						0.0		0.5	0.5	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.5						43.0		51.5	51.5	
Actuated g/C Ratio		0.36						0.48		0.57	0.57	
v/c Ratio		0.46						0.85		0.75	0.55	
Control Delay		28.3						20.9		28.9	1.2	
Queue Delay		0.0						0.0		0.0	0.1	
Total Delay		28.3						20.9		28.9	1.3	
LOS		C						C		C	A	
Approach Delay		28.3						20.9			3.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						C			A	
Queue Length 50th (ft)		150						165		45	5	
Queue Length 95th (ft)		186						m216		m48	24	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)										110		
Base Capacity (vph)		1800						2163		191	2573	
Starvation Cap Reductn		0						0		0	205	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.46						0.85		0.75	0.60	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 16.0                      Intersection LOS: B  
 Intersection Capacity Utilization 70.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**

↑ ø2	↙ ø1	↗ ø4
46 s	8.5 s	35.5 s
↓ ø6		
54.5 s		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1610	3246	0	0	0	0	0	4766	0
Flt Permitted				0.950	0.975							
Satd. Flow (perm)	0	0	1611	1610	3246	0	0	0	0	0	4766	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			5	77	77						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		227			458			308			345	
Travel Time (s)		6.2			12.5			8.4			9.4	
Volume (vph)	0	0	126	879	411	0	0	0	0	0	2060	36
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	164	458	886	0	0	0	0	0	2161	0
Turn Type			custom pm+pt									
Protected Phases				3	8							6
Permitted Phases			4	8								
Detector Phases			4	3	8							6
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			19.0	8.5	27.0						19.0	
Total Split (s)	0.0	0.0	19.0	27.0	27.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0
Total Split (%)	0.0%	0.0%	21.1%	30.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)			7.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			16.0	24.0	24.0						41.0	
Actuated g/C Ratio			0.18	0.27	0.27						0.46	
v/c Ratio			0.56	0.94	0.96						0.99	
Control Delay			41.2	43.8	40.9						31.0	
Queue Delay			0.0	0.3	0.1						17.7	
Total Delay			41.2	44.1	41.0						48.7	
LOS			D	D	D						D	
Approach Delay					42.1						48.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											D	D
Queue Length 50th (ft)			83	110	120						372	
Queue Length 95th (ft)			123	m#218	m#355						#561	
Internal Link Dist (ft)		147			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)			291	486	922						2173	
Starvation Cap Reductn			0	0	0						36	
Spillback Cap Reductn			0	1	1						115	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.56	0.94	0.96						1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 45.9      Intersection LOS: D  
 Intersection Capacity Utilization 71.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**

↓ ø6	↙ ø3	↘ ø4
44 s	27 s	19 s
	← ø8	
	27 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4592	1362	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	4592	1362	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					15	15		18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	0	0	0	1190	776	100	1430	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1656	480	0	1700	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					18.0	18.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	41.5	41.5	48.5	48.5	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	46.1%	46.1%	53.9%	53.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					38.5	38.5		45.5				
Actuated g/C Ratio					0.43	0.43		0.51				
v/c Ratio					0.84	0.81		0.70				
Control Delay					11.1	16.2		9.8				
Queue Delay					0.3	0.0		0.3				
Total Delay					11.4	16.3		10.1				
LOS					B	B		B				
Approach Delay					12.5			10.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						B		B				
Queue Length 50th (ft)					111	93		63				
Queue Length 95th (ft)					m125	m#433		194				
Internal Link Dist (ft)		378			401			243			95	
Turn Bay Length (ft)												
Base Capacity (vph)					1973	591		2422				
Starvation Cap Reductn					46	0		208				
Spillback Cap Reductn					0	1		235				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.86	0.81		0.78				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 11.4                      Intersection LOS: B  
 Intersection Capacity Utilization 71.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 413: Hayes St. & Franklin St.





VN BRT Project  
414: Hayes St. & Van Ness Avenue

2007 Existing Conditions  
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑	↑	↑↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		1	2		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5712	1282	3433	4916	0	0	4458	0
Flt Permitted				0.999		0.093						
Satd. Flow (perm)	0	0	0	0	5712	962	336	4916	0	0	4458	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						38						4
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	0	0	29	1426	257	457	1391	0	0	1473	83
Confl. Peds. (#/hr)						180						360
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1532	271	476	1449	0	0	1620	0
Turn Type				Split		Perm	pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases						4	2					
Detector Phases				4	4	4	5	2			6	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				30.0	30.0	30.0	8.0	51.0			39.0	
Total Split (s)	0.0	0.0	0.0	34.5	34.5	34.5	12.5	55.5	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	38.3%	13.9%	61.7%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5	3.5	4.0	4.0			4.0	
All-Red Time (s)				1.0	1.0	1.0	0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.5	31.5	52.5	52.5			40.0	
Actuated g/C Ratio					0.35	0.35	0.58	0.58			0.44	
v/c Ratio					0.77	0.75	0.91	0.51			0.82	
Control Delay					29.1	37.2	32.3	1.8			13.6	
Queue Delay					0.1	0.0	0.0	0.3			0.2	
Total Delay					29.3	37.2	32.3	2.1			13.8	
LOS					C	D	C	A			B	
Approach Delay					30.4			9.6			13.8	

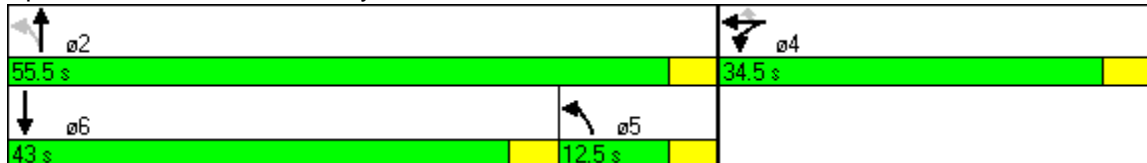


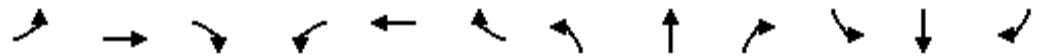
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					235	143	89	20			71	
Queue Length 95th (ft)					283	#302 m#145		23			113	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)							172					
Base Capacity (vph)					1999	361	523	2868			1984	
Starvation Cap Reductn					0	0	0	718			40	
Spillback Cap Reductn					54	0	0	0			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.79	0.75	0.91	0.67			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 49 (54%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 17.9      Intersection LOS: B  
 Intersection Capacity Utilization 79.7%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑↑						↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	50
Trailing Detector (ft)				0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6593	0	0	0	0	0	3539	1425
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	6593	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					29							9
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	0	83	1649	0	0	0	0	0	534	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1823	0	0	0	0	0	562	66
Turn Type				Perm								Perm
Protected Phases					8						6	
Permitted Phases				8								6
Detector Phases				8	8						6	6
Minimum Initial (s)				4.0	4.0						4.0	4.0
Minimum Split (s)				20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%
Yellow Time (s)				3.5	3.5						3.5	3.5
All-Red Time (s)				0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	Max
Act Effct Green (s)					30.0						24.0	24.0
Actuated g/C Ratio					0.50						0.40	0.40
v/c Ratio					0.55						0.40	0.11
Control Delay					4.6						5.7	3.7
Queue Delay					0.0						0.0	0.0
Total Delay					4.6						5.7	3.7
LOS					A						A	A
Approach Delay					4.6						5.5	

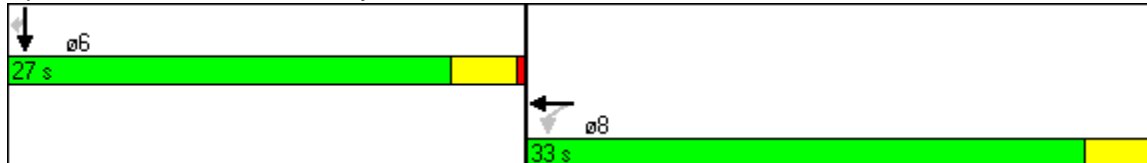


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						A			A			
Queue Length 50th (ft)						30			21		3	
Queue Length 95th (ft)						m35			36		m11	
Internal Link Dist (ft)	153					70		300			82	
Turn Bay Length (ft)												
Base Capacity (vph)						3311			1416		575	
Starvation Cap Reductn						0			0		0	
Spillback Cap Reductn						0			0		0	
Storage Cap Reductn						0			0		0	
Reduced v/c Ratio						0.55			0.40		0.11	

**Intersection Summary**

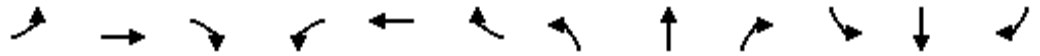
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 55 (92%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.55  
 Intersection Signal Delay: 4.8                      Intersection LOS: A  
 Intersection Capacity Utilization 41.6%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3413	0	0	0	0	0	5050	0
Flt Permitted					0.600						0.997	
Satd. Flow (perm)	0	1749	0	0	2085	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14									9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	256	60	107	177	0	0	0	0	126	1929	58
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	340	0	0	316	0	0	0	0	0	2179	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		27.0			27.0							57.0
Actuated g/C Ratio		0.30			0.30							0.63
v/c Ratio		0.64			0.50							0.68
Control Delay		32.4			12.6							3.1
Queue Delay		0.0			0.0							0.8
Total Delay		32.4			12.6							3.9
LOS		C			B							A
Approach Delay		32.4			12.6							3.9

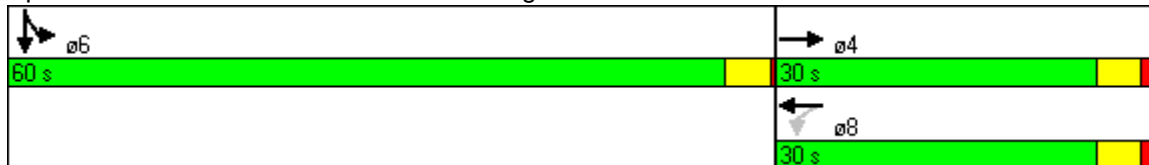


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						A	
Queue Length 50th (ft)		160			21						35	
Queue Length 95th (ft)		253			m37						39	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		535			626						3202	
Starvation Cap Reductn		0			0						174	
Spillback Cap Reductn		1			0						630	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.64			0.50						0.85	

**Intersection Summary**

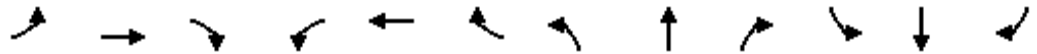
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 8.3                      Intersection LOS: A  
 Intersection Capacity Utilization 76.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 416: Grove St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3309	0	0	5060	0	0	0	0
Flt Permitted		0.832						0.999				
Satd. Flow (perm)	0	2892	0	0	3309	0	0	5060	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9			10				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	56	326	0	0	254	121	30	2166	68	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	429	0	0	391	0	0	2334	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	29.5	29.5	0.0	0.0	29.5	0.0	60.5	60.5	0.0	0.0	0.0	0.0
Total Split (%)	32.8%	32.8%	0.0%	0.0%	32.8%	0.0%	67.2%	67.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		26.5			26.5			57.5				
Actuated g/C Ratio		0.29			0.29			0.64				
v/c Ratio		0.50			0.40			0.72				
Control Delay		22.0			19.2			10.3				
Queue Delay		0.0			0.0			0.6				
Total Delay		22.0			19.2			10.9				
LOS		C			B			B				
Approach Delay		22.0			19.2			10.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			B				
Queue Length 50th (ft)		60			106			185				
Queue Length 95th (ft)		113			m150			214				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		852			981			3236				
Starvation Cap Reductn		0			0			448				
Spillback Cap Reductn		0			0			154				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.50			0.40			0.84				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 13.4                      Intersection LOS: B  
 Intersection Capacity Utilization 75.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3275	0	0	3381	0	1770	4552	0	1770	4369	0
Flt Permitted		0.947			0.844		0.115			0.098		
Satd. Flow (perm)	0	3104	0	0	2874	0	214	4552	0	183	4369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			6			1			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	7	341	46	42	245	26	95	1496	78	39	1468	35
Confl. Peds. (#/hr)			506			328			332			332
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	458	0	0	348	0	101	1674	0	41	1565	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	32.0	32.0		32.0	32.0		58.0	58.0		58.0	58.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	58.0	58.0	0.0	58.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	64.4%	64.4%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		29.0			29.0		55.0	55.0		55.0	55.0	
Actuated g/C Ratio		0.32			0.32		0.61	0.61		0.61	0.61	
v/c Ratio		0.46			0.37		0.77	0.60		0.37	0.59	
Control Delay		44.2			24.5		44.5	7.9		21.7	14.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		44.2			24.5		44.5	7.9		21.7	14.6	
LOS		D			C		D	A		C	B	
Approach Delay		44.2			24.5			10.0			14.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			B		
Queue Length 50th (ft)	142			77			18	108	12			171
Queue Length 95th (ft)	181			116			m#133	104	m21			182
Internal Link Dist (ft)	397			406			90			592		
Turn Bay Length (ft)							130			125		
Base Capacity (vph)	1005			930			131	2782	112			2673
Starvation Cap Reductn	0			0			0	0	0			0
Spillback Cap Reductn	0			0			0	0	0			77
Storage Cap Reductn	0			0			0	0	0			0
Reduced v/c Ratio	0.46			0.37			0.77	0.60	0.37			0.60

**Intersection Summary**

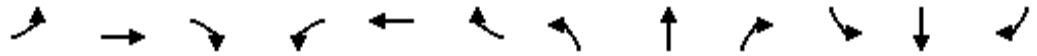
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 16.8      Intersection LOS: B  
 Intersection Capacity Utilization 100.7%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 418: Grove St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3131	0	0	0	0	0	3131	0
Flt Permitted		0.930			0.899						0.995	
Satd. Flow (perm)	0	2968	1377	0	2829	0	0	0	0	0	3131	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			118		23						23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	20	326	112	34	259	29	0	0	0	52	467	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	364	118	0	340	0	0	0	0	0	604	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.5	30.5	30.5	30.5	30.5	0.0	0.0	0.0	0.0	29.5	29.5	0.0
Total Split (%)	50.8%	50.8%	50.8%	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.5	27.5		27.5						26.5	
Actuated g/C Ratio		0.46	0.46		0.46						0.44	
v/c Ratio		0.27	0.17		0.26						0.43	
Control Delay		10.7	3.0		11.9						18.1	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		10.7	3.0		11.9						18.1	
LOS		B	A		B						B	
Approach Delay		8.8			11.9						18.1	



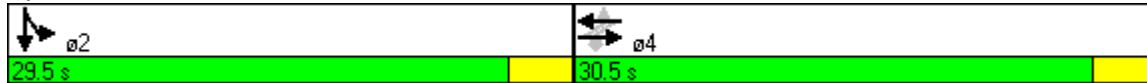
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A			B						B		
Queue Length 50th (ft)	40			0			38			83		
Queue Length 95th (ft)	64			22			m67			138		
Internal Link Dist (ft)	406			401			95			592		
Turn Bay Length (ft)												
Base Capacity (vph)	1360			695			1309			1396		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.27			0.17			0.26			0.43		

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	46 (77%), Referenced to phase 2:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization:	44.8%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 419: Grove St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1770	0	0	4852	0	1770	0	1267
Flt Permitted	0.608							0.996		0.133		
Satd. Flow (perm)	1057	1863	0	0	1770	0	0	4852	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24			23				82
Link Speed (mph)		25			25			25				25
Link Distance (ft)		481			198			210				358
Travel Time (s)		13.1			5.4			5.7				9.8
Volume (vph)	146	232	0	0	112	66	132	1331	90	14	0	78
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	154	244	0	0	187	0	0	1635	0	15	0	82
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.36	0.33			0.26			0.67		0.12		0.12
Control Delay	21.3	19.3			13.7			2.1		5.5		1.8
Queue Delay	0.0	0.0			0.0			0.0		0.0		0.0
Total Delay	21.3	19.3			13.7			2.2		5.5		1.8
LOS	C	B			B			A		A		A
Approach Delay		20.1			13.7			2.2				



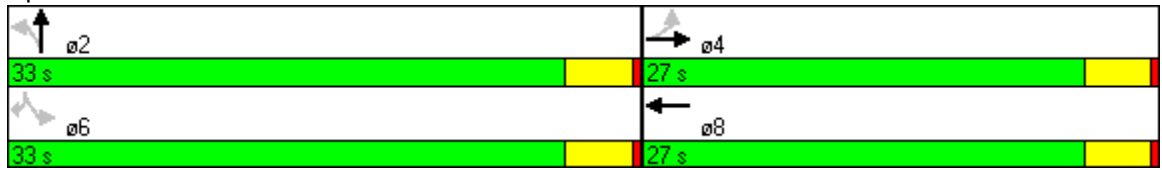
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			B			A					
Queue Length 50th (ft)	54	85			30			11		2		0
Queue Length 95th (ft)	104	145			m52			m12		7		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	423	745			722			2438		124		675
Starvation Cap Reductn	0	0			0			49		0		0
Spillback Cap Reductn	0	0			0			0		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.36	0.33			0.26			0.68		0.12		0.12

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	6.2
Intersection LOS:	A
Intersection Capacity Utilization	60.6%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 420: Grove St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘↙	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1786	0	0	1833	0	0	0	0	0	5050	0
Flt Permitted					0.651						0.999	
Satd. Flow (perm)	0	1786	0	0	1213	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	196	85	58	120	0	0	0	0	29	1970	83
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	312	0	0	205	0	0	0	0	0	2192	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		27.0			27.0							57.0
Actuated g/C Ratio		0.30			0.30							0.63
v/c Ratio		0.57			0.56							0.68
Control Delay		30.5			20.9							2.3
Queue Delay		0.0			0.0							0.1
Total Delay		30.5			20.9							2.4
LOS		C			C							A
Approach Delay		30.5			20.9							2.4







Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙			↕↕↕		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	225	0	178	2165	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	296	0	0	2416	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	23.5	0.0	66.5	66.5	0.0	0.0
Total Split (%)	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	20.5			63.5		
Actuated g/C Ratio	0.23			0.71		
v/c Ratio	0.73			0.71		
Control Delay	31.4			4.0		
Queue Delay	0.0			0.2		
Total Delay	31.4			4.2		
LOS	C			A		
Approach Delay	31.4			4.2		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	C			A		
Queue Length 50th (ft)	169			32		
Queue Length 95th (ft)	215			39		
Internal Link Dist (ft)	163			265	254	
Turn Bay Length (ft)						
Base Capacity (vph)	403			3389		
Starvation Cap Reductn	0			263		
Spillback Cap Reductn	0			49		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.73			0.77		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	73 (81%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization	75.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 429: Fulton St. & Franklin St.

 ø2 66.5 s	 ø4 23.5 s
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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑↑↑			↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1906	0	4891	0	0	1751
Flt Permitted	0.979					0.699
Satd. Flow (perm)	1906	0	4891	0	0	1239
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	17		12			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	32	45	1493	50	20	60
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	81	0	1625	0	0	84
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.11		0.64			0.13
Control Delay	10.4		4.8			16.5
Queue Delay	0.0		0.1			0.0
Total Delay	10.4		4.9			16.5
LOS	B		A			B
Approach Delay	10.4		4.9			16.5





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		29			23	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	28	0	0	1545	77
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	29	0	0	1707	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	20.5	0.0	0.0	39.5	0.0
Total Split (%)	0.0%	34.2%	0.0%	0.0%	65.8%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		17.5			36.5	
Actuated g/C Ratio		0.29			0.61	
v/c Ratio		0.06			0.63	
Control Delay		7.1			3.3	
Queue Delay		0.0			0.0	
Total Delay		7.1			3.3	
LOS		A			A	
Approach Delay					3.3	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		0			34	
Queue Length 95th (ft)		16			45	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		490			2704	
Starvation Cap Reductn		0			38	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.06			0.64	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	3.4
Intersection LOS:	A
Intersection Capacity Utilization	41.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
39.5 s	20.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1714	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.716						0.998	
Satd. Flow (perm)	0	1714	0	0	2534	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10									15	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		170			287			333			348	
Travel Time (s)		4.6			7.8			9.1			9.5	
Volume (vph)	0	183	34	95	266	0	0	0	0	73	1953	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	258	0	0	380	0	0	0	0	0	2253	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						18.0	18.0
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		27.0			27.0							57.0
Actuated g/C Ratio		0.30			0.30							0.63
v/c Ratio		0.50			0.50							0.70
Control Delay		28.8			36.2							3.4
Queue Delay		0.0			0.0							0.6
Total Delay		28.8			36.2							4.0
LOS		C			D							A
Approach Delay		28.8			36.2							4.0

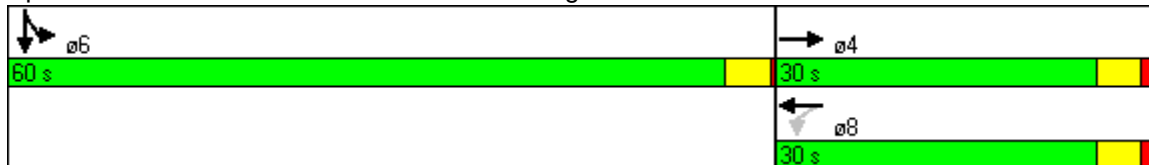


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D						A	
Queue Length 50th (ft)		115			119						50	
Queue Length 95th (ft)		173			m166						56	
Internal Link Dist (ft)		90			207			253			268	
Turn Bay Length (ft)												
Base Capacity (vph)		521			760						3201	
Starvation Cap Reductn		0			0						497	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.50			0.50						0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 10.4                      Intersection LOS: B  
 Intersection Capacity Utilization 73.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 435: McAllister St. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1744	0	0	3196	0	0	5034	0	0	0	0
Flt Permitted		0.885						0.999				
Satd. Flow (perm)	0	1550	0	0	3196	0	0	5034	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			21				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	18	238	0	0	325	278	36	2215	139	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	279	0	0	685	0	0	2516	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	0.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		27.0			27.0			57.0				
Actuated g/C Ratio		0.30			0.30			0.63				
v/c Ratio		0.60			0.71			0.79				
Control Delay		30.4			31.3			9.4				
Queue Delay		0.0			0.0			0.4				
Total Delay		30.4			31.3			9.9				
LOS		C			C			A				
Approach Delay		30.4			31.3			9.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		153			219			75				
Queue Length 95th (ft)		m239			271			79				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		465			964			3196				
Starvation Cap Reductn		0			0			246				
Spillback Cap Reductn		0			0			193				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.60			0.71			0.85				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 15.7      Intersection LOS: B  
 Intersection Capacity Utilization 80.6%      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 436: McAllister St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕↕		↗	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50		50	50	
Trailing Detector (ft)	0	0		0	0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3334	0	0	3529	1425	0	4327	0	1770	4522	0
Flt Permitted		0.928			0.900					0.093		
Satd. Flow (perm)	0	3094	0	0	3165	1106	0	4327	0	173	4522	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				92		9			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	12	308	57	38	567	136	0	1475	54	35	1447	36
Confl. Peds. (#/hr)	160		160	160		160			320			320
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		32			10	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	423	0	0	651	146	0	1592	0	37	1561	0
Turn Type	Perm			Perm		Perm				pm+pt		
Protected Phases		4			4			2		1	6	
Permitted Phases	4			4		4				6		
Detector Phases	4	4		4	4	4		2		1	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0		2.0	3.0	
Minimum Split (s)	32.0	32.0		32.0	32.0	32.0		30.0		7.0	30.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	32.0	0.0	49.0	0.0	9.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	35.6%	0.0%	54.4%	0.0%	10.0%	64.4%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0		0.0		1.0	1.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max		Max	Max	
Act Effct Green (s)		29.0			29.0	29.0		46.0		55.0	55.0	
Actuated g/C Ratio		0.32			0.32	0.32		0.51		0.61	0.61	
v/c Ratio		0.42			0.64	0.35		0.72		0.17	0.56	
Control Delay		26.2			29.5	12.3		17.9		12.8	11.5	
Queue Delay		0.0			0.0	0.0		0.7		0.0	0.0	
Total Delay		26.2			29.5	12.3		18.5		12.8	11.5	
LOS		C			C	B		B		B	B	
Approach Delay		26.2			26.3			18.5			11.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		108			164	22		159		9	137	
Queue Length 95th (ft)		m153			223	70		198		m13	142	
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)										125		
Base Capacity (vph)		1002			1020	419		2216		212	2766	
Starvation Cap Reductn		0			0	0		0		0	29	
Spillback Cap Reductn		0			0	6		285		0	0	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.42			0.64	0.35		0.82		0.17	0.57	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 45 (50%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 18.1                      Intersection LOS: B  
 Intersection Capacity Utilization 75.1%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**

↑ ø2	↙ ø1	↔ ø4
49 s	9 s	32 s
↓ ø6		
58 s		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3011	0	1652	2998	0	0	1591	0	0	3185	0
Flt Permitted		0.914		0.483				0.986			0.939	
Satd. Flow (perm)	0	2758	0	840	2998	0	0	1572	0	0	2999	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		121			26			19			77	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	19	263	115	89	624	68	2	29	18	31	369	115
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	418	0	94	729	0	0	52	0	0	542	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	28.5	28.5	0.0	28.5	28.5	0.0
Total Split (%)	52.5%	52.5%	0.0%	52.5%	52.5%	0.0%	47.5%	47.5%	0.0%	47.5%	47.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.5		28.5	28.5			25.5			25.5	
Actuated g/C Ratio		0.48		0.48	0.48			0.42			0.42	
v/c Ratio		0.30		0.24	0.51			0.08			0.41	
Control Delay		7.4		15.6	17.9			18.1			10.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		7.4		15.6	17.9			18.1			10.6	
LOS		A		B	B			B			B	
Approach Delay		7.4			17.7			18.1			10.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A			B			B			B			
Queue Length 50th (ft)	31			33	137			16			67		
Queue Length 95th (ft)	55			m51	186			48			84		
Internal Link Dist (ft)	381			175			592			104			
Turn Bay Length (ft)													
Base Capacity (vph)	1374			399	1438			679			1319		
Starvation Cap Reductn	0			0	0			0			0		
Spillback Cap Reductn	0			0	0			0			0		
Storage Cap Reductn	0			0	0			0			0		
Reduced v/c Ratio	0.30			0.24	0.51			0.08			0.41		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 29 (48%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 13.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 59.0%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 438: McAllister St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1777	0	0	3415	0	0	5016	0	0	0	0
Flt Permitted	0.199				0.950			0.996				
Satd. Flow (perm)	371	1777	0	0	3248	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			16			7				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	90	150	66	14	659	195	128	1378	32	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	95	227	0	0	914	0	0	1620	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.59	0.29			0.65			0.69				
Control Delay	30.2	7.5			30.9			10.5				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	30.2	7.5			30.9			10.5				
LOS	C	A			C			B				
Approach Delay		14.2			30.9			10.5				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			26	26							33	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			247			333			346	
Travel Time (s)		13.4			6.7			9.1			9.4	
Volume (vph)	0	0	182	82	754	0	0	0	0	0	1358	114
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	192	86	794	0	0	0	0	0	1549	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.30	0.12	0.59						0.63	
Control Delay			6.5	9.6	16.9						5.0	
Queue Delay			0.0	0.0	0.0						0.0	
Total Delay			6.5	9.6	16.9						5.0	
LOS			A	A	B						A	
Approach Delay					16.2						5.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4887	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4887	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		8										51
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	553	195	0	0	0	0	0	0	288	1922	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	805	0	0	0	0	0	0	0	0	2302	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									51.0	
Actuated g/C Ratio		0.37									0.57	
v/c Ratio		0.45									0.85	
Control Delay		22.3									6.9	
Queue Delay		0.0									0.4	
Total Delay		22.3									7.3	
LOS		C									A	
Approach Delay		22.3									7.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									A	
Queue Length 50th (ft)		123									47	
Queue Length 95th (ft)		159									52	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1797									2710	
Starvation Cap Reductn		0									97	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.45									0.88	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	41 (46%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	11.2
Intersection LOS:	B
Intersection Capacity Utilization	64.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5401	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5401	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						15				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	99	742	0	0	0	0	0	2474	125	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	858	0	0	0	0	0	2680	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		32.0						52.0				
Actuated g/C Ratio		0.36						0.58				
v/c Ratio		0.48						0.86				
Control Delay		30.6						8.3				
Queue Delay		0.0						1.1				
Total Delay		30.6						9.3				
LOS		C						A				
Approach Delay		30.6						9.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		157							129				
Queue Length 95th (ft)		m202							143				
Internal Link Dist (ft)		216				162			71			240	
Turn Bay Length (ft)													
Base Capacity (vph)		1777							3127				
Starvation Cap Reductn		0							220				
Spillback Cap Reductn		0							186				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.48							0.92				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 5 (6%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 14.5      Intersection LOS: B  
 Intersection Capacity Utilization 60.9%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	150		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4761	0	0	0	0	0	4381	0	1770	4545	0
Flt Permitted		0.997								0.095		
Satd. Flow (perm)	0	4696	0	0	0	0	0	4381	0	177	4545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6						10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	57	663	147	0	0	0	0	1548	75	106	1371	0
Confl. Peds. (#/hr)	155		155						310			310
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					22	22		14	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	913	0	0	0	0	0	1708	0	112	1443	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		2.0	4.0	
Minimum Split (s)	35.0	35.0						38.0		6.0	48.0	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	42.0	0.0	10.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	0.0%	46.7%	0.0%	11.1%	57.8%	0.0%
Yellow Time (s)	3.5	3.5						4.0		4.0	4.0	
All-Red Time (s)	1.5	1.5						0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		35.0						39.0		49.0	49.0	
Actuated g/C Ratio		0.39						0.43		0.54	0.54	
v/c Ratio		0.49						0.90		0.51	0.58	
Control Delay		28.7						21.3		21.9	10.3	
Queue Delay		0.0						1.7		0.0	0.1	
Total Delay		28.7						23.0		21.9	10.3	
LOS		C						C		C	B	
Approach Delay		28.7						23.0			11.2	

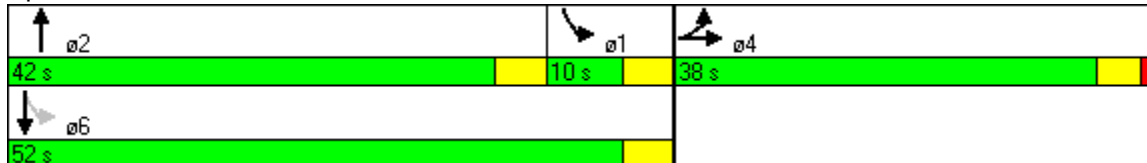


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						C			B	
Queue Length 50th (ft)		189						264		18	89	
Queue Length 95th (ft)		m234						#253		m26	111	
Internal Link Dist (ft)		159			387			98			78	
Turn Bay Length (ft)										150		
Base Capacity (vph)		1855						1904		220	2475	
Starvation Cap Reductn		0						19		0	143	
Spillback Cap Reductn		0						86		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.49						0.94		0.51	0.62	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 19.8                      Intersection LOS: B  
 Intersection Capacity Utilization 68.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4736	0	0	0	0	0	1599	0	0	3322	0
Flt Permitted		0.997									0.845	
Satd. Flow (perm)	0	4736	0	0	0	0	0	1599	0	0	2841	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		89						42				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	52	666	126	0	0	0	0	76	40	128	389	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	889	0	0	0	0	0	122	0	0	544	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	25.0	25.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%	41.7%	41.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.0						22.0			22.0	
Actuated g/C Ratio		0.53						0.37			0.37	
v/c Ratio		0.35						0.20			0.52	
Control Delay		7.6						6.1			12.8	
Queue Delay		0.0						0.0			0.0	
Total Delay		7.6						6.1			12.8	
LOS		A						A			B	
Approach Delay		7.6						6.1			12.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A			B	
Queue Length 50th (ft)		54							1			47	
Queue Length 95th (ft)		76							9			100	
Internal Link Dist (ft)		387				419			100			75	
Turn Bay Length (ft)													
Base Capacity (vph)		2567							613			1042	
Starvation Cap Reductn		0							0			0	
Spillback Cap Reductn		0							0			0	
Storage Cap Reductn		0							0			0	
Reduced v/c Ratio		0.35							0.20			0.52	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	58 (97%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.52
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization	41.2%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5040	0	0	0	0	0	4756	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	5040	0	0	0	0	0	4756	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26						65				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	150	684	0	0	0	0	0	1455	208	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	878	0	0	0	0	0	1751	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.50						0.65				
Control Delay		11.1						4.3				
Queue Delay		0.0						0.4				
Total Delay		11.1						4.7				
LOS		B						A				
Approach Delay		11.1						4.7				



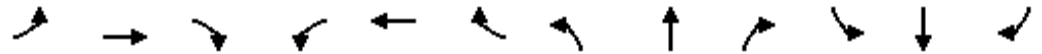
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		51							34				
Queue Length 95th (ft)		68							42				
Internal Link Dist (ft)		419				404			78			233	
Turn Bay Length (ft)													
Base Capacity (vph)		1739							2684				
Starvation Cap Reductn		0							396				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.50							0.77				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	9 (15%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	6.8
Intersection LOS:	A
Intersection Capacity Utilization:	55.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4856	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		65										52
Link Speed (mph)		25			25			25				25
Link Distance (ft)		484			471			346				354
Travel Time (s)		13.2			12.8			9.4				9.7
Volume (vph)	0	624	268	0	0	0	0	0	0	124	1204	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	939	0	0	0	0	0	0	0	0	1398	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.63									0.48	
Control Delay		9.5									6.7	
Queue Delay		0.0									0.3	
Total Delay		9.5									6.9	
LOS		A									A	
Approach Delay		9.5									6.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A									A	
Queue Length 50th (ft)		39									124	
Queue Length 95th (ft)		64									148	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1502									2890	
Starvation Cap Reductn		0									695	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.63									0.64	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	15 (25%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	50.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				8							19	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	191	917	0	0	0	0	0	2019	129
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	210	1008	0	0	0	0	0	2214	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				32.0	32.0						52.0	
Actuated g/C Ratio				0.36	0.36						0.58	
v/c Ratio				0.36	0.85						0.81	
Control Delay				11.6	25.2						4.0	
Queue Delay				0.0	0.0						0.4	
Total Delay				11.6	25.2						4.3	
LOS				B	C						A	
Approach Delay					22.9						4.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				39	336							36
Queue Length 95th (ft)				m85 m#408								53
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				578	1184							2740
Starvation Cap Reductn				0	0							71
Spillback Cap Reductn				0	0							148
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.36	0.85							0.85

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 10.9      Intersection LOS: B  
 Intersection Capacity Utilization 69.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5209	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5209	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		35				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	868	222	240	2333	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	904	231	0	2680	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.51	0.41		0.89				
Control Delay					27.9	27.7		6.2				
Queue Delay					0.1	0.0		0.5				
Total Delay					28.0	27.7		6.7				
LOS					C	C		A				
Approach Delay					27.9			6.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)					194	134			22			
Queue Length 95th (ft)					241	m208			23			
Internal Link Dist (ft)	101				153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1786	565			3024			
Starvation Cap Reductn					0	0			85			
Spillback Cap Reductn					155	0			16			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.55	0.41			0.91			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 15 (17%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 13.0      Intersection LOS: B  
 Intersection Capacity Utilization 60.9%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	110		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4967	0	1770	4496	0	0	4477	0
Flt Permitted				0.998			0.095					
Satd. Flow (perm)	0	0	0	0	4919	0	173	4496	0	0	4477	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	49	916	61	129	1476	0	0	1428	45
Confl. Peds. (#/hr)				150		150	300		300			300
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1115	0	136	1554	0	0	1503	0
Turn Type				Split			pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases							2					
Detector Phases				4	4		5	2			6	
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	
Minimum Split (s)				25.0	25.0		6.0	48.0			38.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	10.0	52.0	0.0	0.0	42.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	11.1%	57.8%	0.0%	0.0%	46.7%	0.0%
Yellow Time (s)				3.5	3.5		4.0	4.0			4.0	
All-Red Time (s)				1.5	1.5		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					35.0		49.0	49.0			39.0	
Actuated g/C Ratio					0.39		0.54	0.54			0.43	
v/c Ratio					0.58		0.62	0.63			0.77	
Control Delay					23.0		24.5	4.0			31.2	
Queue Delay					0.0		0.0	3.2			0.1	
Total Delay					23.0		24.5	7.1			31.3	
LOS					C		C	A			C	
Approach Delay					23.0			8.5			31.3	

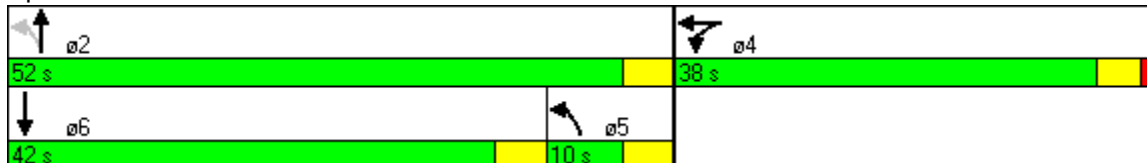


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				C
Queue Length 50th (ft)					178		39	13				235
Queue Length 95th (ft)					222		m51	m14				283
Internal Link Dist (ft)		172			389			76				120
Turn Bay Length (ft)							110					
Base Capacity (vph)					1934		218	2448				1943
Starvation Cap Reductn					0		0	766				40
Spillback Cap Reductn					0		0	60				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.58		0.62	0.92				0.79

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 20.2                      Intersection LOS: C  
 Intersection Capacity Utilization 68.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4949	0	0	2077	0	0	2065	0
Flt Permitted					0.994			0.823				
Satd. Flow (perm)	0	0	0	0	4949	0	0	1737	0	0	2065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						26	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	140	910	70	42	86	0	0	377	74
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1179	0	0	135	0	0	475	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.68			0.14			0.41	
Control Delay					10.1			6.3			8.5	
Queue Delay					0.0			0.0			0.5	
Total Delay					10.1			6.3			9.0	
LOS					B			A			A	
Approach Delay					10.1			6.3			9.0	

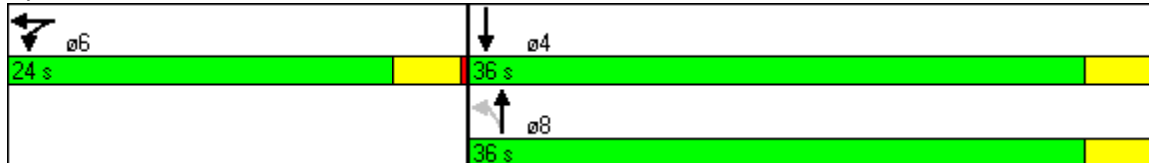


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					61			17			113	
Queue Length 95th (ft)					77			33			m147	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					1745			955			1147	
Starvation Cap Reductn					0			0			302	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.68			0.14			0.56	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 13 (22%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 9.5                      Intersection LOS: A  
 Intersection Capacity Utilization 63.2%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 469: Turk St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4884	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4884	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					37			63				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	762	94	358	1247	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	940	0	0	1637	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	26.5	0.0	33.5	33.5	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.2%	0.0%	55.8%	55.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.5			30.5				
Actuated g/C Ratio					0.39			0.51				
v/c Ratio					0.49			0.66				
Control Delay					8.8			11.1				
Queue Delay					0.0			0.1				
Total Delay					8.8			11.2				
LOS					A			B				
Approach Delay					8.8			11.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B				
Queue Length 50th (ft)					46			100				
Queue Length 95th (ft)					59			110				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1935			2468				
Starvation Cap Reductn					0			127				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.49			0.70				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	2 (3%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	10.3
Intersection LOS:	B
Intersection Capacity Utilization	54.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 470: Turk St. & Larkin St.

← 06	↖ 08
26.5 s	33.5 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					70						97	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	216	614	0	0	0	0	0	1112	242
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	865	0	0	0	0	0	1382	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.48						0.53	
Control Delay					15.0						13.0	
Queue Delay					0.0						0.4	
Total Delay					15.0						13.4	
LOS					B						B	
Approach Delay					15.0						13.4	

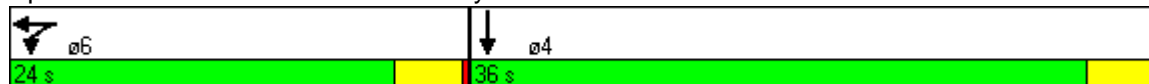


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1788						2615	
Starvation Cap Reductn					0						645	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.48						0.70	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	55 (92%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	14.0
Intersection LOS:	B
Intersection Capacity Utilization:	49.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1740	0	0	1803	0	0	0	0	0	5040	0
Flt Permitted					0.876						0.997	
Satd. Flow (perm)	0	1740	0	0	1593	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	176	83	31	155	0	0	0	0	141	2034	86
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	294	0	0	218	0	0	0	0	0	2356	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		27.0			27.0							57.0
Actuated g/C Ratio		0.30			0.30							0.63
v/c Ratio		0.55			0.46							0.74
Control Delay		30.2			13.7							5.2
Queue Delay		0.0			0.0							0.3
Total Delay		30.2			13.7							5.5
LOS		C			B							A
Approach Delay		30.2			13.7							5.5



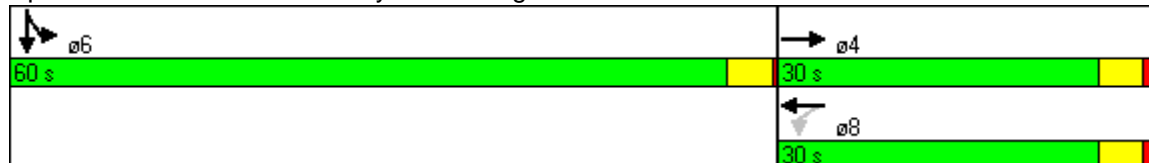
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						A	
Queue Length 50th (ft)		134				27						65
Queue Length 95th (ft)		210				m70						75
Internal Link Dist (ft)		890				396		322				249
Turn Bay Length (ft)												
Base Capacity (vph)		530				478						3197
Starvation Cap Reductn		0				0						273
Spillback Cap Reductn		0				0						11
Storage Cap Reductn		0				0						0
Reduced v/c Ratio		0.55				0.46						0.81

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	24 (27%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	8.7
Intersection LOS:	A
Intersection Capacity Utilization	78.3%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1803	0	0	1782	0	0	5401	0	0	0	0
Flt Permitted		0.869						0.999				
Satd. Flow (perm)	0	1580	0	0	1782	0	0	5401	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	49	268	0	0	157	28	29	2448	95	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	401	0	0	234	0	0	2652	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	0.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		27.0			27.0			57.0				
Actuated g/C Ratio		0.30			0.30			0.63				
v/c Ratio		0.85			0.44			0.77				
Control Delay		38.5			32.2			3.9				
Queue Delay		0.0			0.0			0.7				
Total Delay		38.5			32.2			4.6				
LOS		D			C			A				
Approach Delay		38.5			32.2			4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A				
Queue Length 50th (ft)		137			123			47				
Queue Length 95th (ft)		#200			172			53				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		474			537			3425				
Starvation Cap Reductn		0			0			403				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.85			0.44			0.88				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	10.7
Intersection LOS:	B
Intersection Capacity Utilization:	74.3%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50		50	50	
Trailing Detector (ft)	0	0		0	0			0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1714	0	0	1765	0	0	4366	0	1770	4388	0
Flt Permitted		0.966			0.955					0.103		
Satd. Flow (perm)	0	1645	0	0	1683	0	0	4366	0	185	4388	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			6			15			12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	29	252	82	14	123	23	0	1453	84	56	1377	62
Confl. Peds. (#/hr)	150		150	150		150			300	300		300
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								15	15		17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	448	0	0	188	0	0	1553	0	56	1439	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Minimum Split (s)	25.5	25.5		25.5	25.5			48.0		48.0	48.0	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	57.8%	57.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		35.0			35.0			49.0		49.0	49.0	
Actuated g/C Ratio		0.39			0.39			0.54		0.54	0.54	
v/c Ratio		0.70			0.29			0.65		0.55	0.60	
Control Delay		30.6			19.8			4.7		31.4	10.6	
Queue Delay		0.0			0.0			0.1		0.0	0.1	
Total Delay		30.6			19.8			4.8		31.4	10.7	
LOS		C			B			A		C	B	
Approach Delay		30.6			19.8			4.8			11.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			B			A			B		
Queue Length 50th (ft)	252			70			12			108		
Queue Length 95th (ft)	m309			112			14			m17		
Internal Link Dist (ft)	402			391			105			80		
Turn Bay Length (ft)										140		
Base Capacity (vph)	644			658			2384			101 2394		
Starvation Cap Reductn	0			0			132			0 142		
Spillback Cap Reductn	0			0			14			0 45		
Storage Cap Reductn	0			0			0			0 0		
Reduced v/c Ratio	0.70			0.29			0.69			0.55 0.64		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 11.4                      Intersection LOS: B  
 Intersection Capacity Utilization 72.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1751	0	0	1991	0	0	2013	0
Flt Permitted		0.950			0.848			0.936			0.905	
Satd. Flow (perm)	0	1687	0	0	1508	0	0	1874	0	0	1841	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			17			44			26	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	52	274	66	34	58	18	18	96	42	112	351	84
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	412	0	0	116	0	0	164	0	0	575	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	22.5	22.5	0.0	22.5	22.5	0.0	37.5	37.5	0.0	37.5	37.5	0.0
Total Split (%)	37.5%	37.5%	0.0%	37.5%	37.5%	0.0%	62.5%	62.5%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		19.5			19.5			34.5			34.5	
Actuated g/C Ratio		0.32			0.32			0.58			0.58	
v/c Ratio		0.74			0.23			0.15			0.54	
Control Delay		27.1			10.3			3.0			7.5	
Queue Delay		0.0			0.0			0.0			0.8	
Total Delay		27.1			10.3			3.0			8.3	
LOS		C			B			A			A	
Approach Delay		27.1			10.3			3.0			8.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		124			2			7			61	
Queue Length 95th (ft)		#248			m8			m18			158	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		560			502			1096			1070	
Starvation Cap Reductn		0			0			0			235	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.74			0.23			0.15			0.69	

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 56 (93%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 40

Control Type: Pretimed

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.9

Intersection LOS: B

Intersection Capacity Utilization 71.8%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.

 2	 4
22.5 s	37.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4956	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4956	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								48				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		211			283			134				161
Travel Time (s)		5.8			7.7			3.7				4.4
Volume (vph)	66	356	0	0	0	0	110	1095	136	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	444	0	0	0	0	0	1412	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	25.5	25.5	0.0	0.0	0.0	0.0	34.5	34.5	0.0	0.0	0.0	0.0
Total Split (%)	42.5%	42.5%	0.0%	0.0%	0.0%	0.0%	57.5%	57.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		22.5							31.5			
Actuated g/C Ratio		0.38							0.52			
v/c Ratio		0.64							0.54			
Control Delay		16.1							5.7			
Queue Delay		0.0							0.0			
Total Delay		16.1							5.7			
LOS		B							A			
Approach Delay		16.1							5.7			





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4828	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4828	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		80										55
Link Speed (mph)		25			25			25				25
Link Distance (ft)		192			479			335				339
Travel Time (s)		5.2			13.1			9.1				9.2
Volume (vph)	0	352	140	0	0	0	0	0	0	118	1214	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	518	0	0	0	0	0	0	0	0	1402	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.41									0.45	
Control Delay		9.7									5.2	
Queue Delay		0.0									0.4	
Total Delay		9.7									5.7	
LOS		A									A	
Approach Delay		9.7									5.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A									A	
Queue Length 50th (ft)		17									75	
Queue Length 95th (ft)		40									64	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1267									3087	
Starvation Cap Reductn		0									1056	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.41									0.69	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	6.8
Intersection LOS:	A
Intersection Capacity Utilization	42.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			15	15							5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	29	189	204	0	0	0	0	0	2043	29
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	52	236	255	0	0	0	0	0	2182	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	25.0	25.0	25.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0
Total Split (%)	0.0%	0.0%	27.8%	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			22.0	22.0	22.0						62.0	
Actuated g/C Ratio			0.24	0.24	0.24						0.69	
v/c Ratio			0.13	0.53	0.56						0.69	
Control Delay			21.4	54.1	56.9						7.8	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			21.4	54.1	56.9						7.8	
LOS			C	D	E						A	
Approach Delay					55.5						7.8	

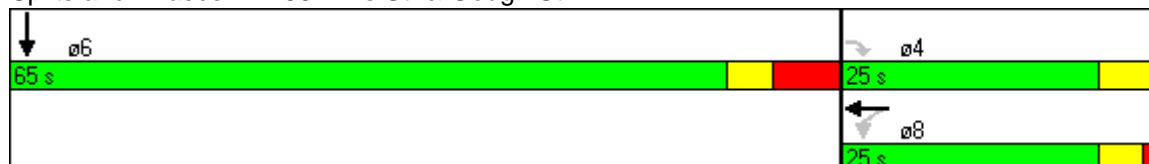


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)			16	132	151						262	
Queue Length 95th (ft)			25	182	200						471	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			405	444	455						3171	
Starvation Cap Reductn			0	0	0						0	
Spillback Cap Reductn			0	0	0						127	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.13	0.53	0.56						0.72	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	16 (18%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	16.7
Intersection LOS:	B
Intersection Capacity Utilization:	63.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 488: Ellis St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6321	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6321	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						4		14				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		478			479			171				185
Travel Time (s)		13.0			13.1			4.7				5.0
Volume (vph)	0	0	0	0	307	288	86	2439	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	334	313	0	2686	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	30.0	30.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					27.0	27.0		57.0				
Actuated g/C Ratio					0.30	0.30		0.63				
v/c Ratio					0.31	0.65		0.67				
Control Delay					26.6	36.4		1.7				
Queue Delay					0.0	0.0		0.2				
Total Delay					26.6	36.4		1.9				
LOS					C	D		A				
Approach Delay					31.3			1.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					97	180		22				
Queue Length 95th (ft)					141	268		24				
Internal Link Dist (ft)		398			399			91			105	
Turn Bay Length (ft)												
Base Capacity (vph)					1062	478		4008				
Starvation Cap Reductn					0	0		396				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.31	0.65		0.74				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	34 (38%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization:	63.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4740	0	1770	4561	0	0	4446	0
Flt Permitted				0.996			0.103					
Satd. Flow (perm)	0	0	0	0	4655	0	188	4561	0	0	4446	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5						12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	59	486	121	42	1416	0	0	1412	67
Confl. Peds. (#/hr)				150		150	300		300			300
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								12			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	732	0	45	1523	0	0	1557	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				25.5	25.5		48.0	48.0			48.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	52.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					35.0		49.0	49.0			49.0	
Actuated g/C Ratio					0.39		0.54	0.54			0.54	
v/c Ratio					0.40		0.44	0.61			0.64	
Control Delay					20.5		15.3	3.6			19.6	
Queue Delay					0.0		0.0	0.1			0.0	
Total Delay					20.5		15.3	3.8			19.6	
LOS					C		B	A			B	
Approach Delay					20.5			4.1			19.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4944	0	0	2061	0	0	2019	0
Flt Permitted					0.992			0.897				
Satd. Flow (perm)	0	0	0	0	4944	0	0	1863	0	0	2019	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					50						39	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	120	530	102	28	138	0	0	417	108
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	791	0	0	174	0	0	553	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	21.0	21.0	0.0	39.0	39.0	0.0	0.0	39.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	35.0%	35.0%	0.0%	65.0%	65.0%	0.0%	0.0%	65.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					18.0			36.0			36.0	
Actuated g/C Ratio					0.30			0.60			0.60	
v/c Ratio					0.52			0.16			0.45	
Control Delay					7.2			4.6			2.8	
Queue Delay					0.0			0.0			0.4	
Total Delay					7.2			4.6			3.2	
LOS					A			A			A	
Approach Delay					7.2			4.6			3.2	

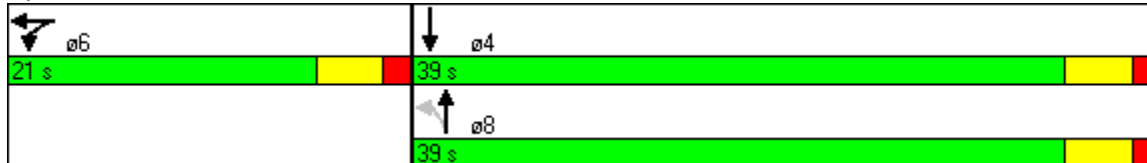


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					27			17			17	
Queue Length 95th (ft)					34			m29			49	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1518			1118			1227	
Starvation Cap Reductn					0			0			248	
Spillback Cap Reductn					0			0			20	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.52			0.16			0.56	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 37 (62%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.52  
 Intersection Signal Delay: 5.4                      Intersection LOS: A  
 Intersection Capacity Utilization 52.8%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4892	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4892	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					50			52				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	618	208	134	1017	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	870	0	0	1212	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					26.0			28.0				
Actuated g/C Ratio					0.43			0.47				
v/c Ratio					0.41			0.54				
Control Delay					9.7			2.2				
Queue Delay					0.0			0.0				
Total Delay					9.7			2.2				
LOS					A			A				
Approach Delay					9.7			2.2				

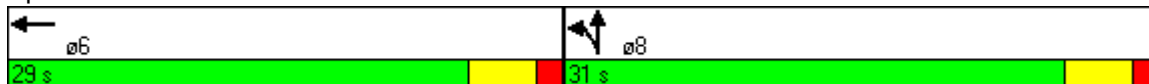


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					32			12				
Queue Length 95th (ft)					41			14				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					2148			2241				
Starvation Cap Reductn					0			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.41			0.54				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	26 (43%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	5.3
Intersection LOS:	A
Intersection Capacity Utilization	45.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 492: Ellis St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4639	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4639	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					35						102	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	166	586	0	0	0	0	0	1166	240
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	792	0	0	0	0	0	1480	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.37						0.64	
Control Delay					12.1						5.6	
Queue Delay					0.0						0.2	
Total Delay					12.1						5.8	
LOS					B						A	
Approach Delay					12.1						5.8	

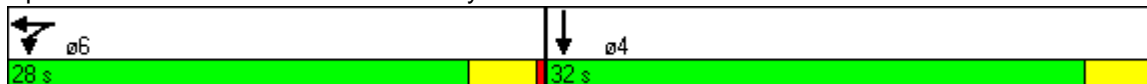


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					65						30	
Queue Length 95th (ft)					92						40	
Internal Link Dist (ft)		399			402			259			292	
Turn Bay Length (ft)												
Base Capacity (vph)					2116						2295	
Starvation Cap Reductn					0						226	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.37						0.72	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization:	49.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑↔				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6075	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6075	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	335	977	0	0	0	0	0	2573	154	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1442	0	0	0	0	0	2870	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	40.0	40.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	0.0%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		37.0						47.0				
Actuated g/C Ratio		0.41						0.52				
v/c Ratio		1.06						0.90				
Control Delay		79.8						12.9				
Queue Delay		0.0						6.1				
Total Delay		79.8						19.0				
LOS		E						B				
Approach Delay		79.8						19.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E						B				
Queue Length 50th (ft)		~496						87				
Queue Length 95th (ft)		#634						254				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1359						3182				
Starvation Cap Reductn		0						9				
Spillback Cap Reductn		0						290				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.06						0.99				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	43 (48%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	70
Control Type:	Pretimed
Maximum v/c Ratio:	1.06
Intersection Signal Delay:	39.3
Intersection LOS:	D
Intersection Capacity Utilization:	75.3%
ICU Level of Service:	D
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

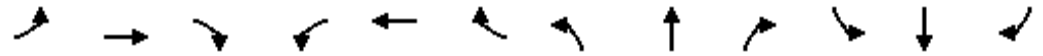
Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕↕		↗	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		1	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4431	0	1770	4601	0
Flt Permitted		0.995								0.095		
Satd. Flow (perm)	0	3490	1369	0	0	0	0	4431	0	173	4601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23					14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	106	876	149	0	0	0	0	1435	91	163	1349	0
Confl. Peds. (#/hr)	102		154						332	332		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		7	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1034	157	0	0	0	0	1541	0	187	1551	0
Turn Type	Split		Perm							pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phases	4	4	4					2		1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	38.0	38.0	38.0					42.0		8.1	48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	42.0	0.0	10.0	52.0	0.0
Total Split (%)	42.2%	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	46.7%	0.0%	11.1%	57.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5					4.0		4.0	4.0	
All-Red Time (s)	1.5	1.5	1.5					0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		35.0	35.0					39.0		49.0	49.0	
Actuated g/C Ratio		0.39	0.39					0.43		0.54	0.54	
v/c Ratio		0.75	0.29					0.80		0.86	0.62	
Control Delay		34.8	24.7					7.2		41.5	6.2	
Queue Delay		0.5	0.0					0.1		0.0	0.2	
Total Delay		35.3	24.7					7.3		41.5	6.4	
LOS		D	C					A		D	A	
Approach Delay		33.9						7.3			10.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3328	1583	0	0	0	0	1915	0	0	2046	0
Flt Permitted		0.994									0.847	
Satd. Flow (perm)	0	3328	1583	0	0	0	0	1915	0	0	1760	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164					67				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	137	910	156	0	0	0	0	73	100	158	369	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1102	164	0	0	0	0	182	0	0	554	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	30.5	30.5	30.5	0.0	0.0	0.0	0.0	29.5	0.0	29.5	29.5	0.0
Total Split (%)	50.8%	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	49.2%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		27.5	27.5					26.5			26.5	
Actuated g/C Ratio		0.46	0.46					0.44			0.44	
v/c Ratio		0.72	0.20					0.21			0.71	
Control Delay		16.6	2.6					5.3			13.7	
Queue Delay		0.0	0.0					0.0			0.2	
Total Delay		16.6	2.6					5.3			13.9	
LOS		B	A					A			B	
Approach Delay		14.8						5.3			13.9	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3518	0	0	0	0	0	4602	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	3518	0	0	0	0	0	4602	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29						26				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	140	1028	0	0	0	0	0	986	306	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1229	0	0	0	0	0	1360	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	26.5	26.5	0.0	0.0	0.0	0.0	0.0	33.5	0.0	0.0	0.0	0.0
Total Split (%)	44.2%	44.2%	0.0%	0.0%	0.0%	0.0%	0.0%	55.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		23.5						30.5				
Actuated g/C Ratio		0.39						0.51				
v/c Ratio		0.88						0.58				
Control Delay		18.4						7.3				
Queue Delay		0.0						0.0				
Total Delay		18.4						7.3				
LOS		B						A				
Approach Delay		18.4						7.3				

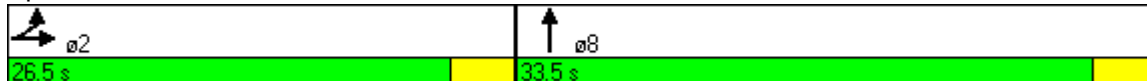


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A				
Queue Length 50th (ft)		228						98				
Queue Length 95th (ft)		#91						140				
Internal Link Dist (ft)		288			110			116			99	
Turn Bay Length (ft)												
Base Capacity (vph)		1396						2352				
Starvation Cap Reductn		0						0				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.88						0.58				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	45 (75%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization:	65.0%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

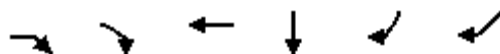
Splits and Phases: 503: O'Farrell St. & Larkin St.



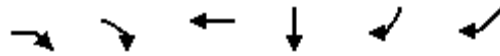


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			20									58
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1044	290	0	0	0	0	0	0	238	1116	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1099	305	0	0	0	0	0	0	0	1426	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.62	0.38								0.74	
Control Delay		6.1	5.0								8.3	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.1	5.0								8.3	
LOS		A	A								A	
Approach Delay		5.9									8.3	





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		6		12		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1035	322	1463	1676	286	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1089	339	1540	2047	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.77	0.46	0.67	0.88		
Control Delay	24.5	18.5	15.5	16.0		
Queue Delay	0.0	0.0	0.4	1.0		
Total Delay	24.5	18.5	15.9	17.0		
LOS	C	B	B	B		
Approach Delay			15.9	17.0		

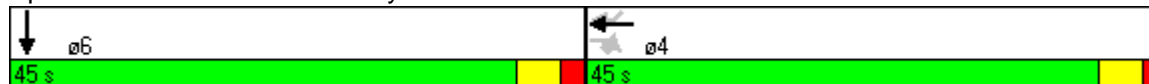


Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Approach LOS			B	B		
Queue Length 50th (ft)	257	123	311	126		
Queue Length 95th (ft)	340	197	368	197		
Internal Link Dist (ft)			405	265		
Turn Bay Length (ft)						
Base Capacity (vph)	1419	742	2288	2327		
Starvation Cap Reductn	0	0	285	106		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.77	0.46	0.77	0.92		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	18.4
Intersection LOS:	B
Intersection Capacity Utilization	73.7%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 513: Geary St. & Peter Yorke





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6283	0	0	0	0
Flt Permitted								0.992				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6283	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	965	187	498	2485	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1038	201	0	3013	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.60	0.36		0.83				
Control Delay					27.9	25.7		7.7				
Queue Delay					0.0	0.0		5.3				
Total Delay					27.9	25.7		13.0				
LOS					C	C		B				
Approach Delay					27.6			13.0				

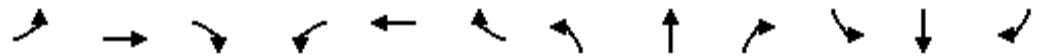






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↓	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5060	1469	1770	4625	0	0	4409	0
Flt Permitted					0.995		0.095					
Satd. Flow (perm)	0	0	0	0	4995	1193	174	4625	0	0	4409	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						34						39
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	94	840	153	157	1384	0	0	1418	211
Confl. Peds. (#/hr)				156		220	332					332
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	953	156	159	1398	0	0	1680	0
Turn Type				Split		Perm	pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases						4	2					
Detector Phases				4	4	4	5	2			6	
Minimum Initial (s)				4.0	4.0	4.0	2.0	4.0			4.0	
Minimum Split (s)				38.0	38.0	38.0	6.0	48.0			42.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	10.0	52.0	0.0	0.0	42.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	42.2%	11.1%	57.8%	0.0%	0.0%	46.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	4.0	4.0			4.0	
All-Red Time (s)				1.5	1.5	1.5	0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					35.0	35.0	49.0	49.0			39.0	
Actuated g/C Ratio					0.39	0.39	0.54	0.54			0.43	
v/c Ratio					0.48	0.32	0.73	0.56			0.87	
Control Delay					21.7	17.1	29.8	2.2			29.8	
Queue Delay					0.0	0.0	0.0	0.4			0.0	
Total Delay					21.7	17.1	29.8	2.6			29.8	
LOS					C	B	C	A			C	
Approach Delay					21.1			5.4			29.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3328	1583	0	2052	0	0	2015	0
Flt Permitted					0.994			0.793				
Satd. Flow (perm)	0	0	0	0	3328	1583	0	1647	0	0	2015	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						98						32
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	131	928	93	48	160	0	0	396	111
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1115	98	0	219	0	0	534	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.77	0.13		0.28			0.56	
Control Delay					14.6	1.1		8.1			13.8	
Queue Delay					0.0	0.0		0.0			0.9	
Total Delay					14.6	1.1		8.1			14.7	
LOS					B	A		A			B	
Approach Delay					13.5			8.1			14.7	



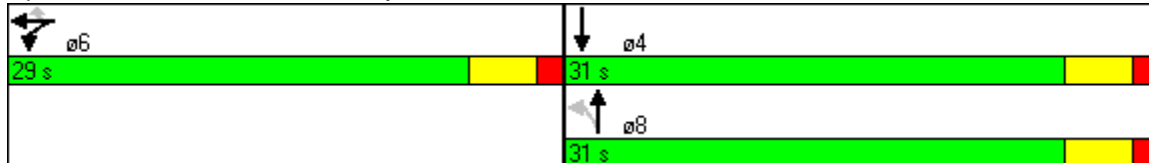
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			B	
Queue Length 50th (ft)					183	0		43			157	
Queue Length 95th (ft)					232	m4		m54			243	
Internal Link Dist (ft)		394			132			88			90	
Turn Bay Length (ft)												
Base Capacity (vph)					1442	742		769			957	
Starvation Cap Reductn					0	0		0			194	
Spillback Cap Reductn					0	0		0			63	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.77	0.13		0.28			0.70	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	18 (30%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	13.2
Intersection LOS:	B
Intersection Capacity Utilization:	78.1%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 516: Geary St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4756	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4756	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						39		121				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		290			195			167				168
Travel Time (s)		7.9			5.3			4.6				4.6
Volume (vph)	0	0	0	0	843	274	282	863	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	887	288	0	1205	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.47	0.33		0.66				
Control Delay					4.7	3.4		14.8				
Queue Delay					0.0	0.0		0.0				
Total Delay					4.7	3.4		14.8				
LOS					A	A		B				
Approach Delay					4.4			14.8				

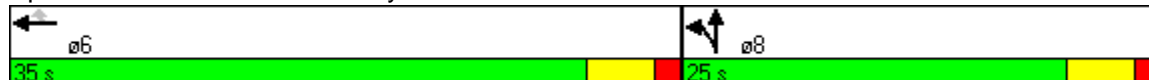


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)				33			12			149		
Queue Length 95th (ft)				m44			m21			m195		
Internal Link Dist (ft)	210			115			87			88		
Turn Bay Length (ft)												
Base Capacity (vph)				1887			862			1821		
Starvation Cap Reductn				0			0			0		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.47			0.33			0.66		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 2 (3%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 9.7                      Intersection LOS: A  
 Intersection Capacity Utilization 52.4%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 517: Geary St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4685	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4685	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					33						67	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	246	893	0	0	0	0	0	1108	224
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1199	0	0	0	0	0	1402	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.78						0.65	
Control Delay					18.0						7.0	
Queue Delay					0.0						0.0	
Total Delay					18.0						7.0	
LOS					B						A	
Approach Delay					18.0						7.0	

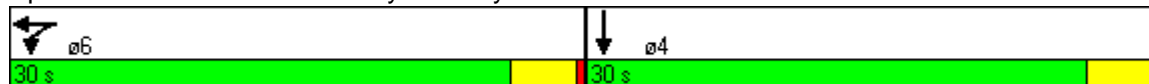


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						B						A
Queue Length 50th (ft)						177						98
Queue Length 95th (ft)						252						134
Internal Link Dist (ft)		198				399		257				277
Turn Bay Length (ft)												
Base Capacity (vph)						1536						2145
Starvation Cap Reductn						0						0
Spillback Cap Reductn						0						0
Storage Cap Reductn						0						0
Reduced v/c Ratio						0.78						0.65

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	12.1
Intersection LOS:	B
Intersection Capacity Utilization	64.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 518: Geary St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3313	0	0	0	0	0	0	0	0	5045	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3313	0	0	0	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		16										39
Link Speed (mph)		25			25			25				25
Link Distance (ft)		482			492			345				334
Travel Time (s)		13.1			13.4			9.4				9.1
Volume (vph)	0	392	94	0	0	0	0	0	0	176	1868	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	552	0	0	0	0	0	0	0	0	2180	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		27.0									57.0	
Actuated g/C Ratio		0.30									0.63	
v/c Ratio		0.55									0.68	
Control Delay		28.1									7.9	
Queue Delay		0.0									0.1	
Total Delay		28.1									8.0	
LOS		C									A	
Approach Delay		28.1									8.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												A
Queue Length 50th (ft)		133									119	
Queue Length 95th (ft)		180									156	
Internal Link Dist (ft)		402			412			265			254	
Turn Bay Length (ft)												
Base Capacity (vph)		1005									3209	
Starvation Cap Reductn		0									200	
Spillback Cap Reductn		0									69	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.55									0.72	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	81 (90%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	12.0
Intersection LOS:	B
Intersection Capacity Utilization:	61.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3381	0	0	0	0	0	5228	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5228	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4							106			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	98	470	0	0	0	0	0	2340	332	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	638	0	0	0	0	0	2516	357	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		27.0						57.0	57.0			
Actuated g/C Ratio		0.30						0.63	0.63			
v/c Ratio		0.63						0.76	0.40			
Control Delay		44.7						3.4	1.4			
Queue Delay		0.0						0.3	0.6			
Total Delay		44.7						3.6	2.0			
LOS		D						A	A			
Approach Delay		44.7						3.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						A					
Queue Length 50th (ft)	201						48 3					
Queue Length 95th (ft)	253						52 m6					
Internal Link Dist (ft)	412						226 242 97					
Turn Bay Length (ft)												
Base Capacity (vph)	1017						3311 886					
Starvation Cap Reductn	0						230 233					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.63						0.82 0.55					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 59 (66%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 10.9 Intersection LOS: B  
 Intersection Capacity Utilization 56.4% ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4419	0	0	4553	0
Flt Permitted		0.995										
Satd. Flow (perm)	0	3455	1250	0	0	0	0	4419	0	0	4553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23					31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	66	641	95	0	0	0	0	1349	141	0	1490	0
Confl. Peds. (#/hr)	150		150						300			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	0		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	777	104	0	0	0	0	1521	0	0	1552	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			2	
Permitted Phases			4									
Detector Phases	4	4	4					2			2	
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	
Minimum Split (s)	27.5	27.5	27.5					48.0			48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	1.0	1.0	1.0					0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max			Max	
Act Effct Green (s)		35.0	35.0					49.0			49.0	
Actuated g/C Ratio		0.39	0.39					0.54			0.54	
v/c Ratio		0.57	0.21					0.63			0.63	
Control Delay		26.8	18.6					4.3			12.8	
Queue Delay		0.0	0.0					0.0			0.0	
Total Delay		26.8	18.6					4.3			12.8	
LOS		C	B					A			B	
Approach Delay		25.9						4.3			12.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)		200	37					32			145	
Queue Length 95th (ft)		267	m72					39			m162	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1370	500					2420			2479	
Starvation Cap Reductn		0	0					1			59	
Spillback Cap Reductn		0	0					0			16	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.57	0.21					0.63			0.64	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	23 (26%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	12.4
Intersection LOS:	B
Intersection Capacity Utilization:	57.9%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3391	1583	0	0	0	0	1973	0	0	1928	0
Flt Permitted		0.994									0.850	
Satd. Flow (perm)	0	3391	1583	0	0	0	0	1973	0	0	1662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114					73				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	84	590	108	0	0	0	0	125	74	152	379	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	709	114	0	0	0	0	210	0	0	559	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	21.4	21.4	21.4	0.0	0.0	0.0	0.0	38.6	0.0	38.6	38.6	0.0
Total Split (%)	35.7%	35.7%	35.7%	0.0%	0.0%	0.0%	0.0%	64.3%	0.0%	64.3%	64.3%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		18.4	18.4					35.6			35.6	
Actuated g/C Ratio		0.31	0.31					0.59			0.59	
v/c Ratio		0.68	0.20					0.18			0.57	
Control Delay		22.2	4.8					9.6			10.3	
Queue Delay		0.0	0.0					0.0			1.2	
Total Delay		22.2	4.8					9.6			11.5	
LOS		C	A					A			B	
Approach Delay		19.8						9.6			11.5	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4623	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4623	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						114				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	126	690	0	0	0	0	0	855	290	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	859	0	0	0	0	0	1205	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	28.5	28.5	0.0	0.0	0.0	0.0	0.0	31.5	0.0	0.0	0.0	0.0
Total Split (%)	47.5%	47.5%	0.0%	0.0%	0.0%	0.0%	0.0%	52.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		25.5						28.5				
Actuated g/C Ratio		0.42						0.48				
v/c Ratio		0.59						0.53				
Control Delay		6.2						5.0				
Queue Delay		0.0						0.0				
Total Delay		6.2						5.0				
LOS		A						A				
Approach Delay		6.2						5.0				

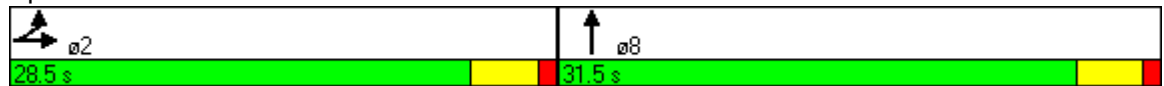


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A				
Queue Length 50th (ft)		27						38				
Queue Length 95th (ft)		46						47				
Internal Link Dist (ft)		424			382			103			91	
Turn Bay Length (ft)												
Base Capacity (vph)		1464						2256				
Starvation Cap Reductn		0						0				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.59						0.53				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization	52.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			10									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	724	256	0	0	0	0	0	0	128	1076	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	762	269	0	0	0	0	0	0	0	1268	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.38	0.30								0.78	
Control Delay		6.5	5.8								20.7	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.5	5.8								20.7	
LOS		A	A								C	
Approach Delay		6.4									20.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A											C
Queue Length 50th (ft)		37	24									162
Queue Length 95th (ft)		55	39									216
Internal Link Dist (ft)		382			406			277				272
Turn Bay Length (ft)												
Base Capacity (vph)		2005	901									1619
Starvation Cap Reductn		0	0									0
Spillback Cap Reductn		0	0									0
Storage Cap Reductn		0	0									0
Reduced v/c Ratio		0.38	0.30									0.78

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	25 (42%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization	50.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 540: Post St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			30	30							10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	119	382	527	0	0	0	0	0	1592	51
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	140	402	555	0	0	0	0	0	1730	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			27.0	27.0	27.0						57.0	
Actuated g/C Ratio			0.30	0.30	0.30						0.63	
v/c Ratio			0.28	0.73	0.54						0.57	
Control Delay			20.5	9.7	6.8						5.8	
Queue Delay			0.0	0.0	0.0						0.2	
Total Delay			20.5	9.7	6.8						5.9	
LOS			C	A	A						A	
Approach Delay					8.0						5.9	



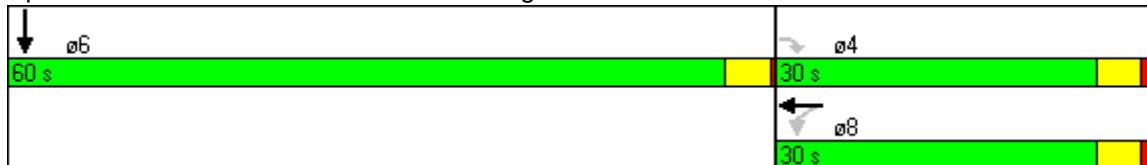
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												A
Queue Length 50th (ft)			47	24	25							143
Queue Length 95th (ft)			88	m47	m43							165
Internal Link Dist (ft)		81			419			254				75
Turn Bay Length (ft)												
Base Capacity (vph)			504	552	1028							3011
Starvation Cap Reductn			0	0	0							405
Spillback Cap Reductn			1	1	0							213
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.28	0.73	0.54							0.66

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization:	70.4%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 554: Sutter St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5220	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5220	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						8		21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	778	251	131	2222	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	819	264	0	2401	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	30.0	30.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					27.0	27.0		57.0				
Actuated g/C Ratio					0.30	0.30		0.63				
v/c Ratio					0.80	0.55		0.72				
Control Delay					24.4	19.3		2.1				
Queue Delay					0.0	0.0		0.1				
Total Delay					24.4	19.3		2.1				
LOS					C	B		A				
Approach Delay					23.1			2.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)					261	154			26			
Queue Length 95th (ft)					m293	m177			31			
Internal Link Dist (ft)	419				217				98	76		
Turn Bay Length (ft)												
Base Capacity (vph)					1024	481			3314			
Starvation Cap Reductn					0	0			129			
Spillback Cap Reductn					0	0			102			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.80	0.55			0.75			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 8.7                      Intersection LOS: A  
 Intersection Capacity Utilization 70.4%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	
Trailing Detector (ft)				0	0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3409	1583	0	4789	0	0	4624	0
Flt Permitted					0.995							
Satd. Flow (perm)	0	0	0	0	3336	1261	0	4789	0	0	4624	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						38						8
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	113	928	99	0	1371	0	0	1281	101
Confl. Peds. (#/hr)				145		145						290
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1096	104	0	1443	0	0	1454	0
Turn Type				Split		Perm						
Protected Phases				4	4			2			2	
Permitted Phases						4						
Detector Phases				4	4	4		2			2	
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	
Minimum Split (s)				25.5	25.5	25.5		51.0			51.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	35.0	0.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.9%	38.9%	38.9%	0.0%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				1.0	1.0	1.0		0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	
Act Effct Green (s)					32.0	32.0		52.0			52.0	
Actuated g/C Ratio					0.36	0.36		0.58			0.58	
v/c Ratio					0.90	0.22		0.52			0.54	
Control Delay					39.5	14.8		2.7			14.5	
Queue Delay					0.0	0.0		0.2			0.0	
Total Delay					39.5	14.8		2.9			14.5	
LOS					D	B		A			B	
Approach Delay					37.4			2.9			14.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1936	0	0	1879	0
Flt Permitted					0.991			0.872				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1705	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						126						43
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	222	972	120	44	163	0	0	309	124
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1257	126	0	218	0	0	456	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	28.5	28.5	28.5	31.5	31.5	0.0	0.0	31.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.5%	47.5%	47.5%	52.5%	52.5%	0.0%	0.0%	52.5%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					25.5	25.5		28.5			28.5	
Actuated g/C Ratio					0.42	0.42		0.48			0.48	
v/c Ratio					0.87	0.17		0.27			0.50	
Control Delay					12.0	0.3		13.1			4.7	
Queue Delay					1.5	0.0		0.0			0.2	
Total Delay					13.5	0.3		13.2			4.9	
LOS					B	A		B			A	
Approach Delay					12.3			13.2			4.9	

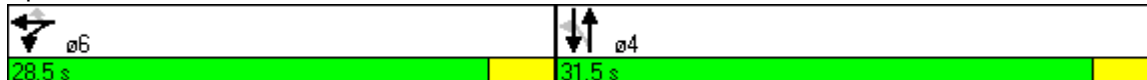


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B			A	
Queue Length 50th (ft)					58	0		46			31	
Queue Length 95th (ft)					m#68	m0		m77			m48	
Internal Link Dist (ft)		410			250			97			66	
Turn Bay Length (ft)												
Base Capacity (vph)					1437	745		810			915	
Starvation Cap Reductn					0	0		0			70	
Spillback Cap Reductn					69	0		18			21	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.92	0.17		0.28			0.54	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 28 (47%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 10.8      Intersection LOS: B  
 Intersection Capacity Utilization 78.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 557: Sutter St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4738	0	0	0	0
Flt Permitted								0.986				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4738	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						88		17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1032	84	282	705	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1086	88	0	1039	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	24.5	24.5	35.5	35.5	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	40.8%	40.8%	59.2%	59.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					21.5	21.5		32.5				
Actuated g/C Ratio					0.36	0.36		0.54				
v/c Ratio					0.89	0.14		0.40				
Control Delay					19.2	1.1		3.0				
Queue Delay					0.0	0.0		0.0				
Total Delay					19.2	1.1		3.0				
LOS					B	A		A				
Approach Delay					17.9			3.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					111	0		23				
Queue Length 95th (ft)					#291	m0		30				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1223	624		2574				
Starvation Cap Reductn					0	0		0				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.89	0.14		0.40				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 17 (28%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 10.9      Intersection LOS: B  
 Intersection Capacity Utilization 54.5%      ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.

← 06	↖ 08
24.5 s	35.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4550	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4550	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					40						75	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	268	942	0	0	0	0	0	936	174
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1274	0	0	0	0	0	1168	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.75						0.63	
Control Delay					15.0						11.6	
Queue Delay					0.0						0.0	
Total Delay					15.0						11.6	
LOS					B						B	
Approach Delay					15.0						11.6	

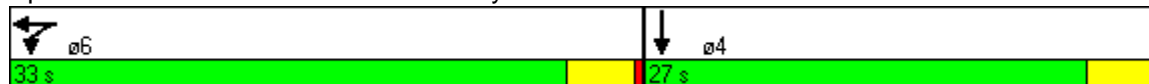


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		125						272				
Turn Bay Length (ft)												
Base Capacity (vph)												
Starvation Cap Reductn												
Spillback Cap Reductn												
Storage Cap Reductn												
Reduced v/c Ratio												

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	1 (2%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	62.5%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4769	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4769	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		45										13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		252			497			174				171
Travel Time (s)		6.9			13.6			4.7				4.7
Volume (vph)	0	1086	282	0	0	0	0	0	0	127	1285	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1440	0	0	0	0	0	0	0	0	1502	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		32.0									52.0	
Actuated g/C Ratio		0.36									0.58	
v/c Ratio		0.84									0.54	
Control Delay		31.5									5.6	
Queue Delay		0.0									0.1	
Total Delay		31.5									5.6	
LOS		C									A	
Approach Delay		31.5									5.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												A
Queue Length 50th (ft)		264										73
Queue Length 95th (ft)		326										84
Internal Link Dist (ft)		172			417			94				91
Turn Bay Length (ft)												
Base Capacity (vph)		1709										2761
Starvation Cap Reductn		0										205
Spillback Cap Reductn		0										12
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.84										0.59

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	66 (73%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	18.3
Intersection LOS:	B
Intersection Capacity Utilization:	61.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4821	0	0	0	0	0	5325	0	0	0	0
Flt Permitted		0.989										
Satd. Flow (perm)	0	4821	0	0	0	0	0	5325	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						24				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	258	955	0	0	0	0	0	2083	340	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1264	0	0	0	0	0	2634	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		32.0						52.0				
Actuated g/C Ratio		0.36						0.58				
v/c Ratio		0.74						0.85				
Control Delay		14.7						9.0				
Queue Delay		0.0						0.6				
Total Delay		14.7						9.5				
LOS		B						A				
Approach Delay		14.7						9.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		73							91				
Queue Length 95th (ft)		127							198				
Internal Link Dist (ft)		417				148			104			82	
Turn Bay Length (ft)													
Base Capacity (vph)		1717							3087				
Starvation Cap Reductn		0							93				
Spillback Cap Reductn		0							157				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.74							0.90				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	11.2
Intersection LOS:	B
Intersection Capacity Utilization:	66.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	130		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4927	0	0	0	0	0	4678	0	1770	4662	0
Flt Permitted		0.996								0.105		
Satd. Flow (perm)	0	4846	0	0	0	0	0	4678	0	196	4662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	113	1081	101	0	0	0	0	1317	112	265	1281	0
Confl. Peds. (#/hr)	140		140			140			280	280		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								7	7		30	30
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1423	0	0	0	0	0	1624	0	301	1456	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	34.0	34.0						33.0		7.0	48.0	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	38.0	0.0	14.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	0.0%	42.2%	0.0%	15.6%	57.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		35.0						35.0		49.0	49.0	
Actuated g/C Ratio		0.39						0.39		0.54	0.54	
v/c Ratio		0.74						0.89		1.01	0.57	
Control Delay		35.3						16.3		56.0	6.3	
Queue Delay		0.6						0.0		0.0	0.2	
Total Delay		36.0						16.3		56.0	6.5	
LOS		D						B		E	A	
Approach Delay		36.0						16.3			15.0	

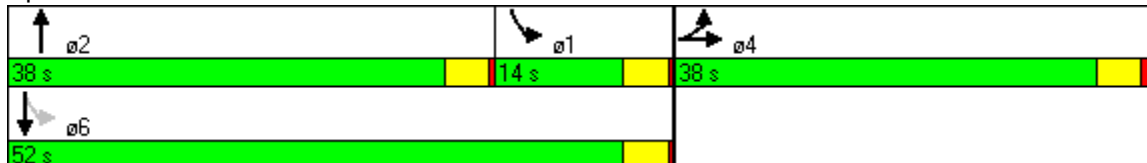


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						B			B	
Queue Length 50th (ft)		294						56	~89		57	
Queue Length 95th (ft)		343						167	m#140		m65	
Internal Link Dist (ft)		141			225			106			89	
Turn Bay Length (ft)										130		
Base Capacity (vph)		1927						1830	299		2538	
Starvation Cap Reductn		195						0	0		382	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.82						0.89	1.01		0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 42 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 21.7      Intersection LOS: C  
 Intersection Capacity Utilization 81.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 585: Bush St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1898	0	0	1938	0
Flt Permitted		0.998									0.897	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1898	0	0	1754	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20						13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	45	1328	85	0	0	0	0	221	60	76	348	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1534	0	0	0	0	0	296	0	0	446	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.0						28.0			28.0	
Actuated g/C Ratio		0.43						0.47			0.47	
v/c Ratio		0.73						0.33			0.54	
Control Delay		16.4						9.2			14.4	
Queue Delay		0.0						0.0			2.0	
Total Delay		16.4						9.2			16.3	
LOS		B						A			B	
Approach Delay		16.4						9.2			16.3	

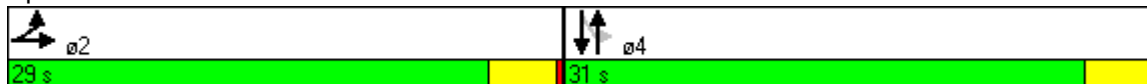


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A			B	
Queue Length 50th (ft)		157							40			150	
Queue Length 95th (ft)		207							82			232	
Internal Link Dist (ft)		112				117			106			80	
Turn Bay Length (ft)													
Base Capacity (vph)		2101							893			819	
Starvation Cap Reductn		0							0			228	
Spillback Cap Reductn		0							0			0	
Storage Cap Reductn		0							0			0	
Reduced v/c Ratio		0.73							0.33			0.75	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	52 (87%), Referenced to phase 4:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	15.5
Intersection LOS:	B
Intersection Capacity Utilization	76.3%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 586: Bush St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	2997	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	2997	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35						30	30			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	116	1348	0	0	0	0	0	471	328	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1541	0	0	0	0	0	600	241	0	0	0
Turn Type	Split						Perm					
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.59						0.54	0.52			
Control Delay		2.3						10.5	12.1			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.3						10.5	12.1			
LOS		A						B	B			
Approach Delay		2.3						11.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	19						69 45					
Queue Length 95th (ft)	23						112 126					
Internal Link Dist (ft)	216			181			103			10		
Turn Bay Length (ft)												
Base Capacity (vph)	2606						1118 460					
Starvation Cap Reductn	0						0 0					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.59						0.54 0.52					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	51.6%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4729	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4729	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		47										36
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1324	332	0	0	0	0	0	0	128	778	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1743	0	0	0	0	0	0	0	0	954	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.66									0.58	
Control Delay		5.4									13.5	
Queue Delay		0.0									0.0	
Total Delay		5.4									13.5	
LOS		A									B	
Approach Delay		5.4									13.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS			A										B
Queue Length 50th (ft)			0										116
Queue Length 95th (ft)			57										157
Internal Link Dist (ft)		160			385			52				237	
Turn Bay Length (ft)													
Base Capacity (vph)		2622										1633	
Starvation Cap Reductn		0										0	
Spillback Cap Reductn		0										0	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.66										0.58	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	22 (37%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	57.3%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				50							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	274	1484	0	0	0	0	0	1081	161
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	288	1562	0	0	0	0	0	1321	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				39.0	39.0						45.0	
Actuated g/C Ratio				0.43	0.43						0.50	
v/c Ratio				0.36	0.74						0.56	
Control Delay				12.2	16.0						7.4	
Queue Delay				0.0	0.1						0.3	
Total Delay				12.2	16.0						7.7	
LOS				B	B						A	
Approach Delay					15.4						7.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				45	128						56	
Queue Length 95th (ft)				m54	m152						65	
Internal Link Dist (ft)		169			423			88			273	
Turn Bay Length (ft)												
Base Capacity (vph)				795	2113						2345	
Starvation Cap Reductn				0	49						388	
Spillback Cap Reductn				0	0						0	
Storage Cap Reductn				0	0						0	
Reduced v/c Ratio				0.36	0.76						0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 71 (79%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 12.2      Intersection LOS: B  
 Intersection Capacity Utilization 69.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 612: Pine St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6023	0	0	5168	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6023	0	0	5168	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					3			2				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			452			172				192
Travel Time (s)		13.7			12.3			4.7				5.2
Volume (vph)	0	0	0	0	1548	385	210	2094	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2329	0	0	2451	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					37.0			47.0				
Actuated g/C Ratio					0.41			0.52				
v/c Ratio					0.94			0.91				
Control Delay					20.8			14.7				
Queue Delay					14.2			29.2				
Total Delay					35.0			43.8				
LOS					C			D				
Approach Delay					35.0			43.8				

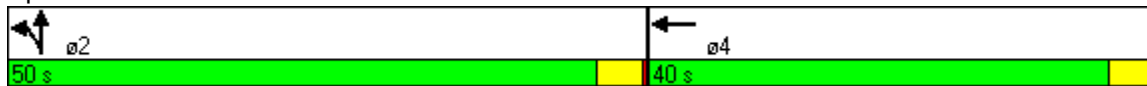


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			D				
Queue Length 50th (ft)					395			154				
Queue Length 95th (ft)					309			250				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2478			2700				
Starvation Cap Reductn					204			163				
Spillback Cap Reductn					0			390				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					1.02			1.06				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	39.5
Intersection LOS:	D
Intersection Capacity Utilization:	69.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 613: Pine St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑↑↑			↑↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6201	0	1770	4746	0	0	4534	0
Flt Permitted				0.998		0.105						
Satd. Flow (perm)	0	0	0	0	6143	0	196	4746	0	0	4534	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					29						23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	96	1655	171	118	1275	0	0	1490	160
Confl. Peds. (#/hr)				140		140	280					280
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								20			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2023	0	124	1342	0	0	1736	0
Turn Type				Split			pm+pt					
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	
Minimum Split (s)				27.0	27.0		6.5	48.0			33.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	14.0	52.0	0.0	0.0	38.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	15.6%	57.8%	0.0%	0.0%	42.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		0.5	0.5			0.5	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					35.0		49.0	49.0			35.0	
Actuated g/C Ratio					0.39		0.54	0.54			0.39	
v/c Ratio					0.83		0.41	0.52			0.98	
Control Delay					28.3		17.3	3.1			35.9	
Queue Delay					2.2		0.0	1.4			2.5	
Total Delay					30.5		17.3	4.5			38.4	
LOS					C		B	A			D	
Approach Delay					30.5			5.6			38.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6160	0	0	1938	0	0	1883	0
Flt Permitted				0.998			0.819					
Satd. Flow (perm)	0	0	0	0	6160	0	0	1601	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	78	1723	76	47	219	0	0	319	122
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1976	0	0	280	0	0	464	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	32.5	32.5	0.0	27.5	27.5	0.0	0.0	27.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	54.2%	54.2%	0.0%	45.8%	45.8%	0.0%	0.0%	45.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					29.5			24.5			24.5	
Actuated g/C Ratio					0.49			0.41			0.41	
v/c Ratio					0.65			0.43			0.60	
Control Delay					6.0			21.2			9.3	
Queue Delay					0.0			0.0			0.2	
Total Delay					6.0			21.2			9.5	
LOS					A			C			A	
Approach Delay					6.0			21.2			9.5	



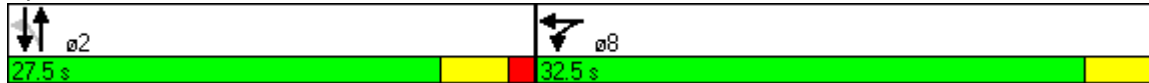
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			C			A	
Queue Length 50th (ft)					54			97			42	
Queue Length 95th (ft)					63			m159			61	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					3038			654			773	
Starvation Cap Reductn					0			0			35	
Spillback Cap Reductn					47			0			19	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.66			0.43			0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 56 (93%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 8.1                      Intersection LOS: A  
 Intersection Capacity Utilization 75.8%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6110	0	0	3135	0	0	0	0
Flt Permitted								0.976				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3135	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					77			17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1587	188	290	307	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1869	0	0	628	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.55			0.57				
Control Delay					2.7			11.9				
Queue Delay					0.0			0.0				
Total Delay					2.7			11.9				
LOS					A			B				
Approach Delay					2.7			11.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B				
Queue Length 50th (ft)					24			89				
Queue Length 95th (ft)					28			122				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3395			1108				
Starvation Cap Reductn					0			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.55			0.57				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	46 (77%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	5.0
Intersection LOS:	A
Intersection Capacity Utilization	49.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4468	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4468	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					92						12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	242	1575	0	0	0	0	0	664	200
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1913	0	0	0	0	0	910	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.59						0.51	
Control Delay					11.0						14.6	
Queue Delay					0.0						0.0	
Total Delay					11.0						14.6	
LOS					B						B	
Approach Delay					11.0						14.6	

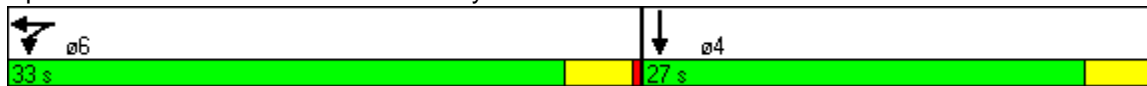


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					124						85	
Queue Length 95th (ft)					156						118	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3228						1794	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.59						0.51	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	34 (57%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	12.2
Intersection LOS:	B
Intersection Capacity Utilization	50.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3507	0	0	0	0	0	3507	0
Flt Permitted					0.649						0.997	
Satd. Flow (perm)	0	3461	0	0	2297	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27									7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	536	94	109	520	0	0	0	0	71	1039	48
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	685	0	0	732	0	0	0	0	0	1245	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						25.0	25.0
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	44.4%	0.0%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	55.6%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		37.0			37.0							47.0
Actuated g/C Ratio		0.41			0.41							0.52
v/c Ratio		0.48			0.78							0.68
Control Delay		19.9			54.9							13.0
Queue Delay		0.0			0.0							4.4
Total Delay		19.9			54.9							17.5
LOS		B			D							B
Approach Delay		19.9			54.9							17.5

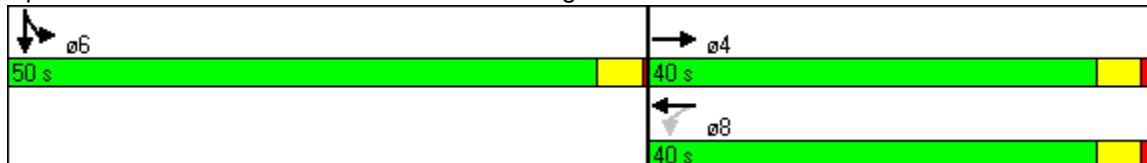


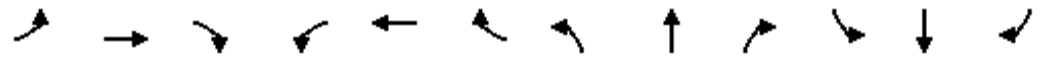
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			D						B	
Queue Length 50th (ft)		140			234						141	
Queue Length 95th (ft)		190			m277						m251	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1439			944						1835	
Starvation Cap Reductn		0			0						505	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.48			0.78						0.94	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 28.4                      Intersection LOS: C  
 Intersection Capacity Utilization 77.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3472	0	0	5385	0	0	0	0
Flt Permitted	0.176							0.998				
Satd. Flow (perm)	328	3539	0	0	3472	0	0	5385	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					16			17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	90	517	0	0	551	82	78	2273	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	106	608	0	0	744	0	0	2917	0	0	0	0
Turn Type	pm+pt							Split				
Protected Phases	7	4			8			2	2			
Permitted Phases	4											
Detector Phases	7	4			8			2	2			
Minimum Initial (s)	3.0	4.0			4.0			1.5	1.5			
Minimum Split (s)	6.5	30.5			24.0			52.0	52.0			
Total Split (s)	6.5	35.0	0.0	0.0	28.5	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	7.2%	38.9%	0.0%	0.0%	31.7%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0			3.5	3.5			
All-Red Time (s)	0.0	0.0			0.0			0.0	0.0			
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	32.0	32.0			25.5			52.0				
Actuated g/C Ratio	0.36	0.36			0.28			0.58				
v/c Ratio	0.61	0.48			0.75			0.94				
Control Delay	34.7	13.6			18.4			14.0				
Queue Delay	0.0	0.0			0.0			21.6				
Total Delay	34.7	13.6			18.4			35.6				
LOS	C	B			B			D				
Approach Delay		16.7			18.4			35.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B				B		D					
Queue Length 50th (ft)	39	154			211		367					
Queue Length 95th (ft)	m#73	193			202		301					
Internal Link Dist (ft)	438				361		87				266	
Turn Bay Length (ft)												
Base Capacity (vph)	173	1258			995		3119					
Starvation Cap Reductn	0	0			0		327					
Spillback Cap Reductn	0	0			0		100					
Storage Cap Reductn	0	0			0		0					
Reduced v/c Ratio	0.61	0.48			0.75		1.04					

**Intersection Summary**

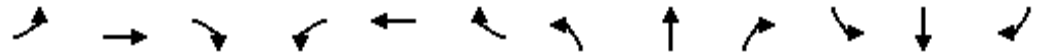
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 79 (88%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 29.6                      Intersection LOS: C  
 Intersection Capacity Utilization 69.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 640: California St. & Franklin St.**

ø2	ø4
55 s	35 s
ø7	ø8
	28.5 s
	6.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3279	0	0	3317	0	0	4676	0	0	4602	0
Flt Permitted		0.891			0.810							
Satd. Flow (perm)	0	2922	0	0	2685	0	0	4676	0	0	4602	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			5			28			15	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	29	483	133	48	548	101	0	1318	128	0	1469	85
Confl. Peds. (#/hr)	158		188	188		158			360			212
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								8	8		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	741	0	0	766	0	0	1491	0	0	1653	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0			4.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			42.5			42.5	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		35.0			35.0			49.0			49.0	
Actuated g/C Ratio		0.39			0.39			0.54			0.54	
v/c Ratio		0.65			0.73			0.58			0.66	
Control Delay		46.6			28.3			3.1			6.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		46.6			28.3			3.1			6.7	
LOS		D			C			A			A	
Approach Delay		46.6			28.3			3.1			6.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			A			A		
Queue Length 50th (ft)	224			190			35			65		
Queue Length 95th (ft)	m231			261			39			97		
Internal Link Dist (ft)	361			163			282			265		
Turn Bay Length (ft)												
Base Capacity (vph)	1141			1047			2559			2512		
Starvation Cap Reductn	0			0			10			27		
Spillback Cap Reductn	0			0			0			13		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.65			0.73			0.58			0.67		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 15.5                      Intersection LOS: B  
 Intersection Capacity Utilization 85.8%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3392	0	0	3416	0	0	1910	0	0	1903	0
Flt Permitted								0.967			0.927	
Satd. Flow (perm)	0	3392	0	0	3416	0	0	1853	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			25			18			20	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	522	89	0	642	69	17	235	43	62	352	78
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	643	0	0	749	0	0	310	0	0	518	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	30.5	0.0	0.0	30.5	0.0	29.5	29.5	0.0	29.5	29.5	0.0
Total Split (%)	0.0%	50.8%	0.0%	0.0%	50.8%	0.0%	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		27.5			27.5			26.5			26.5	
Actuated g/C Ratio		0.46			0.46			0.44			0.44	
v/c Ratio		0.41			0.47			0.37			0.65	
Control Delay		11.0			14.7			12.9			8.6	
Queue Delay		0.0			0.0			0.0			0.2	
Total Delay		11.0			14.7			12.9			8.8	
LOS		B			B			B			A	
Approach Delay		11.0			14.7			12.9			8.8	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1771	0	1770	0	1290
Flt Permitted		0.915					0.950			0.321		
Satd. Flow (perm)	0	3174	0	0	3455	0	1770	1771	0	598	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			47				44
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	26	601	0	0	591	15	85	277	133	55	0	35
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	667	0	0	730	0	90	436	0	69	0	44
Turn Type	Perm						Perm		custom			custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	33.5	33.5	0.0	0.0	33.5	0.0	26.5	26.5	0.0	26.5	0.0	26.5
Total Split (%)	55.8%	55.8%	0.0%	0.0%	55.8%	0.0%	44.2%	44.2%	0.0%	44.2%	0.0%	44.2%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		30.5			30.5		23.5	23.5		23.5		23.5
Actuated g/C Ratio		0.51			0.51		0.39	0.39		0.39		0.39
v/c Ratio		0.41			0.42		0.13	0.60		0.29		0.08
Control Delay		4.4			10.0		9.1	12.6		16.9		4.8
Queue Delay		0.0			0.0		0.0	0.1		0.0		0.0
Total Delay		4.4			10.0		9.1	12.6		16.9		4.8
LOS		A			B		A	B		B		A
Approach Delay		4.4			10.0			12.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A			B			B					
Queue Length 50th (ft)	26			78			14	58	17			0
Queue Length 95th (ft)	35			102			m25	91	39			13
Internal Link Dist (ft)	412			61			283			587		
Turn Bay Length (ft)												
Base Capacity (vph)	1613			1759			693	722	234			532
Starvation Cap Reductn	0			0			0	11	0			0
Spillback Cap Reductn	0			0			0	0	0			0
Storage Cap Reductn	0			0			0	0	0			0
Reduced v/c Ratio	0.41			0.42			0.13	0.61	0.29			0.08


















**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization	71.7%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 643: California St. & Larkin St.

← ø2	↖ ø4
33.5 s	26.5 s
→ ø6	↑ ø8
33.5 s	26.5 s

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1835	0	0	0	0	0	1535	0
Flt Permitted	0.438			0.950								
Satd. Flow (perm)	816	0	1583	1770	1835	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			121	194	7						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	53	0	85	254	203	23	0	0	0	0	819	46
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	76	0	121	285	254	0	0	0	0	0	883	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	30.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	27.0		27.0	27.0	27.0						57.0	
Actuated g/C Ratio	0.30		0.30	0.30	0.30						0.63	
v/c Ratio	0.31		0.22	0.43	0.46						0.91	
Control Delay	28.7		5.7	27.8	40.9						23.1	
Queue Delay	0.0		0.0	0.0	0.0						2.6	
Total Delay	28.7		5.7	27.9	40.9						25.7	
LOS	C		A	C	D						C	
Approach Delay					34.0						25.7	

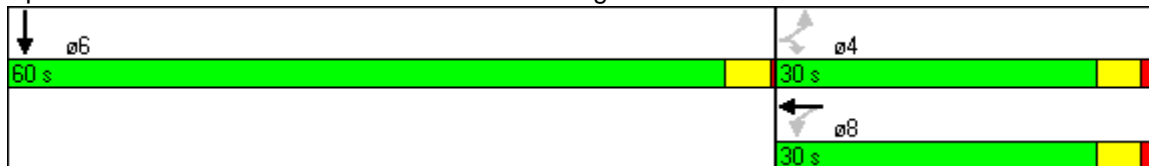


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS							C			C		
Queue Length 50th (ft)	33		0	113	145						491	
Queue Length 95th (ft)	54		18	185	220						#696	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	245		560	667	555						974	
Starvation Cap Reductn	0		0	0	0						0	
Spillback Cap Reductn	0		3	4	0						38	
Storage Cap Reductn	0		0	0	0						0	
Reduced v/c Ratio	0.31		0.22	0.43	0.46						0.94	

**Intersection Summary**

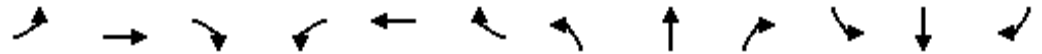
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	52 (58%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	27.1
Intersection LOS:	C
Intersection Capacity Utilization:	75.2%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases:** 659: Sacramento St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3444	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3444	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					2		76					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	409	88	71	2374	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	541	0	76	2553	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					32.0		52.0	52.0				
Actuated g/C Ratio					0.36		0.58	0.58				
v/c Ratio					0.44		0.07	0.92				
Control Delay					19.3		0.1	6.7				
Queue Delay					0.0		0.0	2.4				
Total Delay					19.3		0.1	9.1				
LOS					B		A	A				
Approach Delay					19.3			8.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					141		0	43				
Queue Length 95th (ft)					195		m0	m49				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					1226		1055	2767				
Starvation Cap Reductn					0		0	127				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					0.44		0.07	0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 88 (98%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 10.6      Intersection LOS: B  
 Intersection Capacity Utilization 66.6%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3153	0	1770	4712	0	0	4686	0
Flt Permitted				0.990			0.099					
Satd. Flow (perm)	0	0	0	0	3058	0	183	4712	0	0	4686	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					32						12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	118	366	103	67	1381	0	0	1436	64
Confl. Peds. (#/hr)				144		142	86					86
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	611	0	69	1424	0	0	1579	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				30.5	30.5		42.5	42.5			42.5	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	52.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					35.0		49.0	49.0			49.0	
Actuated g/C Ratio					0.39		0.54	0.54			0.54	
v/c Ratio					0.49		0.69	0.56			0.62	
Control Delay					21.2		38.3	3.0			9.4	
Queue Delay					0.0		0.0	0.1			0.0	
Total Delay					21.2		38.3	3.1			9.5	
LOS					C		D	A			A	
Approach Delay					21.2			4.7			9.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			A	
Queue Length 50th (ft)					127		4	32			80	
Queue Length 95th (ft)					177		m#83	36			111	
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)							120					
Base Capacity (vph)					1246		100	2565			2557	
Starvation Cap Reductn					0		0	193			72	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.49		0.69	0.60			0.64	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 64 (71%), Referenced to phase 2:NBSB, Start of Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 9.5

Intersection LOS: A

Intersection Capacity Utilization 67.9%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3490	0	0	1947	0	0	1895	0
Flt Permitted				0.993			0.942					
Satd. Flow (perm)	0	0	0	0	3490	0	0	1842	0	0	1895	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11						32	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	80	437	25	26	278	0	0	412	124
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	570	0	0	320	0	0	565	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	30.5	30.5	0.0	29.5	29.5	0.0	0.0	29.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.8%	50.8%	0.0%	49.2%	49.2%	0.0%	0.0%	49.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					27.5			26.5			26.5	
Actuated g/C Ratio					0.46			0.44			0.44	
v/c Ratio					0.35			0.39			0.66	
Control Delay					11.1			11.6			10.3	
Queue Delay					0.0			0.0			0.2	
Total Delay					11.1			11.6			10.4	
LOS					B			B			B	
Approach Delay					11.1			11.6			10.4	

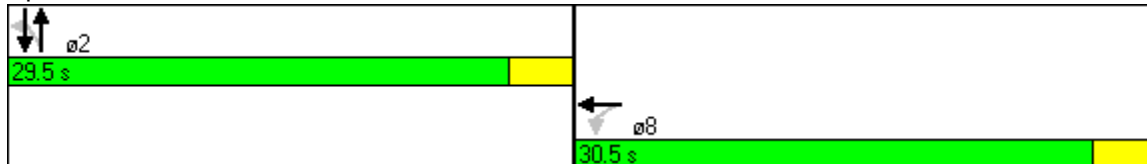


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B			B	
Queue Length 50th (ft)					64			68			57	
Queue Length 95th (ft)					96			100			98	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1606			814			855	
Starvation Cap Reductn					0			0			29	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.35			0.39			0.68	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	11.0
Intersection LOS:	B
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 662: Sacramento St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1693	0	0	1553	0	0	5024	0	0	0	0
Flt Permitted		0.949						0.999				
Satd. Flow (perm)	0	1626	0	0	1553	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			23				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	13	41	0	0	17	40	34	2252	176	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	57	0	0	60	0	0	2592	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.10			0.11			0.89				
Control Delay		12.3			29.7			3.7				
Queue Delay		0.0			0.0			0.8				
Total Delay		12.3			29.7			4.6				
LOS		B			C			A				
Approach Delay		12.3			29.7			4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A				
Queue Length 50th (ft)		24			23			18				
Queue Length 95th (ft)		m50			m41			m18				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		578			555			2912				
Starvation Cap Reductn		0			0			116				
Spillback Cap Reductn		0			0			110				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.10			0.11			0.93				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 7 (8%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 5.3

Intersection LOS: A

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 671: Clay St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑↑		↕	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1550	0	0	0	0	0	4549	0	1770	4664	0
Flt Permitted		0.998								0.099		
Satd. Flow (perm)	0	1537	0	0	0	0	0	4549	0	181	4664	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6						17			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	10	157	50	0	0	0	0	1397	87	45	1450	57
Confl. Peds. (#/hr)	135		135						270	270		270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								28	28		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	278	0	0	0	0	0	1579	0	47	1586	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	25.5	25.5						48.5		48.5	48.5	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	0.0%	57.8%	0.0%	57.8%	57.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		35.0						49.0		49.0	49.0	
Actuated g/C Ratio		0.39						0.54		0.54	0.54	
v/c Ratio		0.46						0.64		0.47	0.62	
Control Delay		16.5						3.1		34.6	19.6	
Queue Delay		0.0						0.0		0.0	0.0	
Total Delay		16.5						3.1		34.6	19.6	
LOS		B						A		C	B	
Approach Delay		16.5						3.1			20.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			C		
Queue Length 50th (ft)	84						26			0	187	
Queue Length 95th (ft)	m108						30			m0	190	
Internal Link Dist (ft)	370						421			247		
Turn Bay Length (ft)										110		
Base Capacity (vph)	606						2484			99	2544	
Starvation Cap Reductn	0						0			0	0	
Spillback Cap Reductn	0						0			0	0	
Storage Cap Reductn	0						0			0	0	
Reduced v/c Ratio	0.46						0.64			0.47	0.62	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 71 (79%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 12.1                      Intersection LOS: B  
 Intersection Capacity Utilization 59.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3094	0	0	0	0	0	1887	0	0	1945	0
Flt Permitted		0.992									0.953	
Satd. Flow (perm)	0	3094	0	0	0	0	0	1887	0	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		166						39				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	44	87	158	0	0	0	0	224	79	38	378	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	304	0	0	0	0	0	319	0	0	438	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.5						27.5			27.5	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.21						0.36			0.51	
Control Delay		5.2						11.3			11.4	
Queue Delay		0.0						0.1			0.4	
Total Delay		5.2						11.4			11.7	
LOS		A						B			B	
Approach Delay		5.2						11.4			11.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A							B			B
Queue Length 50th (ft)		14						44			137	
Queue Length 95th (ft)		34						90			214	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1459						886			854	
Starvation Cap Reductn		0						98			110	
Spillback Cap Reductn		1						0			22	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.21						0.40			0.59	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	6 (10%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	9.8
Intersection LOS:	A
Intersection Capacity Utilization	57.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 673: Clay St. & Polk St.

 2	 4
30.5 s	29.5 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1726	0	0	0	0	0	1464	0	0	1857	0
Flt Permitted		0.999									0.996	
Satd. Flow (perm)	0	1726	0	0	0	0	0	1464	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						30			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	5	104	88	0	0	0	0	34	22	16	760	11
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	252	0	0	0	0	0	76	0	0	811	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				6
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	63.0	0.0	63.0	63.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.0						60.0			60.0	
Actuated g/C Ratio		0.27						0.67			0.67	
v/c Ratio		0.51						0.08			0.66	
Control Delay		27.2						0.3			4.8	
Queue Delay		0.0						0.0			1.3	
Total Delay		27.2						0.3			6.1	
LOS		C						A			A	
Approach Delay		27.2						0.3			6.1	

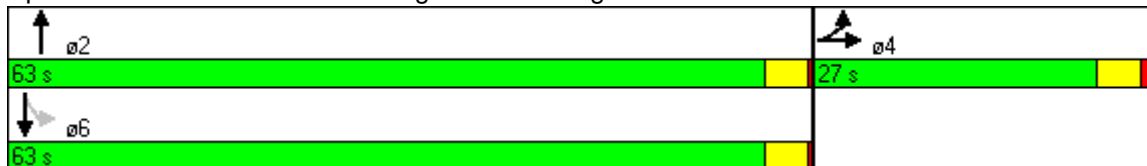


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			A	
Queue Length 50th (ft)		99						0			42	
Queue Length 95th (ft)		142						1			50	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		493						986			1235	
Starvation Cap Reductn		0						0			225	
Spillback Cap Reductn		2						0			98	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.51						0.08			0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	34 (38%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	10.4
Intersection LOS:	B
Intersection Capacity Utilization	66.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 679: Washington St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3486	0	0	0	0	0	4765	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3486	0	0	0	0	0	4765	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						9				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	25	117	0	0	0	0	0	2229	76	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	222	0	0	0	0	0	2452	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		32.0						52.0				
Actuated g/C Ratio		0.36						0.58				
v/c Ratio		0.18						0.89				
Control Delay		31.4						4.7				
Queue Delay		0.0						0.7				
Total Delay		31.4						5.4				
LOS		C						A				
Approach Delay		31.4						5.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		60							15				
Queue Length 95th (ft)		66							16				
Internal Link Dist (ft)		442				372			216			289	
Turn Bay Length (ft)													
Base Capacity (vph)		1242							2757				
Starvation Cap Reductn		0							97				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.18							0.92				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	16 (18%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	55.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3330	0	0	0	0	0	1922	0	0	1947	0
Flt Permitted		0.993									0.969	
Satd. Flow (perm)	0	3330	0	0	0	0	0	1922	0	0	1895	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82						22				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	36	160	78	0	0	0	0	234	34	28	338	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	288	0	0	0	0	0	282	0	0	385	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	21.5	21.5	0.0	0.0	0.0	0.0	0.0	38.5	0.0	38.5	38.5	0.0
Total Split (%)	35.8%	35.8%	0.0%	0.0%	0.0%	0.0%	0.0%	64.2%	0.0%	64.2%	64.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		18.5						35.5			35.5	
Actuated g/C Ratio		0.31						0.59			0.59	
v/c Ratio		0.27						0.25			0.34	
Control Delay		11.8						11.1			8.0	
Queue Delay		0.0						0.0			0.5	
Total Delay		11.8						11.1			8.5	
LOS		B						B			A	
Approach Delay		11.8						11.1			8.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B			A	
Queue Length 50th (ft)		28						63			101	
Queue Length 95th (ft)		54						95			161	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1083						1146			1121	
Starvation Cap Reductn		0						0			364	
Spillback Cap Reductn		0						0			32	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.27						0.25			0.51	

**Intersection Summary**

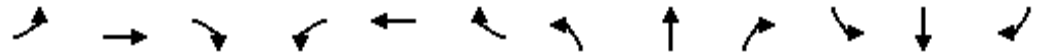
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	51 (85%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	10.3
Intersection LOS:	B
Intersection Capacity Utilization	51.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.

 2 38.5 s	 4 21.5 s
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1828	0	0	1857	0	0	1835	0
Flt Permitted		0.830		0.730				0.975				
Satd. Flow (perm)	0	1418	0	1360	1828	0	0	1816	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			3							12
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	22	0	35	73	242	11	2	37	0	0	679	85
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	72	0	99	342	0	0	50	0	0	796	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		32.0		32.0	32.0			52.0				52.0
Actuated g/C Ratio		0.36		0.36	0.36			0.58				0.58
v/c Ratio		0.14		0.20	0.52			0.05				0.75
Control Delay		10.5		13.7	17.1			2.7				10.0
Queue Delay		0.0		0.0	0.0			0.0				0.8
Total Delay		10.5		13.7	17.1			2.7				10.8
LOS		B		B	B			A				B
Approach Delay		10.5			16.4			2.7				10.8

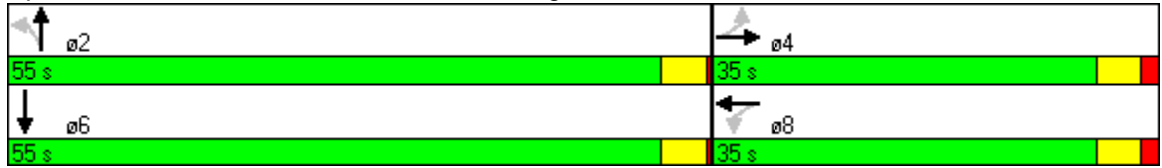


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			B			A			B		
Queue Length 50th (ft)	10			27	100				3	38		
Queue Length 95th (ft)	31			m35	107				6	48		
Internal Link Dist (ft)	457			407			300			229		
Turn Bay Length (ft)												
Base Capacity (vph)	533			484	652	1049			1065			
Starvation Cap Reductn	0			0	0	0			85			
Spillback Cap Reductn	0			0	0	0			14			
Storage Cap Reductn	0			0	0	0			0			
Reduced v/c Ratio	0.14			0.20	0.52	0.05			0.81			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 12.3      Intersection LOS: B  
 Intersection Capacity Utilization 67.7%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3405	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3405	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					5			16				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	206	56	120	2134	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	276	0	0	2372	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					32.0			52.0				
Actuated g/C Ratio					0.36			0.58				
v/c Ratio					0.23			0.86				
Control Delay					19.1			2.6				
Queue Delay					0.0			0.3				
Total Delay					19.1			2.9				
LOS					B			A				
Approach Delay					19.1			2.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					67			9				
Queue Length 95th (ft)					m104			20				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					1214			2755				
Starvation Cap Reductn					0			66				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.23			0.88				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	4.6
Intersection LOS:	A
Intersection Capacity Utilization:	57.8%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 687: Jackson St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3379	0	0	1928	0	0	1904	0
Flt Permitted				0.986			0.834					
Satd. Flow (perm)	0	0	0	0	3379	0	0	1631	0	0	1904	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					34						35	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	74	144	38	76	194	0	0	292	70
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	270	0	0	284	0	0	381	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	21.5	21.5	0.0	38.5	38.5	0.0	0.0	38.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	35.8%	35.8%	0.0%	64.2%	64.2%	0.0%	0.0%	64.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					18.5			35.5			35.5	
Actuated g/C Ratio					0.31			0.59			0.59	
v/c Ratio					0.25			0.29			0.33	
Control Delay					14.3			5.7			6.2	
Queue Delay					0.0			0.0			0.3	
Total Delay					14.3			5.7			6.5	
LOS					B			A			A	
Approach Delay					14.3			5.7			6.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					33			38			55	
Queue Length 95th (ft)					58			102			91	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1065			965			1141	
Starvation Cap Reductn					0			0			297	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.25			0.29			0.45	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	30 (50%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.33
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization:	51.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 688: Jackson St. & Polk St.

 ø2	 ø4
38.5 s	21.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	1826	0	0	1785	0	0	1857	0
Flt Permitted		0.998			0.920						0.993	
Satd. Flow (perm)	0	1816	0	0	1697	0	0	1785	0	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			5			30			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	110	23	37	135	14	0	48	22	20	704	9
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	166	0	0	204	0	0	96	0	0	771	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	61.1%	61.1%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		32.0			32.0			52.0			52.0	
Actuated g/C Ratio		0.36			0.36			0.58			0.58	
v/c Ratio		0.25			0.34			0.09			0.72	
Control Delay		20.1			31.9			7.7			19.4	
Queue Delay		0.0			0.0			0.0			1.8	
Total Delay		20.1			31.9			7.7			21.2	
LOS		C			C			A			C	
Approach Delay		20.1			31.9			7.7			21.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			C	
Queue Length 50th (ft)		60			94			15			390	
Queue Length 95th (ft)		95			m141			39			m481	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		654			607			1044			1067	
Starvation Cap Reductn		0			0			0			154	
Spillback Cap Reductn		0			0			0			67	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.25			0.34			0.09			0.84	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 21.8                      Intersection LOS: C  
 Intersection Capacity Utilization 72.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1751	0	0	5024	0	0	0	0
Flt Permitted		0.936						0.998				
Satd. Flow (perm)	0	1744	0	0	1751	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			22				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	26	126	0	0	104	82	82	1958	150	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	160	0	0	195	0	0	2305	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.26			0.31			0.79				
Control Delay		13.7			12.8			2.0				
Queue Delay		0.0			0.0			0.4				
Total Delay		13.7			12.8			2.5				
LOS		B			B			A				
Approach Delay		13.7			12.8			2.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		72			58			12				
Queue Length 95th (ft)		m119			m76			13				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		620			628			2912				
Starvation Cap Reductn		0			0			208				
Spillback Cap Reductn		0			0			13				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.26			0.31			0.85				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 34 (38%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 3.9      Intersection LOS: A  
 Intersection Capacity Utilization 71.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 694: Pacific Ave. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1726	0	0	1767	0	0	1854	0	0	1928	0
Flt Permitted		0.941			0.894			0.901			0.974	
Satd. Flow (perm)	0	1636	0	0	1599	0	0	1689	0	0	1885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			12			59			11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	30	126	75	65	168	30	50	112	70	20	222	20
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	244	0	0	277	0	0	245	0	0	276	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	23.5	23.5	0.0	23.5	23.5	0.0	36.5	36.5	0.0	36.5	36.5	0.0
Total Split (%)	39.2%	39.2%	0.0%	39.2%	39.2%	0.0%	60.8%	60.8%	0.0%	60.8%	60.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		20.5			20.5			33.5			33.5	
Actuated g/C Ratio		0.34			0.34			0.56			0.56	
v/c Ratio		0.41			0.50			0.25			0.26	
Control Delay		14.9			18.8			7.8			7.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.9			18.8			7.8			7.4	
LOS		B			B			A			A	
Approach Delay		14.9			18.8			7.8			7.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		53			74			0			44	
Queue Length 95th (ft)		107			137			59			79	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		588			554			969			1057	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.50			0.25			0.26	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	12.3
Intersection LOS:	B
Intersection Capacity Utilization	57.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3476	0	0	1802	0	0	1850	0
Flt Permitted		0.945			0.688			0.945			0.969	
Satd. Flow (perm)	0	3288	0	0	2423	0	0	1713	0	0	1800	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			4			18			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	5	331	42	199	538	25	7	44	13	50	492	13
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	397	0	0	896	0	0	89	0	0	603	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	61.1%	61.1%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		32.0			32.0			52.0			52.0	
Actuated g/C Ratio		0.36			0.36			0.58			0.58	
v/c Ratio		0.34			1.04			0.09			0.58	
Control Delay		21.3			70.8			6.0			14.8	
Queue Delay		0.0			0.0			0.0			2.2	
Total Delay		21.3			70.8			6.0			17.0	
LOS		C			E			A			B	
Approach Delay		21.3			70.8			6.0			17.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			E			A			B	
Queue Length 50th (ft)		81			~300			21			201	
Queue Length 95th (ft)		119			#385			23			300	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1180			864			997			1041	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		1			0			0			292	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.34			1.04			0.09			0.81	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	1 (1%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	1.04
Intersection Signal Delay:	41.6
Intersection LOS:	D
Intersection Capacity Utilization	78.2%
ICU Level of Service	D
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3412	0	0	4999	0	0	0	0
Flt Permitted		0.900						0.998				
Satd. Flow (perm)	0	3185	0	0	3412	0	0	4999	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12			35				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	12	382	0	0	669	211	93	1770	203	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	428	0	0	926	0	0	2246	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	34.5	34.5	0.0	0.0	34.5	0.0	55.5	55.5	0.0	0.0	0.0	0.0
Total Split (%)	38.3%	38.3%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.5			31.5			52.5				
Actuated g/C Ratio		0.35			0.35			0.58				
v/c Ratio		0.38			0.77			0.77				
Control Delay		25.4			17.7			3.5				
Queue Delay		0.0			0.0			0.2				
Total Delay		25.4			17.7			3.8				
LOS		C			B			A				
Approach Delay		25.4			17.7			3.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		122			297			30				
Queue Length 95th (ft)		171			m354			33				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		1115			1202			2931				
Starvation Cap Reductn		0			1			171				
Spillback Cap Reductn		0			0			9				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.38			0.77			0.81				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 43 (48%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 9.9                      Intersection LOS: A  
 Intersection Capacity Utilization 72.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 699: Broadway & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	130		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3363	0	0	0	0	0	4693	0	1770	4840	0
Flt Permitted		0.994								0.098		
Satd. Flow (perm)	0	3293	0	0	0	0	0	4693	0	179	4840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16						7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	22	149	22	0	0	0	0	1434	40	85	1530	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	210	0	0	0	0	0	1602	0	89	1594	0
Turn Type	custom									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases	4									6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	25.0	25.0						48.0		6.5	24.0	
Total Split (s)	31.5	31.5	0.0	0.0	0.0	0.0	0.0	52.0	0.0	6.5	58.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.8%	0.0%	7.2%	65.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0						0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		28.5						49.0		55.5	55.5	
Actuated g/C Ratio		0.32						0.54		0.62	0.62	
v/c Ratio		0.20						0.63		0.52	0.53	
Control Delay		36.2						2.4		16.9	5.9	
Queue Delay		0.0						0.1		0.0	0.1	
Total Delay		36.2						2.5		16.9	6.1	
LOS		D						A		B	A	
Approach Delay		36.2						2.5			6.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A			A	
Queue Length 50th (ft)		46						18		9	61	
Queue Length 95th (ft)		m77						20		m18	99	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)										130		
Base Capacity (vph)		1076						2558		172	2985	
Starvation Cap Reductn		0						114		0	434	
Spillback Cap Reductn		0						0		0	51	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.20						0.66		0.52	0.62	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	6.5
Intersection LOS:	A
Intersection Capacity Utilization	60.2%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**

ø2 52 s	ø1 6.5 s	ø4 31.5 s
ø6 58.5 s		





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1811	0	0	1807	0	0	5035	0	0	0	0
Flt Permitted		0.726						0.996				
Satd. Flow (perm)	0	1352	0	0	1807	0	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					16			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	110	78	0	0	131	38	140	1703	82	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	198	0	0	178	0	0	2026	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.41			0.27			0.70				
Control Delay		25.2			21.4			2.2				
Queue Delay		0.0			0.0			0.1				
Total Delay		25.2			21.4			2.3				
LOS		C			C			A				
Approach Delay		25.2			21.4			2.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		84			73			15				
Queue Length 95th (ft)		145			134			17				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		481			653			2914				
Starvation Cap Reductn		0			0			104				
Spillback Cap Reductn		0			0			13				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.41			0.27			0.72				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	61 (68%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	5.6
Intersection LOS:	A
Intersection Capacity Utilization	67.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 701: Green St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1677	0	0	1703	0	0	1811	0	0	1844	0
Flt Permitted		0.978			0.920			0.892			0.984	
Satd. Flow (perm)	0	1643	0	0	1578	0	0	1630	0	0	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			7			18			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	12	202	56	51	297	23	17	64	13	24	424	25
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	329	0	0	436	0	0	159	0	0	537	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	28.5	28.5	0.0	28.5	28.5	0.0	31.5	31.5	0.0	31.5	31.5	0.0
Total Split (%)	47.5%	47.5%	0.0%	47.5%	47.5%	0.0%	52.5%	52.5%	0.0%	52.5%	52.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		25.5			25.5			28.5			28.5	
Actuated g/C Ratio		0.42			0.42			0.48			0.48	
v/c Ratio		0.46			0.65			0.20			0.62	
Control Delay		13.9			18.9			8.9			15.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.9			18.9			8.9			15.5	
LOS		B			B			A			B	
Approach Delay		13.9			18.9			8.9			15.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		73			117			27			133	
Queue Length 95th (ft)		117			188			34			215	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		714			675			784			868	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.46			0.65			0.20			0.62	

**Intersection Summary**

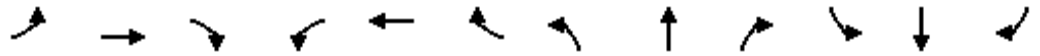
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization	70.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 702: Union St. & Gough St.

 31.5 s	 28.5 s
 31.5 s	 28.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↖↖↖				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1718	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.949						0.996				
Satd. Flow (perm)	0	1640	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						19		11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	28	211	0	0	228	60	143	1640	68	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	251	0	0	240	63	0	1949	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		32.0			32.0	32.0		52.0				
Actuated g/C Ratio		0.36			0.36	0.36		0.58				
v/c Ratio		0.43			0.39	0.11		0.67				
Control Delay		24.9			28.6	19.4		3.9				
Queue Delay		0.0			0.0	0.0		0.1				
Total Delay		24.9			28.6	19.4		4.0				
LOS		C			C	B		A				
Approach Delay		24.9			26.7			4.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		107			118	22		36				
Queue Length 95th (ft)		175			m197	m58		40				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		583			615	575		2914				
Starvation Cap Reductn		0			0	0		195				
Spillback Cap Reductn		0			0	0		0				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.43			0.39	0.11		0.72				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 8.8 Intersection LOS: A  
 Intersection Capacity Utilization 70.8% ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 703: Union St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1812	0	0	5014	0	0	0	0
Flt Permitted		0.968						0.996				
Satd. Flow (perm)	0	1803	0	0	1812	0	0	5014	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			21				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	18	120	0	0	50	12	128	1486	114	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	145	0	0	66	0	0	1819	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.23			0.10			0.63				
Control Delay		21.5			17.6			2.2				
Queue Delay		0.0			0.0			0.1				
Total Delay		21.5			17.6			2.3				
LOS		C			B			A				
Approach Delay		21.5			17.6			2.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		57			27			18				
Queue Length 95th (ft)		102			m63			21				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		641			653			2906				
Starvation Cap Reductn		0			0			184				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.23			0.10			0.67				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 79 (88%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 4.2                      Intersection LOS: A  
 Intersection Capacity Utilization 54.5%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 705: Filbert St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1844	0	0	1798	0	0	5024	0	0	0	0
Flt Permitted		0.935						0.995				
Satd. Flow (perm)	0	1742	0	0	1798	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22			14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	28	104	0	0	78	28	160	1286	70	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	138	0	0	111	0	0	1596	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.22			0.17			0.55				
Control Delay		21.5			22.4			1.3				
Queue Delay		0.0			0.0			0.1				
Total Delay		21.5			22.4			1.4				
LOS		C			C			A				
Approach Delay		21.5			22.4			1.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		54			51			9				
Queue Length 95th (ft)		98			98			10				
Internal Link Dist (ft)		167			372			271			235	
Turn Bay Length (ft)												
Base Capacity (vph)		619			653			2909				
Starvation Cap Reductn		0			0			236				
Spillback Cap Reductn		0			0			2				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.22			0.17			0.60				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	4.2
Intersection LOS:	A
Intersection Capacity Utilization	50.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 706: Greenwich St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1775	0	0	5050	0	0	0	0
Flt Permitted		0.954						0.999				
Satd. Flow (perm)	0	1777	0	0	1775	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	14	71	0	0	91	48	46	1863	84	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	90	0	0	147	0	0	2097	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.14			0.23			0.72				
Control Delay		20.5			15.3			4.6				
Queue Delay		0.0			0.0			0.3				
Total Delay		20.5			15.3			4.9				
LOS		C			B			A				
Approach Delay		20.5			15.3			4.9				



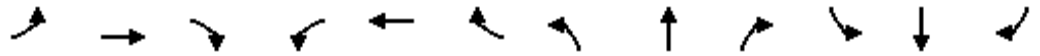


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	130		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3219	0	1652	4469	0	0	4350	0
Flt Permitted				0.984			0.077					
Satd. Flow (perm)	0	0	0	0	2975	0	133	4469	0	0	4350	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21						10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	92	157	41	44	1412	0	0	1523	61
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	312	0	46	1486	0	0	1800	0
Turn Type				Perm			pm+pt					
Protected Phases					8		5	2			6	
Permitted Phases				8			2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		1.0	4.0			4.0	
Minimum Split (s)				30.0	30.0		4.5	50.0			50.0	
Total Split (s)	0.0	0.0	0.0	31.5	31.5	0.0	6.5	58.5	0.0	0.0	52.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	35.0%	35.0%	0.0%	7.2%	65.0%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					28.5		55.5	55.5			49.0	
Actuated g/C Ratio					0.32		0.62	0.62			0.54	
v/c Ratio					0.33		0.33	0.54			0.76	
Control Delay					22.9		11.0	1.0			10.1	
Queue Delay					0.0		0.0	0.1			0.0	
Total Delay					22.9		11.0	1.0			10.2	
LOS					C		B	A			B	
Approach Delay					22.9			1.3			10.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1583	0	0	1624	0	1652	4451	0	0	4304	0
Flt Permitted		0.985			0.722		0.095					
Satd. Flow (perm)	0	1563	0	0	1163	0	162	4451	0	0	4304	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			15			12			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	9	177	90	60	122	56	40	1359	54	0	1434	24
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	329	0	0	378	0	42	1472	0	0	1568	0
Turn Type	Perm			Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0		3.0	13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5		6.5	50.0			48.5	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	10.0	58.5	0.0	0.0	48.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	11.1%	65.0%	0.0%	0.0%	53.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		28.5			28.5		55.5	55.5			45.5	
Actuated g/C Ratio		0.32			0.32		0.62	0.62			0.51	
v/c Ratio		0.64			1.00		0.19	0.54			0.72	
Control Delay		33.5			77.6		4.5	1.3			21.7	
Queue Delay		0.0			0.0		0.0	0.0			2.5	
Total Delay		33.5			77.6		4.5	1.3			24.2	
LOS		C			E		A	A			C	
Approach Delay		33.5			77.6			1.4			24.2	

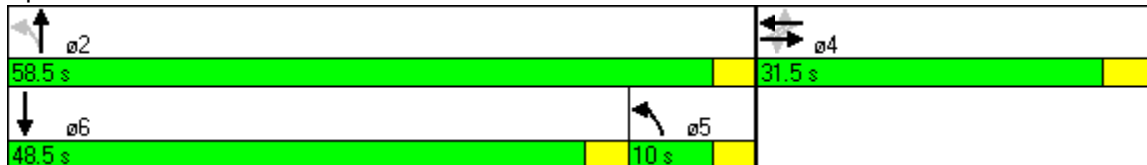


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			E			A			C		
Queue Length 50th (ft)	147			207			1	8	207			
Queue Length 95th (ft)	m214			196			m3	9	m237			
Internal Link Dist (ft)	119			413			253			253		
Turn Bay Length (ft)							120					
Base Capacity (vph)	514			379			216	2749	2178			
Starvation Cap Reductn	0			0			0	52	465			
Spillback Cap Reductn	0			0			0	0	0			
Storage Cap Reductn	0			0			0	0	0			
Reduced v/c Ratio	0.64			1.00			0.19	0.55	0.92			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 3 (3%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 21.2                      Intersection LOS: C  
 Intersection Capacity Utilization 75.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 903: Pacific Ave. & Van Ness Avenue**





VN BRT Project  
904: Broadway & Van Ness Avenue

2007 Existing Conditions  
PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑↑		↑	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3421	0	0	3539	1583	0	4379	0	1399	4106	0
Flt Permitted										0.094	0.646	
Satd. Flow (perm)	0	3421	0	0	3539	1429	0	4379	0	138	2667	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27				280		25			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	488	97	0	825	324	0	1287	137	402	1361	55
Confl. Peds. (#/hr)	84		40	40		84			80	80		78
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	650	0	0	927	364	0	1499	0	216	1738	0
Turn Type						Perm				pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases						8				6		
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		42.5		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	42.5	0.0	16.5	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	47.2%	0.0%	18.3%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		39.5		56.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.44		0.62	0.62	
v/c Ratio		0.60			0.84	0.57		0.77		0.79	0.93	
Control Delay		39.2			37.4	10.5		11.5		39.4	19.4	
Queue Delay		0.0			0.0	0.0		0.1		0.0	1.2	
Total Delay		39.2			37.4	10.5		11.6		39.4	20.6	
LOS		D			D	B		B		D	C	
Approach Delay		39.2			29.8			11.6			22.7	

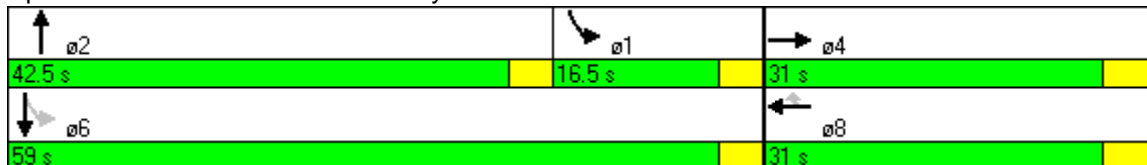


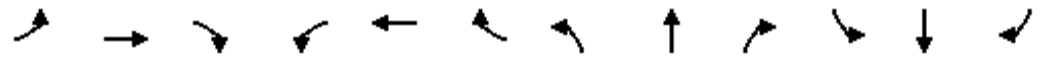
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			C		
Queue Length 50th (ft)	181			257			35			61		
Queue Length 95th (ft)	240			#332			114			m70		
Internal Link Dist (ft)	375			167			253			278		
Turn Bay Length (ft)										250		
Base Capacity (vph)	1083			1101			637			1936		
Starvation Cap Reductn	0			0			0			24		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.60			0.84			0.57			0.78		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 13 (14%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 23.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 97.8%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 904: Broadway & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	0	1787	0	0	4457	0	0	4438	0
Flt Permitted		0.983			0.784							
Satd. Flow (perm)	0	1611	0	0	1383	0	0	4457	0	0	4438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			5			12			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	8	77	70	79	110	17	0	1552	59	0	1669	29
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	182	0	0	287	0	0	1644	0	0	1788	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	0.0	58.5	0.0	0.0	58.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	0.0%	65.0%	0.0%	0.0%	65.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		28.5			28.5			55.5			55.5	
Actuated g/C Ratio		0.32			0.32			0.62			0.62	
v/c Ratio		0.35			0.65			0.60			0.65	
Control Delay		26.9			34.1			2.8			7.2	
Queue Delay		0.0			0.0			0.3			0.0	
Total Delay		26.9			34.1			3.1			7.3	
LOS		C			C			A			A	
Approach Delay		26.9			34.1			3.1			7.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		75			137			39			105	
Queue Length 95th (ft)		m122			166			57			105	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		515			441			2753			2739	
Starvation Cap Reductn		0			0			479			7	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.65			0.72			0.65	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 15 (17%), Referenced to phase 2:NBSB, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 69.7%

ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 907: Vallejo St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1606	0	0	1752	0	1652	4428	0	0	4454	0
Flt Permitted		0.996			0.929		0.105					
Satd. Flow (perm)	0	1599	0	0	1620	0	179	4428	0	0	4454	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			13			8			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	3	69	88	24	83	27	55	1484	38	0	1586	31
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	198	0	0	160	0	56	1537	0	0	1633	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			4			2				2
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		2	2				2
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				4.0
Minimum Split (s)	31.0	31.0		31.0	31.0		50.0	50.0				50.0
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	58.5	58.5	0.0	0.0	58.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	65.0%	65.0%	0.0%	0.0%	65.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		28.5			28.5		55.5	55.5			55.5	
Actuated g/C Ratio		0.32			0.32		0.62	0.62			0.62	
v/c Ratio		0.39			0.31		0.51	0.56			0.59	
Control Delay		25.0			23.3		17.0	1.3			4.0	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		25.0			23.3		17.0	1.3			4.0	
LOS		C			C		B	A			A	
Approach Delay		25.0			23.3			1.9			4.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		80			62		1	9			50	
Queue Length 95th (ft)		126			105		m2	9			49	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)							130					
Base Capacity (vph)		513			522		110	2734			2749	
Starvation Cap Reductn		0			0		0	116			72	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.39			0.31		0.51	0.59			0.61	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	21 (23%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	66.5%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 908: Green St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	125		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1602	0	0	3340	0	1652	4391	0	0	4450	0
Flt Permitted		0.985			0.741		0.100					
Satd. Flow (perm)	0	1576	0	0	2468	0	173	4391	0	0	4450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			22			9			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	10	210	59	62	162	38	94	1380	40	0	1496	32
Confl. Peds. (#/hr)	152		126	126		152	82		80			82
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	313	0	0	324	0	95	1434	0	0	1560	0
Turn Type	Perm			Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	54.5			50.0	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	8.5	58.5	0.0	0.0	50.0	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	9.4%	65.0%	0.0%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		28.5			28.5		55.5	55.5			47.0	
Actuated g/C Ratio		0.32			0.32		0.62	0.62			0.52	
v/c Ratio		0.61			0.41		0.48	0.53			0.67	
Control Delay		32.9			24.3		13.5	2.0			16.9	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		32.9			24.3		13.5	2.1			16.9	
LOS		C			C		B	A			B	
Approach Delay		32.9			24.3			2.8			16.9	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50		50	50	
Trailing Detector (ft)	0	0		0	0			0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1665	0	0	1750	0	0	4446	0	1652	4464	0
Flt Permitted		0.991			0.766					0.129		
Satd. Flow (perm)	0	1648	0	0	1334	0	0	4446	0	219	4464	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			10			5			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	8	129	97	46	43	16	0	1406	22	59	1385	19
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	282	0	0	125	0	0	1488	0	60	1418	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0		18.0	18.0	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	0.0	58.5	0.0	58.5	58.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	0.0%	65.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		28.5			28.5			55.5		55.5	55.5	
Actuated g/C Ratio		0.32			0.32			0.62		0.62	0.62	
v/c Ratio		0.53			0.29			0.54		0.44	0.51	
Control Delay		27.8			23.5			2.0		17.3	8.0	
Queue Delay		0.0			0.0			0.1		0.0	0.0	
Total Delay		27.8			23.5			2.1		17.3	8.1	
LOS		C			C			A		B	A	
Approach Delay		27.8			23.5			2.1			8.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1737	0	0	1809	0	0	4513	0	0	4485	0
Flt Permitted		0.991			0.973							
Satd. Flow (perm)	0	1719	0	0	1757	0	0	4513	0	0	4485	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			2			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	7	122	45	9	84	10	0	1419	11	0	1409	22
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	225	0	0	114	0	0	1589	0	0	1539	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	0.0	58.5	0.0	0.0	58.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	0.0%	65.0%	0.0%	0.0%	65.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		28.5			28.5			55.5			55.5	
Actuated g/C Ratio		0.32			0.32			0.62			0.62	
v/c Ratio		0.41			0.20			0.57			0.56	
Control Delay		25.8			22.5			2.0			4.3	
Queue Delay		0.0			0.0			0.1			0.7	
Total Delay		25.8			22.5			2.0			5.0	
LOS		C			C			A			A	
Approach Delay		25.8			22.5			2.0			5.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		94			44			18			13	
Queue Length 95th (ft)		136			85			20			108	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		553			560			2784			2768	
Starvation Cap Reductn		0			0			13			789	
Spillback Cap Reductn		0			0			200			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.20			0.61			0.78	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	41 (46%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization	47.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 911: Greenwich St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4769	0	0	4881	0	0	1745	0	0	1761	0
Flt Permitted								0.829			0.988	
Satd. Flow (perm)	0	4769	0	0	4881	0	0	1473	0	0	1743	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95			5			6			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1114	238	0	2262	40	29	45	8	11	207	39
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1470	0	0	2373	0	0	115	0	0	299	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.50			0.79			0.24			0.53	
Control Delay		9.7			8.5			22.9			28.5	
Queue Delay		0.0			1.3			0.0			0.0	
Total Delay		9.7			9.7			22.9			28.5	
LOS		A			A			C			C	
Approach Delay		9.7			9.7			22.9			28.5	

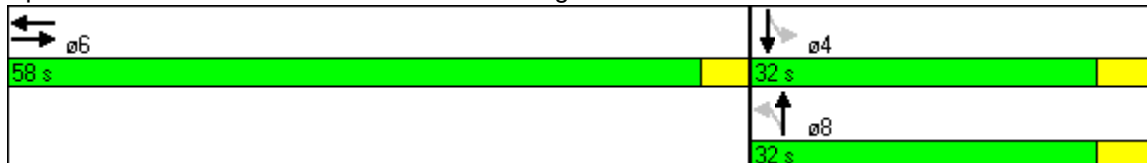


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		144			81			45			135	
Queue Length 95th (ft)		178			m439			66			203	
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2951			2985			479			566	
Starvation Cap Reductn		0			375			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.50			0.91			0.24			0.53	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 6:EBWB, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 11.4                      Intersection LOS: B  
 Intersection Capacity Utilization 67.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 922: Lombard St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5065	0	1610	3286	0	0	0	1611
Flt Permitted		0.899					0.950	0.976				
Satd. Flow (perm)	0	4572	0	0	5065	0	1610	3286	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			7				41
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1131	0	0	1356	34	895	405	42	0	0	51
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1333	0	0	1495	0	515	1028	0	0	0	68
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	43.0	43.0	0.0	0.0	31.0	0.0	47.0	47.0	0.0	0.0	0.0	12.0
Total Split (%)	47.8%	47.8%	0.0%	0.0%	34.4%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	13.3%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		40.5			28.0		43.5	43.5				9.5
Actuated g/C Ratio		0.45			0.31		0.48	0.48				0.11
v/c Ratio		0.65			0.95		0.66	0.65				0.33
Control Delay		38.9			33.0		11.6	9.3				23.8
Queue Delay		0.0			0.8		0.2	0.1				0.0
Total Delay		38.9			33.8		11.8	9.4				23.9
LOS		D			C		B	A				C
Approach Delay		38.9			33.8			10.2				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1770	2601	0	1780	0	4658	1416	0	0	3539	1346
Flt Permitted		0.819					0.950					
Satd. Flow (perm)	0	1381	2601	0	1780	0	3819	1416	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			7		8			22				103
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	122	226	825	0	104	14	1130	253	53	0	606	156
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	366	868	0	136	0	1202	325	0	0	673	173
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		0.85	0.53		0.24		0.89	0.37			0.63	0.48
Control Delay		43.1	2.9		23.2		26.7	6.0			30.5	16.1
Queue Delay		0.0	0.0		0.0		2.6	0.3			0.0	0.0
Total Delay		43.1	2.9		23.2		29.3	6.3			30.5	16.1
LOS		D	A		C		C	A			C	B
Approach Delay		14.9			23.2			24.4			27.5	



	↑	↗	↓	↙	↘	↗	↘	↙	↘	↙	↗
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Lane Configurations	↑↑↑	↗	↑↑↑			↘	↗↘	↗↘		↘	↗↗↘
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12
Grade (%)	0%		0%				0%				
Storage Length (ft)		0				0		0	0	0	
Storage Lanes		1				3		0	1	3	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	0		0	0	
Turning Speed (mph)		9		9	15	15		9	15	9	9
Satd. Flow (prot)	4818	1478	4216	0	1610	2535	2295	0	1652	3610	0
Flt Permitted					0.950	0.950	0.973		0.950		
Satd. Flow (perm)	4818	1021	4216	0	1610	2535	2295	0	1652	3610	0
Right Turn on Red		Yes		Yes	No			Yes			Yes
Satd. Flow (RTOR)		73	16				7			8	
Link Speed (mph)	25		25				25				
Link Distance (ft)	258		442				1192				
Travel Time (s)	7.0		12.1				32.5				
Volume (vph)	728	69	1201	125	191	985	216	52	161	576	170
Confl. Peds. (#/hr)		262		198				134			112
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			16				16				
Mid-Block Traffic (%)	0%		0%				0%				
Lane Group Flow (vph)	766	73	1396	0	201	692	627	0	169	785	0
Turn Type		Perm			Prot	Prot			Prot	custom	
Protected Phases	2		6		7	7	4		8	8	
Permitted Phases		2									
Detector Phases	2	2	6		7	7	4		8	8	
Minimum Initial (s)	1.0	1.0	2.0		4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	42.0	42.0	42.0		31.0	31.0	38.0		35.0	35.0	
Total Split (s)	47.0	47.0	47.0	0.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0
Total Split (%)	39.2%	39.2%	39.2%	0.0%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5	1.5		3.5	3.5	3.5		1.5	1.5	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	
Act Effct Green (s)	44.0	44.0	44.0		35.0	35.0	35.0		32.0	32.0	
Actuated g/C Ratio	0.37	0.37	0.37		0.29	0.29	0.29		0.27	0.27	
v/c Ratio	0.43	0.17	0.90		0.43	0.94	1.06dl		0.38	0.81	
Control Delay	29.6	6.8	44.3		44.0	59.8	59.4		39.1	48.4	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay	29.6	6.8	44.3		44.0	59.8	59.4		39.1	48.4	
LOS	C	A	D		D	E	E		D	D	
Approach Delay	27.6		44.3				57.6				



Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Approach LOS	C		D				E				
Queue Length 50th (ft)	162	0	367		164	340	306		107	247	
Queue Length 95th (ft)	200	32	#438		m182	m360	m326		173	311	
Internal Link Dist (ft)	178		362								
Turn Bay Length (ft)											
Base Capacity (vph)	1767	421	1556		470	739	674		441	969	
Starvation Cap Reductn	0	0	0		0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	
Reduced v/c Ratio	0.43	0.17	0.90		0.43	0.94	0.93		0.38	0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 115  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 46.1                      Intersection LOS: D  
 Intersection Capacity Utilization 86.5%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1237: Otis St. & Mission St.

↑ ø2	↓ ø8	↗ ø4
47 s	35 s	38 s
↓ ø6		↖ ø7
47 s		38 s

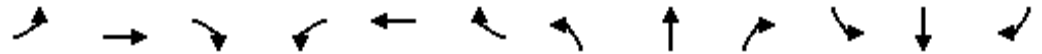


Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1723	0	0	1611	3433	1723	0	3362	0	0
Flt Permitted		0.956				0.950					
Satd. Flow (perm)	0	1723	0	0	1299	3433	1723	0	3362	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			178		7		6		
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					585		249		
Travel Time (s)		13.2					16.0		6.8		
Volume (vph)	37	62	2	6	11	1146	372	42	688	30	37
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	112	0	0	12	1206	436	0	795	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	9.5	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	41.0	43.0	34.5	0.0	32.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	45.6%	47.8%	38.3%	0.0%	36.1%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			38.0	40.0	31.5		29.5		
Actuated g/C Ratio		0.13			0.42	0.44	0.35		0.33		
v/c Ratio		0.50			0.02	0.79	0.72		0.72		
Control Delay		43.8			0.1	13.7	49.1		33.7		
Queue Delay		0.0			0.0	0.0	0.0		0.0		
Total Delay		43.8			0.1	13.7	49.1		33.7		
LOS		D			A	B	D		C		
Approach Delay		43.8					23.1		33.7		





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												27
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		297			484			330			375	
Travel Time (s)		8.1			13.2			9.0			10.2	
Volume (vph)	0	35	0	0	30	0	0	0	0	72	1699	112
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	37	0	0	32	0	0	0	0	0	1982	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	32.0	0.0	32.0	32.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		29.0			29.0							55.0
Actuated g/C Ratio		0.32			0.32							0.61
v/c Ratio		0.06			0.05							0.51
Control Delay		21.6			3.7							2.5
Queue Delay		0.0			0.0							0.4
Total Delay		21.6			3.7							2.8
LOS		C			A							A
Approach Delay		21.6			3.7							2.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A							A
Queue Length 50th (ft)		14			1							33
Queue Length 95th (ft)		36			m3							m34
Internal Link Dist (ft)		217			404			250				295
Turn Bay Length (ft)												
Base Capacity (vph)		600			600							3883
Starvation Cap Reductn		0			0							1135
Spillback Cap Reductn		0			0							151
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.06			0.05							0.72

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 18 (20%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 3.2                      Intersection LOS: A  
 Intersection Capacity Utilization 37.6%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1351: Page St & Gough St.**







Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4959	0	3346	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4959	0	3346	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			11		1	13			
Link Speed (mph)		25				25		25	
Link Distance (ft)		330				649		585	
Travel Time (s)		9.0				17.7		16.0	
Volume (vph)	23	711	894	71	92	1445	83	642	52
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	772	1016	0	97	1608	0	731	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		43.0	40.0		40.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.77	0.76		0.16	0.71		0.48	
Control Delay		13.3	11.2		35.6	21.7		4.8	
Queue Delay		0.9	0.6		0.0	0.0		0.0	
Total Delay		14.2	11.8		35.6	21.7		4.8	
LOS		B	B		D	C		A	
Approach Delay		12.9				21.7		4.8	

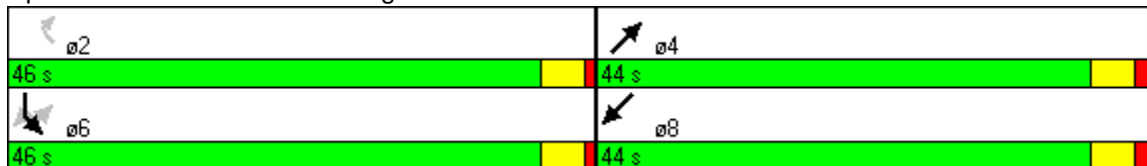


Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Approach LOS	B				C			A	
Queue Length 50th (ft)	185	182			56	257		1	
Queue Length 95th (ft)	420	382			108	312		1	
Internal Link Dist (ft)	250					569		505	
Turn Bay Length (ft)									
Base Capacity (vph)	1000	1337			601	2266		1524	
Starvation Cap Reductn	69	92			0	0		0	
Spillback Cap Reductn	0	0			0	0		0	
Storage Cap Reductn	0	0			0	0		0	
Reduced v/c Ratio	0.83	0.82			0.16	0.71		0.48	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	42 (47%), Referenced to phase 6:SBL, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	15.3
Intersection LOS:	B
Intersection Capacity Utilization	74.4%
ICU Level of Service	D
Analysis Period (min)	15

**Splits and Phases: 1390: Haight St & Market St.**





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	57	19	28	93	16	4	62	8	20	508	20
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	5	66	22	29	98	17	5	84	11	22	558	22

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	92	144	100	602
Volume Left (vph)	5	29	5	22
Volume Right (vph)	22	17	11	22
Hadj (s)	-0.10	0.00	-0.02	0.02
Departure Headway (s)	5.9	5.9	5.4	4.8
Degree Utilization, x	0.15	0.24	0.15	0.80
Capacity (veh/h)	553	561	608	602
Control Delay (s)	9.9	10.7	9.4	24.2
Approach Delay (s)	9.9	10.7	9.4	24.2
Approach LOS	A	B	A	C

Intersection Summary			
Delay		19.1	
HCM Level of Service		C	
Intersection Capacity Utilization	55.1%		ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	165	42	34	222	15	11	67	4	19	472	40
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	14	188	48	44	288	19	14	88	5	22	536	45

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	249	352	108	603
Volume Left (vph)	14	44	14	22
Volume Right (vph)	48	19	5	45
Hadj (s)	-0.07	0.03	0.03	0.00
Departure Headway (s)	7.0	6.8	7.5	6.3
Degree Utilization, x	0.48	0.66	0.22	1.05
Capacity (veh/h)	489	518	430	560
Control Delay (s)	16.3	22.2	12.6	76.5
Approach Delay (s)	16.3	22.2	12.6	76.5
Approach LOS	C	C	B	F

Intersection Summary			
Delay		45.3	
HCM Level of Service		E	
Intersection Capacity Utilization	61.5%		ICU Level of Service B
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	38	13	43	33	21	827
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	45	15	54	42	22	871
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.72					
vC, conflicting volume	990	75			96	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	986	75			96	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	77	98			99	
cM capacity (veh/h)	194	986			1497	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	45	15	96	893
Volume Left	45	0	0	22
Volume Right	0	15	42	0
cSH	194	986	1700	1497
Volume to Capacity	0.23	0.02	0.06	0.01
Queue Length 95th (ft)	22	1	0	1
Control Delay (s)	29.1	8.7	0.0	0.4
Lane LOS	D	A		A
Approach Delay (s)	23.9		0.0	0.4
Approach LOS	C			

Intersection Summary			
Average Delay		1.7	
Intersection Capacity Utilization		61.4%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	104	46	15	215	8	17	62	7	21	402	22
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	14	121	53	16	234	9	22	79	9	26	490	27

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	188	259	110	543
Volume Left (vph)	14	16	22	26
Volume Right (vph)	53	9	9	27
Hadj (s)	-0.12	0.03	0.02	0.01
Departure Headway (s)	6.3	6.3	6.4	5.6
Degree Utilization, x	0.33	0.45	0.20	0.84
Capacity (veh/h)	525	531	493	631
Control Delay (s)	12.4	14.4	11.0	31.2
Approach Delay (s)	12.4	14.4	11.0	31.2
Approach LOS	B	B	B	D

Intersection Summary			
Delay		22.0	
HCM Level of Service		C	
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	100	48	29	135	14	17	65	17	21	396	46
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	9	127	61	41	193	20	22	86	22	23	440	51

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	196	254	130	514
Volume Left (vph)	9	41	22	23
Volume Right (vph)	61	20	22	51
Hadj (s)	-0.14	0.02	-0.03	-0.02
Departure Headway (s)	6.3	6.3	6.3	5.6
Degree Utilization, x	0.34	0.44	0.23	0.80
Capacity (veh/h)	518	522	497	626
Control Delay (s)	12.5	14.2	11.2	27.1
Approach Delay (s)	12.5	14.2	11.2	27.1
Approach LOS	B	B	B	D

Intersection Summary			
Delay		19.6	
HCM Level of Service		C	
Intersection Capacity Utilization	52.8%		ICU Level of Service A
Analysis Period (min)		15	

# 2015 ALTERNATIVE 1 NO BUILD







Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.471								0.950		
Satd. Flow (perm)	877	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			132				14		372	36	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	7	0	98	0	0	0	800	68	718	179	94
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	7	0	103	0	0	0	914	0	756	287	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	29.0		29.0				28.6		29.0	29.0	
Total Split (s)	39.7	0.0	39.7	0.0	0.0	0.0	50.3	0.0	39.7	39.7	0.0
Total Split (%)	44.1%	0.0%	44.1%	0.0%	0.0%	0.0%	55.9%	0.0%	44.1%	44.1%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	1.8		1.8				1.4		1.8	1.8	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	36.7		36.7				47.3		36.7	36.7	
Actuated g/C Ratio	0.41		0.41				0.53		0.41	0.41	
v/c Ratio	0.02		0.14				0.62		0.34	0.50	
Control Delay	16.3		2.3				3.3		9.3	20.8	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	16.3		2.3				3.3		9.3	20.8	
LOS	B		A				A		A	C	
Approach Delay									12.4		



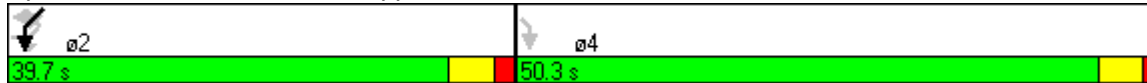
Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Approach LOS										B	
Queue Length 50th (ft)	2		0				29		48	103	
Queue Length 95th (ft)	11		19				m34		74	178	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	358		724				1471		2255	577	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	
Storage Cap Reductn	0		0				0		0	0	
Reduced v/c Ratio	0.02		0.14				0.62		0.34	0.50	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	1 (1%), Referenced to phase 2:EBSWL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization:	53.9%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: McCoppin St. & Otis St.





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.930						0.950	
Satd. Flow (perm)	4995	0	0	4729	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				388		30		12		2
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	574	39	13	1349	848	674	219	83	830	537	166
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	645	0	0	1434	893	709	231	0	961	565	175
Turn Type			Perm		Perm		custom	custom	custom	custom	Perm
Protected Phases	4			8		2			1	6	
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.0	29.0	30.0	30.0	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	32.2%	32.2%	33.3%	33.3%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.0	26.0		27.0	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.29	0.29		0.30	0.62	0.62
v/c Ratio	0.41			0.97	1.46	0.68	0.64		0.93	0.28	0.30
Control Delay	25.0			49.8	233.8	32.2	33.5		45.0	8.6	9.8
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	25.0			49.8	233.8	32.2	33.5		45.0	8.6	9.8
LOS	C			D	F	C	C		D	A	A
Approach Delay	25.0			120.4						29.3	

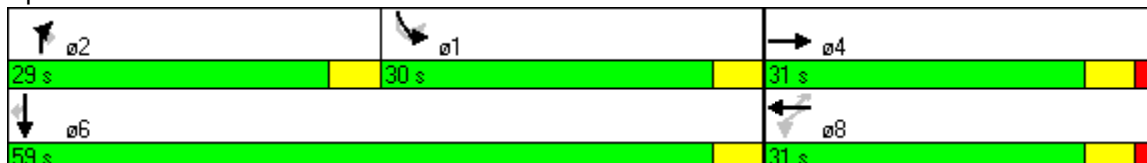


Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR	
Approach LOS	C			F						C		
Queue Length 50th (ft)	103			293	~542	155	99		287	57	34	
Queue Length 95th (ft)	136			#398	#776	207	182		#401	87	m66	
Internal Link Dist (ft)	246			307						534		
Turn Bay Length (ft)											50	
Base Capacity (vph)	1562			1471	612	1043	361		1038	2026	590	
Starvation Cap Reductn	0			0	0	0	0		0	0	0	
Spillback Cap Reductn	0			0	0	0	0		0	0	0	
Storage Cap Reductn	0			0	0	0	0		0	0	0	
Reduced v/c Ratio	0.41			0.97	1.46	0.68	0.64		0.93	0.28	0.30	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.46  
 Intersection Signal Delay: 67.1                      Intersection LOS: E  
 Intersection Capacity Utilization 111.9%                      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.
















**Splits and Phases: 18: Duboce St. &**





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑	↑		↑↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4818	1425	0	4818	1583	0	1596	0	0	1619	0
Flt Permitted												
Satd. Flow (perm)	0	4818	927	0	4818	734	0	1596	0	0	1619	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			6					1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1918	153	0	1419	239	0	478	45	0	573	36
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			0									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1937	155	0	1559	263	0	588	0	0	670	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		48.0	48.0		48.0	48.0		42.0			42.0	
Total Split (s)	0.0	48.0	48.0	0.0	48.0	48.0	0.0	42.0	0.0	0.0	42.0	0.0
Total Split (%)	0.0%	53.3%	53.3%	0.0%	53.3%	53.3%	0.0%	46.7%	0.0%	0.0%	46.7%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.9	2.9		2.9	2.9		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		45.0	45.0		45.0	45.0		39.0			39.0	
Actuated g/C Ratio		0.50	0.50		0.50	0.50		0.43			0.43	
v/c Ratio		0.80	0.33		0.65	0.72		0.85			0.95	
Control Delay		22.1	15.4		24.7	34.8		34.4			34.0	
Queue Delay		0.0	0.0		0.1	0.0		0.0			0.0	
Total Delay		22.1	15.4		24.8	34.8		34.4			34.0	
LOS		C	B		C	C		C			C	
Approach Delay		21.6			26.2			34.4			34.0	



						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations	  		 			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					3	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	766	0	828	606	113	609
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	806	0	872	638	119	641
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	38.0	38.0	38.0	52.0	52.0	52.0
Total Split (%)	42.2%	42.2%	42.2%	57.8%	57.8%	57.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	35.0		35.0	49.0	49.0	49.0
Actuated g/C Ratio	0.39		0.39	0.54	0.54	0.54
v/c Ratio	0.44		0.63	0.63	0.14	0.65
Control Delay	8.9		24.9	23.4	15.9	18.5
Queue Delay	0.0		1.5	0.0	0.0	1.2
Total Delay	8.9		26.3	23.4	15.9	19.7
LOS	A		C	C	B	B
Approach Delay			26.3	22.2		19.7



Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Approach LOS			C	C		B
Queue Length 50th (ft)	43		197	262	43	242
Queue Length 95th (ft)	m60		258	m347	m61	362
Internal Link Dist (ft)			300	390		455
Turn Bay Length (ft)						
Base Capacity (vph)	1847		1376	1014	863	981
Starvation Cap Reductn	0		304	0	0	157
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.44		0.81	0.63	0.14	0.78

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 19.4 Intersection LOS: B  
 Intersection Capacity Utilization 62.3% ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 102: Fell St. & Market St.







Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>577</del>	<del>776</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1548	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1548	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			36			6		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	105	1133	1784	166	606	504	86	71
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1304	2053	0	638	697	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.54	0.84		0.98	1.12		
Control Delay		11.3	17.1		51.1	83.6		
Queue Delay		0.0	0.0		0.0	4.5		
Total Delay		11.3	17.1		51.1	88.1		
LOS		B	B		D	F		
Approach Delay		14.8			51.1	88.1		



Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	B				D	F		
Queue Length 50th (ft)	109	213			218	~286		
Queue Length 95th (ft)	144	278			#418	m#444		
Internal Link Dist (ft)	272				455	524		
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2434			654	623		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	4	0			0	6		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.54	0.84			0.98	1.13		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 39 (65%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.12  
 Intersection Signal Delay: 30.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 88.2%  
 ICU Level of Service E  
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23							2			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	43	1978	135	0	0	0	0	469	303	0	526	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2269	0	0	0	0	0	494	319	0	554	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		0.98						0.71	0.46		0.67	
Control Delay		24.1						21.6	16.9		18.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		24.1						21.6	16.9		18.4	
LOS		C						C	B		B	
Approach Delay		24.1						19.7			18.4	

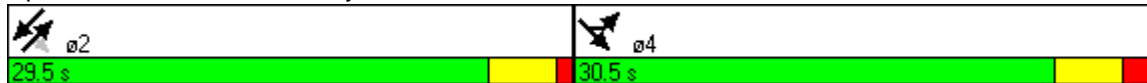


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		C						B			B	
Queue Length 50th (ft)		196						181	108		151	
Queue Length 95th (ft)		#395						m195	m118		250	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2320						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.98						0.71	0.46		0.67	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 22.3                      Intersection LOS: C  
 Intersection Capacity Utilization 76.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		12										6
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			355			200	
Travel Time (s)		10.3			6.7			9.7			5.5	
Volume (vph)	0	1267	248	0	0	0	0	0	0	59	1791	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1629	0	0	0	0	0	0	0	0	1927	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									51.0	
Actuated g/C Ratio		0.37									0.57	
v/c Ratio		0.90									0.90	
Control Delay		35.3									18.5	
Queue Delay		0.0									0.0	
Total Delay		35.3									18.5	
LOS		D									B	
Approach Delay		35.3									18.5	



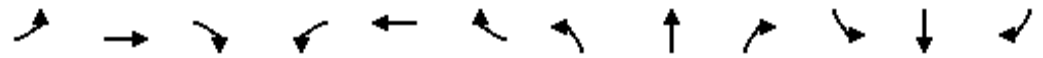
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									B	
Queue Length 50th (ft)		314									529	
Queue Length 95th (ft)		#395									#621	
Internal Link Dist (ft)		296			165			275			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1804									2136	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.90									0.90	

**Intersection Summary**

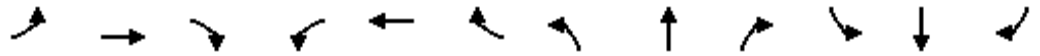
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	26.2
Intersection LOS:	C
Intersection Capacity Utilization:	63.5%
ICU Level of Service:	B
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗↘			↖↗↘			↖↗↘			↖↗↘		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	47					17						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			404			169	
Travel Time (s)		6.2			6.0			11.0			4.6	
Volume (vph)	1326	0	0	0	0	43	0	1384	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1411	0	0	0	0	51	0	1427	0	0	0	0
Turn Type	custom			custom								
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	45.0	0.0	0.0	0.0	0.0	45.0	0.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	42.0					42.0		42.0				
Actuated g/C Ratio	0.47					0.47		0.47				
v/c Ratio	0.67					0.07		0.67				
Control Delay	1.6					10.1		2.0				
Queue Delay	0.5					0.0		0.2				
Total Delay	2.0					10.1		2.2				
LOS	A					B		A				
Approach Delay								2.2				

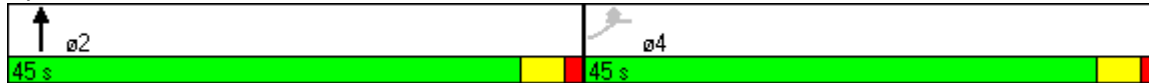


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									A				
Queue Length 50th (ft)	9						10	18					
Queue Length 95th (ft)	m10						28	m17					
Internal Link Dist (ft)	146			141			324			89			
Turn Bay Length (ft)													
Base Capacity (vph)	2121					686		2136					
Starvation Cap Reductn	288					0		185					
Spillback Cap Reductn	0					0		0					
Storage Cap Reductn	0					0		0					
Reduced v/c Ratio	0.77					0.07		0.73					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 17 (19%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 2.3      Intersection LOS: A  
 Intersection Capacity Utilization 68.7%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3441	0	0	0	0	0	4061	1117
Flt Permitted					0.990						0.998	
Satd. Flow (perm)	0	0	0	0	3441	0	0	0	0	0	4061	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											58	58
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	93	380	0	0	0	0	99	1790	1087
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	606	0	0	0	0	0	2413	655
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	67.0	67.0	67.0
Total Split (%)	0.0%	0.0%	0.0%	25.6%	25.6%	0.0%	0.0%	0.0%	0.0%	74.4%	74.4%	74.4%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					20.0						64.0	64.0
Actuated g/C Ratio					0.22						0.71	0.71
v/c Ratio					0.79						0.83	0.81
Control Delay					45.3						4.5	6.5
Queue Delay					0.0						2.3	2.8
Total Delay					45.3						6.9	9.3
LOS					D						A	A
Approach Delay					45.3						7.4	

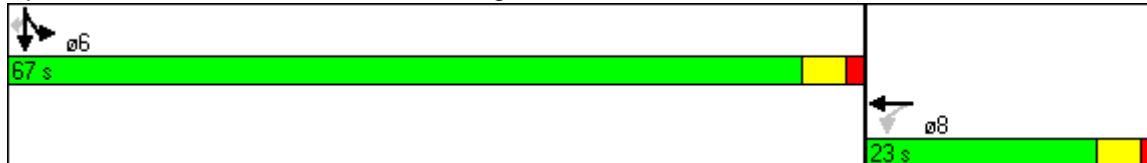


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						A					
Queue Length 50th (ft)	194						124 76					
Queue Length 95th (ft)	216						m104 m65					
Internal Link Dist (ft)	289			371			112			228		
Turn Bay Length (ft)												
Base Capacity (vph)	765						2905 811					
Starvation Cap Reductn	0						353 77					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.79						0.95 0.89					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 54 (60%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 13.6      Intersection LOS: B  
 Intersection Capacity Utilization 64.7%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 406: Fell St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3479	0	0	1863	0	0	4748	1137	0	0	0
Flt Permitted		0.868						0.989				
Satd. Flow (perm)	0	3072	0	0	1863	0	0	4748	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								1	627			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	34	65	0	0	48	0	425	1562	609	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	110	0	0	51	0	0	2077	627	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	26.0	26.0	0.0	0.0	26.0	0.0	64.0	64.0	64.0	0.0	0.0	0.0
Total Split (%)	28.9%	28.9%	0.0%	0.0%	28.9%	0.0%	71.1%	71.1%	71.1%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		23.0			23.0			61.0	61.0			
Actuated g/C Ratio		0.26			0.26			0.68	0.68			
v/c Ratio		0.14			0.11			0.65	0.64			
Control Delay		19.2			28.1			8.1	3.5			
Queue Delay		0.0			0.0			0.4	0.2			
Total Delay		19.2			28.1			8.5	3.7			
LOS		B			C			A	A			
Approach Delay		19.2			28.1			7.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A				
Queue Length 50th (ft)		24			32			239	18			
Queue Length 95th (ft)		m31			m52			240	40			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		785			476			3218	973			
Starvation Cap Reductn		0			0			570	47			
Spillback Cap Reductn		0			0			386	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.14			0.11			0.78	0.68			

**Intersection Summary**

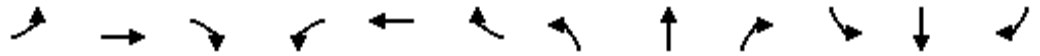
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	50 (56%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	58.5%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 407: Fell St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3441	0	0	0	0	0	4513	0	1770	4474	0
Flt Permitted		0.994								0.085		
Satd. Flow (perm)	0	3441	0	0	0	0	0	4513	0	158	4474	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						7			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	84	552	38	0	0	0	0	1892	62	152	1535	48
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		20	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	741	0	0	0	0	0	2015	0	158	1649	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	33.0	33.0						42.0		8.1	21.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	47.0	0.0	10.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	0.0%	11.1%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.9	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		30.0						44.0		54.0	54.0	
Actuated g/C Ratio		0.33						0.49		0.60	0.60	
v/c Ratio		0.64						0.91		0.72	0.61	
Control Delay		28.2						9.5		21.3	0.9	
Queue Delay		0.0						0.0		0.0	0.4	
Total Delay		28.2						9.5		21.3	1.3	
LOS		C						A		C	A	
Approach Delay		28.2						9.5			3.0	

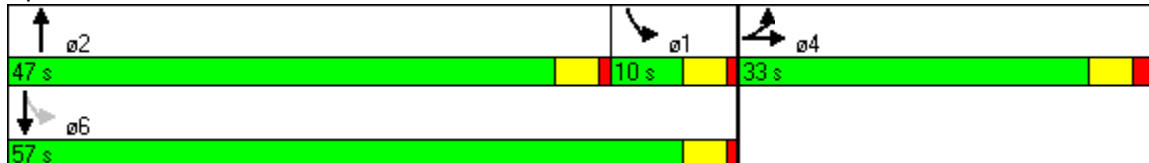


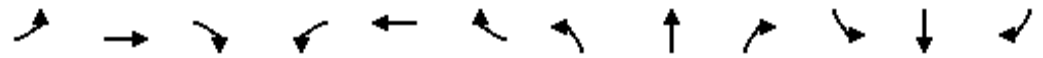
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			A	
Queue Length 50th (ft)		196						39		46	12	
Queue Length 95th (ft)		256						m#53		m54	m10	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)										110		
Base Capacity (vph)		1152						2210		220	2688	
Starvation Cap Reductn		0						0		0	495	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.64						0.91		0.72	0.75	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 10.0 Intersection LOS: A  
 Intersection Capacity Utilization 81.5% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26									3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	80	139	622	458	0	0	0	0	155	2215	39
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	285	0	648	477	0	0	0	0	0	2484	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	27.0	46.0	0.0	0.0	0.0	0.0	44.0	44.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	30.0%	51.1%	0.0%	0.0%	0.0%	0.0%	48.9%	48.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		43.0	43.0							41.0
Actuated g/C Ratio		0.18		0.48	0.48							0.46
v/c Ratio		0.91		1.17	0.56							1.15
Control Delay		67.4		112.1	8.8							88.1
Queue Delay		0.0		0.0	0.4							9.0
Total Delay		67.4		112.1	9.1							97.2
LOS		E		F	A							F
Approach Delay		67.4			68.5							97.2

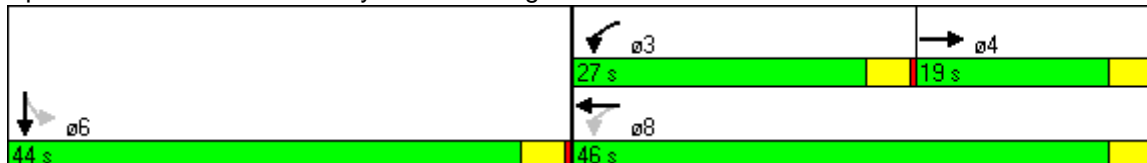


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			E						F	
Queue Length 50th (ft)		147		~381	66						~594	
Queue Length 95th (ft)		#225		m#579	m83						#697	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)		313		555	858						2168	
Starvation Cap Reductn		0		0	92						38	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.91		1.17	0.62						1.17	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 67 (74%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.17  
 Intersection Signal Delay: 86.7                      Intersection LOS: F  
 Intersection Capacity Utilization 104.0%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3249	1441	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	1796	0	0	3249	1441	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6	6						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	235	0	0	974	684	106	1490	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	247	0	0	1257	545	0	1774	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	47.0	0.0	0.0	47.0	47.0	43.0	43.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	52.2%	0.0%	0.0%	52.2%	52.2%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		44.0			44.0	44.0		40.0				
Actuated g/C Ratio		0.49			0.49	0.49		0.44				
v/c Ratio		0.28			0.79	0.77		0.84				
Control Delay		22.8			4.8	5.7		17.5				
Queue Delay		0.0			0.5	0.3		1.8				
Total Delay		22.8			5.3	6.0		19.4				
LOS		C			A	A		B				
Approach Delay		22.8			5.5			19.4				

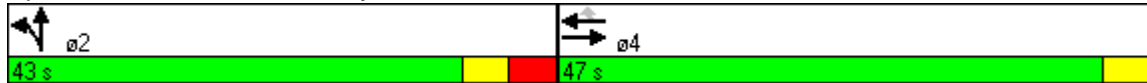


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			A			B					
Queue Length 50th (ft)	123			70			56			287		
Queue Length 95th (ft)	m118			m62			m50			346		
Internal Link Dist (ft)	378			401			243			95		
Turn Bay Length (ft)												
Base Capacity (vph)	878			1591			708			2122		
Starvation Cap Reductn	0			80			16			201		
Spillback Cap Reductn	0			0			0			129		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.28			0.83			0.79			0.92		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 13.1      Intersection LOS: B  
 Intersection Capacity Utilization 104.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 413: Hayes St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50		50	50			50	
Trailing Detector (ft)		0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1803	0	0	4512	0	1770	4906	0	0	4447	0
Flt Permitted					0.929		0.098					
Satd. Flow (perm)	0	1803	0	0	4196	0	183	4906	0	0	4447	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			16			4			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	180	55	31	1208	275	361	1646	28	0	1649	89
Confl. Peds. (#/hr)							224					449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	247	0	0	1594	0	376	1744	0	0	1811	0
Turn Type				Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases				4			2					
Detector Phases		4		4	4		5	2			6	
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)		37.0		37.0	37.0		8.4	51.0			39.0	
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	12.0	53.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	13.3%	58.9%	0.0%	0.0%	45.6%	0.0%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)		2.2		2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		34.0			34.0		50.0	50.0			38.0	
Actuated g/C Ratio		0.38			0.38		0.56	0.56			0.42	
v/c Ratio		0.36			1.00		1.45	0.64			0.96	
Control Delay		1.8			51.2		231.5	3.5			28.1	
Queue Delay		0.0			1.4		0.0	0.3			2.3	
Total Delay		1.8			52.6		231.5	3.8			30.4	
LOS		A			D		F	A			C	
Approach Delay		1.8			52.6			44.2			30.4	

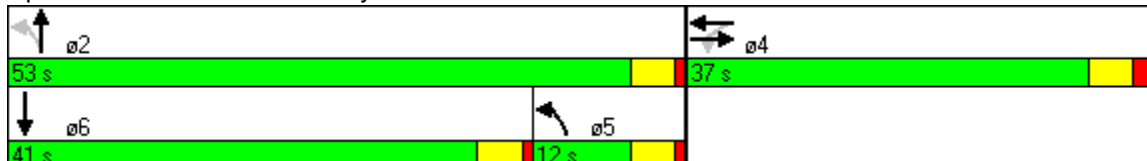


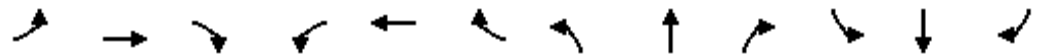
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			D			D			C	
Queue Length 50th (ft)		0			323		~242	35			165	
Queue Length 95th (ft)		0			#442		m#290	m55			m#223	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)							172					
Base Capacity (vph)		694			1595		260	2727			1882	
Starvation Cap Reductn		0			0		0	388			35	
Spillback Cap Reductn		0			9		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.36			1.01		1.45	0.75			0.98	

**Intersection Summary**

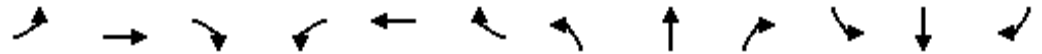
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.45  
 Intersection Signal Delay: 40.3      Intersection LOS: D  
 Intersection Capacity Utilization 115.6%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			133		33							23
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	180	91	1445	0	0	0	0	0	557	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	189	0	1617	0	0	0	0	0	586	73
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.21		0.54						0.45	0.14
Control Delay			3.3		6.0						10.0	5.9
Queue Delay			0.0		0.0						0.0	0.0
Total Delay			3.3		6.0						10.0	5.9
LOS			A		A						A	A
Approach Delay					6.0						9.5	

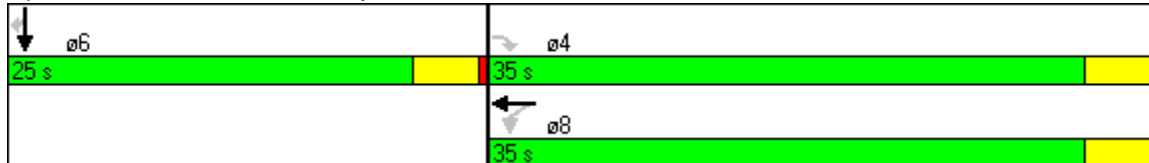


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS						A							A
Queue Length 50th (ft)			9			32						38	0
Queue Length 95th (ft)			34			m51						65	18
Internal Link Dist (ft)	153				70	300					82		
Turn Bay Length (ft)													
Base Capacity (vph)			921			2979						1298	537
Starvation Cap Reductn			0			0						0	0
Spillback Cap Reductn			7			4						48	0
Storage Cap Reductn			0			0						0	0
Reduced v/c Ratio			0.21			0.54						0.47	0.14

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.54  
 Intersection Signal Delay: 6.7                      Intersection LOS: A  
 Intersection Capacity Utilization 58.9%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3382	0	0	0	0	0	5050	0
Flt Permitted					0.568						0.997	
Satd. Flow (perm)	0	1749	0	0	1974	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	273	65	244	198	0	0	0	0	136	2100	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	364	0	0	491	0	0	0	0	0	2370	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.58			1.23dl							0.81
Control Delay		27.7			14.0							4.8
Queue Delay		0.8			0.6							4.8
Total Delay		28.5			14.6							9.6
LOS		C			B							A
Approach Delay		28.5			14.6							9.6

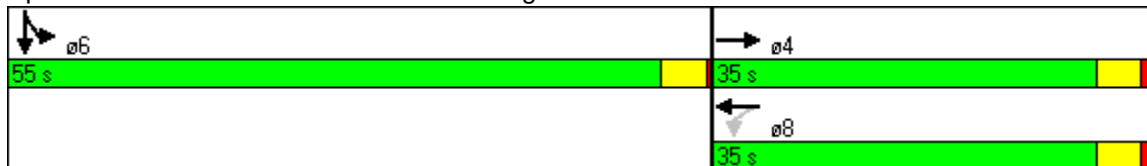


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						A	
Queue Length 50th (ft)		163			32						48	
Queue Length 95th (ft)		254			m41						58	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		626			702						2921	
Starvation Cap Reductn		0			0						134	
Spillback Cap Reductn		82			46						488	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.67			0.75						0.97	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 12.5      Intersection LOS: B  
 Intersection Capacity Utilization 86.6%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

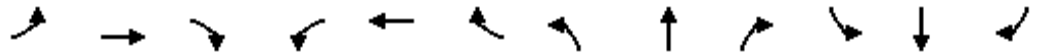
Splits and Phases: 416: Grove St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3267	0	0	5055	0	0	0	0
Flt Permitted		0.714						0.999				
Satd. Flow (perm)	0	2482	0	0	3267	0	0	5055	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			9				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	60	349	0	0	410	275	32	2130	72	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	459	0	0	713	0	0	2303	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.52			0.61			0.79				
Control Delay		22.1			18.9			9.3				
Queue Delay		0.0			0.0			1.4				
Total Delay		22.1			18.9			10.8				
LOS		C			B			B				
Approach Delay		22.1			18.9			10.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			B				
Queue Length 50th (ft)		77			64			164				
Queue Length 95th (ft)		m126			m80			180				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		882			1165			2924				
Starvation Cap Reductn		0			0			398				
Spillback Cap Reductn		0			0			90				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.52			0.61			0.91				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 13.9      Intersection LOS: B  
 Intersection Capacity Utilization 84.9%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3263	0	0	3426	0	1770	4518	0	1770	4350	0
Flt Permitted		0.944			0.866		0.095			0.102		
Satd. Flow (perm)	0	3084	0	0	2982	0	177	4518	0	190	4350	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			2			1			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	8	363	50	45	415	28	232	1627	84	42	1643	38
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	489	0	0	542	0	247	1820	0	44	1751	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Detector Phases	4	4		4	4		5	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		9.3	55.0		35.0	35.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	12.7	55.0	0.0	42.3	42.3	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	14.1%	61.1%	0.0%	47.0%	47.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2		1.8	1.8		1.8	1.8	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		32.0			32.0		52.0	52.0		39.3	39.3	
Actuated g/C Ratio		0.36			0.36		0.58	0.58		0.44	0.44	
v/c Ratio		0.44			0.51		0.90	0.70		0.53	0.92	
Control Delay		43.2			24.8		57.9	11.9		54.5	45.8	
Queue Delay		0.0			0.0		0.0	0.1		0.0	0.0	
Total Delay		43.2			24.8		57.9	12.0		54.5	45.8	
LOS		D			C		E	B		D	D	
Approach Delay		43.2			24.8			17.5			46.0	

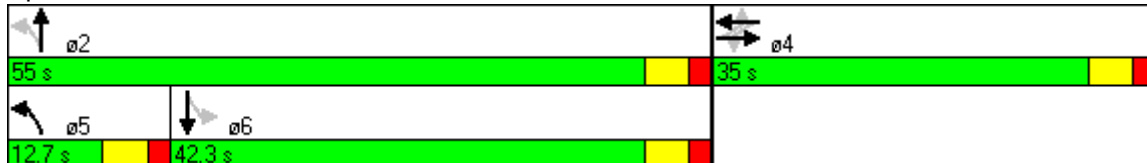


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			D		
Queue Length 50th (ft)	147			125			103	155	26		395	
Queue Length 95th (ft)	187			175			m#214	m180	m42		#463	
Internal Link Dist (ft)	397			406			90			592		
Turn Bay Length (ft)							130			125		
Base Capacity (vph)	1108			1062			274	2611	83		1902	
Starvation Cap Reductn	0			0			0	66	0		0	
Spillback Cap Reductn	0			0			0	0	0		0	
Storage Cap Reductn	0			0			0	0	0		0	
Reduced v/c Ratio	0.44			0.51			0.90	0.72	0.53		0.92	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 41 (46%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 31.3      Intersection LOS: C  
 Intersection Capacity Utilization 105.6%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 418: Grove St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3128	0
Flt Permitted		0.916			0.910						0.995	
Satd. Flow (perm)	0	2924	1377	0	2875	0	0	0	0	0	3128	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			129		16						25	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	23	343	123	37	429	34	0	0	0	57	484	59
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	385	129	0	527	0	0	0	0	0	631	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.29	0.19		0.40						0.44	
Control Delay		11.2	3.0		8.5						9.0	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.2	3.0		8.5						9.0	
LOS		B	A		A						A	
Approach Delay		9.2			8.5						9.0	



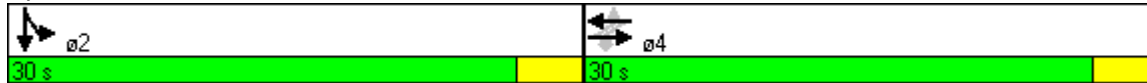
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			A						A	
Queue Length 50th (ft)		43	0		35						56	
Queue Length 95th (ft)		70	24		m57						77	
Internal Link Dist (ft)		406			401			95			592	
Turn Bay Length (ft)												
Base Capacity (vph)		1316	691		1303						1421	
Starvation Cap Reductn		0	0		0						0	
Spillback Cap Reductn		0	0		0						0	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.29	0.19		0.40						0.44	

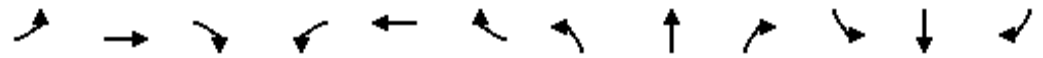
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	55 (92%), Referenced to phase 2:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.44
Intersection Signal Delay:	8.9
Intersection LOS:	A
Intersection Capacity Utilization:	51.1%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 419: Grove St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1768	0	0	4837	0	1770	0	1267
Flt Permitted	0.587							0.992		0.133		
Satd. Flow (perm)	1021	1863	0	0	1768	0	0	4837	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18			21				85
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			198			210			358	
Travel Time (s)		13.1			5.4			5.7			9.8	
Volume (vph)	161	239	0	0	122	73	297	1434	99	15	0	81
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	169	252	0	0	205	0	0	1926	0	16	0	85
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.41	0.34			0.29			0.79		0.13		0.13
Control Delay	14.1	11.1			13.7			2.6		5.3		1.9
Queue Delay	0.0	0.0			0.0			0.1		0.0		0.0
Total Delay	14.1	11.1			13.7			2.6		5.3		1.9
LOS	B	B			B			A		A		A
Approach Delay		12.3			13.7			2.6				

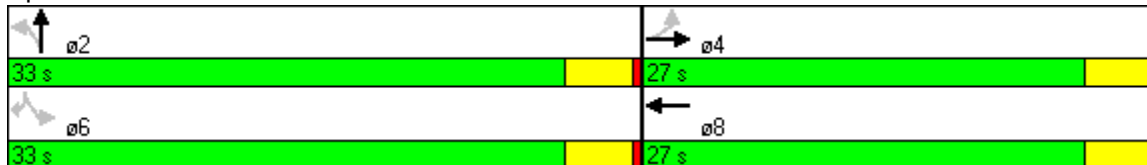


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			B			A					
Queue Length 50th (ft)	51	74			30			13		2		0
Queue Length 95th (ft)	108	135			m39			m20		7		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	408	745			718			2429		124		676
Starvation Cap Reductn	0	0			0			24		0		0
Spillback Cap Reductn	0	0			0			0		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.41	0.34			0.29			0.80		0.13		0.13

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 16 (27%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 5.0                      Intersection LOS: A  
 Intersection Capacity Utilization 67.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1790	0	0	1833	0	0	0	0	0	5050	0
Flt Permitted					0.628						0.999	
Satd. Flow (perm)	0	1790	0	0	1170	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	239	98	67	145	0	0	0	0	33	2134	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	375	0	0	244	0	0	0	0	0	2376	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.59			0.59							0.81
Control Delay		27.8			27.0							6.0
Queue Delay		0.0			0.0							0.4
Total Delay		27.8			27.0							6.4
LOS		C			C							A
Approach Delay		27.8			27.0							6.4





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙			↕↕↕		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	272	0	212	2253	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	358	0	0	2542	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	30.0	0.0	60.0	60.0	0.0	0.0
Total Split (%)	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	27.0			57.0		
Actuated g/C Ratio	0.30			0.63		
v/c Ratio	0.67			0.84		
Control Delay	18.6			5.7		
Queue Delay	0.0			0.2		
Total Delay	18.6			5.9		
LOS	B			A		
Approach Delay	18.6			5.9		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	B			A		
Queue Length 50th (ft)	67			76		
Queue Length 95th (ft)	79			85		
Internal Link Dist (ft)	163			265	254	
Turn Bay Length (ft)						
Base Capacity (vph)	531			3042		
Starvation Cap Reductn	0			3		
Spillback Cap Reductn	0			71		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.67			0.86		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	65 (72%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	7.5
Intersection LOS:	A
Intersection Capacity Utilization	79.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑			↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1899	0	4891	0	0	1749
Flt Permitted	0.981					0.668
Satd. Flow (perm)	1899	0	4891	0	0	1184
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	12		13			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	33	53	1611	57	22	63
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	91	0	1756	0	0	89
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.12		0.69			0.15
Control Delay	11.3		5.5			7.8
Queue Delay	0.0		0.1			0.0
Total Delay	11.3		5.6			7.8
LOS	B		A			A
Approach Delay	11.3		5.6			7.8



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	B		A		A	
Queue Length 50th (ft)	18		49		28	
Queue Length 95th (ft)	43		75		m55	
Internal Link Dist (ft)	152		278		255	
Turn Bay Length (ft)						
Base Capacity (vph)	735		2533		612	
Starvation Cap Reductn	0		120		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.12		0.73		0.15	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	21 (35%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	6.0
Intersection LOS:	A
Intersection Capacity Utilization	44.1%
ICU Level of Service	A
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 430: Fulton St. & Larkin St.**





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		25			25	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	31	0	0	1676	86
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	33	0	0	1855	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.07			0.66	
Control Delay		9.5			2.7	
Queue Delay		0.0			0.0	
Total Delay		9.5			2.7	
LOS		A			A	
Approach Delay					2.7	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		2			22	
Queue Length 95th (ft)		19			40	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		448			2815	
Starvation Cap Reductn		0			14	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.07			0.66	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	2.8
Intersection LOS:	A
Intersection Capacity Utilization	44.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1716	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.670						0.998	
Satd. Flow (perm)	0	1716	0	0	2371	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7									14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	223	39	110	308	0	0	0	0	84	2108	99
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	311	0	0	440	0	0	0	0	0	2437	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						18.0	18.0
Total Split (s)	0.0	32.0	0.0	32.0	32.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		29.0			29.0							55.0
Actuated g/C Ratio		0.32			0.32							0.61
v/c Ratio		0.56			0.58							0.79
Control Delay		29.2			43.3							4.9
Queue Delay		0.0			0.0							0.8
Total Delay		29.2			43.3							5.6
LOS		C			D							A
Approach Delay		29.2			43.3							5.6



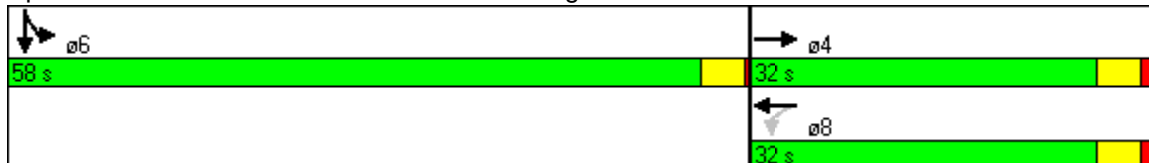
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D						A	
Queue Length 50th (ft)		141			140						70	
Queue Length 95th (ft)		205			m183						81	
Internal Link Dist (ft)		361			207			253			268	
Turn Bay Length (ft)												
Base Capacity (vph)		558			764						3089	
Starvation Cap Reductn		0			0						321	
Spillback Cap Reductn		0			0						214	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.56			0.58						0.88	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	48 (53%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	13.2
Intersection LOS:	B
Intersection Capacity Utilization:	80.4%
ICU Level of Service:	D
Analysis Period (min):	15

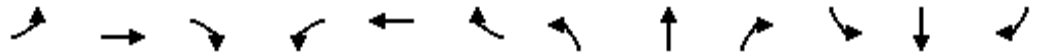
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 435: McAllister St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3196	0	0	5034	0	0	0	0
Flt Permitted		0.814						0.999				
Satd. Flow (perm)	0	1425	0	0	3196	0	0	5034	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		203			497			334			197	
Travel Time (s)		5.5			13.6			9.1			5.4	
Volume (vph)	21	286	0	0	377	319	41	2326	158	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	334	0	0	790	0	0	2657	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.73			0.76			0.86				
Control Delay		29.3			21.4			7.6				
Queue Delay		0.0			0.0			1.6				
Total Delay		29.3			21.4			9.2				
LOS		C			C			A				
Approach Delay		29.3			21.4			9.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		191			75			80				
Queue Length 95th (ft)		m#279			142			89				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		459			1033			3085				
Starvation Cap Reductn		0			0			257				
Spillback Cap Reductn		0			0			18				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.73			0.76			0.94				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 74 (82%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 13.5      Intersection LOS: B  
 Intersection Capacity Utilization 88.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕↕		↗	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50		50	50	
Trailing Detector (ft)	0	0		0	0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3356	0	0	3529	1425	0	4328	0	1770	4513	0
Flt Permitted		0.922			0.890					0.085		
Satd. Flow (perm)	0	3095	0	0	3134	1151	0	4328	0	158	4513	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				67		8			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	14	364	66	44	654	158	0	1605	58	38	1613	42
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		32			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	499	0	0	750	170	0	1732	0	40	1742	0
Turn Type	Perm			Perm		Perm				pm+pt		
Protected Phases		4			4			2		1	6	
Permitted Phases	4			4		4				6		
Detector Phases	4	4		4	4	4		2		1	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0		2.0	3.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0		31.0		7.3	30.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	0.0	47.0	0.0	8.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	38.9%	0.0%	52.2%	0.0%	8.9%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2	2.2		1.8		1.8	1.8	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max		Max	Max	
Act Effct Green (s)		32.0			32.0	32.0		44.0		52.0	52.0	
Actuated g/C Ratio		0.36			0.36	0.36		0.49		0.58	0.58	
v/c Ratio		0.45			0.67	0.38		0.82		0.22	0.67	
Control Delay		17.8			28.2	15.7		13.4		14.6	12.5	
Queue Delay		0.0			0.0	0.0		0.2		0.0	0.0	
Total Delay		17.8			28.2	15.7		13.6		14.6	12.5	
LOS		B			C	B		B		B	B	
Approach Delay		17.8			25.9			13.6			12.6	

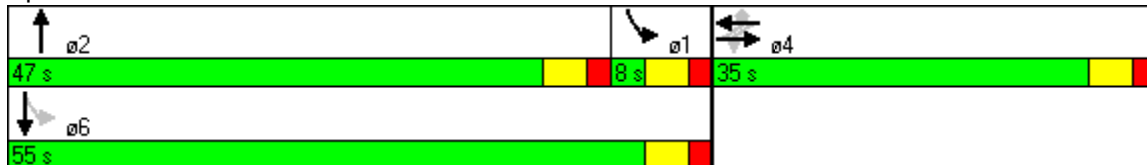


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			B			B		
Queue Length 50th (ft)	72			187			41			252		
Queue Length 95th (ft)	m116			252			95			411		
Internal Link Dist (ft)	417			381			592			104		
Turn Bay Length (ft)										125		
Base Capacity (vph)	1102			1114			452			2120		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			53		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.45			0.67			0.38			0.84		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 15.9      Intersection LOS: B  
 Intersection Capacity Utilization 93.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3017	0	1652	2998	0	0	1591	0	0	3172	0
Flt Permitted		0.904		0.426				0.988			0.938	
Satd. Flow (perm)	0	2733	0	741	2998	0	0	1575	0	0	2984	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		114			24			22			102	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	22	312	126	98	718	79	2	34	21	34	376	136
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	484	0	103	839	0	0	60	0	0	575	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	28.5	28.5	0.0	28.5	28.5	0.0	31.5	31.5	0.0	31.5	31.5	0.0
Total Split (%)	47.5%	47.5%	0.0%	47.5%	47.5%	0.0%	52.5%	52.5%	0.0%	52.5%	52.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		25.5		25.5	25.5			28.5			28.5	
Actuated g/C Ratio		0.42		0.42	0.42			0.48			0.48	
v/c Ratio		0.39		0.33	0.65			0.08			0.39	
Control Delay		10.0		5.5	5.5			0.2			6.2	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		10.0		5.5	5.5			0.2			6.2	
LOS		B		A	A			A			A	
Approach Delay		10.0			5.5			0.2			6.2	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1788	0	0	3419	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.949			0.996				
Satd. Flow (perm)	287	1788	0	0	3248	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			11			7				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	99	192	70	15	760	215	141	1488	35	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	104	276	0	0	1042	0	0	1751	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.84	0.35			0.74			0.75				
Control Delay	78.5	21.7			11.6			4.8				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	78.5	21.7			11.6			4.9				
LOS	E	C			B			A				
Approach Delay		37.2			11.6			4.9				

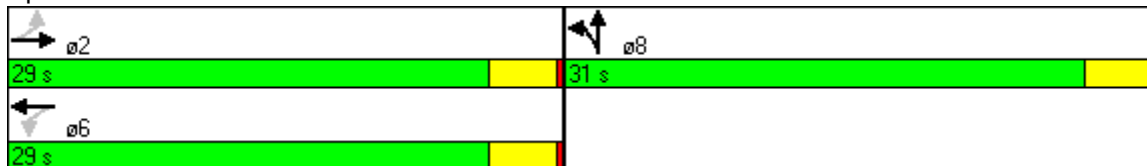


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			B			A					
Queue Length 50th (ft)	40	88			46			19				
Queue Length 95th (ft)	#122	157			105			35				
Internal Link Dist (ft)		169			411			255			118	
Turn Bay Length (ft)												
Base Capacity (vph)	124	797			1414			2345				
Starvation Cap Reductn	0	0			0			31				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.84	0.35			0.74			0.76				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 10.9      Intersection LOS: B  
 Intersection Capacity Utilization 85.1%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 439: McAllister St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			20	20							35	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	227	90	865	0	0	0	0	0	1445	125
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	239	95	911	0	0	0	0	0	1653	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.38	0.14	0.67						0.67	
Control Delay			8.5	10.6	18.4						6.7	
Queue Delay			0.0	0.0	0.0						0.0	
Total Delay			8.5	10.6	18.4						6.7	
LOS			A	B	B						A	
Approach Delay					17.6						6.7	

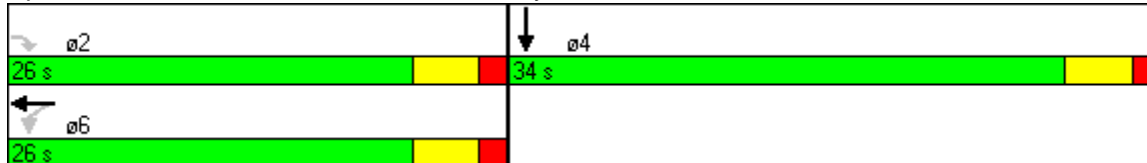


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS								B				A
Queue Length 50th (ft)			15	17	139							52
Queue Length 95th (ft)			m63	42	197							113
Internal Link Dist (ft)		411			257			253				266
Turn Bay Length (ft)												
Base Capacity (vph)			630	691	1357							2467
Starvation Cap Reductn			0	0	0							58
Spillback Cap Reductn			0	0	0							0
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.38	0.14	0.67							0.69

**Intersection Summary**

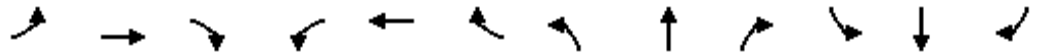
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBR, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 10.6                      Intersection LOS: B  
 Intersection Capacity Utilization 61.3%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 440: McAllister St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4882	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4882	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		12									54	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	578	208	0	0	0	0	0	0	307	2083	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	846	0	0	0	0	0	0	0	0	2490	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		25.0									59.0	
Actuated g/C Ratio		0.28									0.66	
v/c Ratio		0.62									0.80	
Control Delay		30.3									3.1	
Queue Delay		0.0									0.9	
Total Delay		30.3									4.0	
LOS		C									A	
Approach Delay		30.3									4.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										A
Queue Length 50th (ft)		151										32
Queue Length 95th (ft)		194										46
Internal Link Dist (ft)		416				94		268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1365										3128
Starvation Cap Reductn		0										347
Spillback Cap Reductn		0										24
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.62										0.90

**Intersection Summary**

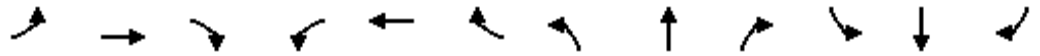
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	41 (46%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	10.7
Intersection LOS:	B
Intersection Capacity Utilization:	69.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5697	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5697	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	104	781	0	0	0	0	0	2628	132	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	903	0	0	0	0	0	2845	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		27.0						57.0				
Actuated g/C Ratio		0.30						0.63				
v/c Ratio		0.60						0.79				
Control Delay		26.3						4.4				
Queue Delay		0.0						0.7				
Total Delay		26.3						5.1				
LOS		C						A				
Approach Delay		26.3						5.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		178							88				
Queue Length 95th (ft)		226							111				
Internal Link Dist (ft)		216				162			71			240	
Turn Bay Length (ft)													
Base Capacity (vph)		1500							3615				
Starvation Cap Reductn		0							388				
Spillback Cap Reductn		0							300				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.60							0.88				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	79 (88%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	10.2
Intersection LOS:	B
Intersection Capacity Utilization	64.2%
ICU Level of Service	C
Analysis Period (min)	15

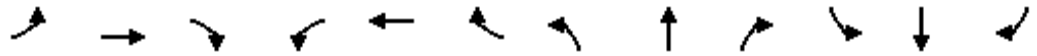
Splits and Phases: 451: Golden Gate Ave. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	150		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4769	0	0	0	0	0	4374	0	1770	4545	0
Flt Permitted		0.997								0.087		
Satd. Flow (perm)	0	4709	0	0	0	0	0	4374	0	162	4545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	61	695	157	0	0	0	0	1696	81	114	1536	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					22	22		14	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	961	0	0	0	0	0	1870	0	120	1617	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		2.0	4.0	
Minimum Split (s)	35.0	35.0						38.0		6.0	48.0	
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	46.0	0.0	9.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	0.0%	10.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.0	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.0						43.0		52.0	52.0	
Actuated g/C Ratio		0.36						0.48		0.58	0.58	
v/c Ratio		0.57						0.89		0.60	0.62	
Control Delay		8.8						8.1		16.6	1.3	
Queue Delay		0.0						0.3		0.0	0.1	
Total Delay		8.8						8.4		16.6	1.4	
LOS		A						A		B	A	
Approach Delay		8.8						8.4			2.5	

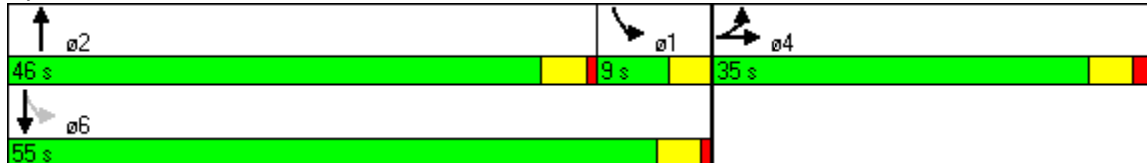


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A			A	
Queue Length 50th (ft)		42							36			17	14
Queue Length 95th (ft)		63							71			m34	15
Internal Link Dist (ft)		159				387			98			78	
Turn Bay Length (ft)											150		
Base Capacity (vph)		1698							2096			201	2626
Starvation Cap Reductn		0							26			0	169
Spillback Cap Reductn		0							0			0	0
Storage Cap Reductn		0							0			0	0
Reduced v/c Ratio		0.57							0.90			0.60	0.66

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 83 (92%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 6.2 Intersection LOS: A  
 Intersection Capacity Utilization 76.0% ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4731	0	0	0	0	0	1599	0	0	3319	0
Flt Permitted		0.997									0.836	
Satd. Flow (perm)	0	4731	0	0	0	0	0	1599	0	0	2811	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76						48				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	60	692	138	0	0	0	0	89	46	141	408	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	936	0	0	0	0	0	142	0	0	577	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.1	28.1	0.0	0.0	0.0	0.0	0.0	31.9	0.0	31.9	31.9	0.0
Total Split (%)	46.8%	46.8%	0.0%	0.0%	0.0%	0.0%	0.0%	53.2%	0.0%	53.2%	53.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.1						28.9			28.9	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.46						0.18			0.43	
Control Delay		12.4						3.9			12.3	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.4						3.9			12.3	
LOS		B						A			B	
Approach Delay		12.4						3.9			12.3	



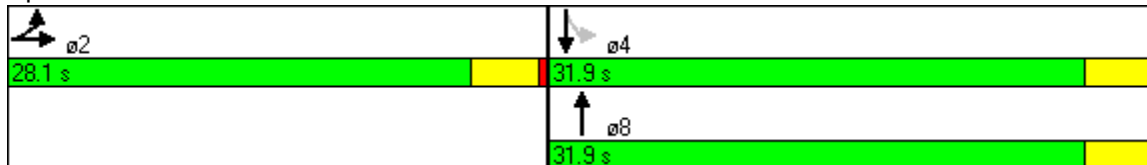
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		77						7			60	
Queue Length 95th (ft)		108						m16			107	
Internal Link Dist (ft)		387				419		100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		2023						795			1354	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.46						0.18			0.43	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	11.6
Intersection LOS:	B
Intersection Capacity Utilization:	50.5%
ICU Level of Service:	A
Analysis Period (min):	15

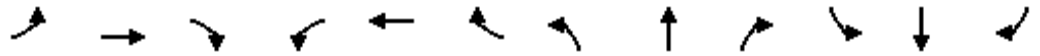
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5040	0	0	0	0	0	4756	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	5040	0	0	0	0	0	4756	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19						57				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	165	714	0	0	0	0	0	1573	229	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	926	0	0	0	0	0	1897	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.53						0.71				
Control Delay		9.3						4.6				
Queue Delay		0.0						0.0				
Total Delay		9.3						4.6				
LOS		A						A				
Approach Delay		9.3						4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A				
Queue Length 50th (ft)		42						56				
Queue Length 95th (ft)		56						67				
Internal Link Dist (ft)		419			404			78			233	
Turn Bay Length (ft)												
Base Capacity (vph)		1735						2681				
Starvation Cap Reductn		0						41				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.53						0.72				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	6.1
Intersection LOS:	A
Intersection Capacity Utilization:	59.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4846	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4846	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		54									51	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	650	293	0	0	0	0	0	0	139	1277	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	992	0	0	0	0	0	0	0	0	1490	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.66									0.52	
Control Delay		11.5									5.7	
Queue Delay		0.0									0.2	
Total Delay		11.5									5.9	
LOS		B									A	
Approach Delay		11.5									5.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		45									27	
Queue Length 95th (ft)		82									52	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1492									2890	
Starvation Cap Reductn		0									525	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.66									0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	53.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				4							18	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	202	994	0	0	0	0	0	2188	140
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	222	1092	0	0	0	0	0	2400	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				33.0	33.0						51.0	
Actuated g/C Ratio				0.37	0.37						0.57	
v/c Ratio				0.37	0.89						0.89	
Control Delay				16.1	31.1						8.1	
Queue Delay				0.0	0.5						0.5	
Total Delay				16.1	31.6						8.7	
LOS				B	C						A	
Approach Delay					29.0						8.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				121	354						162	
Queue Length 95th (ft)				m192	#460						133	
Internal Link Dist (ft)		903			211			247			322	
Turn Bay Length (ft)												
Base Capacity (vph)				593	1221						2688	
Starvation Cap Reductn				0	18						72	
Spillback Cap Reductn				0	0						14	
Storage Cap Reductn				0	0						0	
Reduced v/c Ratio				0.37	0.91						0.92	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 35 (39%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 15.9      Intersection LOS: B  
 Intersection Capacity Utilization 74.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5494	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5494	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						4		12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	944	233	252	2480	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	983	243	0	2845	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	30.0	30.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					27.0	27.0		57.0				
Actuated g/C Ratio					0.30	0.30		0.63				
v/c Ratio					0.65	0.51		0.82				
Control Delay					9.8	10.3		5.7				
Queue Delay					0.0	0.0		0.4				
Total Delay					9.8	10.3		6.1				
LOS					A	B		A				
Approach Delay					9.9			6.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					49	24		23				
Queue Length 95th (ft)					57	m43		25				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1507	478		3484				
Starvation Cap Reductn					0	0		209				
Spillback Cap Reductn					20	0		176				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.66	0.51		0.87				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 1 (1%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 7.2                      Intersection LOS: A  
 Intersection Capacity Utilization 64.7%                      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←		←	←←←			←←←	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	110		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4976	0	1770	4496	0	0	4476	0
Flt Permitted				0.998		0.091						
Satd. Flow (perm)	0	0	0	0	4935	0	170	4496	0	0	4476	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	52	992	65	137	1620	0	0	1598	48
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1206	0	144	1705	0	0	1680	0
Turn Type				Split			pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases							2					
Detector Phases				4	4		5	2			6	
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	
Minimum Split (s)				35.0	35.0		7.0	48.0			38.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	11.0	55.0	0.0	0.0	44.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.9%	38.9%	0.0%	12.2%	61.1%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					32.0		52.0	52.0			41.0	
Actuated g/C Ratio					0.36		0.58	0.58			0.46	
v/c Ratio					0.68		0.60	0.66			0.82	
Control Delay					27.0		15.3	1.0			24.0	
Queue Delay					0.0		0.0	0.3			0.2	
Total Delay					27.0		15.3	1.3			24.2	
LOS					C		B	A			C	
Approach Delay					27.0			2.4			24.2	

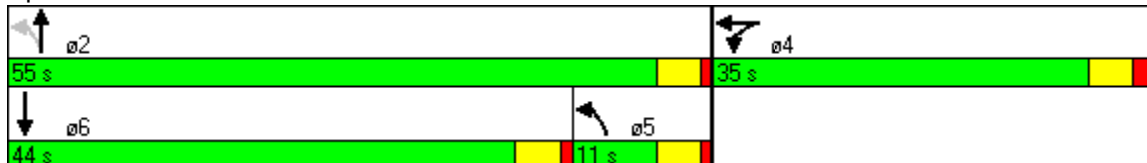


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					210		37	10			199	
Queue Length 95th (ft)					259		m39	m10			m219	
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)							110					
Base Capacity (vph)					1771		240	2598			2042	
Starvation Cap Reductn					0		0	318			50	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.68		0.60	0.75			0.84	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 16.4                      Intersection LOS: B  
 Intersection Capacity Utilization 76.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4944	0	0	2077	0	0	2063	0
Flt Permitted					0.994			0.803				
Satd. Flow (perm)	0	0	0	0	4944	0	0	1695	0	0	2063	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22						23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	154	981	77	48	101	0	0	395	80
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1276	0	0	157	0	0	500	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	28.8	28.8	0.0	31.2	31.2	0.0	0.0	31.2	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.0%	48.0%	0.0%	52.0%	52.0%	0.0%	0.0%	52.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.8			28.2			28.2	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.60			0.20			0.51	
Control Delay					7.3			12.4			7.0	
Queue Delay					0.0			0.0			0.4	
Total Delay					7.3			12.4			7.4	
LOS					A			B			A	
Approach Delay					7.3			12.4			7.4	

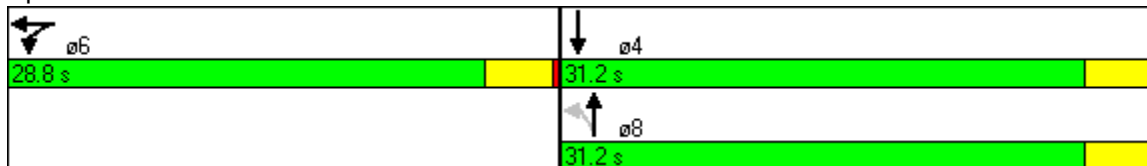


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B			A	
Queue Length 50th (ft)					48			34			54	
Queue Length 95th (ft)					90			72			80	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2138			797			982	
Starvation Cap Reductn					0			0			141	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.60			0.20			0.59	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	9 (15%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization:	67.4%
ICU Level of Service:	C
Analysis Period (min):	15

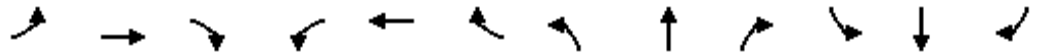
Splits and Phases: 469: Turk St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4879	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4879	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					38			34				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		222			273			313			233	
Travel Time (s)		6.1			7.4			8.5			6.4	
Volume (vph)	0	0	0	0	817	104	395	1343	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1012	0	0	1773	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	24.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					21.0			33.0				
Actuated g/C Ratio					0.35			0.55				
v/c Ratio					0.58			0.67				
Control Delay					10.8			6.1				
Queue Delay					0.0			0.1				
Total Delay					10.8			6.2				
LOS					B			A				
Approach Delay					10.8			6.2				

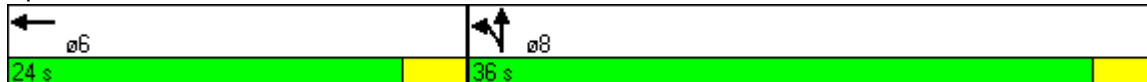


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					46			70				
Queue Length 95th (ft)					58			78				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1732			2653				
Starvation Cap Reductn					0			161				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.58			0.71				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	9 (15%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization:	58.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 470: Turk St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					58						81	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	236	656	0	0	0	0	0	1180	265
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	929	0	0	0	0	0	1474	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.52						0.57	
Control Delay					15.7						12.2	
Queue Delay					0.0						0.5	
Total Delay					15.7						12.7	
LOS					B						B	
Approach Delay					15.7						12.7	

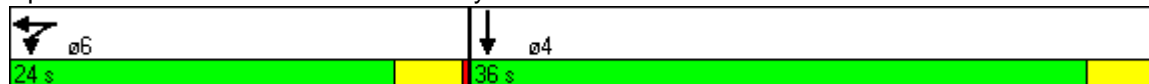


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					88						170	
Queue Length 95th (ft)					123						223	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1780						2608	
Starvation Cap Reductn					0						621	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.52						0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	52.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1742	0	0	1803	0	0	0	0	0	5040	0
Flt Permitted					0.788						0.997	
Satd. Flow (perm)	0	1742	0	0	1433	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	214	96	36	175	0	0	0	0	161	2196	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	352	0	0	248	0	0	0	0	0	2551	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	32.0	0.0	32.0	32.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		29.0			29.0							55.0
Actuated g/C Ratio		0.32			0.32							0.61
v/c Ratio		0.62			0.54							0.83
Control Delay		31.2			11.4							6.0
Queue Delay		0.2			0.0							0.9
Total Delay		31.4			11.4							6.9
LOS		C			B							A
Approach Delay		31.4			11.4							6.9

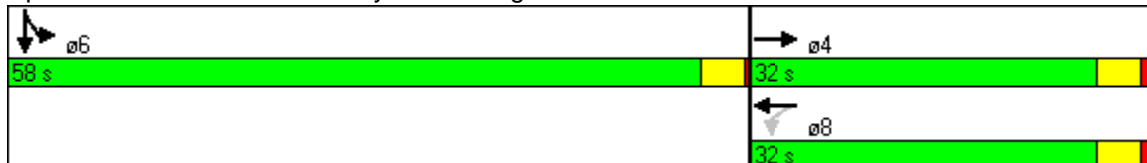


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						A	
Queue Length 50th (ft)		165			25						94	
Queue Length 95th (ft)		250			m35						134	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		565			462						3085	
Starvation Cap Reductn		0			0						263	
Spillback Cap Reductn		16			0						123	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.64			0.54						0.90	

**Intersection Summary**

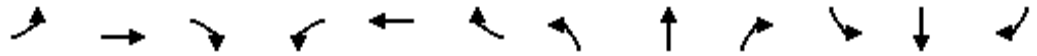
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 10.0      Intersection LOS: B  
 Intersection Capacity Utilization 86.0%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 478: Eddy St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1780	0	0	5697	0	0	0	0
Flt Permitted		0.905						0.999				
Satd. Flow (perm)	0	1645	0	0	1780	0	0	5697	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		476			482			188			156	
Travel Time (s)		13.0			13.1			5.1			4.3	
Volume (vph)	55	320	0	0	178	32	33	2591	107	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	475	0	0	266	0	0	2815	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		0.76			0.40			0.89				
Control Delay		32.2			14.6			8.8				
Queue Delay		0.1			0.0			1.1				
Total Delay		32.3			14.6			10.0				
LOS		C			B			A				
Approach Delay		32.3			14.6			10.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		194			58			81				
Queue Length 95th (ft)		267			75			165				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		621			673			3170				
Starvation Cap Reductn		5			0			165				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.77			0.40			0.94				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	13 (14%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	81.0%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 479: Eddy St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50		50	50	
Trailing Detector (ft)	0	0		0	0			0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1722	0	0	1765	0	0	4331	0	1770	4361	0
Flt Permitted		0.961			0.939					0.088		
Satd. Flow (perm)	0	1646	0	0	1656	0	0	4331	0	164	4361	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			18			13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	34	298	95	16	138	27	0	1588	97	65	1535	72
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								15	15		17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	527	0	0	213	0	0	1702	0	65	1607	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			48.0		48.0	48.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	0.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	61.1%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9		0.9	0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		32.0			32.0			52.0		52.0	52.0	
Actuated g/C Ratio		0.36			0.36			0.58		0.58	0.58	
v/c Ratio		0.90			0.36			0.68		0.68	0.64	
Control Delay		50.8			23.2			3.6		41.8	8.1	
Queue Delay		0.0			0.0			0.0		0.0	0.1	
Total Delay		50.8			23.2			3.6		41.8	8.2	
LOS		D			C			A		D	A	
Approach Delay		50.8			23.2			3.6			9.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1748	0	0	1988	0	0	2009	0
Flt Permitted		0.949			0.840			0.925			0.887	
Satd. Flow (perm)	0	1686	0	0	1492	0	0	1850	0	0	1802	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			21			44			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	61	322	77	40	63	21	21	108	49	128	358	97
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	484	0	0	130	0	0	188	0	0	614	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		25.0			25.0			29.0			29.0	
Actuated g/C Ratio		0.42			0.42			0.48			0.48	
v/c Ratio		0.68			0.21			0.21			0.70	
Control Delay		19.4			2.6			2.5			13.2	
Queue Delay		0.0			0.0			0.0			2.8	
Total Delay		19.4			2.6			2.5			16.0	
LOS		B			A			A			B	
Approach Delay		19.4			2.6			2.5			16.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			A			A			B		
Queue Length 50th (ft)	130			0			9			149		
Queue Length 95th (ft)	225			m0			m19			293		
Internal Link Dist (ft)	391			206			296			91		
Turn Bay Length (ft)												
Base Capacity (vph)	715			634			917			883		
Starvation Cap Reductn	0			0			0			165		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.68			0.21			0.21			0.86		

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 1 (2%), Referenced to phase 2:EBWB, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 14.1

Intersection LOS: B

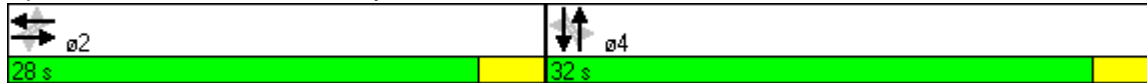
Intersection Capacity Utilization 78.9%

ICU Level of Service D

Analysis Period (min) 15

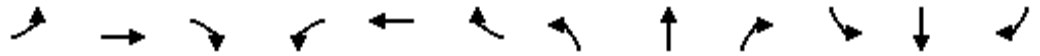
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	0	0	0	4951	0	0	0	0
Flt Permitted		0.993						0.996				
Satd. Flow (perm)	0	1850	0	0	0	0	0	4951	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								43				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		211			283			134			161	
Travel Time (s)		5.8			7.7			3.7			4.4	
Volume (vph)	74	418	0	0	0	0	124	1171	152	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	518	0	0	0	0	0	1524	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		28.0							26.0			
Actuated g/C Ratio		0.47							0.43			
v/c Ratio		0.60							0.70			
Control Delay		12.6							6.0			
Queue Delay		0.0							0.0			
Total Delay		12.6							6.0			
LOS		B							A			
Approach Delay		12.6							6.0			

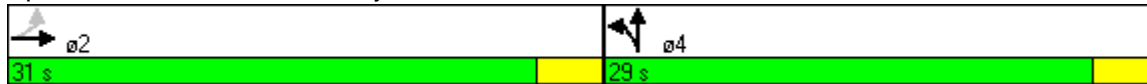


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A					
Queue Length 50th (ft)	131						54					
Queue Length 95th (ft)	198						118					
Internal Link Dist (ft)	131			203			54			81		
Turn Bay Length (ft)												
Base Capacity (vph)	863						2170					
Starvation Cap Reductn	0						39					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.60						0.72					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization:	61.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4828	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4828	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		69										56
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	406	164	0	0	0	0	0	0	126	1281	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	600	0	0	0	0	0	0	0	0	1481	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.48									0.48	
Control Delay		10.5									1.5	
Queue Delay		0.0									0.3	
Total Delay		10.5									1.8	
LOS		B									A	
Approach Delay		10.5									1.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		18									9	
Queue Length 95th (ft)		39									17	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1259									3087	
Starvation Cap Reductn		0									795	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.48									0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	37 (62%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	4.3
Intersection LOS:	A
Intersection Capacity Utilization	45.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 483: Eddy St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗↖↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			7	7							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	33	217	283	0	0	0	0	0	2198	31
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	59	271	354	0	0	0	0	0	2347	0
Turn Type			custom		Perm							
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			27.0	27.0	27.0						57.0	
Actuated g/C Ratio			0.30	0.30	0.30						0.63	
v/c Ratio			0.12	0.51	0.63						0.81	
Control Delay			21.6	15.1	18.0						4.8	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			21.6	15.1	18.0						4.9	
LOS			C	B	B						A	
Approach Delay					16.7						4.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A					
Queue Length 50th (ft)			21	53	74							
Queue Length 95th (ft)			29	m72	96							
Internal Link Dist (ft)	79					398	249			162		
Turn Bay Length (ft)												
Base Capacity (vph)			488	536	559							
Starvation Cap Reductn			0	0	0							
Spillback Cap Reductn			0	0	0							
Storage Cap Reductn			0	0	0							
Reduced v/c Ratio			0.12	0.51	0.63							

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	18 (20%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 488: Ellis St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		478			479			171				185
Travel Time (s)		13.0			13.1			4.7				5.0
Volume (vph)	0	0	0	0	402	328	98	2580	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	437	357	0	2849	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	38.2	38.2	51.8	51.8	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	42.4%	42.4%	57.6%	57.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					35.2	35.2		48.8				
Actuated g/C Ratio					0.39	0.39		0.54				
v/c Ratio					0.32	0.58		0.79				
Control Delay					5.9	11.5		3.0				
Queue Delay					0.0	0.0		0.5				
Total Delay					5.9	11.5		3.5				
LOS					A	B		A				
Approach Delay					8.4			3.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					22	34		26				
Queue Length 95th (ft)					31	279		29				
Internal Link Dist (ft)		398			399			91			105	
Turn Bay Length (ft)												
Base Capacity (vph)					1384	620		3585				
Starvation Cap Reductn					0	0		310				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.32	0.58		0.87				

**Intersection Summary**

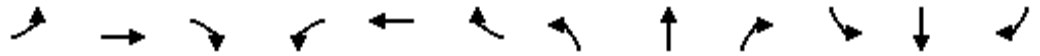
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	23 (26%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	4.6
Intersection LOS:	A
Intersection Capacity Utilization:	68.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4768	0	1770	4561	0	0	4432	0
Flt Permitted				0.996		0.086						
Satd. Flow (perm)	0	0	0	0	4693	0	160	4561	0	0	4432	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4						13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	69	603	141	49	1548	0	0	1578	78
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								12			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	894	0	53	1665	0	0	1743	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				33.0	33.0		48.0	48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					30.0		54.0	54.0			54.0	
Actuated g/C Ratio					0.33		0.60	0.60			0.60	
v/c Ratio					0.56		0.55	0.61			0.65	
Control Delay					26.1		23.4	2.7			20.0	
Queue Delay					0.0		0.0	0.1			0.2	
Total Delay					26.1		23.4	2.8			20.2	
LOS					C		C	A			C	
Approach Delay					26.1			3.4			20.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					150		2	26			243	
Queue Length 95th (ft)					192		m4	m34			282	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)							120					
Base Capacity (vph)					1592		96	2737			2664	
Starvation Cap Reductn					0		0	229			289	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.56		0.55	0.66			0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 14.8                      Intersection LOS: B  
 Intersection Capacity Utilization 70.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4949	0	0	2059	0	0	2015	0
Flt Permitted					0.993			0.878				
Satd. Flow (perm)	0	0	0	0	4949	0	0	1824	0	0	2015	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					53						37	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	138	656	121	33	157	0	0	435	124
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	963	0	0	200	0	0	589	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.6	24.6	0.0	35.4	35.4	0.0	0.0	35.4	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.0%	41.0%	0.0%	59.0%	59.0%	0.0%	0.0%	59.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.6			32.4			32.4	
Actuated g/C Ratio					0.36			0.54			0.54	
v/c Ratio					0.53			0.20			0.53	
Control Delay					5.6			8.4			4.4	
Queue Delay					0.0			0.0			0.4	
Total Delay					5.6			8.4			4.8	
LOS					A			A			A	
Approach Delay					5.6			8.4			4.8	

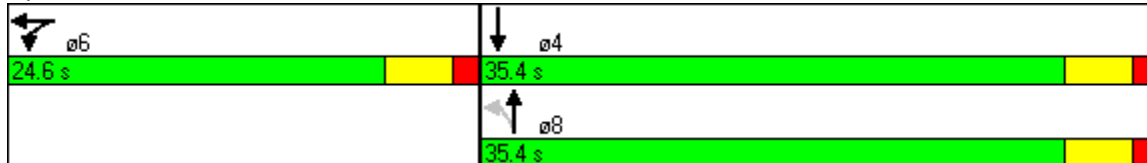


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					25			42			26	
Queue Length 95th (ft)					32			m72			m68	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1816			985			1105	
Starvation Cap Reductn					0			0			176	
Spillback Cap Reductn					1			0			81	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.53			0.20			0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 41 (68%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.53  
 Intersection Signal Delay: 5.6                      Intersection LOS: A  
 Intersection Capacity Utilization 61.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4907	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4907	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					50			60				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	764	235	151	1084	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1051	0	0	1300	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	27.2	0.0	32.8	32.8	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.3%	0.0%	54.7%	54.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					24.2			29.8				
Actuated g/C Ratio					0.40			0.50				
v/c Ratio					0.52			0.54				
Control Delay					8.0			1.7				
Queue Delay					0.0			0.0				
Total Delay					8.0			1.7				
LOS					A			A				
Approach Delay					8.0			1.7				

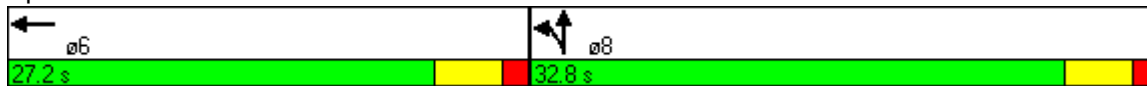


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					45			9				
Queue Length 95th (ft)					58			10				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					2009			2386				
Starvation Cap Reductn					0			89				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.52			0.57				

**Intersection Summary**

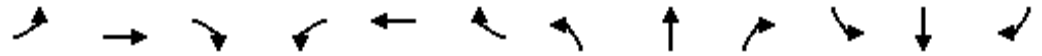
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	4.5
Intersection LOS:	A
Intersection Capacity Utilization	50.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5034	0	0	0	0	0	4630	0
Flt Permitted					0.990							
Satd. Flow (perm)	0	0	0	0	5034	0	0	0	0	0	4630	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					30						97	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	191	723	0	0	0	0	0	1216	276
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	962	0	0	0	0	0	1571	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.45						0.69	
Control Delay					13.0						7.9	
Queue Delay					0.0						0.2	
Total Delay					13.0						8.1	
LOS					B						A	
Approach Delay					13.0						8.1	

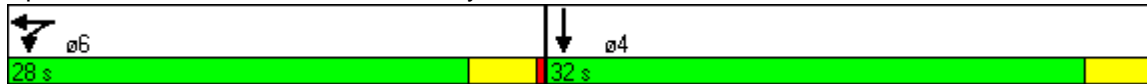


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		399			402			259			292	
Turn Bay Length (ft)												
Base Capacity (vph)					2115						2288	
Starvation Cap Reductn					0						189	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.45						0.75	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	17 (28%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	10.0
Intersection LOS:	A
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6343	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6343	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		320			483			190			163	
Travel Time (s)		8.7			13.2			5.2			4.4	
Volume (vph)	363	1071	0	0	0	0	0	2747	161	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1576	0	0	0	0	0	3061	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	44.8	44.8	0.0	0.0	0.0	0.0	0.0	45.2	0.0	0.0	0.0	0.0
Total Split (%)	49.8%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	50.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		41.8						42.2				
Actuated g/C Ratio		0.46						0.47				
v/c Ratio		1.03						1.03				
Control Delay		46.9						33.7				
Queue Delay		12.5						1.2				
Total Delay		59.4						34.9				
LOS		E						C				
Approach Delay		59.4						34.9				

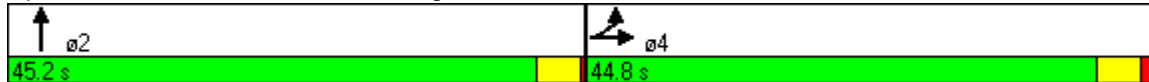


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						C					
Queue Length 50th (ft)	~526						~533					
Queue Length 95th (ft)	#665						#172					
Internal Link Dist (ft)	240			403			110			83		
Turn Bay Length (ft)												
Base Capacity (vph)	1535						2984					
Starvation Cap Reductn	0						10					
Spillback Cap Reductn	49						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	1.06						1.03					

**Intersection Summary**

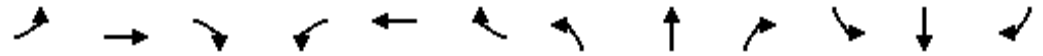
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	34 (38%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	1.03
Intersection Signal Delay:	43.2
Intersection LOS:	D
Intersection Capacity Utilization:	80.8%
ICU Level of Service:	D
Analysis Period (min):	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕↕		↗	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		1	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4391	0	1770	4601	0
Flt Permitted		0.995								0.095		
Satd. Flow (perm)	0	3485	1338	0	0	0	0	4391	0	177	4601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18					13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	114	958	160	0	0	0	0	1580	97	175	1516	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		7	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1128	168	0	0	0	0	1694	0	201	1743	0
Turn Type	Split		Perm							pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phases	4	4	4					2		1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	34.0	34.0	34.0					20.0		8.1	30.0	
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	42.0	0.0	13.0	55.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	46.7%	0.0%	14.4%	61.1%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2	2.2					0.9		0.0	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		32.0	32.0					39.0		52.0	52.0	
Actuated g/C Ratio		0.36	0.36					0.43		0.58	0.58	
v/c Ratio		0.90	0.34					0.89		0.72	0.66	
Control Delay		29.2	22.1					15.8		28.0	8.3	
Queue Delay		0.0	0.1					0.2		0.0	0.3	
Total Delay		29.2	22.2					16.0		28.0	8.6	
LOS		C	C					B		C	A	
Approach Delay		28.3						16.0			10.6	

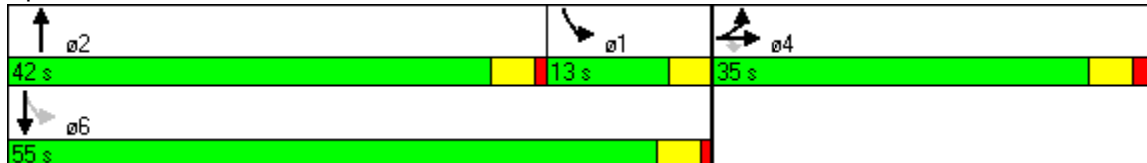


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						B			B		
Queue Length 50th (ft)	211		49					113		52		97
Queue Length 95th (ft)	m205		m47					#264		m61		100
Internal Link Dist (ft)	403				242					105		274
Turn Bay Length (ft)										140		
Base Capacity (vph)	1252		487					1910		279		2658
Starvation Cap Reductn	0		0					20		0		310
Spillback Cap Reductn	0		24					0		0		0
Storage Cap Reductn	0		0					0		0		0
Reduced v/c Ratio	0.90		0.36					0.90		0.72		0.74

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 17.1 Intersection LOS: B  
 Intersection Capacity Utilization 84.5% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

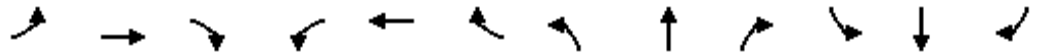
Splits and Phases: 501: O'Farrell St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3325	1583	0	0	0	0	1928	0	0	2046	0
Flt Permitted		0.993									0.835	
Satd. Flow (perm)	0	3325	1583	0	0	0	0	1928	0	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			174					48				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	153	995	165	0	0	0	0	95	109	167	394	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1208	174	0	0	0	0	215	0	0	591	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		27.0	27.0					27.0			27.0	
Actuated g/C Ratio		0.45	0.45					0.45			0.45	
v/c Ratio		0.81	0.22					0.24			0.76	
Control Delay		19.8	2.7					5.7			20.8	
Queue Delay		0.0	0.0					0.0			5.3	
Total Delay		19.8	2.7					5.7			26.1	
LOS		B	A					A			C	
Approach Delay		17.6						5.7			26.1	

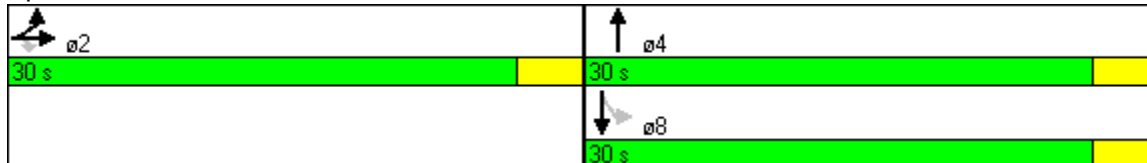


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			C		
Queue Length 50th (ft)	187		0					30		209		
Queue Length 95th (ft)	265		28					60		m#310		
Internal Link Dist (ft)	79				45			104		100		
Turn Bay Length (ft)												
Base Capacity (vph)	1496		808					894		781		
Starvation Cap Reductn	0		0					0		134		
Spillback Cap Reductn	0		0					0		0		
Storage Cap Reductn	0		0					0		0		
Reduced v/c Ratio	0.81		0.22					0.24		0.91		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 33 (55%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 18.8      Intersection LOS: B  
 Intersection Capacity Utilization 83.6%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 502: O'Farrell St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3518	0	0	0	0	0	4611	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	3518	0	0	0	0	0	4611	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23						45				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	145	1126	0	0	0	0	0	1077	316	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1338	0	0	0	0	0	1467	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		30.0						24.0				
Actuated g/C Ratio		0.50						0.40				
v/c Ratio		0.76						0.78				
Control Delay		6.2						14.5				
Queue Delay		0.0						0.0				
Total Delay		6.2						14.5				
LOS		A						B				
Approach Delay		6.2						14.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	58						189					
Queue Length 95th (ft)	75						233					
Internal Link Dist (ft)	288			110			116			99		
Turn Bay Length (ft)												
Base Capacity (vph)	1771						1871					
Starvation Cap Reductn	0						0					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.76						0.78					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	43 (72%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization:	69.9%
ICU Level of Service:	C
Analysis Period (min):	15

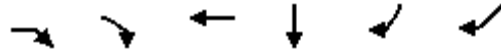
Splits and Phases: 503: O'Farrell St. & Larkin St.

02	08
33 s	27 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			15									44
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1136	306	0	0	0	0	0	0	254	1186	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1196	322	0	0	0	0	0	0	0	1515	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0									24.0
Actuated g/C Ratio		0.50	0.50									0.40
v/c Ratio		0.68	0.40									0.79
Control Delay		7.1	5.1									8.5
Queue Delay		0.0	0.0									0.0
Total Delay		7.1	5.1									8.5
LOS		A	A									A
Approach Delay		6.7										8.5





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		4		9		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1131	352	1544	1796	303	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1191	371	1625	2190	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.84	0.50	0.71	0.94		
Control Delay	27.8	19.5	28.7	18.2		
Queue Delay	0.0	0.0	0.6	4.3		
Total Delay	27.8	19.5	29.3	22.5		
LOS	C	B	C	C		
Approach Delay			29.3	22.5		







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Flt Permitted								0.992				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		16				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	1022	196	522	2666	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1099	211	0	3220	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.63	0.37		0.85				
Control Delay					13.6	12.7		3.0				
Queue Delay					0.0	0.0		1.1				
Total Delay					13.6	12.7		4.0				
LOS					B	B		A				
Approach Delay					13.4			4.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↓	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5060	1469	1770	4625	0	0	4358	0
Flt Permitted					0.995		0.089					
Satd. Flow (perm)	0	0	0	0	4984	1152	166	4625	0	0	4358	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						32						38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	100	883	163	167	1527	0	0	1591	225
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1003	166	169	1542	0	0	1872	0
Turn Type				Split		Perm	pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases						4	2					
Detector Phases				4	4	4	5	2			6	
Minimum Initial (s)				4.0	4.0	4.0	2.0	4.0			4.0	
Minimum Split (s)				34.0	34.0	34.0	7.0	48.0			42.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	11.0	56.0	0.0	0.0	45.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	37.8%	12.2%	62.2%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2	0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0	53.0	53.0			42.0	
Actuated g/C Ratio					0.34	0.34	0.59	0.59			0.47	
v/c Ratio					0.58	0.40	0.70	0.57			0.91	
Control Delay					25.7	21.3	26.3	1.7			29.5	
Queue Delay					0.0	0.0	0.0	0.7			0.0	
Total Delay					25.7	21.3	26.3	2.5			29.5	
LOS					C	C	C	A			C	
Approach Delay					25.1			4.8			29.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3328	1583	0	2054	0	0	2017	0
Flt Permitted					0.994			0.748				
Satd. Flow (perm)	0	0	0	0	3328	1583	0	1554	0	0	2017	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						106						31
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	138	977	101	52	194	0	0	422	117
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1173	106	0	259	0	0	567	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.81	0.14		0.36			0.59	
Control Delay					15.1	1.2		9.1			7.5	
Queue Delay					0.2	0.0		0.0			0.5	
Total Delay					15.4	1.2		9.1			8.0	
LOS					B	A		A			A	
Approach Delay					14.2			9.1			8.0	

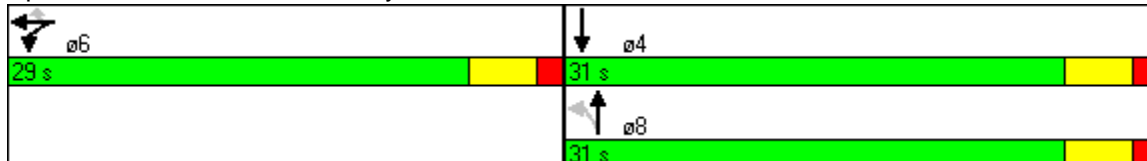


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					120	0		37			45	
Queue Length 95th (ft)					#222	m4		m58			121	
Internal Link Dist (ft)		394			132			88			90	
Turn Bay Length (ft)												
Base Capacity (vph)					1442	746		725			958	
Starvation Cap Reductn					0	0		0			109	
Spillback Cap Reductn					30	0		0			117	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.83	0.14		0.36			0.67	

**Intersection Summary**

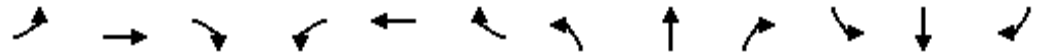
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 11 (18%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 11.9      Intersection LOS: B  
 Intersection Capacity Utilization 83.4%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 516: Geary St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4756	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4756	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						27		110				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		290			195			167			168	
Travel Time (s)		7.9			5.3			4.6			4.6	
Volume (vph)	0	0	0	0	878	282	290	951	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	924	297	0	1306	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.49	0.35		0.72				
Control Delay					5.6	4.9		5.3				
Queue Delay					0.0	0.0		0.0				
Total Delay					5.6	4.9		5.3				
LOS					A	A		A				
Approach Delay					5.5			5.3				

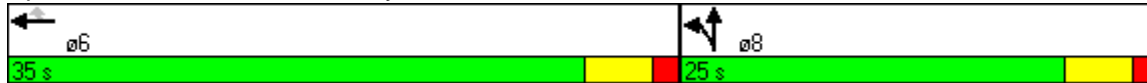


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					50	19		18				
Queue Length 95th (ft)					m81	m40		21				
Internal Link Dist (ft)		210			115			87			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1887	857		1814				
Starvation Cap Reductn					0	0		3				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.49	0.35		0.72				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 53 (88%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 5.4      Intersection LOS: A  
 Intersection Capacity Utilization 55.2%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 517: Geary St. & Larkin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4685	0
Flt Permitted				0.989								
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4685	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					26						60	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	259	924	0	0	0	0	0	1181	236
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1246	0	0	0	0	0	1491	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.81						0.70	
Control Delay					19.6						8.0	
Queue Delay					0.0						0.1	
Total Delay					19.6						8.1	
LOS					B						A	
Approach Delay					19.6						8.1	

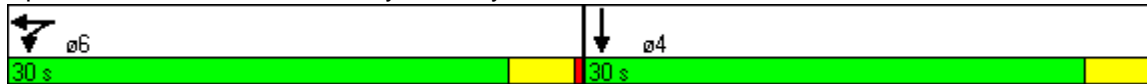


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					190						184	
Queue Length 95th (ft)					269						234	
Internal Link Dist (ft)		198			399			257			277	
Turn Bay Length (ft)												
Base Capacity (vph)					1533						2141	
Starvation Cap Reductn					0						100	
Spillback Cap Reductn					0						28	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.81						0.73	

**Intersection Summary**

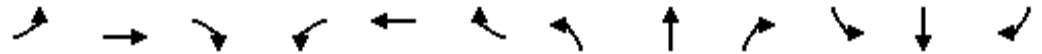
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	50 (83%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization:	67.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 518: Geary St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3313	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3313	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		10										37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	418	100	0	0	0	0	0	0	187	1999	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	589	0	0	0	0	0	0	0	0	2331	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.55									0.75	
Control Delay		27.0									8.5	
Queue Delay		0.0									0.9	
Total Delay		27.0									9.4	
LOS		C									A	
Approach Delay		27.0									9.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										A
Queue Length 50th (ft)		141										89
Queue Length 95th (ft)		188										112
Internal Link Dist (ft)		402			412			265				254
Turn Bay Length (ft)												
Base Capacity (vph)		1074										3101
Starvation Cap Reductn		0										455
Spillback Cap Reductn		0										400
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.55										0.88

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization:	65.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	5515	1338	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	5515	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2							108			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	103	502	0	0	0	0	0	2512	350	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	680	0	0	0	0	0	2701	376	0	0	0
Turn Type	Split								Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		29.0						55.0	55.0			
Actuated g/C Ratio		0.32						0.61	0.61			
v/c Ratio		0.62						0.80	0.44			
Control Delay		31.4						3.3	1.2			
Queue Delay		0.0						0.3	0.6			
Total Delay		31.4						3.6	1.8			
LOS		C						A	A			
Approach Delay		31.4						3.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	C							A					
Queue Length 50th (ft)	198							48	0				
Queue Length 95th (ft)	252							56	m1				
Internal Link Dist (ft)	412				226		242			97			
Turn Bay Length (ft)													
Base Capacity (vph)	1092							3370	860				
Starvation Cap Reductn	0							182	204				
Spillback Cap Reductn	0							92	0				
Storage Cap Reductn	0							0	0				
Reduced v/c Ratio	0.62							0.85	0.57				

**Intersection Summary**

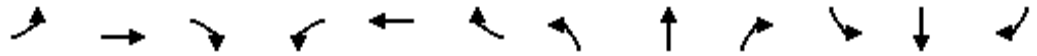
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 40 (44%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 8.4                      Intersection LOS: A  
 Intersection Capacity Utilization 59.9%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4417	0	0	4553	0
Flt Permitted		0.995										
Satd. Flow (perm)	0	3476	1351	0	0	0	0	4417	0	0	4553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11					29				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	71	678	103	0	0	0	0	1485	153	0	1666	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	823	113	0	0	0	0	1671	0	0	1735	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			2	
Permitted Phases			4									
Detector Phases	4	4	4					2			2	
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	
Minimum Split (s)	35.0	35.0	35.0					22.0			22.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0
Total Split (%)	44.4%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	0.0%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.2	2.2	2.2					0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max			Max	
Act Effct Green (s)		37.0	37.0					47.0			47.0	
Actuated g/C Ratio		0.41	0.41					0.52			0.52	
v/c Ratio		0.57	0.20					0.72			0.73	
Control Delay		14.3	11.5					4.0			11.4	
Queue Delay		0.0	0.0					0.0			0.3	
Total Delay		14.3	11.5					4.0			11.7	
LOS		B	B					A			B	
Approach Delay		13.9						4.0			11.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		97	17					35			107	
Queue Length 95th (ft)		171	m50					41			150	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1448	562					2321			2378	
Starvation Cap Reductn		0	0					0			51	
Spillback Cap Reductn		0	0					3			158	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.57	0.20					0.72			0.78	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 9.2                      Intersection LOS: A  
 Intersection Capacity Utilization 65.8%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





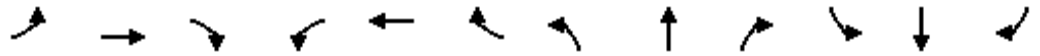


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3391	1583	0	0	0	0	1980	0	0	1928	0
Flt Permitted		0.994									0.835	
Satd. Flow (perm)	0	3391	1583	0	0	0	0	1980	0	0	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121					75				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	93	623	115	0	0	0	0	151	82	162	404	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	754	121	0	0	0	0	245	0	0	596	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.67	0.20					0.21			0.64	
Control Delay		20.7	4.3					5.4			12.4	
Queue Delay		0.0	0.0					0.0			2.0	
Total Delay		20.7	4.3					5.4			14.4	
LOS		C	A					A			B	
Approach Delay		18.4						5.4			14.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4628	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4628	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						110				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	131	736	0	0	0	0	0	939	303	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	913	0	0	0	0	0	1307	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	29.8	29.8	0.0	0.0	0.0	0.0	0.0	30.2	0.0	0.0	0.0	0.0
Total Split (%)	49.7%	49.7%	0.0%	0.0%	0.0%	0.0%	0.0%	50.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.8						27.2				
Actuated g/C Ratio		0.45						0.45				
v/c Ratio		0.59						0.61				
Control Delay		5.8						5.7				
Queue Delay		0.0						0.2				
Total Delay		5.8						5.9				
LOS		A						A				
Approach Delay		5.8						5.9				

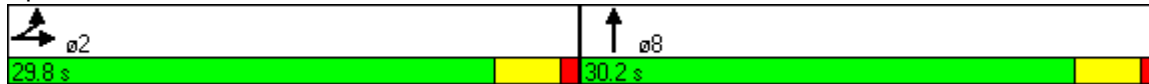


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A				
Queue Length 50th (ft)		42							31				
Queue Length 95th (ft)		57							41				
Internal Link Dist (ft)		424				382			103			91	
Turn Bay Length (ft)													
Base Capacity (vph)		1536							2158				
Starvation Cap Reductn		0							236				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.59							0.68				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	9 (15%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization	55.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			7									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	766	273	0	0	0	0	0	0	137	1144	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	806	287	0	0	0	0	0	0	0	1348	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.40	0.32								0.83	
Control Delay		4.7	4.7								18.9	
Queue Delay		0.0	0.0								0.0	
Total Delay		4.7	4.7								18.9	
LOS		A	A								B	
Approach Delay		4.7									18.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			9	9							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	127	407	558	0	0	0	0	0	1704	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	149	428	587	0	0	0	0	0	1851	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	40.3	40.3	40.3	0.0	0.0	0.0	0.0	0.0	49.7	0.0
Total Split (%)	0.0%	0.0%	44.8%	44.8%	44.8%	0.0%	0.0%	0.0%	0.0%	0.0%	55.2%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			37.3	37.3	37.3						46.7	
Actuated g/C Ratio			0.41	0.41	0.41						0.52	
v/c Ratio			0.22	0.58	0.41						0.75	
Control Delay			17.0	7.2	5.1						8.0	
Queue Delay			0.0	0.0	0.0						0.3	
Total Delay			17.0	7.2	5.1						8.3	
LOS			B	A	A						A	
Approach Delay					6.0						8.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS						A							A
Queue Length 50th (ft)			50	30	25							81	
Queue Length 95th (ft)			85	m42	m33							91	
Internal Link Dist (ft)	81					419	254			75			
Turn Bay Length (ft)													
Base Capacity (vph)			673	739	1420							2468	
Starvation Cap Reductn			0	0	0							144	
Spillback Cap Reductn			0	0	0							161	
Storage Cap Reductn			0	0	0							0	
Reduced v/c Ratio			0.22	0.58	0.41							0.80	

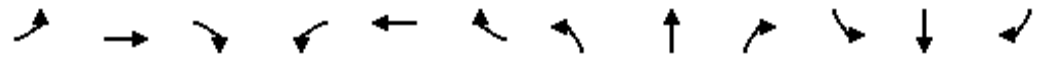
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization	74.5%
ICU Level of Service	D
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 554: Sutter St. & Gough St.**

↓ ø6	↶ ø4
49.7 s	40.3 s
	↷ ø8
	40.3 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	827	265	138	2385	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	871	279	0	2575	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	34.9	34.9	55.1	55.1	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.8%	38.8%	61.2%	61.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					31.9	31.9		52.1				
Actuated g/C Ratio					0.35	0.35		0.58				
v/c Ratio					0.72	0.50		0.81				
Control Delay					12.9	10.1		5.7				
Queue Delay					0.1	0.0		1.1				
Total Delay					13.1	10.1		6.8				
LOS					B	B		A				
Approach Delay					12.4			6.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						B			A			
Queue Length 50th (ft)						148	34		125			
Queue Length 95th (ft)						169	m79		184			
Internal Link Dist (ft)		419				217			98		76	
Turn Bay Length (ft)												
Base Capacity (vph)						1209	563		3195			
Starvation Cap Reductn						29	0		358			
Spillback Cap Reductn						0	0		79			
Storage Cap Reductn						0	0		0			
Reduced v/c Ratio						0.74	0.50		0.91			

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	57 (63%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization:	74.5%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	
Trailing Detector (ft)				0	0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3405	1583	0	4789	0	0	4620	0
Flt Permitted					0.994							
Satd. Flow (perm)	0	0	0	0	3352	1343	0	4789	0	0	4620	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						9						18
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	123	982	107	0	1508	0	0	1439	110
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1163	113	0	1587	0	0	1631	0
Turn Type				Split		Perm						
Protected Phases				4	4			2			2	
Permitted Phases						4						
Detector Phases				4	4	4		2			2	
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	
Minimum Split (s)				33.0	33.0	33.0		20.0			20.0	
Total Split (s)	0.0	0.0	0.0	46.0	46.0	46.0	0.0	44.0	0.0	0.0	44.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	51.1%	51.1%	51.1%	0.0%	48.9%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	
Act Effct Green (s)				43.0	43.0	43.0		41.0			41.0	
Actuated g/C Ratio				0.48	0.48	0.48		0.46			0.46	
v/c Ratio				0.71	0.17	0.71		0.73			0.77	
Control Delay				21.7	13.2	21.7		5.9			29.5	
Queue Delay				1.0	0.0	1.0		0.3			0.1	
Total Delay				22.7	13.2	22.7		6.3			29.6	
LOS				C	B	C		A			C	
Approach Delay				21.8		21.8		6.3			29.6	

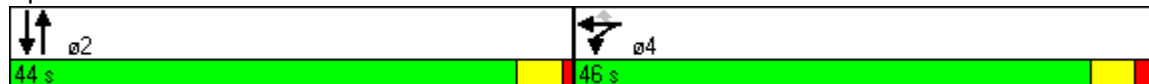


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				C
Queue Length 50th (ft)					264	32		34				236
Queue Length 95th (ft)					341	64		53				260
Internal Link Dist (ft)		73			410			99				76
Turn Bay Length (ft)												
Base Capacity (vph)					1627	646		2182				2114
Starvation Cap Reductn					219	0		175				57
Spillback Cap Reductn					0	0		102				0
Storage Cap Reductn					0	0		0				0
Reduced v/c Ratio					0.83	0.17		0.79				0.79

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	49 (54%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	19.2
Intersection LOS:	B
Intersection Capacity Utilization	68.2%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 556: Sutter St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1936	0	0	1879	0
Flt Permitted				0.991			0.742					
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1451	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						139						39
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	237	1031	132	49	193	0	0	329	132
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1334	139	0	255	0	0	485	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0		23.0			23.0	
Actuated g/C Ratio					0.52	0.52		0.38			0.38	
v/c Ratio					0.76	0.16		0.46			0.65	
Control Delay					8.0	0.5		14.6			8.5	
Queue Delay					0.3	0.0		0.0			0.3	
Total Delay					8.2	0.5		14.6			8.7	
LOS					A	A		B			A	
Approach Delay					7.5			14.6			8.7	



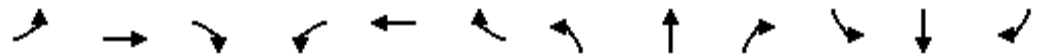
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A					B			A				
Queue Length 50th (ft)	73					0	45			36			
Queue Length 95th (ft)	94					m1	m108			m64			
Internal Link Dist (ft)	410					250		97			66		
Turn Bay Length (ft)													
Base Capacity (vph)	1747					885	556			744			
Starvation Cap Reductn	0					0	0			32			
Spillback Cap Reductn	71					0	1			2			
Storage Cap Reductn	0					0	0			0			
Reduced v/c Ratio	0.80					0.16	0.46			0.68			

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	27 (45%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	8.6
Intersection LOS:	A
Intersection Capacity Utilization:	83.6%
ICU Level of Service:	E
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 557: Sutter St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4738	0	0	0	0
Flt Permitted								0.986				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4738	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						70		48				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1105	88	295	781	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1163	93	0	1133	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.68	0.11		0.59				
Control Delay					6.7	0.4		7.2				
Queue Delay					0.0	0.0		0.0				
Total Delay					6.7	0.4		7.2				
LOS					A	A		A				
Approach Delay					6.2			7.2				



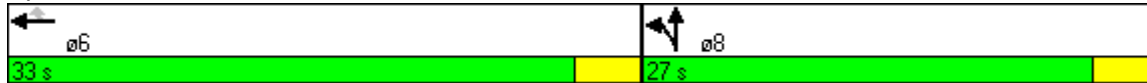
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					47	1		24				
Queue Length 95th (ft)					58	m1		37				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	827		1924				
Starvation Cap Reductn					0	0		0				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.68	0.11		0.59				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	6.7
Intersection LOS:	A
Intersection Capacity Utilization	58.3%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4550	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4550	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					19						70	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	286	1007	0	0	0	0	0	995	186
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1361	0	0	0	0	0	1243	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					33.0						21.0	
Actuated g/C Ratio					0.55						0.35	
v/c Ratio					0.73						0.76	
Control Delay					12.9						17.1	
Queue Delay					0.0						0.0	
Total Delay					12.9						17.1	
LOS					B						B	
Approach Delay					12.9						17.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					172						158	
Queue Length 95th (ft)					244						204	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1864						1638	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.73						0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	5 (8%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	66.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4769	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4769	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		15										24
Link Speed (mph)		25			25			25				25
Link Distance (ft)		252			497			174				171
Travel Time (s)		6.9			13.6			4.7				4.7
Volume (vph)	0	1135	297	0	0	0	0	0	0	134	1382	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1508	0	0	0	0	0	0	0	0	1613	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		42.0									42.0	
Actuated g/C Ratio		0.47									0.47	
v/c Ratio		0.68									0.72	
Control Delay		20.5									19.6	
Queue Delay		0.0									0.3	
Total Delay		20.5									19.9	
LOS		C									B	
Approach Delay		20.5									19.9	

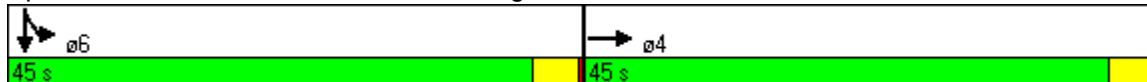


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C										B	
Queue Length 50th (ft)		234										195	
Queue Length 95th (ft)		286										212	
Internal Link Dist (ft)		172					417			94		91	
Turn Bay Length (ft)													
Base Capacity (vph)		2213										2238	
Starvation Cap Reductn		0										170	
Spillback Cap Reductn		0										116	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.68										0.78	

**Intersection Summary**

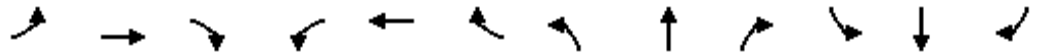
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	20.2
Intersection LOS:	C
Intersection Capacity Utilization	64.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4826	0	0	0	0	0	5617	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	4826	0	0	0	0	0	5617	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	269	1000	0	0	0	0	0	2243	355	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1322	0	0	0	0	0	2824	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		31.0						53.0				
Actuated g/C Ratio		0.34						0.59				
v/c Ratio		0.79						0.85				
Control Delay		20.6						5.9				
Queue Delay		0.2						1.3				
Total Delay		20.8						7.3				
LOS		C						A				
Approach Delay		20.8						7.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		106							69				
Queue Length 95th (ft)		165							75				
Internal Link Dist (ft)		417				148			104		82		
Turn Bay Length (ft)													
Base Capacity (vph)		1664							3315				
Starvation Cap Reductn		0							106				
Spillback Cap Reductn		39							283				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.81							0.93				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	63 (70%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	11.6
Intersection LOS:	B
Intersection Capacity Utilization:	69.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	130		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4947	0	0	0	0	0	4680	0	1770	4662	0
Flt Permitted		0.996								0.103		
Satd. Flow (perm)	0	4889	0	0	0	0	0	4680	0	192	4662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17						18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	121	1126	108	0	0	0	0	1451	120	284	1441	0
Confl. Peds. (#/hr)	139		139				139		277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								7	7		30	30
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1489	0	0	0	0	0	1785	0	323	1638	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	34.0	34.0						33.0		7.0	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	17.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	43.3%	0.0%	18.9%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.5	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		31.0						36.0		53.0	53.0	
Actuated g/C Ratio		0.34						0.40		0.59	0.59	
v/c Ratio		0.87						0.95		0.90	0.60	
Control Delay		35.1						21.4		32.8	3.8	
Queue Delay		0.6						0.0		0.0	0.3	
Total Delay		35.7						21.4		32.8	4.0	
LOS		D						C		C	A	
Approach Delay		35.7						21.4			8.8	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1902	0	0	1938	0
Flt Permitted		0.998									0.887	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1902	0	0	1734	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21						13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	49	1391	90	0	0	0	0	258	65	80	371	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1611	0	0	0	0	0	340	0	0	475	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	30.1	30.1	0.0	0.0	0.0	0.0	0.0	29.9	0.0	29.9	29.9	0.0
Total Split (%)	50.2%	50.2%	0.0%	0.0%	0.0%	0.0%	0.0%	49.8%	0.0%	49.8%	49.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.1						26.9			26.9	
Actuated g/C Ratio		0.45						0.45			0.45	
v/c Ratio		0.74						0.40			0.61	
Control Delay		15.8						11.2			16.5	
Queue Delay		0.0						0.0			2.8	
Total Delay		15.8						11.2			19.3	
LOS		B						B			B	
Approach Delay		15.8						11.2			19.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3012	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3012	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35						25	25			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	120	1416	0	0	0	0	0	541	339	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1617	0	0	0	0	0	662	264	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.62						0.59	0.58			
Control Delay		2.4						10.4	12.4			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.4						10.4	12.4			
LOS		A						B	B			
Approach Delay		2.4						11.0				

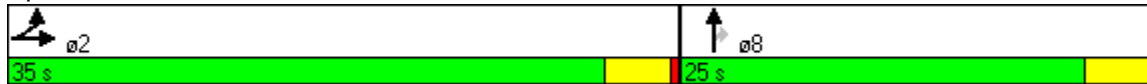


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	20						132 101					
Queue Length 95th (ft)	23						187 179					
Internal Link Dist (ft)	216			181			103			10		
Turn Bay Length (ft)												
Base Capacity (vph)	2606						1120 457					
Starvation Cap Reductn	0						0 0					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.62						0.59 0.58					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	9 (15%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization	55.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4729	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4729	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		38										30
Link Speed (mph)		25			25			25				25
Link Distance (ft)		240			465			132				317
Travel Time (s)		6.5			12.7			3.6				8.6
Volume (vph)	0	1383	351	0	0	0	0	0	0	137	830	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)												30
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	1825	0	0	0	0	0	0	0	0	1018	0
Turn Type											Split	
Protected Phases		2									4	4
Permitted Phases												
Detector Phases		2									4	4
Minimum Initial (s)		4.0									4.0	4.0
Minimum Split (s)		36.0									24.0	24.0
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%
Yellow Time (s)		3.5									3.5	3.5
All-Red Time (s)		0.5									0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max									Max	Max
Act Effct Green (s)		33.0										21.0
Actuated g/C Ratio		0.55										0.35
v/c Ratio		0.70										0.62
Control Delay		4.4										10.5
Queue Delay		0.0										0.0
Total Delay		4.4										10.5
LOS		A										B
Approach Delay		4.4										10.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A										B	
Queue Length 50th (ft)		50										41	
Queue Length 95th (ft)		60										53	
Internal Link Dist (ft)		160				385			52		237		
Turn Bay Length (ft)													
Base Capacity (vph)		2618										1629	
Starvation Cap Reductn		0										0	
Spillback Cap Reductn		0										0	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.70										0.62	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization	60.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





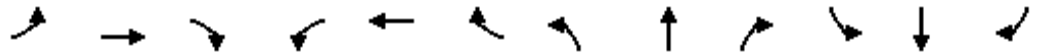
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4676	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				27							12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	312	1534	0	0	0	0	0	1145	171
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	328	1615	0	0	0	0	0	1400	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.37	0.68						0.67	
Control Delay				1.8	3.0						10.2	
Queue Delay				0.0	0.1						0.6	
Total Delay				1.8	3.1						10.7	
LOS				A	A						B	
Approach Delay					2.9						10.7	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6023	0	0	5457	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	6023	0	0	5457	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			2				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			452			172			192	
Travel Time (s)		13.7			12.3			4.7			5.2	
Volume (vph)	0	0	0	0	1628	400	218	2257	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2443	0	0	2633	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	41.0	0.0	49.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.6%	0.0%	54.4%	54.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					38.0			46.0				
Actuated g/C Ratio					0.42			0.51				
v/c Ratio					0.96			0.94				
Control Delay					17.9			14.0				
Queue Delay					0.6			8.0				
Total Delay					18.5			22.0				
LOS					B			C				
Approach Delay					18.5			22.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			C				
Queue Length 50th (ft)					110			88				
Queue Length 95th (ft)					131			#392				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2544			2790				
Starvation Cap Reductn					19			171				
Spillback Cap Reductn					0			62				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.97			1.01				

**Intersection Summary**

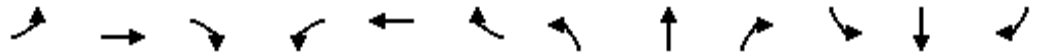
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	70
Control Type:	Pretimed
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	20.3
Intersection LOS:	C
Intersection Capacity Utilization:	73.0%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

**Splits and Phases: 613: Pine St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑↑↑			↑↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6224	0	1770	4746	0	0	4515	0
Flt Permitted				0.997			0.089					
Satd. Flow (perm)	0	0	0	0	6186	0	166	4746	0	0	4515	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					30						21	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	102	1706	182	126	1406	0	0	1667	196
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								20			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2095	0	133	1480	0	0	1961	0
Turn Type				Split			pm+pt					
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	
Minimum Split (s)				37.0	37.0		7.0	21.0			33.0	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	8.0	53.0	0.0	0.0	45.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	8.9%	58.9%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					34.0		50.0	50.0			42.0	
Actuated g/C Ratio					0.38		0.56	0.56			0.47	
v/c Ratio					0.88		0.73	0.56			0.93	
Control Delay					31.4		25.6	1.7			20.6	
Queue Delay					1.4		0.0	0.9			1.0	
Total Delay					32.8		25.6	2.5			21.6	
LOS					C		C	A			C	
Approach Delay					32.8			4.4			21.6	

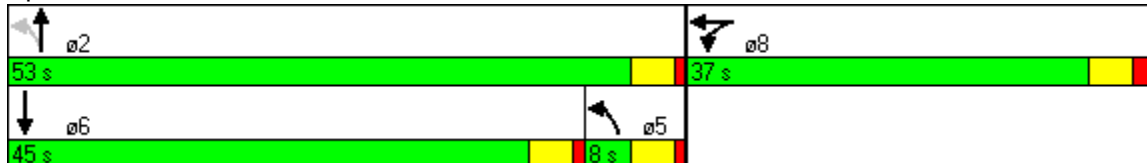


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					313		34	24			155	
Queue Length 95th (ft)					366		m38	m23			#214	
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)							115					
Base Capacity (vph)					2370		181	2637			2118	
Starvation Cap Reductn					0		0	776			45	
Spillback Cap Reductn					124		0	0			5	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.93		0.73	0.80			0.95	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 62 (69%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 20.8                      Intersection LOS: C  
 Intersection Capacity Utilization 84.4%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6160	0	0	1939	0	0	1883	0
Flt Permitted					0.998			0.838				
Satd. Flow (perm)	0	0	0	0	6160	0	0	1638	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	82	1780	83	51	256	0	0	340	128
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2047	0	0	323	0	0	493	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					27.0			27.0			27.0	
Actuated g/C Ratio					0.45			0.45			0.45	
v/c Ratio					0.74			0.44			0.58	
Control Delay					7.4			19.6			8.5	
Queue Delay					0.0			0.7			0.3	
Total Delay					7.4			20.3			8.8	
LOS					A			C			A	
Approach Delay					7.4			20.3			8.8	

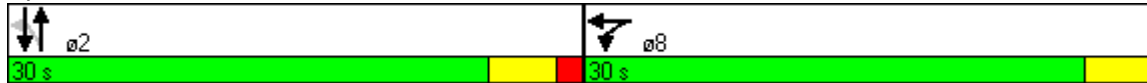


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			C			A	
Queue Length 50th (ft)					93			113			54	
Queue Length 95th (ft)					108			m179			94	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2782			737			849	
Starvation Cap Reductn					0			175			61	
Spillback Cap Reductn					40			0			46	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.75			0.57			0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 9.1                      Intersection LOS: A  
 Intersection Capacity Utilization 80.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6110	0	0	3141	0	0	0	0
Flt Permitted								0.978				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3141	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					75			15				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1647	193	298	374	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1937	0	0	708	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.57			0.64				
Control Delay					4.9			6.8				
Queue Delay					0.0			0.0				
Total Delay					4.9			6.8				
LOS					A			A				
Approach Delay					4.9			6.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					53			31				
Queue Length 95th (ft)					61			41				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3394			1109				
Starvation Cap Reductn					0			4				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.57			0.64				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	39 (65%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	52.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4473	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4473	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					90						10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	254	1630	0	0	0	0	0	713	210
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1983	0	0	0	0	0	972	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.61						0.54	
Control Delay					11.3						15.0	
Queue Delay					0.0						0.0	
Total Delay					11.3						15.0	
LOS					B						B	
Approach Delay					11.3						15.0	

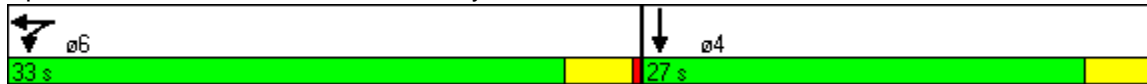


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					131						93	
Queue Length 95th (ft)					165						128	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3227						1795	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.61						0.54	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	38 (63%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization:	52.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3507	0	0	0	0	0	3507	0
Flt Permitted					0.648						0.997	
Satd. Flow (perm)	0	3458	0	0	2293	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29									7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	560	99	114	552	0	0	0	0	75	1103	51
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	717	0	0	775	0	0	0	0	0	1322	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						25.0	25.0
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0							44.0
Actuated g/C Ratio		0.44			0.44							0.49
v/c Ratio		0.46			0.76							0.77
Control Delay		17.9			13.4							21.8
Queue Delay		0.0			0.0							20.3
Total Delay		17.9			13.4							42.1
LOS		B			B							D
Approach Delay		17.9			13.4							42.1

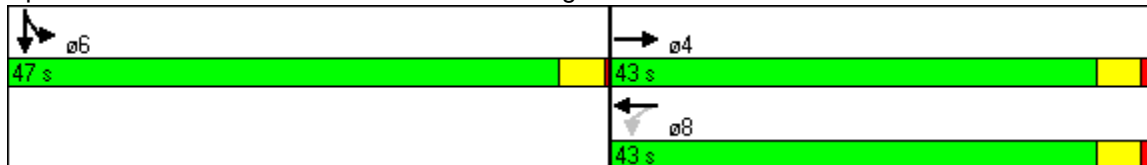


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B						D	
Queue Length 50th (ft)		138			52						288	
Queue Length 95th (ft)		187			m63						m362	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1553			1019						1718	
Starvation Cap Reductn		0			0						431	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.46			0.76						1.03	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 28.0                      Intersection LOS: C  
 Intersection Capacity Utilization 81.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3472	0	0	5680	0	0	0	0
Flt Permitted	0.160							0.998				
Satd. Flow (perm)	298	3539	0	0	3472	0	0	5680	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17			19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	94	541	0	0	585	85	81	2441	135	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	111	636	0	0	788	0	0	3126	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	8.0	33.0	0.0	0.0	25.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	8.9%	36.7%	0.0%	0.0%	27.8%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	30.0	30.0			22.0			54.0				
Actuated g/C Ratio	0.33	0.33			0.24			0.60				
v/c Ratio	0.61	0.54			0.91			0.92				
Control Delay	33.8	16.9			32.5			7.8				
Queue Delay	0.0	0.0			0.0			1.6				
Total Delay	33.8	16.9			32.5			9.4				
LOS	C	B			C			A				
Approach Delay		19.4			32.5			9.4				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3283	0	0	3323	0	0	4646	0	0	4578	0
Flt Permitted		0.878			0.802							
Satd. Flow (perm)	0	2884	0	0	2664	0	0	4646	0	0	4578	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			26			13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	31	501	144	52	579	109	0	1449	139	0	1667	91
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								8	8		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	778	0	0	813	0	0	1637	0	0	1870	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			27.0			27.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			1.3			1.3	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.64			0.72			0.69			0.80	
Control Delay		28.6			26.1			3.6			5.7	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		28.6			26.1			3.6			5.7	
LOS		C			C			A			A	
Approach Delay		28.6			26.1			3.6			5.7	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3392	0	0	3416	0	0	1912	0	0	1903	0
Flt Permitted								0.966			0.921	
Satd. Flow (perm)	0	3392	0	0	3416	0	0	1853	0	0	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			23			20			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	545	95	0	681	76	19	273	47	66	373	83
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	674	0	0	797	0	0	356	0	0	549	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0			31.0			31.0	
Actuated g/C Ratio		0.38			0.38			0.52			0.52	
v/c Ratio		0.51			0.60			0.37			0.60	
Control Delay		15.0			12.3			3.6			8.3	
Queue Delay		0.0			0.0			0.0			1.2	
Total Delay		15.0			12.3			3.6			9.5	
LOS		B			B			A			A	
Approach Delay		15.0			12.3			3.6			9.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		88			50			23			67	
Queue Length 95th (ft)		133			110			m39			129	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1324			1324			967			922	
Starvation Cap Reductn		0			0			0			181	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.60			0.37			0.74	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 23 (38%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 11.1                      Intersection LOS: B  
 Intersection Capacity Utilization 75.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 642: California St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1781	0	1770	0	1290
Flt Permitted		0.909					0.950			0.347		
Satd. Flow (perm)	0	3153	0	0	3455	0	1770	1781	0	646	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			51				46
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	27	631	0	0	631	16	89	339	139	58	0	37
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	700	0	0	779	0	95	509	0	72	0	46
Turn Type	Perm						Perm		custom		custom	
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	26.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	0.0	34.0
Total Split (%)	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	0.0%	56.7%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		23.0			23.0		31.0	31.0		31.0		31.0
Actuated g/C Ratio		0.38			0.38		0.52	0.52		0.52		0.52
v/c Ratio		0.58			0.59		0.10	0.54		0.22		0.07
Control Delay		13.1			16.8		4.0	5.6		10.0		2.9
Queue Delay		0.0			0.0		0.0	0.7		0.0		0.0
Total Delay		13.1			16.8		4.0	6.4		10.0		2.9
LOS		B			B		A	A		B		A
Approach Delay		13.1			16.8			6.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1839	0	0	0	0	0	1535	0
Flt Permitted	0.280			0.950								
Satd. Flow (perm)	522	0	1583	1770	1839	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			139	203	5						7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	59	0	97	292	271	26	0	0	0	0	840	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	84	0	139	328	333	0	0	0	0	0	907	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	27.0	0.0	27.0	27.0	27.0	0.0	0.0	0.0	0.0	0.0	63.0	0.0
Total Split (%)	30.0%	0.0%	30.0%	30.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	24.0		24.0	24.0	24.0						60.0	
Actuated g/C Ratio	0.27		0.27	0.27	0.27						0.67	
v/c Ratio	0.60		0.27	0.53	0.67						0.88	
Control Delay	49.8		6.2	2.6	11.7						21.4	
Queue Delay	0.0		0.2	0.6	0.0						7.4	
Total Delay	49.8		6.4	3.2	11.7						28.8	
LOS	D		A	A	B						C	
Approach Delay					7.5						28.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3451	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3451	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					4		61					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	508	100	81	2539	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	661	0	87	2730	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	26.0	0.0	64.0	64.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	28.9%	0.0%	71.1%	71.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.0		61.0	61.0				
Actuated g/C Ratio					0.26		0.68	0.68				
v/c Ratio					0.75		0.07	0.84				
Control Delay					30.2		0.0	2.4				
Queue Delay					0.0		0.0	0.4				
Total Delay					30.2		0.0	2.8				
LOS					C		A	A				
Approach Delay					30.2			2.7				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3174	0	1770	4712	0	0	4656	0
Flt Permitted				0.990			0.080					
Satd. Flow (perm)	0	0	0	0	3098	0	149	4712	0	0	4656	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24						12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	138	455	120	78	1511	0	0	1620	75
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	743	0	80	1558	0	0	1784	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				37.0	37.0		42.5	42.5			42.5	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	53.0	53.0	0.0	0.0	53.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.8	0.8			0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					34.0		50.0	50.0			50.0	
Actuated g/C Ratio					0.38		0.56	0.56			0.56	
v/c Ratio					0.61		0.96	0.60			0.69	
Control Delay					24.5		102.4	15.5			5.5	
Queue Delay					0.0		0.0	0.1			0.0	
Total Delay					24.5		102.4	15.6			5.6	
LOS					C		F	B			A	
Approach Delay					24.5			19.8			5.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C					B			A			
Queue Length 50th (ft)	171					24	160	68				
Queue Length 95th (ft)	231					m#89	184	65				
Internal Link Dist (ft)	144					160	265			247		
Turn Bay Length (ft)	120											
Base Capacity (vph)	1214					83	2618	2592				
Starvation Cap Reductn	0					0	211	60				
Spillback Cap Reductn	0					0	0	0				
Storage Cap Reductn	0					0	0	0				
Reduced v/c Ratio	0.61					0.96	0.65	0.70				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 14.6      Intersection LOS: B  
 Intersection Capacity Utilization 73.6%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3490	0	0	1947	0	0	1889	0
Flt Permitted				0.993			0.933					
Satd. Flow (perm)	0	0	0	0	3490	0	0	1824	0	0	1889	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						43	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	92	539	30	31	318	0	0	430	143
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	696	0	0	368	0	0	604	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	0.0	35.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	58.3%	58.3%	0.0%	0.0%	58.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					22.0			32.0			32.0	
Actuated g/C Ratio					0.37			0.53			0.53	
v/c Ratio					0.54			0.38			0.59	
Control Delay					16.7			11.1			5.4	
Queue Delay					0.0			0.4			0.1	
Total Delay					16.7			11.5			5.6	
LOS					B			B			A	
Approach Delay					16.7			11.5			5.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B			A	
Queue Length 50th (ft)					100			91			41	
Queue Length 95th (ft)					146			140			69	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1285			973			1028	
Starvation Cap Reductn					0			250			44	
Spillback Cap Reductn					0			0			29	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.54			0.51			0.61	

**Intersection Summary**

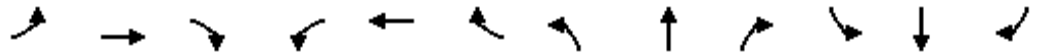
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	6 (10%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	11.5
Intersection LOS:	B
Intersection Capacity Utilization	67.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 662: Sacramento St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1691	0	0	1554	0	0	5024	0	0	0	0
Flt Permitted		0.939						0.999				
Satd. Flow (perm)	0	1609	0	0	1554	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		516			450			331			296	
Travel Time (s)		14.1			12.3			9.0			8.1	
Volume (vph)	14	42	0	0	19	42	35	2419	185	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	59	0	0	64	0	0	2778	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	24.5	24.5	0.0	0.0	24.5	0.0	65.5	65.5	0.0	0.0	0.0	0.0
Total Split (%)	27.2%	27.2%	0.0%	0.0%	27.2%	0.0%	72.8%	72.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		21.5			21.5			62.5				
Actuated g/C Ratio		0.24			0.24			0.69				
v/c Ratio		0.15			0.17			0.79				
Control Delay		45.2			34.9			1.7				
Queue Delay		0.0			0.0			0.2				
Total Delay		45.2			34.9			1.9				
LOS		D			C			A				
Approach Delay		45.2			34.9			1.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A				
Queue Length 50th (ft)		32			8			21				
Queue Length 95th (ft)		m51			m36			20				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		384			377			3498				
Starvation Cap Reductn		0			0			182				
Spillback Cap Reductn		0			0			134				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.15			0.17			0.84				

**Intersection Summary**

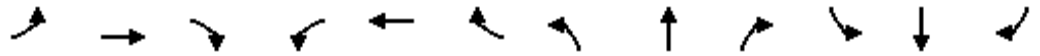
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 3.5                      Intersection LOS: A  
 Intersection Capacity Utilization 67.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 671: Clay St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑↑		↕	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1517	0	0	0	0	0	4543	0	1770	4665	0
Flt Permitted		0.998								0.087		
Satd. Flow (perm)	0	1507	0	0	0	0	0	4543	0	162	4665	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6						19			11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	11	162	54	0	0	0	0	1537	94	49	1641	61
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								28	28		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	291	0	0	0	0	0	1735	0	52	1791	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0						48.5		48.5	48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	57.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.9	0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		30.0						54.0		54.0	54.0	
Actuated g/C Ratio		0.33						0.60		0.60	0.60	
v/c Ratio		0.57						0.63		0.54	0.64	
Control Delay		25.6						2.8		39.5	19.6	
Queue Delay		0.0						0.0		0.0	0.2	
Total Delay		25.6						2.8		39.5	19.8	
LOS		C						A		D	B	
Approach Delay		25.6						2.8			20.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A			C	
Queue Length 50th (ft)		119							29		21	256	
Queue Length 95th (ft)		166							33		m53	287	
Internal Link Dist (ft)		370				421			247			76	
Turn Bay Length (ft)											110		
Base Capacity (vph)		510							2733		97	2803	
Starvation Cap Reductn		0							5		0	342	
Spillback Cap Reductn		0							0		0	0	
Storage Cap Reductn		0							0		0	0	
Reduced v/c Ratio		0.57							0.64		0.54	0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 57 (63%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 12.9                      Intersection LOS: B  
 Intersection Capacity Utilization 68.4%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

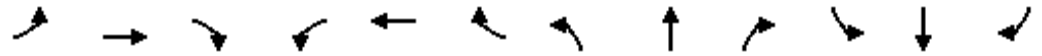
**Splits and Phases: 672: Clay St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3094	0	0	0	0	0	1887	0	0	1947	0
Flt Permitted		0.992									0.948	
Satd. Flow (perm)	0	3094	0	0	0	0	0	1887	0	0	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		177						38				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	48	89	168	0	0	0	0	258	90	40	405	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	322	0	0	0	0	0	367	0	0	468	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	0.0	29.5	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.5						26.5			26.5	
Actuated g/C Ratio		0.46						0.44			0.44	
v/c Ratio		0.21						0.43			0.57	
Control Delay		4.8						7.7			13.7	
Queue Delay		0.0						0.2			0.2	
Total Delay		4.8						7.9			13.9	
LOS		A						A			B	
Approach Delay		4.8						7.9			13.9	

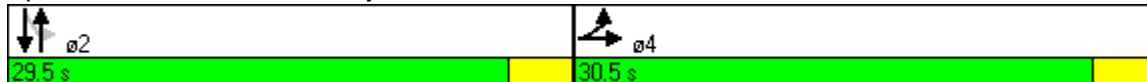


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A			B	
Queue Length 50th (ft)		14							21			88	
Queue Length 95th (ft)		34							65			114	
Internal Link Dist (ft)		421				163			237			241	
Turn Bay Length (ft)													
Base Capacity (vph)		1514							855			818	
Starvation Cap Reductn		0							100			45	
Spillback Cap Reductn		0							0			0	
Storage Cap Reductn		0							0			0	
Reduced v/c Ratio		0.21							0.49			0.61	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization:	61.8%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 673: Clay St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1734	0	0	0	0	0	1464	0	0	1857	0
Flt Permitted		0.999									0.994	
Satd. Flow (perm)	0	1734	0	0	0	0	0	1464	0	0	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42						34				2
Link Speed (mph)		25			25			25				25
Link Distance (ft)		240			522			291				380
Travel Time (s)		6.5			14.2			7.9				10.4
Volume (vph)	6	130	100	0	0	0	0	39	25	18	770	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	303	0	0	0	0	0	87	0	0	825	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				6
Permitted Phases											6	
Detector Phases	4	4						2			6	6
Minimum Initial (s)	4.0	4.0						4.0			4.0	4.0
Minimum Split (s)	15.5	15.5						17.0			17.0	17.0
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	59.5	0.0	59.5	59.5	0.0
Total Split (%)	33.9%	33.9%	0.0%	0.0%	0.0%	0.0%	0.0%	66.1%	0.0%	66.1%	66.1%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	3.5
All-Red Time (s)	1.5	1.5						0.5			0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.5						56.5			56.5	
Actuated g/C Ratio		0.31						0.63			0.63	
v/c Ratio		0.54						0.09			0.71	
Control Delay		26.5						8.3			11.0	
Queue Delay		0.0						0.0			0.7	
Total Delay		26.5						8.3			11.7	
LOS		C						A			B	
Approach Delay		26.5						8.3			11.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		122						34			154	
Queue Length 95th (ft)		166						m44			286	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		559						932			1161	
Starvation Cap Reductn		0						0			111	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.54						0.09			0.79	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 6 (7%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 15.1                      Intersection LOS: B  
 Intersection Capacity Utilization 68.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 679: Washington St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3490	0	0	0	0	0	4765	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3490	0	0	0	0	0	4765	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	28	145	0	0	0	0	0	2389	86	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	271	0	0	0	0	0	2632	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	24.5	24.5	0.0	0.0	0.0	0.0	0.0	65.5	0.0	0.0	0.0	0.0
Total Split (%)	27.2%	27.2%	0.0%	0.0%	0.0%	0.0%	0.0%	72.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		21.5						62.5				
Actuated g/C Ratio		0.24						0.69				
v/c Ratio		0.32						0.79				
Control Delay		23.7						3.1				
Queue Delay		0.0						0.4				
Total Delay		23.7						3.5				
LOS		C						A				
Approach Delay		23.7						3.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		38							11				
Queue Length 95th (ft)		51							15				
Internal Link Dist (ft)		442				372			216			289	
Turn Bay Length (ft)													
Base Capacity (vph)		839							3313				
Starvation Cap Reductn		0							256				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.32							0.86				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	6 (7%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	59.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3340	0	0	0	0	0	1922	0	0	1947	0
Flt Permitted		0.994									0.963	
Satd. Flow (perm)	0	3340	0	0	0	0	0	1922	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		94						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	42	195	89	0	0	0	0	267	39	30	356	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	343	0	0	0	0	0	322	0	0	407	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.24						0.34			0.45	
Control Delay		8.6						4.7			13.0	
Queue Delay		0.0						0.2			0.4	
Total Delay		8.6						4.9			13.3	
LOS		A						A			B	
Approach Delay		8.6						4.9			13.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		28						23			96	
Queue Length 95th (ft)		52						34			165	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1447						938			910	
Starvation Cap Reductn		0						141			159	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.24						0.40			0.54	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization	56.3%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1857	0	0	1833	0
Flt Permitted		0.701		0.713				0.978				
Satd. Flow (perm)	0	1197	0	1328	1829	0	0	1822	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			2							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	25	0	40	84	291	12	2	43	0	0	676	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	83	0	114	409	0	0	58	0	0	798	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		30.0		30.0	30.0			54.0				54.0
Actuated g/C Ratio		0.33		0.33	0.33			0.60				0.60
v/c Ratio		0.19		0.26	0.67			0.05				0.72
Control Delay		11.5		13.6	19.3			6.0				15.3
Queue Delay		0.0		0.0	0.0			0.0				0.3
Total Delay		11.5		13.6	19.3			6.0				15.7
LOS		B		B	B			A				B
Approach Delay		11.5			18.1			6.0				15.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		12		28	109			8			191	
Queue Length 95th (ft)		37		m39	120			13			232	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		433		443	611			1093			1105	
Starvation Cap Reductn		0		0	0			0			54	
Spillback Cap Reductn		16		17	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.20		0.27	0.67			0.05			0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	19 (21%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	15.9
Intersection LOS:	B
Intersection Capacity Utilization:	70.9%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					10			24				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	250	64	137	2280	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	330	0	0	2544	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	24.0	0.0	66.0	66.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	26.7%	0.0%	73.3%	73.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					21.0			63.0				
Actuated g/C Ratio					0.23			0.70				
v/c Ratio					0.41			0.76				
Control Delay					22.6			1.3				
Queue Delay					0.0			0.1				
Total Delay					22.6			1.4				
LOS					C			A				
Approach Delay					22.6			1.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					92			10				
Queue Length 95th (ft)					m116			9				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					804			3337				
Starvation Cap Reductn					0			95				
Spillback Cap Reductn					0			118				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.41			0.79				

**Intersection Summary**

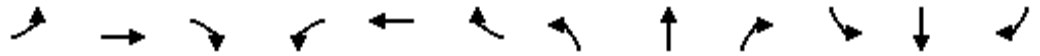
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 3.9                      Intersection LOS: A  
 Intersection Capacity Utilization 62.5%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3379	0	0	1928	0	0	1900	0
Flt Permitted					0.986			0.797				
Satd. Flow (perm)	0	0	0	0	3379	0	0	1558	0	0	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					41						30	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	85	177	45	90	219	0	0	301	80
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	322	0	0	326	0	0	401	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					26.0			28.0			28.0	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.22			0.45			0.44	
Control Delay					9.7			6.1			8.8	
Queue Delay					0.0			0.0			0.2	
Total Delay					9.7			6.1			9.0	
LOS					A			A			A	
Approach Delay					9.7			6.1			9.0	

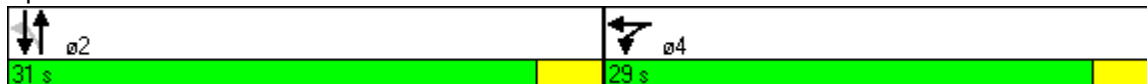


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					31			19			65	
Queue Length 95th (ft)					53			62			104	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1487			727			903	
Starvation Cap Reductn					0			0			112	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.22			0.45			0.51	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	8.3
Intersection LOS:	A
Intersection Capacity Utilization	56.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	1828	0	0	1790	0	0	1857	0
Flt Permitted		0.997			0.923						0.992	
Satd. Flow (perm)	0	1814	0	0	1704	0	0	1790	0	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			32			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	116	24	39	145	14	0	57	23	21	703	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	175	0	0	217	0	0	110	0	0	773	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	61.0	61.0	0.0	61.0	61.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%	67.8%	67.8%	0.0%	67.8%	67.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.0			26.0			58.0			58.0	
Actuated g/C Ratio		0.29			0.29			0.64			0.64	
v/c Ratio		0.33			0.44			0.09			0.65	
Control Delay		25.4			19.0			5.6			8.0	
Queue Delay		0.2			0.4			0.0			1.5	
Total Delay		25.7			19.4			5.6			9.5	
LOS		C			B			A			A	
Approach Delay		25.7			19.4			5.6			9.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			A	
Queue Length 50th (ft)		72			61			10			126	
Queue Length 95th (ft)		113			m109			23			m243	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		533			495			1165			1189	
Starvation Cap Reductn		0			0			0			235	
Spillback Cap Reductn		70			65			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.38			0.50			0.09			0.81	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	29 (32%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	13.1
Intersection LOS:	B
Intersection Capacity Utilization:	73.7%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1757	0	0	5024	0	0	0	0
Flt Permitted		0.930						0.998				
Satd. Flow (perm)	0	1732	0	0	1757	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11			26				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		498			264			314			330	
Travel Time (s)		13.6			7.2			8.6			9.0	
Volume (vph)	27	133	0	0	113	84	85	2102	157	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	168	0	0	207	0	0	2467	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	28.0	28.0	0.0	0.0	28.0	0.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	31.1%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.0			25.0			59.0				
Actuated g/C Ratio		0.28			0.28			0.66				
v/c Ratio		0.35			0.42			0.75				
Control Delay		18.1			18.1			3.5				
Queue Delay		0.0			0.0			0.7				
Total Delay		18.1			18.1			4.2				
LOS		B			B			A				
Approach Delay		18.1			18.1			4.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		38			84			11				
Queue Length 95th (ft)		m62			m102			13				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		481			496			3302				
Starvation Cap Reductn		0			0			444				
Spillback Cap Reductn		0			0			122				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.35			0.42			0.86				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	28 (31%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	6.0
Intersection LOS:	A
Intersection Capacity Utilization:	75.4%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 694: Pacific Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1726	0	0	1769	0	0	1856	0	0	1928	0
Flt Permitted		0.942			0.879			0.896			0.970	
Satd. Flow (perm)	0	1637	0	0	1574	0	0	1680	0	0	1878	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		57			15			45			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	32	130	80	68	175	31	54	130	80	21	233	21
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	255	0	0	289	0	0	278	0	0	289	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Total Split (%)	53.3%	53.3%	0.0%	53.3%	53.3%	0.0%	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		29.0			29.0			25.0			25.0	
Actuated g/C Ratio		0.48			0.48			0.42			0.42	
v/c Ratio		0.31			0.38			0.38			0.37	
Control Delay		8.4			11.0			4.1			13.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.4			11.0			4.1			13.4	
LOS		A			B			A			B	
Approach Delay		8.4			11.0			4.1			13.4	

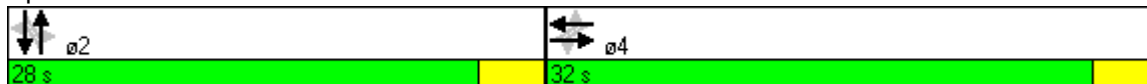


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		39			58			10			67	
Queue Length 95th (ft)		79			107			26			118	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		821			769			726			787	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.38			0.38			0.37	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.38
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization	60.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3476	0	0	1809	0	0	1848	0
Flt Permitted		0.946			0.696			0.949			0.963	
Satd. Flow (perm)	0	3291	0	0	2451	0	0	1725	0	0	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			16			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	5	346	44	209	557	25	7	53	13	53	481	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	415	0	0	930	0	0	102	0	0	596	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		42.0			42.0			42.0			42.0	
Actuated g/C Ratio		0.47			0.47			0.47			0.47	
v/c Ratio		0.27			0.81			0.13			0.71	
Control Delay		14.5			11.5			13.4			25.0	
Queue Delay		0.0			0.4			0.0			0.0	
Total Delay		14.5			11.9			13.4			25.0	
LOS		B			B			B			C	
Approach Delay		14.5			11.9			13.4			25.0	

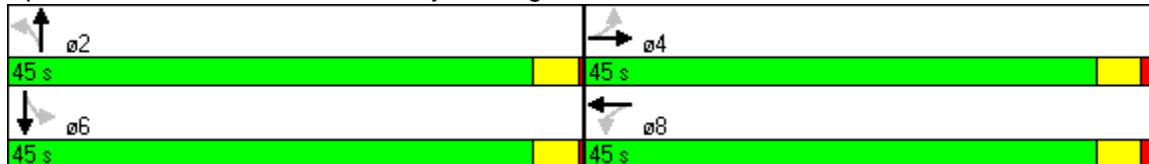


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		68			46			47			260	
Queue Length 95th (ft)		100			72			76			390	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1546			1146			814			835	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		44			33			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.84			0.13			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	46 (51%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	16.3
Intersection LOS:	B
Intersection Capacity Utilization:	79.1%
ICU Level of Service:	D
Analysis Period (min):	15

**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3536	0	0	3415	0	0	5004	0	0	0	0
Flt Permitted		0.908						0.998				
Satd. Flow (perm)	0	3214	0	0	3415	0	0	5004	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			32				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	12	400	0	0	696	216	95	1910	208	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	448	0	0	960	0	0	2405	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	36.0	36.0	0.0	0.0	36.0	0.0	54.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		33.0			33.0			51.0				
Actuated g/C Ratio		0.37			0.37			0.57				
v/c Ratio		0.38			0.76			0.84				
Control Delay		15.1			3.7			7.3				
Queue Delay		0.0			0.4			0.5				
Total Delay		15.1			4.1			7.8				
LOS		B			A			A				
Approach Delay		15.1			4.1			7.8				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	130		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3374	0	0	0	0	0	4691	0	1770	4840	0
Flt Permitted		0.995								0.079		
Satd. Flow (perm)	0	3308	0	0	0	0	0	4691	0	147	4840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14						7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	25	181	25	0	0	0	0	1576	46	99	1726	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	251	0	0	0	0	0	1763	0	103	1798	0
Turn Type	custom									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases	4									6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	25.0	25.0						48.0		6.5	24.0	
Total Split (s)	26.0	26.0	0.0	0.0	0.0	0.0	0.0	50.8	0.0	13.2	64.0	0.0
Total Split (%)	28.9%	28.9%	0.0%	0.0%	0.0%	0.0%	0.0%	56.4%	0.0%	14.7%	71.1%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0						0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		23.0						47.8		61.0	61.0	
Actuated g/C Ratio		0.26						0.53		0.68	0.68	
v/c Ratio		0.29						0.71		0.36	0.55	
Control Delay		38.5						5.2		12.6	5.7	
Queue Delay		0.8						0.3		0.0	0.1	
Total Delay		39.3						5.5		12.6	5.8	
LOS		D						A		B	A	
Approach Delay		39.3						5.5			6.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						A			A		
Queue Length 50th (ft)	69						131			12	93	
Queue Length 95th (ft)	m101						181			m17	111	
Internal Link Dist (ft)	372						413			65		
Turn Bay Length (ft)										130		
Base Capacity (vph)	873						2495			284	3280	
Starvation Cap Reductn	0						222			0	487	
Spillback Cap Reductn	360						17			0	275	
Storage Cap Reductn	0						0			0	0	
Reduced v/c Ratio	0.49						0.78			0.36	0.64	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 74 (82%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 8.0                      Intersection LOS: A  
 Intersection Capacity Utilization 63.9%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**

ø2 50.8 s	ø1 13.2 s	ø4 26 s
ø6 64 s		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1811	0	0	1807	0	0	5040	0	0	0	0
Flt Permitted		0.705						0.997				
Satd. Flow (perm)	0	1313	0	0	1807	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12			12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			461			337			345	
Travel Time (s)		13.8			12.6			9.2			9.4	
Volume (vph)	114	84	0	0	137	39	143	1839	85	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	208	0	0	185	0	0	2176	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.46			0.29			0.73				
Control Delay		27.1			21.9			3.6				
Queue Delay		0.0			0.0			0.2				
Total Delay		27.1			21.9			3.8				
LOS		C			C			A				
Approach Delay		27.1			21.9			3.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		91			94			66				
Queue Length 95th (ft)		157			m143			73				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		452			630			2973				
Starvation Cap Reductn		0			0			174				
Spillback Cap Reductn		0			0			67				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.29			0.78				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	53 (59%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	7.0
Intersection LOS:	A
Intersection Capacity Utilization:	70.6%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 701: Green St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1679	0	0	1703	0	0	1813	0	0	1842	0
Flt Permitted		0.978			0.909			0.901			0.978	
Satd. Flow (perm)	0	1645	0	0	1559	0	0	1646	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			7			17			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	13	246	64	59	353	25	17	72	14	28	399	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	394	0	0	513	0	0	175	0	0	516	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.50			0.70			0.24			0.66	
Control Delay		13.1			19.0			10.8			18.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.1			19.0			10.8			18.2	
LOS		B			B			B			B	
Approach Delay		13.1			19.0			10.8			18.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		85			136			34			138	
Queue Length 95th (ft)		133			217			41			224	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		783			731			723			787	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.50			0.70			0.24			0.66	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	16.4
Intersection LOS:	B
Intersection Capacity Utilization	77.7%
ICU Level of Service	D
Analysis Period (min)	15

**Splits and Phases: 702: Union St. & Gough St.**

<p>ø2 29 s</p>	<p>ø4 31 s</p>
<p>ø6 29 s</p>	<p>ø8 31 s</p>



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↖↖↖				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.944						0.996				
Satd. Flow (perm)	0	1632	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						12		11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	31	257	0	0	277	67	160	1756	76	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	304	0	0	292	71	0	2096	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	36.0	36.0	0.0	0.0	36.0	36.0	54.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	40.0%	40.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		33.0			33.0	33.0		51.0				
Actuated g/C Ratio		0.37			0.37	0.37		0.57				
v/c Ratio		0.51			0.46	0.12		0.73				
Control Delay		25.9			27.7	18.0		4.5				
Queue Delay		0.0			0.0	0.0		0.2				
Total Delay		25.9			27.7	18.0		4.7				
LOS		C			C	B		A				
Approach Delay		25.9			25.8			4.7				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1852	0	0	1816	0	0	5014	0	0	0	0
Flt Permitted		0.967						0.996				
Satd. Flow (perm)	0	1801	0	0	1816	0	0	5014	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			21				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	19	126	0	0	53	12	131	1605	118	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	153	0	0	69	0	0	1951	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.26			0.11			0.65				
Control Delay		23.3			14.1			2.8				
Queue Delay		0.0			0.0			0.4				
Total Delay		23.3			14.1			3.2				
LOS		C			B			A				
Approach Delay		23.3			14.1			3.2				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1844	0	0	1796	0	0	5024	0	0	0	0
Flt Permitted		0.933						0.995				
Satd. Flow (perm)	0	1738	0	0	1796	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	29	110	0	0	81	29	164	1400	72	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	147	0	0	116	0	0	1723	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.24			0.18			0.59				
Control Delay		21.7			33.8			1.8				
Queue Delay		0.0			0.0			0.1				
Total Delay		21.7			33.8			1.9				
LOS		C			C			A				
Approach Delay		21.7			33.8			1.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1777	0	0	5050	0	0	0	0
Flt Permitted		0.952						0.999				
Satd. Flow (perm)	0	1773	0	0	1777	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12			14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			435			362			337	
Travel Time (s)		13.7			11.9			9.9			9.2	
Volume (vph)	14	75	0	0	95	49	47	2004	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	94	0	0	152	0	0	2250	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	29.5	29.5	0.0	0.0	29.5	0.0	60.5	60.5	0.0	0.0	0.0	0.0
Total Split (%)	32.8%	32.8%	0.0%	0.0%	32.8%	0.0%	67.2%	67.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		26.5			26.5			57.5				
Actuated g/C Ratio		0.29			0.29			0.64				
v/c Ratio		0.18			0.29			0.70				
Control Delay		24.9			7.6			2.6				
Queue Delay		0.0			0.0			0.2				
Total Delay		24.9			7.6			2.8				
LOS		C			A			A				
Approach Delay		24.9			7.6			2.8				





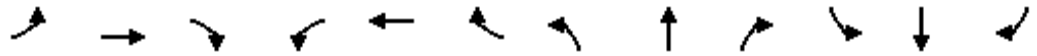
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	130		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3223	0	1652	4469	0	0	4349	0
Flt Permitted				0.985			0.077					
Satd. Flow (perm)	0	0	0	0	2986	0	133	4469	0	0	4349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21						11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	107	192	48	51	1550	0	0	1668	71
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	373	0	54	1632	0	0	1976	0
Turn Type				Perm			pm+pt					
Protected Phases					8		5	2			6	
Permitted Phases				8			2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		1.0	4.0			4.0	
Minimum Split (s)				30.0	30.0		4.5	50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	8.0	60.0	0.0	0.0	52.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	8.9%	66.7%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					27.0		57.0	57.0			49.0	
Actuated g/C Ratio					0.30		0.63	0.63			0.54	
v/c Ratio					0.41		0.32	0.58			0.83	
Control Delay					25.3		13.3	2.4			10.3	
Queue Delay					0.0		0.0	0.5			0.1	
Total Delay					25.3		13.3	2.9			10.4	
LOS					C		B	A			B	
Approach Delay					25.3			3.3			10.4	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1578	0	0	1626	0	1652	4450	0	0	4305	0
Flt Permitted		0.985			0.741		0.082					
Satd. Flow (perm)	0	1554	0	0	1195	0	140	4450	0	0	4305	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			8			11			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	9	184	97	64	128	58	43	1497	58	0	1628	26
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	345	0	0	397	0	45	1619	0	0	1779	0
Turn Type	Perm			Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0		3.0	13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5		6.5	50.0			48.5	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	6.5	55.0	0.0	0.0	48.5	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	7.2%	61.1%	0.0%	0.0%	53.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		32.0			32.0		52.0	52.0			45.5	
Actuated g/C Ratio		0.36			0.36		0.58	0.58			0.51	
v/c Ratio		0.60			0.92		0.32	0.63			0.82	
Control Delay		28.2			57.3		10.2	1.6			25.5	
Queue Delay		0.0			0.0		0.0	0.0			21.2	
Total Delay		28.2			57.3		10.2	1.6			46.7	
LOS		C			E		B	A			D	
Approach Delay		28.2			57.3			1.8			46.7	

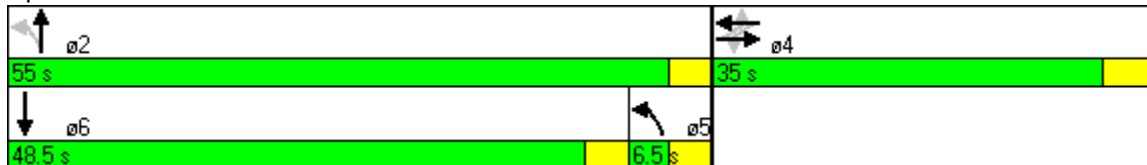


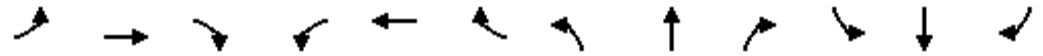
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			E			A			D		
Queue Length 50th (ft)	164			210			1	9	281			
Queue Length 95th (ft)	222			197			m8	11	m270			
Internal Link Dist (ft)	119			413			253			253		
Turn Bay Length (ft)							120					
Base Capacity (vph)	573			430			140	2576	2178			
Starvation Cap Reductn	0			0			0	46	459			
Spillback Cap Reductn	0			0			0	79	0			
Storage Cap Reductn	0			0			0	0	0			
Reduced v/c Ratio	0.60			0.92			0.32	0.65	1.03			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 28.3      Intersection LOS: C  
 Intersection Capacity Utilization 79.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 903: Pacific Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑↑		↑	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3416	0	0	3539	1583	0	4380	0	1399	4106	0
Flt Permitted										0.093	0.647	
Satd. Flow (perm)	0	3416	0	0	3539	1431	0	4380	0	136	2672	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25				267		24			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	504	104	0	854	337	0	1421	143	426	1550	58
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	676	0	0	960	379	0	1647	0	229	1958	0
Turn Type						Perm				pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases						8				6		
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		42.5		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	43.0	0.0	16.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	47.8%	0.0%	17.8%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		40.0		56.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.44		0.62	0.62	
v/c Ratio		0.63			0.87	0.60		0.84		0.86	1.05	
Control Delay		29.1			39.6	12.5		10.9		45.2	45.2	
Queue Delay		12.9			0.0	0.0		0.1		0.0	10.5	
Total Delay		42.1			39.6	12.5		11.1		45.2	55.7	
LOS		D			D	B		B		D	E	
Approach Delay		42.1			31.9			11.1			54.6	

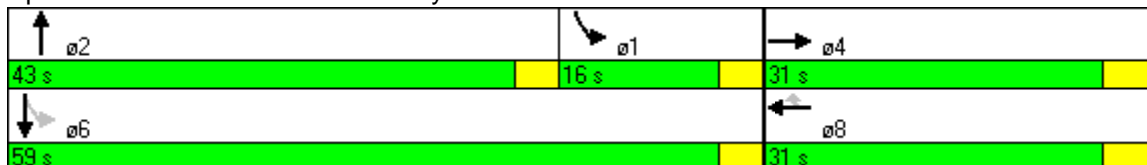


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			D		
Queue Length 50th (ft)	146			269			47	20			96	~167
Queue Length 95th (ft)	m194			#371			136	m21			m#169	#220
Internal Link Dist (ft)	375			167			253			278		
Turn Bay Length (ft)										250		
Base Capacity (vph)	1080			1101			629	1960			267	1872
Starvation Cap Reductn	0			0			0	23			0	22
Spillback Cap Reductn	387			0			0	9			0	46
Storage Cap Reductn	0			0			0	0			0	0
Reduced v/c Ratio	0.98			0.87			0.60	0.85			0.86	1.07

**Intersection Summary**

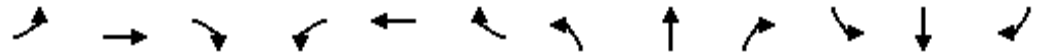
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 35.7      Intersection LOS: D  
 Intersection Capacity Utilization 98.6%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 904: Broadway & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1651	0	0	1790	0	0	4456	0	0	4443	0
Flt Permitted		0.984			0.802							
Satd. Flow (perm)	0	1623	0	0	1422	0	0	4456	0	0	4443	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			4			10			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	8	80	74	83	114	18	0	1696	62	0	1877	30
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	190	0	0	298	0	0	1794	0	0	2008	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	0.0	54.0	0.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	0.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		33.0			33.0			51.0			51.0	
Actuated g/C Ratio		0.37			0.37			0.57			0.57	
v/c Ratio		0.32			0.57			0.71			0.80	
Control Delay		20.3			27.7			4.0			12.1	
Queue Delay		0.0			0.0			0.9			0.0	
Total Delay		20.3			27.7			4.9			12.2	
LOS		C			C			A			B	
Approach Delay		20.3			27.7			4.9			12.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		62			132			49			133	
Queue Length 95th (ft)		m112			159			67			147	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		596			524			2529			2519	
Starvation Cap Reductn		0			0			414			5	
Spillback Cap Reductn		0			0			0			23	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.57			0.85			0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 10.6                      Intersection LOS: B  
 Intersection Capacity Utilization 73.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 907: Vallejo St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1604	0	0	1751	0	1652	4429	0	0	4455	0
Flt Permitted		0.996			0.926		0.078					
Satd. Flow (perm)	0	1597	0	0	1615	0	134	4429	0	0	4455	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			10			7			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	3	73	93	25	86	28	57	1625	40	0	1789	33
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	209	0	0	165	0	58	1681	0	0	1840	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			4			2				2
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		2	2				2
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				4.0
Minimum Split (s)	31.0	31.0		31.0	31.0		50.0	50.0				50.0
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	59.0	59.0	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0				0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		28.0			28.0		56.0	56.0				56.0
Actuated g/C Ratio		0.31			0.31		0.62	0.62				0.62
v/c Ratio		0.42			0.32		0.70	0.61				0.66
Control Delay		29.8			24.4		44.0	1.3				2.2
Queue Delay		0.0			0.0		0.0	0.1				0.1
Total Delay		29.8			24.4		44.0	1.4				2.2
LOS		C			C		D	A				A
Approach Delay		29.8			24.4			2.8				2.2







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	125		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1607	0	0	3356	0	1652	4392	0	0	4450	0
Flt Permitted		0.984			0.689		0.079					
Satd. Flow (perm)	0	1580	0	0	2310	0	137	4392	0	0	4450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			21			8			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	11	255	67	71	200	43	107	1507	42	0	1684	37
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	374	0	0	388	0	108	1564	0	0	1756	0
Turn Type	Perm			Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	54.5			50.0	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	8.0	58.5	0.0	0.0	50.5	0.0
Total Split (%)	35.0%	35.0%	0.0%	35.0%	35.0%	0.0%	8.9%	65.0%	0.0%	0.0%	56.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		28.5			28.5		55.5	55.5			47.5	
Actuated g/C Ratio		0.32			0.32		0.62	0.62			0.53	
v/c Ratio		0.73			0.52		0.64	0.58			0.75	
Control Delay		42.5			26.7		27.9	5.3			11.6	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		42.5			26.7		27.9	5.4			11.6	
LOS		D			C		C	A			B	
Approach Delay		42.5			26.7			6.8			11.6	

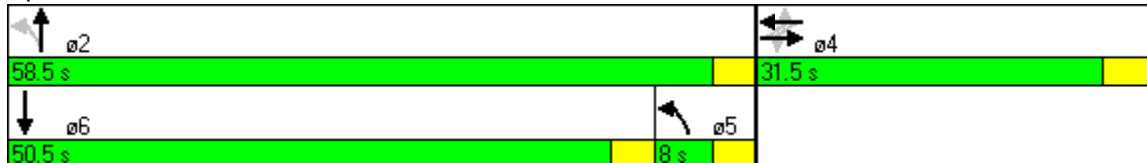


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			A			B		
Queue Length 50th (ft)	209			88			19	40	110			
Queue Length 95th (ft)	m303			116			m#58	87	172			
Internal Link Dist (ft)	369			662			242			259		
Turn Bay Length (ft)							125					
Base Capacity (vph)	511			746			169	2711	2351			
Starvation Cap Reductn	0			0			0	130	17			
Spillback Cap Reductn	0			0			0	0	0			
Storage Cap Reductn	0			0			0	0	0			
Reduced v/c Ratio	0.73			0.52			0.64	0.61	0.75			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 13.9 Intersection LOS: B  
 Intersection Capacity Utilization 96.3% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 909: Union St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50		50	50	
Trailing Detector (ft)	0	0		0	0			0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1642	0	0	1744	0	0	4448	0	1652	4465	0
Flt Permitted		0.991			0.651					0.115		
Satd. Flow (perm)	0	1625	0	0	1127	0	0	4448	0	197	4465	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			10			5			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	8	133	103	48	45	17	0	1538	23	63	1570	20
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	294	0	0	131	0	0	1626	0	64	1606	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0		18.0	18.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	0.0	0.0	64.0	0.0	64.0	64.0	0.0
Total Split (%)	28.9%	28.9%	0.0%	28.9%	28.9%	0.0%	0.0%	71.1%	0.0%	71.1%	71.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		23.0			23.0			61.0		61.0	61.0	
Actuated g/C Ratio		0.26			0.26			0.68		0.68	0.68	
v/c Ratio		0.69			0.44			0.54		0.48	0.53	
Control Delay		36.8			31.6			1.6		12.3	0.9	
Queue Delay		0.0			0.0			0.1		0.0	0.2	
Total Delay		36.8			31.6			1.7		12.3	1.1	
LOS		D			C			A		B	A	
Approach Delay		36.8			31.6			1.7			1.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1742	0	0	1812	0	0	4513	0	0	4485	0
Flt Permitted		0.991			0.974							
Satd. Flow (perm)	0	1725	0	0	1763	0	0	4513	0	0	4485	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			5			2			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	7	127	48	9	87	10	0	1552	11	0	1596	23
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	236	0	0	118	0	0	1736	0	0	1741	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	35.5	35.5	0.0	35.5	35.5	0.0	0.0	54.5	0.0	0.0	54.5	0.0
Total Split (%)	39.4%	39.4%	0.0%	39.4%	39.4%	0.0%	0.0%	60.6%	0.0%	0.0%	60.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		32.5			32.5			51.5			51.5	
Actuated g/C Ratio		0.36			0.36			0.57			0.57	
v/c Ratio		0.38			0.18			0.67			0.68	
Control Delay		21.5			19.8			17.2			13.3	
Queue Delay		0.0			0.0			0.1			1.5	
Total Delay		21.5			19.8			17.3			14.8	
LOS		C			B			B			B	
Approach Delay		21.5			19.8			17.3			14.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			B			B	
Queue Length 50th (ft)		106			43			183			149	
Queue Length 95th (ft)		146			82			217			183	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		626			640			2583			2568	
Starvation Cap Reductn		0			0			7			594	
Spillback Cap Reductn		0			0			114			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.38			0.18			0.70			0.88	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	24 (27%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization	51.5%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 911: Greenwich St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4793	0	0	4881	0	0	1754	0	0	1759	0
Flt Permitted								0.841			0.988	
Satd. Flow (perm)	0	4793	0	0	4881	0	0	1498	0	0	1742	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66			5			5			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1214	202	0	2337	41	28	57	8	12	222	42
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1540	0	0	2451	0	0	130	0	0	321	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.52			0.82			0.27			0.57	
Control Delay		10.3			11.6			23.6			29.6	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		10.3			11.8			23.6			29.6	
LOS		B			B			C			C	
Approach Delay		10.3			11.8			23.6			29.6	

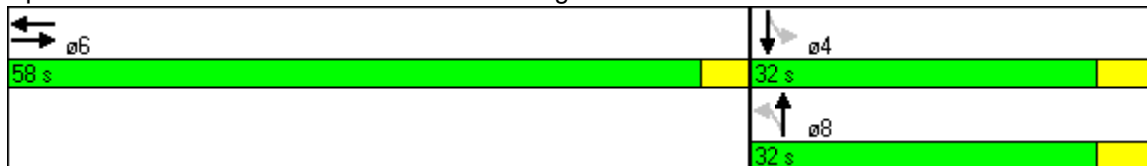


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			B			C			C		
Queue Length 50th (ft)	158			234			52			148		
Queue Length 95th (ft)	194			252			74			219		
Internal Link Dist (ft)	166			429			235			99		
Turn Bay Length (ft)												
Base Capacity (vph)	2955			2985			486			565		
Starvation Cap Reductn	0			69			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.52			0.84			0.27			0.57		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	47 (52%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	12.9
Intersection LOS:	B
Intersection Capacity Utilization	68.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.

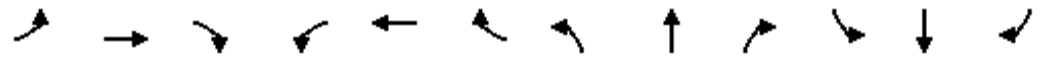






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5065	0	1610	3296	0	0	0	1611
Flt Permitted		0.920					0.950	0.978				
Satd. Flow (perm)	0	4678	0	0	5065	0	1610	3296	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			6				27
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1232	0	0	1410	35	915	500	43	0	0	53
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1451	0	0	1554	0	543	1133	0	0	0	71
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	47.0	47.0	0.0	0.0	34.0	0.0	43.0	43.0	0.0	0.0	0.0	13.0
Total Split (%)	52.2%	52.2%	0.0%	0.0%	37.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	14.4%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		45.4			31.0		38.6	38.6				11.4
Actuated g/C Ratio		0.50			0.34		0.43	0.43				0.13
v/c Ratio		0.61			0.89		0.79	0.80				0.31
Control Delay		12.5			15.7		16.9	13.0				29.2
Queue Delay		0.0			0.0		0.5	0.3				0.0
Total Delay		12.5			15.7		17.4	13.3				29.2
LOS		B			B		B	B				C
Approach Delay		12.5			15.7			14.6				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1768	2601	0	1784	0	4658	1437	0	0	3539	1346
Flt Permitted		0.802					0.950					
Satd. Flow (perm)	0	1351	2601	0	1784	0	3934	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			4		7			17				101
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		470			483			326			171	
Travel Time (s)		12.8			13.2			8.9			4.7	
Volume (vph)	127	230	918	0	108	14	1174	340	55	0	701	163
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	376	966	0	140	0	1249	421	0	0	779	181
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		0.90	0.59		0.25		0.93	0.47			0.73	0.50
Control Delay		42.1	2.4		23.5		26.0	4.4			33.1	17.4
Queue Delay		0.0	0.4		0.0		6.5	0.2			1.3	0.0
Total Delay		42.1	2.8		23.5		32.5	4.6			34.4	17.4
LOS		D	A		C		C	A			C	B
Approach Delay		13.8			23.5			25.5			31.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			C			C		
Queue Length 50th (ft)		233	7		56		147	24			207	35
Queue Length 95th (ft)		m#384	10		99		#319	42			275	100
Internal Link Dist (ft)		390			403			246			91	
Turn Bay Length (ft)							300					
Base Capacity (vph)		420	1649		560		1346	901			1062	361
Starvation Cap Reductn		0	259		0		80	109			0	0
Spillback Cap Reductn		0	0		0		0	0			120	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.90	0.69		0.25		0.99	0.53			0.83	0.50

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 23 (26%), Referenced to phase 2:NBT and 6:SBT, Start of Green
- Natural Cycle: 90
- Control Type: Pretimed
- Maximum v/c Ratio: 0.93
- Intersection Signal Delay: 23.0      Intersection LOS: C
- Intersection Capacity Utilization 101.9%      ICU Level of Service G
- Analysis Period (min) 15
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**



	↑	↗	↓	↙	↘	↗	↘	↙	↘	↙	↗
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Lane Configurations	↑↑↑	↗	↑↑↑			↘	↙		↘	↙	↗
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12
Grade (%)	0%		0%				0%				
Storage Length (ft)		0				0		0	0	0	
Storage Lanes		1				3		0	1	3	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	0		0	0	
Turning Speed (mph)		9		9	15	15		9	15	9	9
Satd. Flow (prot)	4818	1478	4454	0	1610	2535	2282	0	1652	3610	0
Flt Permitted					0.950	0.950	0.977		0.950		
Satd. Flow (perm)	4818	943	4454	0	1610	2535	2282	0	1652	3610	0
Right Turn on Red		Yes		Yes	No			Yes			Yes
Satd. Flow (RTOR)		84	15				7			4	
Link Speed (mph)	25		25				25				
Link Distance (ft)	258		442				1192				
Travel Time (s)	7.0		12.1				32.5				
Volume (vph)	837	80	1358	135	213	1050	286	56	174	643	190
Confl. Peds. (#/hr)		327		247				167			140
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)				16			16	16			
Mid-Block Traffic (%)	0%		0%				0%				
Lane Group Flow (vph)	881	84	1571	0	224	774	691	0	183	877	0
Turn Type		Perm			Prot	Prot			Prot	custom	
Protected Phases	2		6		7	7	4		8	8	
Permitted Phases		2									
Detector Phases	2	2	6		7	7	4		8	8	
Minimum Initial (s)	1.0	1.0	2.0		4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	42.0	42.0	42.0		40.0	40.0	40.0		37.0	37.0	
Total Split (s)	43.0	43.0	43.0	0.0	40.0	40.0	40.0	0.0	37.0	37.0	0.0
Total Split (%)	35.8%	35.8%	35.8%	0.0%	33.3%	33.3%	33.3%	0.0%	30.8%	30.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8		3.3	3.3	3.3		3.3	3.3	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	
Act Effct Green (s)	40.0	40.0	40.0		37.0	37.0	37.0		34.0	34.0	
Actuated g/C Ratio	0.33	0.33	0.33		0.31	0.31	0.31		0.28	0.28	
v/c Ratio	0.55	0.23	1.05		0.45	0.99	0.98		0.39	0.85	
Control Delay	34.2	7.5	76.6		36.9	71.5	69.5		37.7	50.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay	34.2	7.5	76.6		36.9	71.5	69.5		37.7	50.0	
LOS	C	A	E		D	E	E		D	D	
Approach Delay	31.9		76.6				66.1				

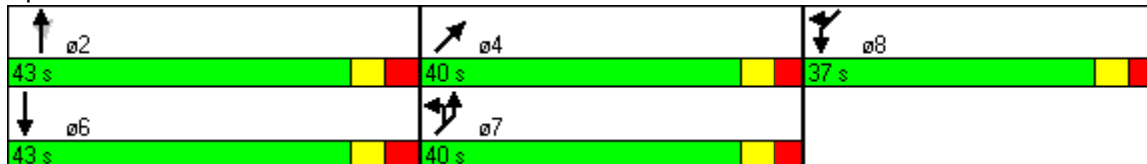


Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Approach LOS	C		E				E				
Queue Length 50th (ft)	203	0	~483		152	367	323		114	280	
Queue Length 95th (ft)	247	37	#582		237	#529	#477		183	#352	
Internal Link Dist (ft)	178		362				1112				
Turn Bay Length (ft)											
Base Capacity (vph)	1606	370	1495		496	782	708		468	1026	
Starvation Cap Reductn	0	0	0		0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	
Reduced v/c Ratio	0.55	0.23	1.05		0.45	0.99	0.98		0.39	0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 59.3                      Intersection LOS: E  
 Intersection Capacity Utilization 82.1%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases:** 1237: Otis St. & Mission St.





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1726	0	0	1611	3433	1749	0	3365	0	0
Flt Permitted		0.955				0.950					
Satd. Flow (perm)	0	1726	0	0	1275	3433	1749	0	3365	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		2			167		6		6		
Link Speed (mph)		25					25		25		
Link Distance (ft)		490					592		242		
Travel Time (s)		13.4					16.1		6.6		
Volume (vph)	39	67	2	6	12	1306	492	45	741	32	39
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	120	0	0	13	1375	565	0	855	0	0
Turn Type	Perm				custom	Prot					
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	38.0	43.0	37.5	0.0	32.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	42.2%	47.8%	41.7%	0.0%	36.1%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			35.0	40.0	34.5		29.5		
Actuated g/C Ratio		0.13			0.39	0.44	0.38		0.33		
v/c Ratio		0.54			0.02	0.90	0.84		0.77		
Control Delay		44.1			0.1	18.0	50.4		29.9		
Queue Delay		0.0			0.0	0.0	0.0		0.0		
Total Delay		44.1			0.1	18.0	50.4		29.9		
LOS		D			A	B	D		C		
Approach Delay		44.1					27.5		29.9		



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS	D					C					
Queue Length 50th (ft)	54				0	414	346	252			
Queue Length 95th (ft)	m122				0	#521	m#420	m282			
Internal Link Dist (ft)	410						512	162			
Turn Bay Length (ft)											
Base Capacity (vph)	222				598	1526	674	1107			
Starvation Cap Reductn	0				0	0	0	0			
Spillback Cap Reductn	0				0	0	0	0			
Storage Cap Reductn	0				0	0	0	0			
Reduced v/c Ratio	0.54				0.02	0.90	0.84	0.77			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 28.7                      Intersection LOS: C  
 Intersection Capacity Utilization 100.7%                      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1350: Page St & Market St.

ø3	ø4	ø10
38 s	37.5 s	14.5 s
ø7	ø8	
43 s	32.5 s	





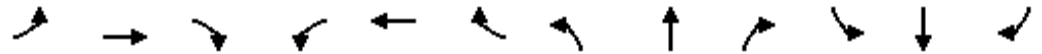
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												23
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			490			350			355	
Travel Time (s)		13.0			13.4			9.5			9.7	
Volume (vph)	0	37	0	0	32	0	0	0	0	77	1841	121
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	39	0	0	34	0	0	0	0	0	2146	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.06			0.05							0.61
Control Delay		18.2			0.1							4.3
Queue Delay		0.0			0.0							0.5
Total Delay		18.2			0.1							4.8
LOS		B			A							A
Approach Delay		18.2			0.1							4.8





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4972	0	3344	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4972	0	3344	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12		1	11			
Link Speed (mph)		25				25		25	
Link Distance (ft)		350				649		592	
Travel Time (s)		9.5				17.7		16.1	
Volume (vph)	25	780	959	77	101	1717	88	690	57
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	847	1090	0	106	1900	0	786	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.85	0.81		0.18	0.84		0.52	
Control Delay		13.2	9.1		3.2	25.6		3.8	
Queue Delay		0.9	0.0		0.0	0.0		0.0	
Total Delay		14.1	9.1		3.2	25.7		3.8	
LOS		B	A		A	C		A	
Approach Delay		11.3				25.7		3.8	





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	60	20	30	96	16	4	71	8	21	498	21
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	5	69	23	32	101	17	5	96	11	23	547	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	97	149	112	593
Volume Left (vph)	5	32	5	23
Volume Right (vph)	23	17	11	23
Hadj (s)	-0.10	0.01	-0.01	0.02
Departure Headway (s)	5.9	5.9	5.5	4.8
Degree Utilization, x	0.16	0.25	0.17	0.80
Capacity (veh/h)	548	556	602	593
Control Delay (s)	10.0	10.8	9.6	24.2
Approach Delay (s)	10.0	10.8	9.6	24.2
Approach LOS	B	B	A	C

Intersection Summary			
Delay		18.9	
HCM Level of Service		C	
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	174	45	36	229	15	11	76	4	20	459	43
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	14	198	51	47	297	19	14	100	5	23	522	49

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	263	364	120	593
Volume Left (vph)	14	47	14	23
Volume Right (vph)	51	19	5	49
Hadj (s)	-0.07	0.03	0.03	-0.01
Departure Headway (s)	7.1	6.9	7.6	6.4
Degree Utilization, x	0.52	0.70	0.25	1.06
Capacity (veh/h)	482	510	421	546
Control Delay (s)	17.4	24.3	13.2	80.3
Approach Delay (s)	17.4	24.3	13.2	80.3
Approach LOS	C	C	B	F

Intersection Summary			
Delay		46.8	
HCM Level of Service		E	
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	41	13	51	34	22	848
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	49	15	65	43	23	893
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.68	1.00			1.00	
vC, conflicting volume	1025	86			108	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1034	85			106	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	72	98			98	
cM capacity (veh/h)	171	973			1483	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	49	15	108	916
Volume Left	49	0	0	23
Volume Right	0	15	43	0
cSH	171	973	1700	1483
Volume to Capacity	0.28	0.02	0.06	0.02
Queue Length 95th (ft)	28	1	0	1
Control Delay (s)	34.1	8.8	0.0	0.4
Lane LOS	D	A		A
Approach Delay (s)	28.0		0.0	0.4
Approach LOS	D			

Intersection Summary			
Average Delay		2.0	
Intersection Capacity Utilization		62.5%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	110	49	16	221	8	17	73	7	22	378	24
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	14	128	57	17	240	9	22	94	9	27	461	29

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	199	266	124	517
Volume Left (vph)	14	17	22	27
Volume Right (vph)	57	9	9	29
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.3	6.3	6.5	5.7
Degree Utilization, x	0.35	0.47	0.22	0.82
Capacity (veh/h)	513	521	486	618
Control Delay (s)	12.7	14.8	11.4	28.9
Approach Delay (s)	12.7	14.8	11.4	28.9
Approach LOS	B	B	B	D

Intersection Summary			
Delay		20.6	
HCM Level of Service		C	
Intersection Capacity Utilization	47.6%		ICU Level of Service A
Analysis Period (min)		15	





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	106	51	31	139	14	17	76	17	22	372	49
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	9	134	65	44	199	20	22	100	22	24	413	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	208	263	145	492
Volume Left (vph)	9	44	22	24
Volume Right (vph)	65	20	22	54
Hadj (s)	-0.14	0.02	-0.03	-0.02
Departure Headway (s)	6.3	6.3	6.4	5.7
Degree Utilization, x	0.36	0.46	0.26	0.78
Capacity (veh/h)	496	519	483	492
Control Delay (s)	12.9	14.6	11.6	25.9
Approach Delay (s)	12.9	14.6	11.6	25.9
Approach LOS	B	B	B	D

Intersection Summary			
Delay		18.9	
HCM Level of Service		C	
Intersection Capacity Utilization	53.6%		ICU Level of Service A
Analysis Period (min)		15	

# 2015 BUILD ALTERNATIVE 2 SIDE LANE BRT





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.466								0.950		
Satd. Flow (perm)	868	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			129				14		364	35	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	7	0	97	0	0	0	819	71	707	179	94
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	7	0	102	0	0	0	937	0	744	287	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	39.0	0.0	39.0	0.0	0.0	0.0	51.0	0.0	39.0	39.0	0.0
Total Split (%)	43.3%	0.0%	43.3%	0.0%	0.0%	0.0%	56.7%	0.0%	43.3%	43.3%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	36.0		36.0				48.0		36.0	36.0	
Actuated g/C Ratio	0.40		0.40				0.53		0.40	0.40	
v/c Ratio	0.02		0.14				0.63		0.34	0.51	
Control Delay	16.7		2.5				3.5		9.6	21.5	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	16.7		2.5				3.5		9.6	21.5	
LOS	B		A				A		A	C	
Approach Delay									12.9		





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	5000	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.930					0.950		
Satd. Flow (perm)	5000	0	0	4729	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				372		30		12		2
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	564	38	13	1331	733	580	221	84	835	537	167
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	634	0	0	1415	772	611	233	0	967	565	176
Turn Type			Perm			Perm	custom	custom	custom	custom	Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.9	29.9	29.1	29.1	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.2%	33.2%	32.3%	32.3%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.9	26.9		26.1	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.41			0.96	1.28	0.57	0.63		0.96	0.28	0.30
Control Delay	24.9			47.4	158.1	29.1	32.2		43.7	4.1	5.0
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	24.9			47.4	158.1	29.1	32.2		43.7	4.1	5.0
LOS	C			D	F	C	C		D	A	A
Approach Delay	24.9			86.5						26.6	



Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR	
Approach LOS	C			F						C		
Queue Length 50th (ft)	101			287	~408	128	99		247	31	18	
Queue Length 95th (ft)	134			#389	#632	173	181		#383	43	m36	
Internal Link Dist (ft)	246			307						534		
Turn Bay Length (ft)											50	
Base Capacity (vph)	1564			1471	601	1079	372		1004	2026	590	
Starvation Cap Reductn	0			0	0	0	0		0	0	0	
Spillback Cap Reductn	0			0	0	0	0		0	0	0	
Storage Cap Reductn	0			0	0	0	0		0	0	0	
Reduced v/c Ratio	0.41			0.96	1.28	0.57	0.63		0.96	0.28	0.30	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 11 (12%), Referenced to phase 1:SBL and 6:SBT, Start of Green

Natural Cycle: 130

Control Type: Pretimed

Maximum v/c Ratio: 1.28

Intersection Signal Delay: 51.3

Intersection LOS: D

Intersection Capacity Utilization 103.6%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

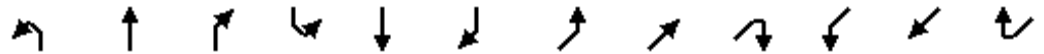
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Duboce St. &



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑		↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		80	0		50	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3353	1203	0	3353	1583	0	1613	0	0	1628	0
Flt Permitted												
Satd. Flow (perm)	0	3353	791	0	3353	748	0	1613	0	0	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			10			1		2				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1297	119	0	1029	177	0	511	36	0	540	28
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			28									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1310	120	0	1131	195	0	614	0	0	624	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	47.8%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		0.88	0.34		0.76	0.59		0.78			0.78	
Control Delay		31.3	18.2		38.3	39.7		8.6			12.2	
Queue Delay		0.0	0.0		0.3	0.0		0.0			0.0	
Total Delay		31.3	18.2		38.6	39.7		8.6			12.2	
LOS		C	B		D	D		A			B	
Approach Delay		30.2			38.7			8.6			12.2	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS	C			D			A			B		
Queue Length 50th (ft)		345	39		295	96		19			41	
Queue Length 95th (ft)		#462	83		371	m159		m41			#52	
Internal Link Dist (ft)		306			37			263			106	
Turn Bay Length (ft)			80			50						
Base Capacity (vph)		1490	357		1490	333		790			796	
Starvation Cap Reductn		0	0		68	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.88	0.34		0.80	0.59		0.78			0.78	













**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 26.9                      Intersection LOS: C  
 Intersection Capacity Utilization 77.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.





						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					3	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	739	0	854	608	109	568
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	778	0	899	640	115	598
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	39.0	39.0	39.0	51.0	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	56.7%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	36.0		36.0	48.0	48.0	48.0
Actuated g/C Ratio	0.40		0.40	0.53	0.53	0.53
v/c Ratio	0.41		0.63	0.64	0.14	0.62
Control Delay	7.2		24.2	21.6	15.1	18.3
Queue Delay	0.0		1.6	0.0	0.0	0.9
Total Delay	7.2		25.9	21.6	15.1	19.2
LOS	A		C	C	B	B
Approach Delay			25.9	20.6		19.2





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>SWT</del>	<del>SWR</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1535	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1535	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			36			5		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	103	1107	1825	167	608	465	84	112
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1273	2097	0	640	695	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.53	0.86		0.98	1.13		
Control Delay		11.2	17.9		51.8	89.9		
Queue Delay		0.0	0.0		0.0	11.0		
Total Delay		11.2	17.9		51.8	100.9		
LOS		B	B		D	F		
Approach Delay		15.4			51.8	100.9		



Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	B				D	F		
Queue Length 50th (ft)	105	221			219	~279		
Queue Length 95th (ft)	140	289			#420	m#469		
Internal Link Dist (ft)	272				455	524		
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2434			654	617		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	3	0			0	14		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.53	0.86			0.98	1.15		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 42 (70%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.13  
 Intersection Signal Delay: 33.0 Intersection LOS: C  
 Intersection Capacity Utilization 89.5% ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22							2			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	43	2010	135	0	0	0	0	472	303	0	526	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2303	0	0	0	0	0	497	319	0	554	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		0.99						0.72	0.46		0.67	
Control Delay		28.1						18.1	13.4		18.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		28.1						18.1	13.4		18.4	
LOS		C						B	B		B	
Approach Delay		28.1						16.3			18.4	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		C						B			B	
Queue Length 50th (ft)		226						180	107		151	
Queue Length 95th (ft)		#406						m195	m119		250	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2319						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.99						0.72	0.46		0.67	

**Intersection Summary**

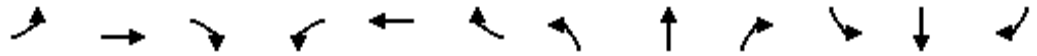
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 17 (28%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 24.0                      Intersection LOS: C  
 Intersection Capacity Utilization 77.1%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		13										7
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			353			200	
Travel Time (s)		10.3			6.7			9.6			5.5	
Volume (vph)	0	1220	243	0	0	0	0	0	0	58	1784	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1573	0	0	0	0	0	0	0	0	1918	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		32.0									52.0	
Actuated g/C Ratio		0.36									0.58	
v/c Ratio		0.90									0.88	
Control Delay		35.6									22.8	
Queue Delay		0.0									0.0	
Total Delay		35.6									22.8	
LOS		D									C	
Approach Delay		35.6									22.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									C	
Queue Length 50th (ft)		304									532	
Queue Length 95th (ft)		#382									611	
Internal Link Dist (ft)		296			165			273			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1750									2178	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.90									0.88	

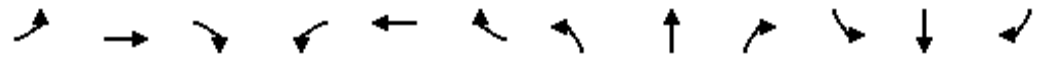
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 28.6                      Intersection LOS: C  
 Intersection Capacity Utilization 62.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

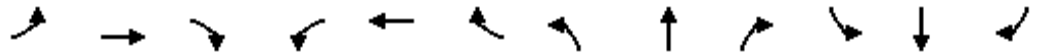
Splits and Phases: 403: Oak St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖↖					↗		↗↗↗				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	42					15						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			405			169	
Travel Time (s)		6.2			6.0			11.0			4.6	
Volume (vph)	1278	0	0	0	0	42	0	1487	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1360	0	0	0	0	49	0	1533	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	43.0	0.0	0.0	0.0	0.0	43.0	0.0	47.0	0.0	0.0	0.0	0.0
Total Split (%)	47.8%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%	52.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	40.0					40.0		44.0				
Actuated g/C Ratio	0.44					0.44		0.49				
v/c Ratio	0.67					0.08		0.68				
Control Delay	1.8					11.3		2.1				
Queue Delay	0.0					0.0		0.2				
Total Delay	1.8					11.3		2.4				
LOS	A					B		A				
Approach Delay								2.4				



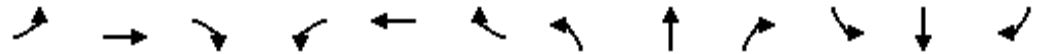
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									A				
Queue Length 50th (ft)	9						11	18					
Queue Length 95th (ft)	m10						29	m23					
Internal Link Dist (ft)	146			141			325			89			
Turn Bay Length (ft)													
Base Capacity (vph)	2019					653		2238					
Starvation Cap Reductn	0					0		179					
Spillback Cap Reductn	14					4		6					
Storage Cap Reductn	0					0		0					
Reduced v/c Ratio	0.68					0.08		0.74					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 31 (34%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 2.3      Intersection LOS: A  
 Intersection Capacity Utilization 69.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3441	0	0	0	0	0	4061	1117
Flt Permitted					0.990						0.998	
Satd. Flow (perm)	0	0	0	0	3441	0	0	0	0	0	4061	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											59	59
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	90	359	0	0	0	0	101	1785	1085
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	575	0	0	0	0	0	2410	653
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	22.0	22.0	0.0	0.0	0.0	0.0	68.0	68.0	68.0
Total Split (%)	0.0%	0.0%	0.0%	24.4%	24.4%	0.0%	0.0%	0.0%	0.0%	75.6%	75.6%	75.6%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					19.0						65.0	65.0
Actuated g/C Ratio					0.21						0.72	0.72
v/c Ratio					0.79						0.82	0.79
Control Delay					39.4						4.0	5.9
Queue Delay					0.0						1.3	1.8
Total Delay					39.4						5.3	7.7
LOS					D						A	A
Approach Delay					39.4						5.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D						A	
Queue Length 50th (ft)					172						114	73
Queue Length 95th (ft)					193						m100	m62
Internal Link Dist (ft)		289			371			112			228	
Turn Bay Length (ft)												
Base Capacity (vph)					726						2949	823
Starvation Cap Reductn					0						320	68
Spillback Cap Reductn					0						0	0
Storage Cap Reductn					0						0	0
Reduced v/c Ratio					0.79						0.92	0.86

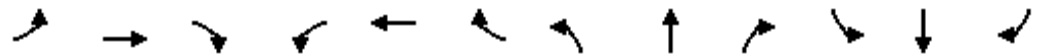
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	58 (64%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	11.1
Intersection LOS:	B
Intersection Capacity Utilization:	64.0%
ICU Level of Service:	B
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 406: Fell St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3483	0	0	1863	0	0	4758	1137	0	0	0
Flt Permitted		0.875						0.990				
Satd. Flow (perm)	0	3097	0	0	1863	0	0	4758	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									620			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	33	68	0	0	37	0	412	1644	595	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	113	0	0	39	0	0	2141	620	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	26.0	26.0	0.0	0.0	26.0	0.0	64.0	64.0	64.0	0.0	0.0	0.0
Total Split (%)	28.9%	28.9%	0.0%	0.0%	28.9%	0.0%	71.1%	71.1%	71.1%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		23.0			23.0			61.0	61.0			
Actuated g/C Ratio		0.26			0.26			0.68	0.68			
v/c Ratio		0.14			0.08			0.66	0.64			
Control Delay		26.3			40.7			7.7	3.2			
Queue Delay		0.0			0.0			0.5	0.3			
Total Delay		26.3			40.7			8.1	3.4			
LOS		C			D			A	A			
Approach Delay		26.3			40.7			7.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			D			A					
Queue Length 50th (ft)	30			23			218			11		
Queue Length 95th (ft)	m38			57			253			36		
Internal Link Dist (ft)	371			406			115			243		
Turn Bay Length (ft)												
Base Capacity (vph)	791			476			3225			970		
Starvation Cap Reductn	0			0			560			56		
Spillback Cap Reductn	0			0			93			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.14			0.08			0.80			0.68		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 8.3                      Intersection LOS: A  
 Intersection Capacity Utilization 59.7%                      ICU Level of Service B  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 407: Fell St. & Franklin St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕	↗	↘	↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	110		75
Storage Lanes	0		0	0		0	0		1	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	50
Trailing Detector (ft)	0	0						0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3469	0	0	0	0	0	3127	1370	1770	3034	1583
Flt Permitted		0.995								0.088		
Satd. Flow (perm)	0	3469	0	0	0	0	0	3127	846	164	3034	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5							21			25
Link Speed (mph)		25			25			25				25
Link Distance (ft)		486			525			174				149
Travel Time (s)		13.3			14.3			4.7				4.1
Volume (vph)	65	570	28	0	0	0	0	1277	48	121	1093	37
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								7	7		18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	728	0	0	0	0	0	1316	49	126	1139	39
Turn Type	Split								Perm	pm+pt		Perm
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		6
Detector Phases	4	4						2	2	1	6	6
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.6	4.0	4.0
Minimum Split (s)	35.0	35.0						42.0	42.0	8.1	50.0	50.0
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	45.4	45.4	9.6	55.0	55.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	50.4%	50.4%	10.7%	61.1%	61.1%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.1	2.1						0.9	0.9	0.9	0.9	0.9
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	Max
Act Effct Green (s)		32.0						42.4	42.4	52.0	52.0	52.0
Actuated g/C Ratio		0.36						0.47	0.47	0.58	0.58	0.58
v/c Ratio		0.59						0.89	0.12	0.59	0.65	0.04
Control Delay		23.0						7.9	0.3	13.5	1.5	0.0
Queue Delay		0.0						0.0	0.0	0.0	0.3	0.0
Total Delay		23.0						7.9	0.3	13.5	1.8	0.0
LOS		C						A	A	B	A	A
Approach Delay		23.0						7.6			2.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A			A	
Queue Length 50th (ft)		156							19	0	26	5	0
Queue Length 95th (ft)		222							m#33	m0	m28	m6	m0
Internal Link Dist (ft)		406			445				94			69	
Turn Bay Length (ft)									75	110		75	
Base Capacity (vph)		1237							1473	410	213	1753	925
Starvation Cap Reductn		0							0	0	0	169	0
Spillback Cap Reductn		0							0	0	0	99	0
Storage Cap Reductn		0							0	0	0	0	0
Reduced v/c Ratio		0.59							0.89	0.12	0.59	0.72	0.04

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 43 (48%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 9.1                      Intersection LOS: A  
 Intersection Capacity Utilization 78.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 408: Fell St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24									3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	77	136	605	410	0	0	0	0	152	2230	39
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	277	0	630	427	0	0	0	0	0	2496	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	26.0	45.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	28.9%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		42.0	42.0						42.0	
Actuated g/C Ratio		0.18		0.47	0.47						0.47	
v/c Ratio		0.89		1.18	0.51						1.12	
Control Delay		64.4		113.8	4.6						75.9	
Queue Delay		0.0		0.0	0.3						8.6	
Total Delay		64.4		113.8	4.9						84.5	
LOS		E		F	A						F	
Approach Delay		64.4			69.8						84.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			E							F
Queue Length 50th (ft)		143		~368	29							~603
Queue Length 95th (ft)		#217		m#554	m40							#690
Internal Link Dist (ft)		335			378			228				265
Turn Bay Length (ft)												
Base Capacity (vph)		311		535	838							2221
Starvation Cap Reductn		0		0	95							38
Spillback Cap Reductn		0		0	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		0.89		1.18	0.57							1.14

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 79.0      Intersection LOS: E  
 Intersection Capacity Utilization 103.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 412: Hayes St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3239	1441	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	1796	0	0	3239	1441	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6	6						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	229	0	0	912	684	103	1574	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	241	0	0	1209	525	0	1863	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	45.0	0.0	0.0	45.0	45.0	45.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	50.0%	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		42.0			42.0	42.0		42.0				
Actuated g/C Ratio		0.47			0.47	0.47		0.47				
v/c Ratio		0.29			0.80	0.78		0.84				
Control Delay		19.8			6.6	9.1		19.4				
Queue Delay		0.0			0.5	0.4		2.8				
Total Delay		19.8			7.1	9.5		22.2				
LOS		B			A	A		C				
Approach Delay		19.8			7.8			22.2				



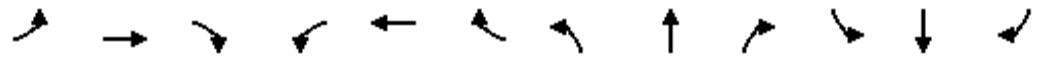
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			A			C					
Queue Length 50th (ft)	110			81 68			166					
Queue Length 95th (ft)	m107			m83 m72			191					
Internal Link Dist (ft)	378			401			243			95		
Turn Bay Length (ft)												
Base Capacity (vph)	838			1515 676			2228					
Starvation Cap Reductn	0			72 17			201					
Spillback Cap Reductn	0			0 0			256					
Storage Cap Reductn	0			0 0			0					
Reduced v/c Ratio	0.29			0.84 0.80			0.94					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 15.6      Intersection LOS: B  
 Intersection Capacity Utilization 103.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 413: Hayes St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕↕		↕	↕↕	↕		↕↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	110		75	0		75
Storage Lanes	0		0	0		0	1		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50		50	50	50		50	50
Trailing Detector (ft)		0		0	0		0	0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	4568	0	1770	3362	1583	0	3101	1346
Flt Permitted					0.933		0.101					
Satd. Flow (perm)	0	1818	0	0	4266	0	188	3362	1583	0	3101	794
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			40				14			33
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	188	41	22	1238	209	272	1091	22	0	1188	86
Confl. Peds. (#/hr)							224					449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	241	0	0	1546	0	283	1136	23	0	1238	90
Turn Type				Perm			pm+pt		Perm			Perm
Protected Phases		4			4		5	2			6	
Permitted Phases				4			2		2			6
Detector Phases		4		4	4		5	2	2		6	6
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0	51.0		39.0	39.0
Total Split (s)	0.0	36.0	0.0	36.0	36.0	0.0	14.5	54.0	54.0	0.0	39.5	39.5
Total Split (%)	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%	16.1%	60.0%	60.0%	0.0%	43.9%	43.9%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9	0.9		0.9	0.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		33.0			33.0		51.0	51.0	51.0		36.5	36.5
Actuated g/C Ratio		0.37			0.37		0.57	0.57	0.57		0.41	0.41
v/c Ratio		0.36			0.97		0.92	0.60	0.03		0.98	0.26
Control Delay		6.8			45.2		39.9	2.1	0.0		36.5	9.4
Queue Delay		0.0			0.3		0.0	0.6	0.0		10.3	0.0
Total Delay		6.8			45.5		39.9	2.7	0.0		46.8	9.4
LOS		A			D		D	A	A		D	A
Approach Delay		6.8			45.5			10.0			44.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			D			A			D	
Queue Length 50th (ft)		0			305		116	23	0		216	6
Queue Length 95th (ft)		0			#418		m#160	m26	m0		#498	m15
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)							110		75			75
Base Capacity (vph)		675			1590		309	1905	903		1258	342
Starvation Cap Reductn		0			0		0	371	0		50	0
Spillback Cap Reductn		0			4		0	0	0		0	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.36			0.97		0.92	0.74	0.03		1.02	0.26

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 47 (52%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 31.9      Intersection LOS: C  
 Intersection Capacity Utilization 107.2%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 414: Hayes St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			119		33							26
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	183	89	1402	0	0	0	0	0	584	67
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	193	0	1570	0	0	0	0	0	615	71
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.21		0.53						0.47	0.13
Control Delay			3.8		4.9						9.1	4.7
Queue Delay			0.0		0.0						0.0	0.0
Total Delay			3.8		4.9						9.2	4.7
LOS			A		A						A	A
Approach Delay					4.9						8.7	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3375	0	0	0	0	0	5050	0
Flt Permitted					0.561						0.997	
Satd. Flow (perm)	0	1749	0	0	1950	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7									8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	269	64	242	160	0	0	0	0	135	2115	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	358	0	0	447	0	0	0	0	0	2384	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0							53.0
Actuated g/C Ratio		0.34			0.34							0.59
v/c Ratio		0.59			1.27dl							0.80
Control Delay		28.6			14.9							4.3
Queue Delay		0.0			0.0							5.7
Total Delay		28.6			14.9							10.1
LOS		C			B							B
Approach Delay		28.6			14.9							10.1

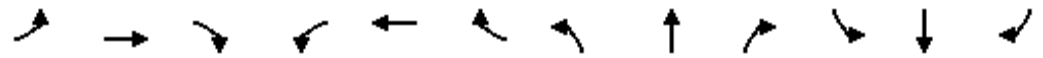


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B							B
Queue Length 50th (ft)		162			28							42
Queue Length 95th (ft)		254			m67							46
Internal Link Dist (ft)		292			129			265				272
Turn Bay Length (ft)												
Base Capacity (vph)		607			672							2977
Starvation Cap Reductn		0			0							161
Spillback Cap Reductn		1			0							546
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.59			0.67							0.98

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	66 (73%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	12.8
Intersection LOS:	B
Intersection Capacity Utilization:	86.5%
ICU Level of Service:	E
Analysis Period (min):	15
m	Volume for 95th percentile queue is metered by upstream signal.
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3243	0	0	5050	0	0	0	0
Flt Permitted		0.707						0.999				
Satd. Flow (perm)	0	2457	0	0	3243	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	59	345	0	0	370	300	32	2193	93	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	454	0	0	697	0	0	2390	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.55			0.64			0.79				
Control Delay		19.2			19.4			9.7				
Queue Delay		0.0			0.0			3.0				
Total Delay		19.2			19.4			12.6				
LOS		B			B			B				
Approach Delay		19.2			19.4			12.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B				
Queue Length 50th (ft)		63			191			147				
Queue Length 95th (ft)		m107			m237			223				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		819			1085			3035				
Starvation Cap Reductn		0			0			523				
Spillback Cap Reductn		0			0			489				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.55			0.64			0.95				

**Intersection Summary**

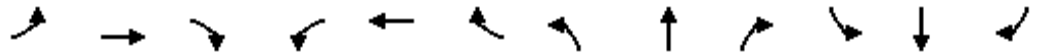
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 14.8                      Intersection LOS: B  
 Intersection Capacity Utilization 86.2%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 417: Grove St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↗	↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		75	0		75
Storage Lanes	0		0	0		0	1		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50	50		50	50
Trailing Detector (ft)	0	0		0	0		0	0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3321	0	0	3459	0	1770	3160	1401	0	2976	1227
Flt Permitted		0.947			0.894		0.145					
Satd. Flow (perm)	0	3148	0	0	3102	0	270	3160	936	0	2976	820
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			5				1			4
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	6	395	37	33	456	22	158	1098	65	0	1204	56
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		25	25
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	509	0	0	568	0	168	1168	69	0	1254	58
Turn Type	Perm			Perm			Perm		Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2		2			2
Detector Phases	4	4		4	4		2	2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	34.0	34.0		34.0	34.0		31.0	31.0	31.0		31.0	31.0
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	56.0	56.0	56.0	0.0	56.0	56.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	62.2%	62.2%	62.2%	0.0%	62.2%	62.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1		1.7	1.7	1.7		1.7	1.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		31.0			31.0		53.0	53.0	53.0		53.0	53.0
Actuated g/C Ratio		0.34			0.34		0.59	0.59	0.59		0.59	0.59
v/c Ratio		0.47			0.53		1.06	0.63	0.12		0.72	0.12
Control Delay		40.3			25.6		96.7	8.0	6.6		22.1	14.1
Queue Delay		0.0			0.0		0.0	0.1	0.0		0.9	0.0
Total Delay		40.3			25.6		96.7	8.2	6.6		23.0	14.1
LOS		D			C		F	A	A		C	B
Approach Delay		40.3			25.6			18.7			22.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			C		
Queue Length 50th (ft)	153			133			~103	92	9	292		16
Queue Length 95th (ft)	192			185			m#212	m135	m18	367		m33
Internal Link Dist (ft)	397			406			90			592		
Turn Bay Length (ft)							120		75		75	
Base Capacity (vph)	1090			1072			159	1861	552	1753		485
Starvation Cap Reductn	0			0			0	106	0	0		0
Spillback Cap Reductn	0			0			0	0	0	231		0
Storage Cap Reductn	0			0			0	0	0	0		0
Reduced v/c Ratio	0.47			0.53			1.06	0.67	0.13	0.82		0.12

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 42 (47%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 24.0      Intersection LOS: C  
 Intersection Capacity Utilization 92.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 418: Grove St. & Van Ness Avenue

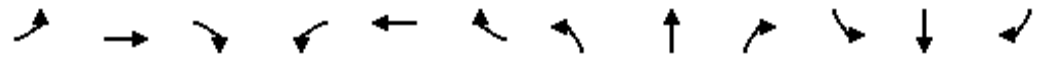




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3131	0
Flt Permitted		0.921			0.914						0.995	
Satd. Flow (perm)	0	2940	1377	0	2888	0	0	0	0	0	3131	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128		16						24	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	19	319	122	37	452	35	0	0	0	57	510	59
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	356	128	0	552	0	0	0	0	0	659	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.27	0.19		0.42						0.46	
Control Delay		11.0	3.0		9.8						9.2	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.0	3.0		9.8						9.2	
LOS		B	A		A						A	
Approach Delay		8.9			9.8						9.2	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1779	0	0	4837	0	1770	0	1267
Flt Permitted	0.554							0.992		0.133		
Satd. Flow (perm)	963	1863	0	0	1779	0	0	4837	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					16			20				85
Link Speed (mph)		25			25			25				25
Link Distance (ft)		481			198			210				358
Travel Time (s)		13.1			5.4			5.7				9.8
Volume (vph)	160	216	0	0	147	73	296	1475	99	15	0	81
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	168	227	0	0	232	0	0	1969	0	16	0	85
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.44	0.30			0.32			0.81		0.13		0.13
Control Delay	16.7	12.4			11.8			3.1		6.1		2.2
Queue Delay	0.0	0.0			0.0			0.1		0.0		0.0
Total Delay	16.7	12.4			11.8			3.2		6.1		2.2
LOS	B	B			B			A		A		A
Approach Delay		14.2			11.8			3.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			B			A					
Queue Length 50th (ft)	53	68			30			19		2		0
Queue Length 95th (ft)	112	125			m38			m26		7		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	385	745			721			2429		124		676
Starvation Cap Reductn	0	0			0			29		0		0
Spillback Cap Reductn	0	0			0			0		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.44	0.30			0.32			0.82		0.13		0.13

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization:	70.0%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 420: Grove St. & Larkin St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1792	0	0	1833	0	0	0	0	0	5050	0
Flt Permitted					0.566						0.999	
Satd. Flow (perm)	0	1792	0	0	1054	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	272	105	66	142	0	0	0	0	35	2142	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	419	0	0	239	0	0	0	0	0	2387	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.65			0.64							0.82
Control Delay		29.9			16.8							4.5
Queue Delay		0.0			0.0							0.4
Total Delay		29.9			16.8							5.0
LOS		C			B							A
Approach Delay		29.9			16.8							5.0





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖			↑↑↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	307	0	208	2344	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	404	0	0	2630	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	31.0	0.0	59.0	59.0	0.0	0.0
Total Split (%)	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	28.0			56.0		
Actuated g/C Ratio	0.31			0.62		
v/c Ratio	0.73			0.88		
Control Delay	24.1			12.9		
Queue Delay	0.0			1.5		
Total Delay	24.1			14.5		
LOS	C			B		
Approach Delay	24.1			14.5		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	C			B		
Queue Length 50th (ft)	223			534		
Queue Length 95th (ft)	247			540		
Internal Link Dist (ft)	163			265	254	
Turn Bay Length (ft)						
Base Capacity (vph)	551			2989		
Starvation Cap Reductn	0			197		
Spillback Cap Reductn	0			67		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.73			0.94		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization:	83.3%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑↑↑			↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1897	0	4891	0	0	1749
Flt Permitted	0.981					0.663
Satd. Flow (perm)	1897	0	4891	0	0	1175
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	11		12			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	33	54	1651	57	22	63
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	92	0	1798	0	0	89
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.13		0.71			0.15
Control Delay	11.4		6.9			4.6
Queue Delay	0.0		0.1			0.0
Total Delay	11.4		7.0			4.6
LOS	B		A			A
Approach Delay	11.4		7.0			4.6







Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		22			25	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	31	0	0	1736	87
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	33	0	0	1919	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.07			0.68	
Control Delay		10.3			3.9	
Queue Delay		0.0			0.2	
Total Delay		10.3			4.1	
LOS		B			A	
Approach Delay					4.1	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		3			41	
Queue Length 95th (ft)		20			59	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		446			2815	
Starvation Cap Reductn		0			223	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.07			0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	33 (55%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	4.2
Intersection LOS:	A
Intersection Capacity Utilization	45.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1721	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.636						0.998	
Satd. Flow (perm)	0	1721	0	0	2251	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	282	42	108	319	0	0	0	0	90	2117	99
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	386	0	0	450	0	0	0	0	0	2453	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					18.0	18.0	
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0						53.0	
Actuated g/C Ratio		0.34			0.34						0.59	
v/c Ratio		0.65			0.58						0.82	
Control Delay		30.6			35.0						6.6	
Queue Delay		0.0			0.0						1.2	
Total Delay		30.6			35.0						7.8	
LOS		C			C						A	
Approach Delay		30.6			35.0						7.8	

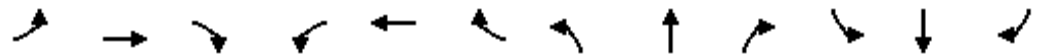


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C							A
Queue Length 50th (ft)		181			142							101
Queue Length 95th (ft)		254			m190							101
Internal Link Dist (ft)		361			207			253				268
Turn Bay Length (ft)												
Base Capacity (vph)		596			775							2976
Starvation Cap Reductn		0			0							295
Spillback Cap Reductn		0			0							80
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.65			0.58							0.91

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 14.2                      Intersection LOS: B  
 Intersection Capacity Utilization 84.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 435: McAllister St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3203	0	0	5024	0	0	0	0
Flt Permitted		0.838						0.999				
Satd. Flow (perm)	0	1467	0	0	3203	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			25				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	22	350	0	0	387	312	40	2415	196	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	404	0	0	795	0	0	2790	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.83			0.74			0.92				
Control Delay		40.1			17.3			12.1				
Queue Delay		0.0			0.0			7.9				
Total Delay		40.1			17.3			20.0				
LOS		D			B			C				
Approach Delay		40.1			17.3			20.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			C				
Queue Length 50th (ft)		235			234			90				
Queue Length 95th (ft)		m#362			301			97				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		489			1070			3024				
Starvation Cap Reductn		0			0			241				
Spillback Cap Reductn		0			0			3				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.83			0.74			1.00				

**Intersection Summary**

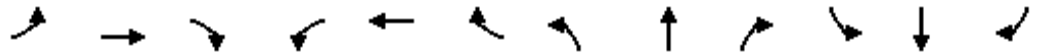
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 87 (97%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 21.5      Intersection LOS: C  
 Intersection Capacity Utilization 94.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		70
Storage Lanes	0		0	0		1	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50	50		50	50
Trailing Detector (ft)	0	0		0	0	0		0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3422	0	0	3532	1425	0	2992	1482	0	3127	1370
Flt Permitted		0.937			0.904							
Satd. Flow (perm)	0	3206	0	0	3190	1142	0	2992	1000	0	3127	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6				8			28			17
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	11	484	51	32	668	121	0	1081	45	0	1177	31
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	613	0	0	752	130	0	1126	47	0	1239	33
Turn Type	Perm			Perm		Perm			Perm			Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4			2			6
Detector Phases	4	4		4	4	4		2	2		6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0	3.0		3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0	32.0		30.0	30.0
Total Split (s)	38.0	38.0	0.0	38.0	38.0	38.0	0.0	52.0	52.0	0.0	52.0	52.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	42.2%	0.0%	57.8%	57.8%	0.0%	57.8%	57.8%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5	1.5		1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max	Max		Max	Max
Act Effct Green (s)		35.0			35.0	35.0		49.0	49.0		49.0	49.0
Actuated g/C Ratio		0.39			0.39	0.39		0.54	0.54		0.54	0.54
v/c Ratio		0.49			0.61	0.29		0.69	0.08		0.73	0.07
Control Delay		32.0			24.5	19.9		4.8	0.6		7.5	2.9
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.1	0.0
Total Delay		32.0			24.5	19.9		4.9	0.6		7.6	2.9
LOS		C			C	B		A	A		A	A
Approach Delay		32.0			23.9			4.7			7.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		165			176	47		110	0		42	0
Queue Length 95th (ft)		m196			236	91		153	m0		199	m3
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)									75			70
Base Capacity (vph)		1250			1241	449		1629	557		1702	490
Starvation Cap Reductn		0			0	0		0	0		33	0
Spillback Cap Reductn		0			0	0		11	0		0	0
Storage Cap Reductn		0			0	0		0	0		0	0
Reduced v/c Ratio		0.49			0.61	0.29		0.70	0.08		0.74	0.07

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 14.1                      Intersection LOS: B  
 Intersection Capacity Utilization 88.9%                      ICU Level of Service E  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 437: McAllister St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3021	0	1652	2971	0	0	1554	0	0	3172	0
Flt Permitted		0.840		0.385				0.978			0.939	
Satd. Flow (perm)	0	2548	0	669	2971	0	0	1525	0	0	2987	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101			47			29			95	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	47	347	135	109	684	131	3	23	28	34	382	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	556	0	115	858	0	0	56	0	0	579	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	29.5	29.5	0.0	29.5	29.5	0.0	30.5	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.5		26.5	26.5			27.5			27.5	
Actuated g/C Ratio		0.44		0.44	0.44			0.46			0.46	
v/c Ratio		0.47		0.39	0.64			0.08			0.41	
Control Delay		11.1		8.9	7.3			0.2			7.3	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		11.1		8.9	7.3			0.2			7.3	
LOS		B		A	A			A			A	
Approach Delay		11.1			7.5			0.2			7.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		55		13	48			0			33	
Queue Length 95th (ft)		93		m16	56			m0			112	
Internal Link Dist (ft)		381			175			592			104	
Turn Bay Length (ft)												
Base Capacity (vph)		1182		295	1338			715			1421	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.47		0.39	0.64			0.08			0.41	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 14 (23%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 8.2                      Intersection LOS: A  
 Intersection Capacity Utilization 67.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 438: McAllister St. & Polk St.



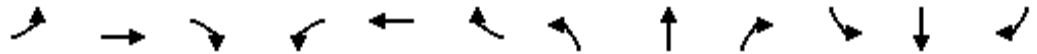


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1798	0	0	3426	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.949			0.996				
Satd. Flow (perm)	287	1798	0	0	3255	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			9			7				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	99	234	70	15	789	214	141	1529	35	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	104	320	0	0	1072	0	0	1794	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.84	0.40			0.76			0.77				
Control Delay	75.9	20.3			11.2			3.7				
Queue Delay	0.0	0.0			0.0			0.1				
Total Delay	75.9	20.3			11.2			3.8				
LOS	E	C			B			A				
Approach Delay		34.0			11.2			3.8				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			19	19							34	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	269	90	893	0	0	0	0	0	1467	125
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	283	95	940	0	0	0	0	0	1676	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.45	0.14	0.69						0.68	
Control Delay			12.5	10.7	18.8						5.8	
Queue Delay			0.0	0.0	0.0						0.0	
Total Delay			12.5	10.7	18.8						5.9	
LOS			B	B	B						A	
Approach Delay					18.1						5.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)			29	17	145							52
Queue Length 95th (ft)			m95	43	205							99
Internal Link Dist (ft)		411			257			253				266
Turn Bay Length (ft)												
Base Capacity (vph)			629	690	1357							2467
Starvation Cap Reductn			0	0	0							58
Spillback Cap Reductn			0	0	0							0
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.45	0.14	0.69							0.70

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 2 (3%), Referenced to phase 2:EBR, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 10.7      Intersection LOS: B  
 Intersection Capacity Utilization 62.8%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 440: McAllister St. & Hyde St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4882	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4882	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		11									60	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	555	203	0	0	0	0	0	0	300	2103	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	815	0	0	0	0	0	0	0	0	2503	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		25.0									59.0	
Actuated g/C Ratio		0.28									0.66	
v/c Ratio		0.60									0.80	
Control Delay		29.9									3.0	
Queue Delay		0.0									1.0	
Total Delay		29.9									4.0	
LOS		C									A	
Approach Delay		29.9									4.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									A	
Queue Length 50th (ft)		144									37	
Queue Length 95th (ft)		186									45	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1364									3130	
Starvation Cap Reductn		0									347	
Spillback Cap Reductn		0									156	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.60									0.90	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	37 (41%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	10.3
Intersection LOS:	B
Intersection Capacity Utilization	68.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 450: Golden Gate Ave. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5697	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5697	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	101	754	0	0	0	0	0	2714	128	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	872	0	0	0	0	0	2930	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.0						58.0				
Actuated g/C Ratio		0.29						0.64				
v/c Ratio		0.60						0.80				
Control Delay		33.9						4.1				
Queue Delay		0.0						0.9				
Total Delay		33.9						4.9				
LOS		C						A				
Approach Delay		33.9						4.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		173							83				
Queue Length 95th (ft)		220							92				
Internal Link Dist (ft)		216			162				71		240		
Turn Bay Length (ft)													
Base Capacity (vph)		1445							3678				
Starvation Cap Reductn		0							420				
Spillback Cap Reductn		0							126				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.60							0.90				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	2 (2%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	11.6
Intersection LOS:	B
Intersection Capacity Utilization	64.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	120		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4850	0	0	0	0	0	3101	1346	1770	3085	0
Flt Permitted		0.997								0.121		
Satd. Flow (perm)	0	4804	0	0	0	0	0	3101	847	225	3085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12							29			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	46	722	114	0	0	0	0	1154	59	101	1094	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					10	10		12	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	928	0	0	0	0	0	1215	62	106	1152	0
Turn Type	Split								Perm	pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0	6.4	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0	9.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	10.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		31.0						44.0	44.0	53.0	53.0	
Actuated g/C Ratio		0.34						0.49	0.49	0.59	0.59	
v/c Ratio		0.55						0.80	0.14	0.45	0.63	
Control Delay		35.3						21.1	10.2	13.4	7.7	
Queue Delay		0.0						0.3	0.0	0.0	0.1	
Total Delay		35.3						21.4	10.2	13.4	7.8	
LOS		D						C	B	B	A	
Approach Delay		35.3						20.9			8.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D						C			A			
Queue Length 50th (ft)	198						191			8	13	81	
Queue Length 95th (ft)	243						207			m13	m18	101	
Internal Link Dist (ft)	159						387			98			78
Turn Bay Length (ft)										70	120		
Base Capacity (vph)	1678						1516			429	236	1817	
Starvation Cap Reductn	0						50			0	0	84	
Spillback Cap Reductn	0						0			0	0	0	
Storage Cap Reductn	0						0			0	0	0	
Reduced v/c Ratio	0.55						0.83			0.14	0.45	0.66	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 20.1                      Intersection LOS: C  
 Intersection Capacity Utilization 72.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4726	0	0	0	0	0	1608	0	0	3322	0
Flt Permitted		0.996									0.819	
Satd. Flow (perm)	0	4726	0	0	0	0	0	1608	0	0	2754	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75						51				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	79	666	137	0	0	0	0	140	61	140	413	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	928	0	0	0	0	0	211	0	0	582	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.6	27.6	0.0	0.0	0.0	0.0	0.0	32.4	0.0	32.4	32.4	0.0
Total Split (%)	46.0%	46.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.0%	0.0%	54.0%	54.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.6						29.4			29.4	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.47						0.26			0.43	
Control Delay		12.7						1.9			13.1	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.7						1.9			13.1	
LOS		B						A			B	
Approach Delay		12.7						1.9			13.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		78						0			66	
Queue Length 95th (ft)		109						m10			114	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		1982						814			1349	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.47						0.26			0.43	

**Intersection Summary**

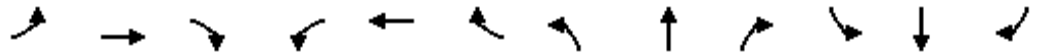
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	11.5
Intersection LOS:	B
Intersection Capacity Utilization:	54.1%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 453: Golden Gate Ave. & Polk St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5040	0	0	0	0	0	4751	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	5040	0	0	0	0	0	4751	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						60				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	164	703	0	0	0	0	0	1592	250	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	913	0	0	0	0	0	1939	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.53						0.72				
Control Delay		9.4						6.1				
Queue Delay		0.0						0.0				
Total Delay		9.4						6.1				
LOS		A						A				
Approach Delay		9.4						6.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A				
Queue Length 50th (ft)		43						78				
Queue Length 95th (ft)		57						92				
Internal Link Dist (ft)		419			404			78			233	
Turn Bay Length (ft)												
Base Capacity (vph)		1734						2679				
Starvation Cap Reductn		0						39				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.53						0.73				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization:	59.9%
ICU Level of Service:	B
Analysis Period (min):	15

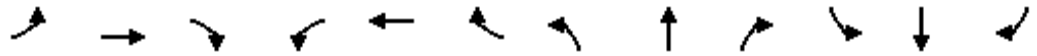
Splits and Phases: 454: Golden Gate Ave. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4851	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4851	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		51									48	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	662	291	0	0	0	0	0	0	140	1301	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1003	0	0	0	0	0	0	0	0	1516	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.67									0.52	
Control Delay		11.5									5.7	
Queue Delay		0.0									0.2	
Total Delay		11.5									5.9	
LOS		B									A	
Approach Delay		11.5									5.9	



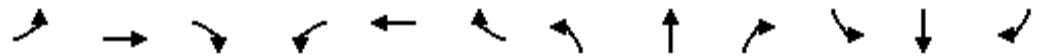
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		47									28	
Queue Length 95th (ft)		83									53	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1491									2888	
Starvation Cap Reductn		0									522	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.67									0.64	

**Intersection Summary**

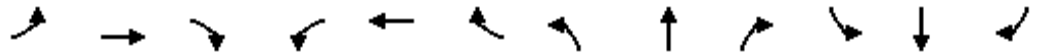
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	53.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				4							18	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	199	995	0	0	0	0	0	2204	140
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	219	1093	0	0	0	0	0	2416	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				33.0	33.0						51.0	
Actuated g/C Ratio				0.37	0.37						0.57	
v/c Ratio				0.37	0.90						0.90	
Control Delay				8.5	22.7						7.9	
Queue Delay				0.0	0.6						0.7	
Total Delay				8.5	23.3						8.6	
LOS				A	C						A	
Approach Delay					20.8						8.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				30	364							49
Queue Length 95th (ft)				m45	#463							91
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				593	1221							2688
Starvation Cap Reductn				0	19							81
Spillback Cap Reductn				0	0							14
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.37	0.91							0.93

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 31 (34%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 12.9                      Intersection LOS: B  
 Intersection Capacity Utilization 74.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5500	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5500	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	946	267	248	2567	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	985	278	0	2932	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	29.0	29.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	32.2%	32.2%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					26.0	26.0		58.0				
Actuated g/C Ratio					0.29	0.29		0.64				
v/c Ratio					0.68	0.61		0.83				
Control Delay					26.7	28.2		3.8				
Queue Delay					0.0	0.0		1.3				
Total Delay					26.7	28.2		5.1				
LOS					C	C		A				
Approach Delay					27.0			5.1				



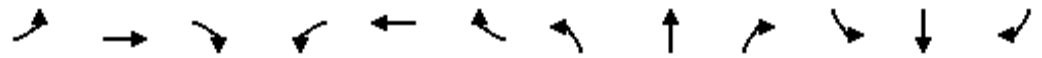
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	C						A						
Queue Length 50th (ft)	217						166	23					
Queue Length 95th (ft)	265						m237	25					
Internal Link Dist (ft)	101						153	240					
Turn Bay Length (ft)							125						
Base Capacity (vph)	1451						459	3548					
Starvation Cap Reductn	0						0	89					
Spillback Cap Reductn	0						0	377					
Storage Cap Reductn	0						0	0					
Reduced v/c Ratio	0.68						0.61	0.92					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 11.7      Intersection LOS: B  
 Intersection Capacity Utilization 65.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔↔	↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4996	0	1770	3034	0	0	3068	1314
Flt Permitted				0.998			0.131					
Satd. Flow (perm)	0	0	0	0	4965	0	244	3034	0	0	3068	823
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							66
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	38	1023	50	117	1083	0	0	1157	73
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								18			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1207	0	123	1140	0	0	1181	74
Turn Type				Split			pm+pt					Perm
Protected Phases				4	4		5	2			6	
Permitted Phases							2					6
Detector Phases				4	4		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	4.0
Minimum Split (s)				33.0	33.0		7.0	48.0			38.0	38.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	10.0	57.0	0.0	0.0	47.0	47.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	11.1%	63.3%	0.0%	0.0%	52.2%	52.2%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	0.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					30.0		54.0	54.0			44.0	44.0
Actuated g/C Ratio					0.33		0.60	0.60			0.49	0.49
v/c Ratio					0.72		0.46	0.63			0.79	0.17
Control Delay					29.2		12.1	2.8			18.0	5.1
Queue Delay					0.0		0.0	1.3			0.2	0.0
Total Delay					29.2		12.1	4.1			18.2	5.1
LOS					C		B	A			B	A
Approach Delay					29.2			4.9			17.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					216		8	0			157	3
Queue Length 95th (ft)					268		m24	0			171	m5
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)							100					
Base Capacity (vph)					1671		265	1820			1500	436
Starvation Cap Reductn					0		0	437			41	0
Spillback Cap Reductn					0		0	0			0	0
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					0.72		0.46	0.82			0.81	0.17

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 17.0                      Intersection LOS: B  
 Intersection Capacity Utilization 73.0%                      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 468: Turk St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4944	0	0	2082	0	0	2065	0
Flt Permitted					0.994			0.768				
Satd. Flow (perm)	0	0	0	0	4944	0	0	1621	0	0	2065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	153	969	79	63	156	0	0	400	79
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1264	0	0	230	0	0	504	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	28.7	28.7	0.0	31.3	31.3	0.0	0.0	31.3	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.8%	47.8%	0.0%	52.2%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.7			28.3			28.3	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.59			0.30			0.51	
Control Delay					7.2			11.7			6.5	
Queue Delay					0.0			0.0			0.4	
Total Delay					7.2			11.7			6.9	
LOS					A			B			A	
Approach Delay					7.2			11.7			6.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B			A	
Queue Length 50th (ft)					45			50			52	
Queue Length 95th (ft)					89			97			m77	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2131			765			986	
Starvation Cap Reductn					0			0			148	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.59			0.30			0.60	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization:	71.1%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 469: Turk St. & Polk St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4879	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4879	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					40			30				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	807	104	394	1362	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1001	0	0	1792	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					20.0			34.0				
Actuated g/C Ratio					0.33			0.57				
v/c Ratio					0.61			0.66				
Control Delay					11.7			5.9				
Queue Delay					0.0			0.1				
Total Delay					11.7			6.0				
LOS					B			A				
Approach Delay					11.7			6.0				



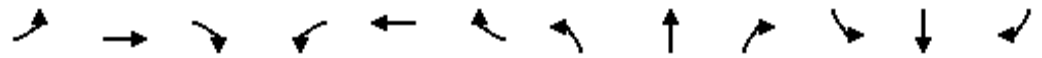
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					45			63				
Queue Length 95th (ft)					58			79				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1653			2730				
Starvation Cap Reductn					0			183				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.61			0.70				

**Intersection Summary**

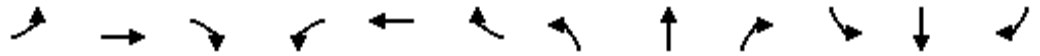
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	58.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 470: Turk St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					54						84	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	235	647	0	0	0	0	0	1206	264
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	919	0	0	0	0	0	1500	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.52						0.57	
Control Delay					15.7						13.0	
Queue Delay					0.0						0.5	
Total Delay					15.7						13.5	
LOS					B						B	
Approach Delay					15.7						13.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B						B	
Queue Length 50th (ft)					88						173	
Queue Length 95th (ft)					121						221	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1778						2610	
Starvation Cap Reductn					0						573	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.52						0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization	53.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖						↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1738	0	0	1798	0	0	0	0	0	5035	0
Flt Permitted					0.630						0.996	
Satd. Flow (perm)	0	1738	0	0	1145	0	0	0	0	0	5035	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	250	121	44	160	0	0	0	0	172	2179	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	422	0	0	240	0	0	0	0	0	2544	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		30.0			30.0							54.0
Actuated g/C Ratio		0.33			0.33							0.60
v/c Ratio		0.72			0.63							0.84
Control Delay		34.4			19.0							7.2
Queue Delay		1.3			0.0							1.1
Total Delay		35.7			19.0							8.3
LOS		D			B							A
Approach Delay		35.7			19.0							8.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B							A
Queue Length 50th (ft)		206			24							104
Queue Length 95th (ft)		306			m67							132
Internal Link Dist (ft)		890			396			322				249
Turn Bay Length (ft)												
Base Capacity (vph)		583			382							3025
Starvation Cap Reductn		0			0							255
Spillback Cap Reductn		49			0							0
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.79			0.63							0.92

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 22 (24%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 12.7

Intersection LOS: B

Intersection Capacity Utilization 89.0%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1778	0	0	5686	0	0	0	0
Flt Permitted		0.906						0.999				
Satd. Flow (perm)	0	1647	0	0	1778	0	0	5686	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	59	363	0	0	171	32	33	2665	153	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	534	0	0	257	0	0	2939	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		0.86			0.38			0.93				
Control Delay		30.9			30.5			13.1				
Queue Delay		1.4			0.0			2.9				
Total Delay		32.2			30.5			16.1				
LOS		C			C			B				
Approach Delay		32.2			30.5			16.1				



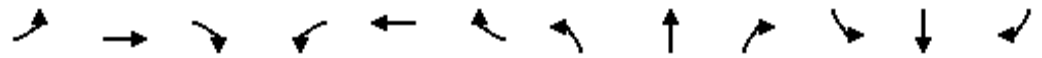
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B				
Queue Length 50th (ft)		162			149			340				
Queue Length 95th (ft)		249			187			349				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		622			672			3167				
Starvation Cap Reductn		5			0			156				
Spillback Cap Reductn		20			0			133				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.89			0.38			0.98				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	26 (29%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	19.4
Intersection LOS:	B
Intersection Capacity Utilization	85.0%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1770	0	0	1791	0	0	3060	1306	0	3060	1306
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1724	0	0	1706	0	0	3060	451	0	3060	451
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			7				65			55
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	27	414	75	12	148	20	0	1055	78	0	1143	55
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	637	0	0	212	0	0	1066	79	0	1143	55
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0	48.0		48.0	48.0
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	0.0	48.0	48.0	0.0	48.0	48.0
Total Split (%)	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	53.3%	53.3%	0.0%	53.3%	53.3%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9	0.9		0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		39.0			39.0			45.0	45.0		45.0	45.0
Actuated g/C Ratio		0.43			0.43			0.50	0.50		0.50	0.50
v/c Ratio		0.85			0.29			0.70	0.31		0.75	0.22
Control Delay		33.4			17.2			5.3	2.6		21.0	9.3
Queue Delay		7.9			0.0			0.2	0.0		0.3	0.0
Total Delay		41.2			17.2			5.5	2.6		21.4	9.3
LOS		D			B			A	A		C	A
Approach Delay		41.2			17.2			5.3			20.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			A			C	
Queue Length 50th (ft)		363			73			40	0		182	2
Queue Length 95th (ft)		m425			115			42	m0		236	m14
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												
Base Capacity (vph)		750			743			1530	258		1530	253
Starvation Cap Reductn		86			0			64	0		82	0
Spillback Cap Reductn		0			0			31	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.96			0.29			0.73	0.31		0.79	0.22

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 73 (81%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 19.1      Intersection LOS: B  
 Intersection Capacity Utilization 75.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 480: Eddy St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1748	0	0	2005	0	0	2007	0
Flt Permitted		0.942			0.834			0.940			0.874	
Satd. Flow (perm)	0	1673	0	0	1481	0	0	1892	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			22			34			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	71	338	83	39	63	21	21	160	54	138	357	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	518	0	0	129	0	0	247	0	0	622	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.0			26.0			28.0			28.0	
Actuated g/C Ratio		0.43			0.43			0.47			0.47	
v/c Ratio		0.70			0.20			0.27			0.74	
Control Delay		19.7			2.7			5.4			16.3	
Queue Delay		0.0			0.0			0.0			2.7	
Total Delay		19.7			2.7			5.4			19.0	
LOS		B			A			A			B	
Approach Delay		19.7			2.7			5.4			19.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			B	
Queue Length 50th (ft)		139			0			23			179	
Queue Length 95th (ft)		242			m0			50			#295	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		737			654			901			841	
Starvation Cap Reductn		0			0			0			123	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.70			0.20			0.27			0.87	

**Intersection Summary**

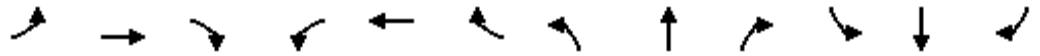
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 15.6                      Intersection LOS: B  
 Intersection Capacity Utilization 84.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								45				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		211			283			134				161
Travel Time (s)		5.8			7.7			3.7				4.4
Volume (vph)	80	442	0	0	0	0	123	1179	164	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	549	0	0	0	0	0	1543	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0
Total Split (%)	53.3%	53.3%	0.0%	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		29.0							25.0			
Actuated g/C Ratio		0.48							0.42			
v/c Ratio		0.61							0.74			
Control Delay		12.5							7.5			
Queue Delay		0.0							0.0			
Total Delay		12.5							7.6			
LOS		B							A			
Approach Delay		12.5							7.6			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B							A			
Queue Length 50th (ft)		152							105			
Queue Length 95th (ft)		m207							160			
Internal Link Dist (ft)		131			203				54		81	
Turn Bay Length (ft)												
Base Capacity (vph)		893							2087			
Starvation Cap Reductn		0							19			
Spillback Cap Reductn		0							0			
Storage Cap Reductn		0							0			
Reduced v/c Ratio		0.61							0.75			

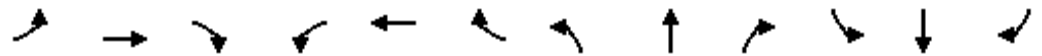
**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 8.9                      Intersection LOS: A  
 Intersection Capacity Utilization 63.3%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4802	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4802	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		69										56
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	412	194	0	0	0	0	0	0	126	1276	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	638	0	0	0	0	0	0	0	0	1476	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.51									0.48	
Control Delay		11.4									1.5	
Queue Delay		0.0									0.3	
Total Delay		11.4									1.8	
LOS		B									A	
Approach Delay		11.4									1.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B										A
Queue Length 50th (ft)		20										9
Queue Length 95th (ft)		m54										17
Internal Link Dist (ft)		112			399			255				259
Turn Bay Length (ft)												
Base Capacity (vph)		1252										3087
Starvation Cap Reductn		0										794
Spillback Cap Reductn		0										0
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.51										0.64

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 36 (60%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 4.7                      Intersection LOS: A  
 Intersection Capacity Utilization 46.2%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			7	7							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	35	214	274	0	0	0	0	0	2193	31
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	62	268	342	0	0	0	0	0	2341	0
Turn Type			custom		Perm							
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			27.0	27.0	27.0						57.0	
Actuated g/C Ratio			0.30	0.30	0.30						0.63	
v/c Ratio			0.13	0.50	0.61						0.80	
Control Delay			21.7	24.3	29.5						5.3	
Queue Delay			0.0	0.0	0.0						0.2	
Total Delay			21.7	24.3	29.5						5.4	
LOS			C	C	C						A	
Approach Delay					27.2						5.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)			23	73	109						50	
Queue Length 95th (ft)			31	m124	m160						m68	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			488	536	559						2915	
Starvation Cap Reductn			0	0	0						0	
Spillback Cap Reductn			0	0	0						92	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.13	0.50	0.61						0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 19 (21%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 10.2                      Intersection LOS: B  
 Intersection Capacity Utilization 68.3%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 488: Ellis St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		478			479			171				185
Travel Time (s)		13.0			13.1			4.7				5.0
Volume (vph)	0	0	0	0	391	462	97	2659	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	425	502	0	2932	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	41.0	41.0	49.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.6%	45.6%	54.4%	54.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					38.0	38.0		46.0				
Actuated g/C Ratio					0.42	0.42		0.51				
v/c Ratio					0.28	0.75		0.87				
Control Delay					19.7	34.3		5.6				
Queue Delay					0.0	1.3		1.9				
Total Delay					19.7	35.6		7.6				
LOS					B	D		A				
Approach Delay					28.3			7.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					113	294		36				
Queue Length 95th (ft)					162	400		52				
Internal Link Dist (ft)		398			399			91			105	
Turn Bay Length (ft)												
Base Capacity (vph)					1494	668		3379				
Starvation Cap Reductn					0	52		295				
Spillback Cap Reductn					0	0		9				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.28	0.81		0.95				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	37 (41%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization:	68.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4851	0	0	3101	0	0	3110	1354
Flt Permitted				0.997								
Satd. Flow (perm)	0	0	0	0	4795	0	0	3101	0	0	3110	836
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9							21
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	51	658	104	0	1066	0	0	1122	195
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10			9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	893	0	0	1146	0	0	1181	205
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				33.0	33.0			48.0			48.0	48.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	57.8%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					35.0			49.0			49.0	49.0
Actuated g/C Ratio					0.39			0.54			0.54	0.54
v/c Ratio					0.47			0.68			0.70	0.44
Control Delay					21.4			4.7			12.5	11.2
Queue Delay					0.1			1.0			0.5	0.1
Total Delay					21.5			5.7			12.9	11.3
LOS					C			A			B	B
Approach Delay					21.5			5.7			12.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	C						A			B			
Queue Length 50th (ft)	134						21			124		37	
Queue Length 95th (ft)	172						69			m131		m39	
Internal Link Dist (ft)	399			399			88			99			
Turn Bay Length (ft)													
Base Capacity (vph)	1892						1688			1693		465	
Starvation Cap Reductn	0						278			171		0	
Spillback Cap Reductn	151						0			0		21	
Storage Cap Reductn	0						0			0		0	
Reduced v/c Ratio	0.51						0.81			0.78		0.46	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 86 (96%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 12.6      Intersection LOS: B  
 Intersection Capacity Utilization 62.2%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

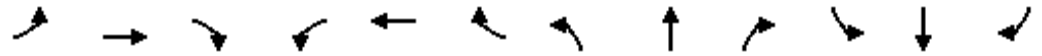
Splits and Phases: 490: Ellis St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4939	0	0	2063	0	0	2007	0
Flt Permitted					0.992			0.899				
Satd. Flow (perm)	0	0	0	0	4939	0	0	1868	0	0	2007	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					55						46	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	137	630	122	33	219	0	0	444	150
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	935	0	0	266	0	0	625	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	23.5	23.5	0.0	36.5	36.5	0.0	0.0	36.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	39.2%	39.2%	0.0%	60.8%	60.8%	0.0%	0.0%	60.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.5			33.5			33.5	
Actuated g/C Ratio					0.34			0.56			0.56	
v/c Ratio					0.54			0.26			0.55	
Control Delay					5.6			7.6			5.3	
Queue Delay					0.0			0.0			0.5	
Total Delay					5.6			7.6			5.9	
LOS					A			A			A	
Approach Delay					5.6			7.6			5.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					27			31			34	
Queue Length 95th (ft)					31			m81			m99	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1724			1043			1141	
Starvation Cap Reductn					0			0			191	
Spillback Cap Reductn					29			0			67	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.55			0.26			0.66	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 38 (63%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.55  
 Intersection Signal Delay: 6.0                      Intersection LOS: A  
 Intersection Capacity Utilization 63.8%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 491: Ellis St. & Polk St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4902	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					49			59				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	739	233	150	1099	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1023	0	0	1315	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.9	0.0	33.1	33.1	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.8%	0.0%	55.2%	55.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.9			30.1				
Actuated g/C Ratio					0.40			0.50				
v/c Ratio					0.52			0.55				
Control Delay					8.1			3.8				
Queue Delay					0.0			0.0				
Total Delay					8.1			3.8				
LOS					A			A				
Approach Delay					8.1			3.8				



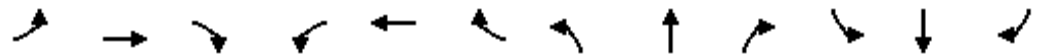
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					41			29				
Queue Length 95th (ft)					59			26				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1982			2409				
Starvation Cap Reductn					0			95				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.52			0.57				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	26 (43%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	5.7
Intersection LOS:	A
Intersection Capacity Utilization	50.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5034	0	0	0	0	0	4635	0
Flt Permitted					0.990							
Satd. Flow (perm)	0	0	0	0	5034	0	0	0	0	0	4635	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					31						105	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	188	700	0	0	0	0	0	1214	272
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	935	0	0	0	0	0	1564	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.44						0.68	
Control Delay					12.9						8.2	
Queue Delay					0.0						0.2	
Total Delay					12.9						8.5	
LOS					B						A	
Approach Delay					12.9						8.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B							A
Queue Length 50th (ft)					81							96
Queue Length 95th (ft)					111							115
Internal Link Dist (ft)		399			402			259				292
Turn Bay Length (ft)												
Base Capacity (vph)					2116							2295
Starvation Cap Reductn					0							197
Spillback Cap Reductn					0							0
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.44							0.75

**Intersection Summary**

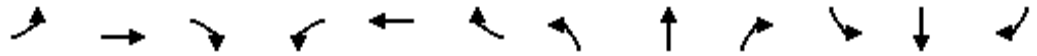
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	16 (27%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	10.1
Intersection LOS:	B
Intersection Capacity Utilization	53.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6305	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								30				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	358	1050	0	0	0	0	0	2826	295	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1547	0	0	0	0	0	3286	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.08						1.04				
Control Delay		78.5						34.5				
Queue Delay		9.7						13.1				
Total Delay		88.2						47.6				
LOS		F						D				
Approach Delay		88.2						47.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						D				
Queue Length 50th (ft)		~541						~107				
Queue Length 95th (ft)		#680						#626				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3168				
Starvation Cap Reductn		0						7				
Spillback Cap Reductn		30						95				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.10						1.07				

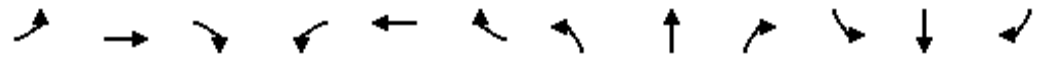
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 60.6                      Intersection LOS: E  
 Intersection Capacity Utilization 82.8%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 500: Starr King & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	3110	794	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			29						6			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	85	1141	119	0	0	0	0	1068	92	0	1215	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1290	125	0	0	0	0	1079	93	0	1397	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	50.0	0.0
Total Split (%)	44.4%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	55.6%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		37.0	37.0					47.0	47.0		47.0	
Actuated g/C Ratio		0.41	0.41					0.52	0.52		0.52	
v/c Ratio		0.89	0.22					0.66	0.22		0.85	
Control Delay		27.6	12.3					4.7	3.2		25.4	
Queue Delay		8.4	0.0					0.2	0.0		0.0	
Total Delay		36.0	12.3					4.9	3.2		25.4	
LOS		D	B					A	A		C	
Approach Delay		33.9						4.8			25.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			C	
Queue Length 50th (ft)		400	41					38	5		256	
Queue Length 95th (ft)		m369	m38					48	m8		268	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)									75			
Base Capacity (vph)		1451	568					1624	418		1637	
Starvation Cap Reductn		146	0					107	0		0	
Spillback Cap Reductn		0	0					9	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.99	0.22					0.71	0.22		0.85	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 89 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 85

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 22.4

Intersection LOS: C

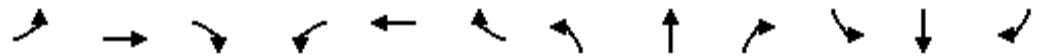
Intersection Capacity Utilization 76.1%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 501: O'Farrell St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3328	1583	0	0	0	0	1936	0	0	2048	0
Flt Permitted		0.994									0.798	
Satd. Flow (perm)	0	3328	1583	0	0	0	0	1936	0	0	1658	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197					45				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	128	976	187	0	0	0	0	132	134	164	407	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1162	197	0	0	0	0	280	0	0	601	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	29.0	29.0	29.0	0.0	0.0	0.0	0.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		26.0	26.0					28.0			28.0	
Actuated g/C Ratio		0.43	0.43					0.47			0.47	
v/c Ratio		0.81	0.25					0.30			0.78	
Control Delay		20.5	2.8					6.1			19.9	
Queue Delay		0.0	0.0					0.0			5.8	
Total Delay		20.5	2.8					6.1			25.7	
LOS		C	A					A			C	
Approach Delay		17.9						6.1			25.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			C		
Queue Length 50th (ft)		182	0					40			209	
Queue Length 95th (ft)		258	30					72			m#325	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1442	798					927			774	
Starvation Cap Reductn		0	0					0			124	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.81	0.25					0.30			0.92	

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 33 (55%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 18.5

Intersection LOS: B

Intersection Capacity Utilization 86.3%

ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 502: O'Farrell St. & Polk St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4616	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4616	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	143	1131	0	0	0	0	0	1094	311	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1342	0	0	0	0	0	1479	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		24.0						30.0				
Actuated g/C Ratio		0.40						0.50				
v/c Ratio		0.66						0.64				
Control Delay		7.5						7.5				
Queue Delay		0.0						0.2				
Total Delay		7.5						7.8				
LOS		A						A				
Approach Delay		7.5						7.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A				
Queue Length 50th (ft)		42						69				
Queue Length 95th (ft)		53						128				
Internal Link Dist (ft)		288			110			116			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2048						2318				
Starvation Cap Reductn		0						237				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.66						0.71				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	59.5%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 503: O'Farrell St. & Larkin St.

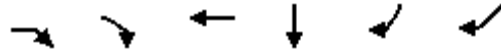




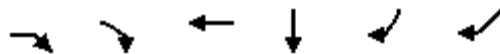
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			15									43
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1143	299	0	0	0	0	0	0	255	1187	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1203	315	0	0	0	0	0	0	0	1517	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.68	0.39								0.79	
Control Delay		6.5	5.0								8.4	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.5	5.0								8.5	
LOS		A	A								A	
Approach Delay		6.2									8.5	







Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		4		11		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1111	346	1477	1799	304	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1169	364	1555	2194	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.82	0.49	0.68	0.94		
Control Delay	27.0	19.3	23.3	18.8		
Queue Delay	0.0	0.0	0.4	4.5		
Total Delay	27.0	19.3	23.8	23.3		
LOS	C	B	C	C		
Approach Delay			23.8	23.3		



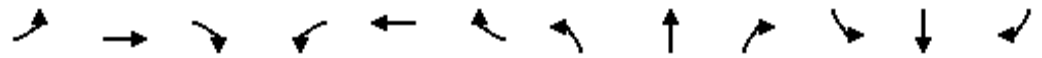
Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Approach LOS			C	C		
Queue Length 50th (ft)	288	136	303	397		
Queue Length 95th (ft)	380	215	355	#541		
Internal Link Dist (ft)			405	265		
Turn Bay Length (ft)						
Base Capacity (vph)	1419	741	2288	2327		
Starvation Cap Reductn	0	0	286	104		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.82	0.49	0.78	0.99		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	2 (2%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	24.0
Intersection LOS:	C
Intersection Capacity Utilization	76.8%
ICU Level of Service	D
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer.
	Queue shown is maximum after two cycles.

Splits and Phases: 513: Geary St. & Peter Yorke





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Flt Permitted								0.992				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	966	192	511	2750	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1039	206	0	3294	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.60	0.37		0.87				
Control Delay					28.8	26.0		2.7				
Queue Delay					0.0	0.0		1.2				
Total Delay					28.8	26.0		3.9				
LOS					C	C		A				
Approach Delay					28.3			3.9				



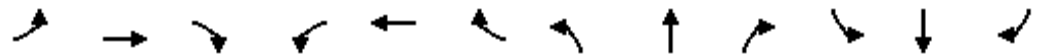
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)					225	117			63			
Queue Length 95th (ft)					271	188			m60			
Internal Link Dist (ft)	405				194		90				242	
Turn Bay Length (ft)												
Base Capacity (vph)					1743	563	3799					
Starvation Cap Reductn					0	0	281					
Spillback Cap Reductn					0	0	74					
Storage Cap Reductn					0	0	0					
Reduced v/c Ratio					0.60	0.37	0.94					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 50 (56%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 10.6      Intersection LOS: B  
 Intersection Capacity Utilization 63.4%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 514: Geary St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5070	1469	0	3177	0	0	3035	1583
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	5020	1152	0	3177	0	0	3035	1044
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						55						6
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	75	1057	119	0	1153	0	0	1140	157
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								1			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1156	121	0	1165	0	0	1175	162
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	40.0	40.0	40.0	0.0	50.0	0.0	0.0	50.0	50.0
Total Split (%)	0.0%	0.0%	0.0%	44.4%	44.4%	44.4%	0.0%	55.6%	0.0%	0.0%	55.6%	55.6%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					37.0	37.0		47.0			47.0	47.0
Actuated g/C Ratio					0.41	0.41		0.52			0.52	0.52
v/c Ratio					0.55	0.24		0.70			0.74	0.30
Control Delay					21.5	11.3		5.0			11.8	9.9
Queue Delay					0.1	0.0		0.4			0.3	0.0
Total Delay					21.6	11.3		5.4			12.2	9.9
LOS					C	B		A			B	A
Approach Delay					20.6			5.4			11.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)					179	23		28		98	23	
Queue Length 95th (ft)					221	60		m72		145	m41	
Internal Link Dist (ft)		115			394			274		79		
Turn Bay Length (ft)												80
Base Capacity (vph)					2084	506		1659		1585	548	
Starvation Cap Reductn					0	0		135		84	0	
Spillback Cap Reductn					157	0		0		22	0	
Storage Cap Reductn					0	0		0		0	0	
Reduced v/c Ratio					0.60	0.24		0.76		0.78	0.30	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	12 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	12.8
Intersection LOS:	B
Intersection Capacity Utilization:	76.1%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 515: Geary St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3328	1583	0	2057	0	0	1976	0
Flt Permitted					0.994			0.565				
Satd. Flow (perm)	0	0	0	0	3328	1583	0	1174	0	0	1976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						108						49
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	137	953	103	53	205	0	0	428	245
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1147	108	0	272	0	0	709	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.80	0.14		0.50			0.75	
Control Delay					14.6	2.0		14.4			12.6	
Queue Delay					0.3	0.0		0.0			1.1	
Total Delay					14.9	2.0		14.4			13.7	
LOS					B	A		B			B	
Approach Delay					13.8			14.4			13.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B				B
Queue Length 50th (ft)					84	0		55				106
Queue Length 95th (ft)					211	m9		m86				243
Internal Link Dist (ft)		394			132			88				90
Turn Bay Length (ft)												
Base Capacity (vph)					1442	747		548				948
Starvation Cap Reductn					0	0		0				84
Spillback Cap Reductn					48	0		0				74
Storage Cap Reductn					0	0		0				0
Reduced v/c Ratio					0.82	0.14		0.50				0.82

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 9 (15%), Referenced to phase 6:WBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 13.8

Intersection LOS: B

Intersection Capacity Utilization 91.5%

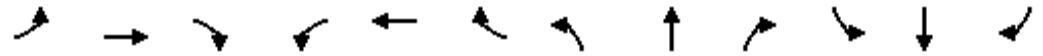
ICU Level of Service F

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 516: Geary St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						25		115				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		290			195			167				168
Travel Time (s)		7.9			5.3			4.6				4.6
Volume (vph)	0	0	0	0	863	280	288	968	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	908	295	0	1322	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.48	0.34		0.73				
Control Delay					4.1	3.5		10.3				
Queue Delay					0.0	0.0		0.0				
Total Delay					4.1	3.5		10.3				
LOS					A	A		B				
Approach Delay					4.0			10.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A						B						
Queue Length 50th (ft)	41						14	156					
Queue Length 95th (ft)	m51						m27	161					
Internal Link Dist (ft)	210						115	87					
Turn Bay Length (ft)													
Base Capacity (vph)	1887						856	1819					
Starvation Cap Reductn	0						0	5					
Spillback Cap Reductn	0						0	0					
Storage Cap Reductn	0						0	0					
Reduced v/c Ratio	0.48						0.34	0.73					

**Intersection Summary**

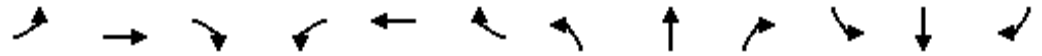
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 7.3      Intersection LOS: A  
 Intersection Capacity Utilization 55.1%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 517: Geary St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4685	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4685	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					25						65	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	256	902	0	0	0	0	0	1186	241
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1218	0	0	0	0	0	1502	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.80						0.70	
Control Delay					18.8						7.7	
Queue Delay					0.0						0.1	
Total Delay					18.8						7.8	
LOS					B						A	
Approach Delay					18.8						7.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B						A	
Queue Length 50th (ft)					183						153	
Queue Length 95th (ft)					260						m235	
Internal Link Dist (ft)		198			399			257			277	
Turn Bay Length (ft)												
Base Capacity (vph)					1532						2144	
Starvation Cap Reductn					0						101	
Spillback Cap Reductn					0						28	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.80						0.74	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 50 (83%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 12.7      Intersection LOS: B  
 Intersection Capacity Utilization 67.3%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 518: Geary St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3313	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3313	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		10										37
Link Speed (mph)		25			25			25				25
Link Distance (ft)		482			492			345				334
Travel Time (s)		13.1			13.4			9.4				9.1
Volume (vph)	0	412	99	0	0	0	0	0	0	186	2004	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	580	0	0	0	0	0	0	0	0	2336	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.54									0.75	
Control Delay		26.8									8.5	
Queue Delay		0.0									3.6	
Total Delay		26.8									12.1	
LOS		C									B	
Approach Delay		26.8									12.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		138										171
Queue Length 95th (ft)		185										170
Internal Link Dist (ft)		402			412			265				254
Turn Bay Length (ft)												
Base Capacity (vph)		1074										3101
Starvation Cap Reductn		0										201
Spillback Cap Reductn		1										662
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.54										0.96

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization	64.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2							91			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	103	495	0	0	0	0	0	2593	349	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	672	0	0	0	0	0	2788	375	0	0	0
Turn Type	Split								Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	29.8	29.8	0.0	0.0	0.0	0.0	0.0	60.2	60.2	0.0	0.0	0.0
Total Split (%)	33.1%	33.1%	0.0%	0.0%	0.0%	0.0%	0.0%	66.9%	66.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		26.8						57.2	57.2			
Actuated g/C Ratio		0.30						0.64	0.64			
v/c Ratio		0.67						0.80	0.42			
Control Delay		34.0						4.1	1.3			
Queue Delay		0.0						1.8	1.0			
Total Delay		34.0						5.9	2.3			
LOS		C						A	A			
Approach Delay		34.0						5.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C							A			
Queue Length 50th (ft)		142						34	0			
Queue Length 95th (ft)		206						42	m4			
Internal Link Dist (ft)		412			226			242			97	
Turn Bay Length (ft)												
Base Capacity (vph)		1008						3505	884			
Starvation Cap Reductn		0						525	276			
Spillback Cap Reductn		0						0	0			
Storage Cap Reductn		0						0	0			
Reduced v/c Ratio		0.67						0.94	0.62			

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	61 (68%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization:	60.9%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	3160	913	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53						23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	53	714	77	0	0	0	0	996	234	0	1181	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	843	85	0	0	0	0	1016	239	0	1230	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		35.0	35.0					49.0	49.0		49.0	
Actuated g/C Ratio		0.39	0.39					0.54	0.54		0.54	
v/c Ratio		0.61	0.15					0.59	0.47		0.73	
Control Delay		22.7	7.5					4.3	4.7		17.2	
Queue Delay		0.0	0.0					0.3	0.2		0.5	
Total Delay		22.7	7.5					4.6	4.9		17.7	
LOS		C	A					A	A		B	
Approach Delay		21.3						4.6			17.7	



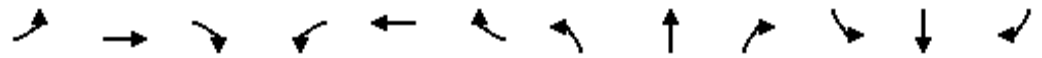
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)		233	11					33	9		180	
Queue Length 95th (ft)		293	m34					55	m23		m230	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)									70			
Base Capacity (vph)		1372	555					1720	508		1675	
Starvation Cap Reductn		0	0					197	31		128	
Spillback Cap Reductn		0	0					22	0		26	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.61	0.15					0.67	0.50		0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 13 (14%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 13.9      Intersection LOS: B  
 Intersection Capacity Utilization 64.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 537: Post St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3388	1583	0	0	0	0	1990	0	0	1928	0
Flt Permitted		0.993									0.825	
Satd. Flow (perm)	0	3388	1583	0	0	0	0	1990	0	0	1613	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			257					62				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	95	609	244	0	0	0	0	187	84	162	414	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	741	257	0	0	0	0	285	0	0	607	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.66	0.37					0.25			0.66	
Control Delay		20.4	4.1					6.5			12.3	
Queue Delay		0.0	0.0					0.0			2.2	
Total Delay		20.4	4.1					6.5			14.5	
LOS		C	A					A			B	
Approach Delay		16.2						6.5			14.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		117	0					27			153	
Queue Length 95th (ft)		171	42					68			m259	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1129	699					1155			914	
Starvation Cap Reductn		0	0					0			180	
Spillback Cap Reductn		0	8					0			51	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.66	0.37					0.25			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 14.2      Intersection LOS: B  
 Intersection Capacity Utilization 75.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 538: Post St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4633	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4633	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						112				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	131	724	0	0	0	0	0	954	303	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	900	0	0	0	0	0	1323	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	29.6	29.6	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0
Total Split (%)	49.3%	49.3%	0.0%	0.0%	0.0%	0.0%	0.0%	50.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.6						27.4				
Actuated g/C Ratio		0.44						0.46				
v/c Ratio		0.59						0.61				
Control Delay		5.9						4.8				
Queue Delay		0.0						0.1				
Total Delay		5.9						4.9				
LOS		A						A				
Approach Delay		5.9						4.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A							A			
Queue Length 50th (ft)		42							39			
Queue Length 95th (ft)		58							45			
Internal Link Dist (ft)		424			382				103		91	
Turn Bay Length (ft)												
Base Capacity (vph)		1525							2177			
Starvation Cap Reductn		0							87			
Spillback Cap Reductn		0							0			
Storage Cap Reductn		0							0			
Reduced v/c Ratio		0.59							0.63			

**Intersection Summary**

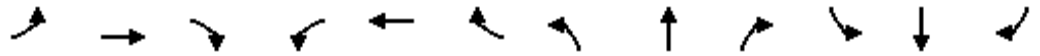
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.3
Intersection LOS:	A
Intersection Capacity Utilization	55.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			7									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	756	271	0	0	0	0	0	0	137	1156	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	796	285	0	0	0	0	0	0	0	1361	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0									20.0
Actuated g/C Ratio		0.57	0.57									0.33
v/c Ratio		0.40	0.32									0.84
Control Delay		5.8	5.6									21.3
Queue Delay		0.0	0.0									0.0
Total Delay		5.8	5.6									21.3
LOS		A	A									C
Approach Delay		5.7										21.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A										C	
Queue Length 50th (ft)		57	37								181	
Queue Length 95th (ft)		80	65								#244	
Internal Link Dist (ft)		382			406			277			272	
Turn Bay Length (ft)												
Base Capacity (vph)		2005	900								1619	
Starvation Cap Reductn		0	0								0	
Spillback Cap Reductn		0	0								0	
Storage Cap Reductn		0	0								0	
Reduced v/c Ratio		0.40	0.32								0.84	

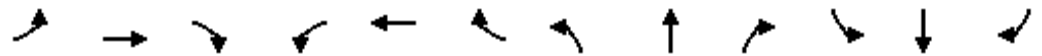
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	27 (45%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	14.4
Intersection LOS:	B
Intersection Capacity Utilization:	52.7%
ICU Level of Service:	A
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 540: Post St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			9	9							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	126	405	593	0	0	0	0	0	1711	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	148	426	624	0	0	0	0	0	1858	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	40.2	40.2	40.2	0.0	0.0	0.0	0.0	0.0	49.8	0.0
Total Split (%)	0.0%	0.0%	44.7%	44.7%	44.7%	0.0%	0.0%	0.0%	0.0%	0.0%	55.3%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			37.2	37.2	37.2						46.8	
Actuated g/C Ratio			0.41	0.41	0.41						0.52	
v/c Ratio			0.22	0.58	0.44						0.75	
Control Delay			17.1	5.5	4.2						8.6	
Queue Delay			0.0	0.0	0.0						0.3	
Total Delay			17.1	5.5	4.2						8.9	
LOS			B	A	A						A	
Approach Delay					4.7						8.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	860	265	138	2465	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	905	279	0	2656	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.75	0.49		0.83				
Control Delay					24.4	19.8		5.6				
Queue Delay					0.6	0.0		0.3				
Total Delay					25.1	19.8		5.8				
LOS					C	B		A				
Approach Delay					23.8			5.8				



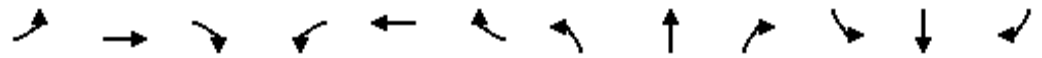
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					297	165		61				
Queue Length 95th (ft)					m340	m194		82				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1213	564		3189				
Starvation Cap Reductn					89	0		117				
Spillback Cap Reductn					0	0		84				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.81	0.49		0.86				

**Intersection Summary**

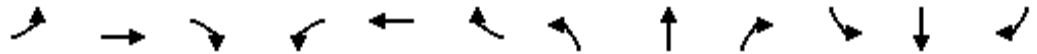
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 11.4      Intersection LOS: B  
 Intersection Capacity Utilization 74.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 555: Sutter St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		75
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3300	1370
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3300	866
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						76						8
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	93	1048	79	0	1016	0	0	985	77
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1201	83	0	1069	0	0	1037	81
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.88	0.14		0.62			0.59	0.17
Control Delay					34.1	5.6		5.6			16.7	14.2
Queue Delay					1.2	0.0		0.6			0.2	0.0
Total Delay					35.3	5.6		6.1			16.9	14.2
LOS					D	A		A			B	B
Approach Delay					33.4			6.1			16.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					325	2		55			151	15
Queue Length 95th (ft)					#455	30		88			207	m36
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												75
Base Capacity (vph)					1365	589		1727			1760	466
Starvation Cap Reductn					51	0		289			176	0
Spillback Cap Reductn					0	3		156			0	30
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.91	0.14		0.74			0.65	0.19

**Intersection Summary**

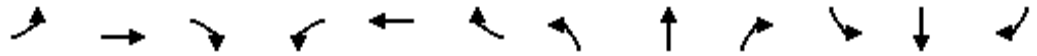
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 31 (34%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 19.6      Intersection LOS: B  
 Intersection Capacity Utilization 66.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 556: Sutter St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50				50
Trailing Detector (ft)				0	0	0	0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1930	0	0	1881	0
Flt Permitted					0.991			0.611				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1195	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						142						38
Link Speed (mph)		25			25			25				25
Link Distance (ft)		490			330			177				146
Travel Time (s)		13.4			9.0			4.8				4.0
Volume (vph)	0	0	0	237	1014	135	74	206	0	0	339	132
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	0	0	0	1316	142	0	295	0	0	496	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4				4
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4				4
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0				4.0
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0				19.0
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5				3.5
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0				0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max				Max
Act Effct Green (s)					31.0	31.0		23.0				23.0
Actuated g/C Ratio					0.52	0.52		0.38				0.38
v/c Ratio					0.75	0.16		0.64				0.67
Control Delay					8.0	0.4		20.5				8.9
Queue Delay					0.3	0.0		0.1				0.3
Total Delay					8.3	0.4		20.6				9.2
LOS					A	A		C				A
Approach Delay					7.6			20.6				9.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A					C					A		
Queue Length 50th (ft)	67					0		70			38		
Queue Length 95th (ft)	82					m1		m#148			m79		
Internal Link Dist (ft)	410				250			97			66		
Turn Bay Length (ft)													
Base Capacity (vph)					1747		887		458			744	
Starvation Cap Reductn					0		0		0			31	
Spillback Cap Reductn					96		0		7			12	
Storage Cap Reductn					0		0		0			0	
Reduced v/c Ratio					0.80		0.16		0.65			0.70	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 27 (45%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 9.6                      Intersection LOS: A  
 Intersection Capacity Utilization 85.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

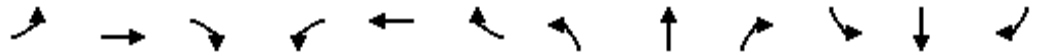
Splits and Phases: 557: Sutter St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Flt Permitted								0.987				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						67		50				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1091	92	295	796	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1148	97	0	1149	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.67	0.12		0.60				
Control Delay					6.2	0.5		5.4				
Queue Delay					0.0	0.0		0.0				
Total Delay					6.2	0.5		5.4				
LOS					A	A		A				
Approach Delay					5.8			5.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					39	0		23				
Queue Length 95th (ft)					49	m0		28				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	825		1927				
Starvation Cap Reductn					0	0		0				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.67	0.12		0.60				

**Intersection Summary**

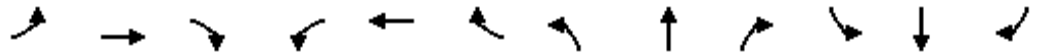
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 17 (28%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 5.6                      Intersection LOS: A  
 Intersection Capacity Utilization 58.2%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					21						70	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	284	998	0	0	0	0	0	1009	185
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1350	0	0	0	0	0	1257	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					32.0						22.0	
Actuated g/C Ratio					0.53						0.37	
v/c Ratio					0.75						0.73	
Control Delay					13.9						15.9	
Queue Delay					0.0						0.0	
Total Delay					13.9						15.9	
LOS					B						B	
Approach Delay					13.9						15.9	



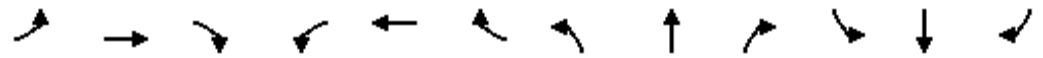
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					177						163	
Queue Length 95th (ft)					251						205	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1809						1714	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.75						0.73	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	2 (3%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	66.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4760	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4760	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		17										34
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1083	290	0	0	0	0	0	0	176	1395	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1445	0	0	0	0	0	0	0	0	1671	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		40.0									44.0	
Actuated g/C Ratio		0.44									0.49	
v/c Ratio		0.69									0.71	
Control Delay		21.8									14.8	
Queue Delay		0.0									0.5	
Total Delay		21.8									15.3	
LOS		C									B	
Approach Delay		21.8									15.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		230										149
Queue Length 95th (ft)		282										216
Internal Link Dist (ft)		172			417			94				91
Turn Bay Length (ft)												
Base Capacity (vph)		2107										2344
Starvation Cap Reductn		0										264
Spillback Cap Reductn		0										79
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.69										0.80

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	69 (77%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	18.3
Intersection LOS:	B
Intersection Capacity Utilization	64.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4826	0	0	0	0	0	5623	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	4826	0	0	0	0	0	5623	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						16				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	264	995	0	0	0	0	0	2328	349	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1311	0	0	0	0	0	2909	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		30.0						54.0				
Actuated g/C Ratio		0.33						0.60				
v/c Ratio		0.81						0.86				
Control Delay		15.2						6.3				
Queue Delay		0.0						2.3				
Total Delay		15.2						8.6				
LOS		B						A				
Approach Delay		15.2						8.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		73							71				
Queue Length 95th (ft)		98							77				
Internal Link Dist (ft)		417			148				104		82		
Turn Bay Length (ft)													
Base Capacity (vph)		1611							3380				
Starvation Cap Reductn		0							107				
Spillback Cap Reductn		0							337				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.81							0.96				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	10.7
Intersection LOS:	B
Intersection Capacity Utilization	70.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 584: Bush St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4986	0	0	0	0	0	3353	1417	1770	3123	0
Flt Permitted		0.997								0.106		
Satd. Flow (perm)	0	4946	0	0	0	0	0	3353	942	197	3123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12							40			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	89	1175	80	0	0	0	0	975	83	209	982	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								1	1		27	27
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1477	0	0	0	0	0	1108	94	238	1116	0
Turn Type	Split								Perm	pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.0	4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0	7.4	48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	37.6	37.6	15.4	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	41.8%	41.8%	17.1%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		34.0						34.6	34.6	50.0	50.0	
Actuated g/C Ratio		0.38						0.38	0.38	0.56	0.56	
v/c Ratio		0.78						0.86	0.24	0.73	0.64	
Control Delay		36.9						16.2	2.3	24.9	6.6	
Queue Delay		0.8						1.0	0.0	0.0	0.2	
Total Delay		37.8						17.2	2.3	24.9	6.9	
LOS		D						B	A	C	A	
Approach Delay		37.8						16.1			10.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						B			B		
Queue Length 50th (ft)	308						47			0	55	66
Queue Length 95th (ft)	361						139			m0	m90	74
Internal Link Dist (ft)	141			225			106			89		
Turn Bay Length (ft)							70					
Base Capacity (vph)	1891						1289			387	326	1735
Starvation Cap Reductn	171						53			0	0	150
Spillback Cap Reductn	0						0			0	0	0
Storage Cap Reductn	0						0			0	0	0
Reduced v/c Ratio	0.86						0.90			0.24	0.73	0.70

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 42 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 22.0                      Intersection LOS: C  
 Intersection Capacity Utilization 77.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 585: Bush St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1904	0	0	1939	0
Flt Permitted		0.998									0.888	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1904	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21						14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	49	1329	89	0	0	0	0	274	65	79	382	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1545	0	0	0	0	0	356	0	0	485	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	29.2	29.2	0.0	0.0	0.0	0.0	0.0	30.8	0.0	30.8	30.8	0.0
Total Split (%)	48.7%	48.7%	0.0%	0.0%	0.0%	0.0%	0.0%	51.3%	0.0%	51.3%	51.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.2						27.8			27.8	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.73						0.40			0.60	
Control Delay		16.3						10.9			18.7	
Queue Delay		0.0						0.3			3.0	
Total Delay		16.3						11.1			21.7	
LOS		B						B			C	
Approach Delay		16.3						11.1			21.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B			C	
Queue Length 50th (ft)		158						50			166	
Queue Length 95th (ft)		208						122			m255	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		2117						890			804	
Starvation Cap Reductn		0						148			214	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.73						0.48			0.82	

**Intersection Summary**

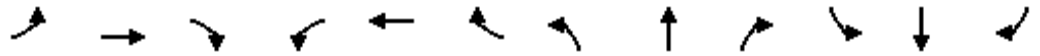
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 54 (90%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 16.6      Intersection LOS: B  
 Intersection Capacity Utilization 81.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3018	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3018	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36						27	29			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	118	1355	0	0	0	0	0	559	334	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1550	0	0	0	0	0	671	269	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.59						0.60	0.59			
Control Delay		2.2						10.6	12.6			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.2						10.6	12.6			
LOS		A						B	B			
Approach Delay		2.2						11.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	18						119 85					
Queue Length 95th (ft)	21						168 181					
Internal Link Dist (ft)	216						181 103 10					
Turn Bay Length (ft)												
Base Capacity (vph)	2607						1124 459					
Starvation Cap Reductn	0						0 0					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.59						0.60 0.59					

**Intersection Summary**

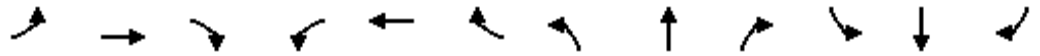
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	5.6
Intersection LOS:	A
Intersection Capacity Utilization:	54.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		34										36
Link Speed (mph)		25			25			25				25
Link Distance (ft)		240			465			132				317
Travel Time (s)		6.5			12.7			3.6				8.6
Volume (vph)	0	1326	343	0	0	0	0	0	0	137	851	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)												30
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	1757	0	0	0	0	0	0	0	0	1040	0
Turn Type											Split	
Protected Phases		2									4	4
Permitted Phases												
Detector Phases		2									4	4
Minimum Initial (s)		4.0									4.0	4.0
Minimum Split (s)		36.0									24.0	24.0
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5									3.5	3.5
All-Red Time (s)		0.5									0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0										21.0
Actuated g/C Ratio		0.55										0.35
v/c Ratio		0.67										0.64
Control Delay		5.4										10.8
Queue Delay		0.0										0.0
Total Delay		5.4										10.8
LOS		A										B
Approach Delay		5.4										10.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A									B	
Queue Length 50th (ft)		62									36	
Queue Length 95th (ft)		75									47	
Internal Link Dist (ft)		160			385			52			237	
Turn Bay Length (ft)												
Base Capacity (vph)		2614									1633	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.67									0.64	

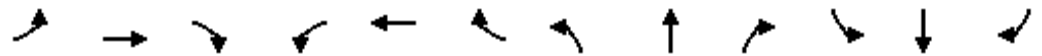
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	17 (28%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.

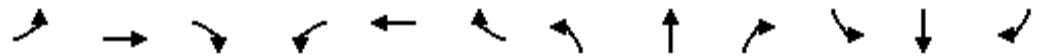




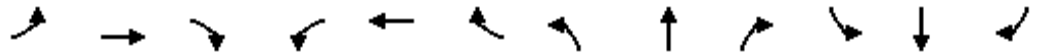


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				24							14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	344	1483	0	0	0	0	0	1169	171
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	362	1561	0	0	0	0	0	1426	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.41	0.66						0.68	
Control Delay				7.2	8.0						9.3	
Queue Delay				0.0	0.1						0.6	
Total Delay				7.2	8.1						9.9	
LOS				A	A						A	
Approach Delay					8.0						9.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6023	0	0	5457	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	6023	0	0	5457	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			452			172			192	
Travel Time (s)		13.7			12.3			4.7			5.2	
Volume (vph)	0	0	0	0	1610	397	217	2333	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2418	0	0	2713	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					37.0			47.0				
Actuated g/C Ratio					0.41			0.52				
v/c Ratio					0.98			0.95				
Control Delay					33.4			16.4				
Queue Delay					23.2			9.7				
Total Delay					56.6			26.1				
LOS					E			C				
Approach Delay					56.6			26.1				



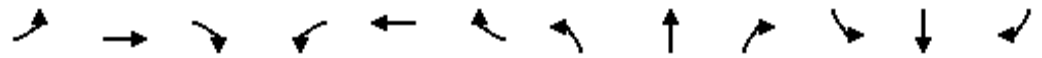
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					E			C				
Queue Length 50th (ft)					426			162				
Queue Length 95th (ft)					431			#438				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2477			2850				
Starvation Cap Reductn					187			172				
Spillback Cap Reductn					0			83				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					1.06			1.01				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.98
Intersection Signal Delay:	40.5
Intersection LOS:	D
Intersection Capacity Utilization	73.7%
ICU Level of Service	D
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 613: Pine St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6273	0	1770	3203	0	0	3193	1280
Flt Permitted				0.998		0.113						
Satd. Flow (perm)	0	0	0	0	6243	0	210	3203	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20							37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	75	1736	133	91	934	0	0	1147	180
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								18			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2046	0	96	983	0	0	1207	189
Turn Type				Split			pm+pt					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases							2					6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	4.0
Minimum Split (s)				36.0	36.0		7.0	48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	8.0	53.0	0.0	0.0	45.0	45.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	8.9%	58.9%	0.0%	0.0%	50.0%	50.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		1.0	1.0			1.0	1.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					34.0		50.0	50.0			42.0	42.0
Actuated g/C Ratio					0.38		0.56	0.56			0.47	0.47
v/c Ratio					0.86		0.47	0.55			0.81	0.45
Control Delay					30.1		12.4	2.2			20.5	15.0
Queue Delay					1.2		1.5	0.9			0.6	2.3
Total Delay					31.4		13.9	3.1			21.1	17.3
LOS					C		B	A			C	B
Approach Delay					31.4			4.0			20.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					303		9	25			165	38
Queue Length 95th (ft)					354		m12	m26			203	m59
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)												80
Base Capacity (vph)					2382		203	1779			1490	416
Starvation Cap Reductn					0		0	472			75	0
Spillback Cap Reductn					156		31	0			0	126
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					0.92		0.56	0.75			0.85	0.65

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 46 (51%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 85

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 21.5

Intersection LOS: C

Intersection Capacity Utilization 75.7%

ICU Level of Service D

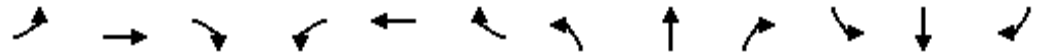
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 614: Pine St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6153	0	0	1939	0	0	1885	0
Flt Permitted					0.998			0.853				
Satd. Flow (perm)	0	0	0	0	6153	0	0	1668	0	0	1885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	82	1735	84	52	271	0	0	350	127
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2000	0	0	340	0	0	502	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					26.0			28.0			28.0	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.75			0.44			0.57	
Control Delay					8.6			13.5			11.4	
Queue Delay					0.1			0.9			0.3	
Total Delay					8.8			14.3			11.6	
LOS					A			B			B	
Approach Delay					8.8			14.3			11.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A					B			B			
Queue Length 50th (ft)	68					75			80			
Queue Length 95th (ft)	78					m191			156			
Internal Link Dist (ft)	102		410					89			281	
Turn Bay Length (ft)												
Base Capacity (vph)	2677					778			881			
Starvation Cap Reductn	0					212			71			
Spillback Cap Reductn	99					0			25			
Storage Cap Reductn	0					0			0			
Reduced v/c Ratio	0.78					0.60			0.62			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 52 (87%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 9.9      Intersection LOS: A  
 Intersection Capacity Utilization 81.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6110	0	0	3144	0	0	0	0
Flt Permitted								0.979				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3144	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					77			17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1605	192	296	391	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1891	0	0	724	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.56			0.65				
Control Delay					3.2			8.0				
Queue Delay					0.0			0.0				
Total Delay					3.2			8.0				
LOS					A			A				
Approach Delay					3.2			8.0				



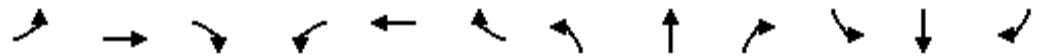
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					31			30				
Queue Length 95th (ft)					37			39				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3395			1111				
Starvation Cap Reductn					0			3				
Spillback Cap Reductn					0			2				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.56			0.65				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	41 (68%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	4.5
Intersection LOS:	A
Intersection Capacity Utilization	52.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4478	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4478	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					83						11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	251	1589	0	0	0	0	0	737	208
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1937	0	0	0	0	0	995	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.60						0.55	
Control Delay					11.2						15.2	
Queue Delay					0.0						0.0	
Total Delay					11.2						15.2	
LOS					B						B	
Approach Delay					11.2						15.2	



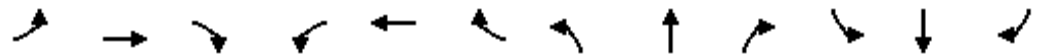
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B							B
Queue Length 50th (ft)					127							96
Queue Length 95th (ft)					160							132
Internal Link Dist (ft)		141			396			237				102
Turn Bay Length (ft)												
Base Capacity (vph)					3223							1798
Starvation Cap Reductn					0							0
Spillback Cap Reductn					0							0
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.60							0.55

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	33 (55%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	52.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3511	0	0	0	0	0	3507	0
Flt Permitted					0.660						0.997	
Satd. Flow (perm)	0	3458	0	0	2336	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29									7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	544	97	113	563	0	0	0	0	73	1130	51
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	696	0	0	786	0	0	0	0	0	1348	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					25.0	25.0	
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0							44.0
Actuated g/C Ratio		0.44			0.44							0.49
v/c Ratio		0.45			0.76							0.78
Control Delay		17.7			31.7							26.7
Queue Delay		0.0			0.0							15.2
Total Delay		17.7			31.7							41.9
LOS		B			C							D
Approach Delay		17.7			31.7							41.9



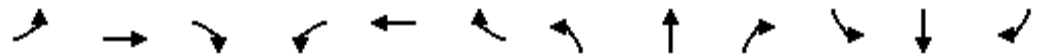
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C						D	
Queue Length 50th (ft)		133			149						390	
Queue Length 95th (ft)		181			m168						m422	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1553			1038						1718	
Starvation Cap Reductn		0			0						385	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.45			0.76						1.01	

**Intersection Summary**

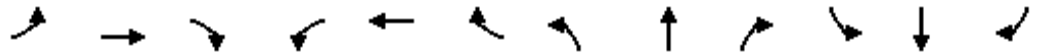
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	75 (83%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	33.1
Intersection LOS:	C
Intersection Capacity Utilization:	82.0%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 639: California St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3472	0	0	5691	0	0	0	0
Flt Permitted	0.160							0.999				
Satd. Flow (perm)	298	3539	0	0	3472	0	0	5691	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					16			18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	94	523	0	0	596	84	80	2515	135	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	111	615	0	0	800	0	0	3212	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	8.0	33.0	0.0	0.0	25.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	8.9%	36.7%	0.0%	0.0%	27.8%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	30.0	30.0			22.0			54.0				
Actuated g/C Ratio	0.33	0.33			0.24			0.60				
v/c Ratio	0.61	0.52			0.93			0.94				
Control Delay	34.0	13.6			40.2			9.4				
Queue Delay	0.0	0.0			0.0			3.0				
Total Delay	34.0	13.6			40.2			12.4				
LOS	C	B			D			B				
Approach Delay		16.8			40.2			12.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			D			B				
Queue Length 50th (ft)	21	54			252			129				
Queue Length 95th (ft)	m#61	64			#322			141				
Internal Link Dist (ft)		438			361			87			266	
Turn Bay Length (ft)												
Base Capacity (vph)	181	1180			861			3422				
Starvation Cap Reductn	0	0			0			147				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.61	0.52			0.93			0.98				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 79 (88%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 85

Control Type: Pretimed

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 17.8

Intersection LOS: B

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 640: California St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		80	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3335	0	0	3357	0	0	3318	1385	0	3291	1362
Flt Permitted		0.909			0.860							
Satd. Flow (perm)	0	3033	0	0	2888	0	0	3318	907	0	3291	953
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			11				41			37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	23	526	109	39	611	82	0	971	96	0	1179	69
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								5	5		8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	756	0	0	804	0	0	1001	99	0	1254	73
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	4.0
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	42.5
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0
Total Split (%)	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%	0.0%	55.6%	55.6%	0.0%	55.6%	55.6%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	1.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		37.0			37.0			47.0	47.0		47.0	47.0
Actuated g/C Ratio		0.41			0.41			0.52	0.52		0.52	0.52
v/c Ratio		0.60			0.67			0.58	0.20		0.73	0.14
Control Delay		35.4			24.7			3.3	1.0		24.1	13.2
Queue Delay		0.0			0.0			0.1	0.0		0.3	0.0
Total Delay		35.4			24.7			3.4	1.0		24.3	13.2
LOS		D			C			A	A		C	B
Approach Delay		35.4			24.7			3.2			23.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			A			C		
Queue Length 50th (ft)	207			188			37			0		
Queue Length 95th (ft)	m248			255			m41			m2		
Internal Link Dist (ft)	361			163			282			265		
Turn Bay Length (ft)							80			75		
Base Capacity (vph)	1255			1194			1733			493		
Starvation Cap Reductn	0			0			119			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.60			0.67			0.62			0.20		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 20.5      Intersection LOS: C  
 Intersection Capacity Utilization 88.3%      ICU Level of Service E  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 641: California St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3389	0	0	3413	0	0	1914	0	0	1903	0
Flt Permitted								0.968			0.919	
Satd. Flow (perm)	0	3389	0	0	3413	0	0	1859	0	0	1759	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			24			20			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	525	97	0	672	78	19	288	48	66	380	83
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	655	0	0	789	0	0	374	0	0	556	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0			31.0			31.0	
Actuated g/C Ratio		0.38			0.38			0.52			0.52	
v/c Ratio		0.49			0.60			0.39			0.60	
Control Delay		14.7			11.0			4.2			7.2	
Queue Delay		0.0			0.0			0.0			0.4	
Total Delay		14.7			11.0			4.2			7.5	
LOS		B			B			A			A	
Approach Delay		14.7			11.0			4.2			7.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		85			47			32			45	
Queue Length 95th (ft)		127			97			m44			61	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1324			1323			970			920	
Starvation Cap Reductn		0			0			0			82	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.60			0.39			0.66	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 24 (40%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 10.1                      Intersection LOS: B  
 Intersection Capacity Utilization 76.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 642: California St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1785	0	1770	0	1290
Flt Permitted		0.909					0.950			0.333		
Satd. Flow (perm)	0	3153	0	0	3455	0	1770	1785	0	620	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			49				49
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	27	612	0	0	622	16	89	355	139	60	0	39
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	680	0	0	768	0	95	526	0	75	0	49
Turn Type	Perm						Perm		custom			custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	26.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	0.0	34.0
Total Split (%)	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	0.0%	56.7%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		23.0			23.0		31.0	31.0		31.0		31.0
Actuated g/C Ratio		0.38			0.38		0.52	0.52		0.52		0.52
v/c Ratio		0.56			0.58		0.10	0.56		0.23		0.07
Control Delay		14.5			16.7		5.1	6.8		10.4		2.9
Queue Delay		0.0			0.0		0.0	0.6		0.0		0.0
Total Delay		14.5			16.7		5.1	7.4		10.4		2.9
LOS		B			B		A	A		B		A
Approach Delay		14.5			16.7			7.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1839	0	0	0	0	0	1535	0
Flt Permitted	0.308			0.950								
Satd. Flow (perm)	574	0	1583	1770	1839	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			156	180	5						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	98	0	109	293	282	26	0	0	0	0	852	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	140	0	156	329	346	0	0	0	0	0	919	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	30.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	27.0		27.0	27.0	27.0						57.0	
Actuated g/C Ratio	0.30		0.30	0.30	0.30						0.63	
v/c Ratio	0.81		0.27	0.50	0.62						0.94	
Control Delay	65.6		5.4	2.1	10.0						23.1	
Queue Delay	0.0		1.5	17.6	0.0						4.6	
Total Delay	65.6		6.9	19.8	10.0						27.7	
LOS	E		A	B	B						C	
Approach Delay					14.8						27.7	

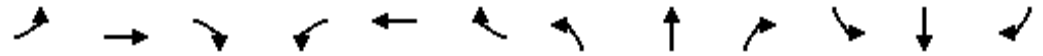






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3429	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3429	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					3		64					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	521	138	80	2613	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	716	0	86	2810	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					24.0		60.0	60.0				
Actuated g/C Ratio					0.27		0.67	0.67				
v/c Ratio					0.78		0.07	0.88				
Control Delay					28.9		0.0	3.1				
Queue Delay					0.0		0.0	0.7				
Total Delay					28.9		0.0	3.8				
LOS					C		A	A				
Approach Delay					28.9			3.7				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3225	0	0	3150	0	0	3186	1275
Flt Permitted				0.993								
Satd. Flow (perm)	0	0	0	0	3168	0	0	3150	0	0	3186	1035
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19							49
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	104	568	89	0	1076	0	0	1144	91
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	793	0	0	1109	0	0	1204	96
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.61			0.66			0.71	0.17
Control Delay					23.3			5.6			13.2	6.9
Queue Delay					0.3			0.3			0.1	0.0
Total Delay					23.6			5.9			13.3	6.9
LOS					C			A			B	A
Approach Delay					23.6			5.9			12.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					179			76			129	4
Queue Length 95th (ft)					240			92			166	m9
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												70
Base Capacity (vph)					1301			1680			1699	575
Starvation Cap Reductn					0			154			65	0
Spillback Cap Reductn					122			0			0	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.67			0.73			0.74	0.17

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	61 (68%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	13.1
Intersection LOS:	B
Intersection Capacity Utilization:	62.8%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 661: Sacramento St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3490	0	0	1947	0	0	1871	0
Flt Permitted				0.993			0.930					
Satd. Flow (perm)	0	0	0	0	3490	0	0	1818	0	0	1871	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						62	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	91	527	30	31	335	0	0	438	203
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	683	0	0	386	0	0	675	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.56			0.39			0.64	
Control Delay					17.6			8.6			6.2	
Queue Delay					0.0			0.2			1.3	
Total Delay					17.6			8.8			7.5	
LOS					B			A			A	
Approach Delay					17.6			8.8			7.5	

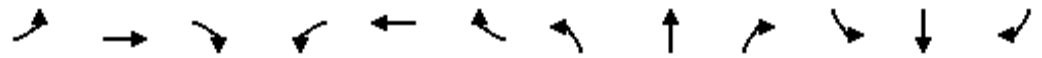


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					101			53			28	
Queue Length 95th (ft)					147			114			78	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1227			1000			1057	
Starvation Cap Reductn					0			144			195	
Spillback Cap Reductn					0			0			3	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.56			0.45			0.78	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	14 (23%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization:	68.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 662: Sacramento St. & Polk St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1691	0	0	1510	0	0	5019	0	0	0	0
Flt Permitted		0.922						0.999				
Satd. Flow (perm)	0	1580	0	0	1510	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			38				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	14	42	0	0	17	125	35	2495	221	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	59	0	0	150	0	0	2896	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	23.5	23.5	0.0	0.0	23.5	0.0	66.5	66.5	0.0	0.0	0.0	0.0
Total Split (%)	26.1%	26.1%	0.0%	0.0%	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		20.5			20.5			63.5				
Actuated g/C Ratio		0.23			0.23			0.71				
v/c Ratio		0.16			0.43			0.82				
Control Delay		41.5			38.1			1.8				
Queue Delay		0.0			0.0			0.2				
Total Delay		41.5			38.1			2.0				
LOS		D			D			A				
Approach Delay		41.5			38.1			2.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A				
Queue Length 50th (ft)		34			84			24				
Queue Length 95th (ft)		m44			133			32				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		360			349			3552				
Starvation Cap Reductn		0			0			157				
Spillback Cap Reductn		0			0			67				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.16			0.43			0.85				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 89 (99%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 4.5                      Intersection LOS: A  
 Intersection Capacity Utilization 74.9%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 671: Clay St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		90	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	50
Trailing Detector (ft)	0	0						0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1571	0	0	0	0	0	3362	1425	0	3230	1306
Flt Permitted		0.999										
Satd. Flow (perm)	0	1565	0	0	0	0	0	3362	903	0	3230	508
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12							60			149
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	8	214	41	0	0	0	0	1039	126	0	1194	142
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0	0		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	337	0	0	0	0	0	1105	134	0	1257	149
Turn Type	Split								Perm			Perm
Protected Phases	4	4						2			2	
Permitted Phases									2			2
Detector Phases	4	4						2	2		2	2
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	4.0
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	48.5
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	52.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	0.0%	57.8%	57.8%	0.0%	57.8%	57.8%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	0.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	Max
Act Effct Green (s)		35.0						49.0	49.0		49.0	49.0
Actuated g/C Ratio		0.39						0.54	0.54		0.54	0.54
v/c Ratio		0.55						0.60	0.26		0.71	0.43
Control Delay		19.9						3.7	0.9		15.0	6.1
Queue Delay		0.0						0.2	0.0		0.2	0.0
Total Delay		19.9						3.9	0.9		15.2	6.1
LOS		B						A	A		B	A
Approach Delay		19.9						3.6			14.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	B						A			B			
Queue Length 50th (ft)	121						31			0	167		11
Queue Length 95th (ft)	167						36			m0	170		m23
Internal Link Dist (ft)	370			421			247			76			
Turn Bay Length (ft)										90			
Base Capacity (vph)	618						1830			519	1759		344
Starvation Cap Reductn	0						172			0	95		0
Spillback Cap Reductn	0						26			0	0		0
Storage Cap Reductn	0						0			0	0		0
Reduced v/c Ratio	0.55						0.67			0.26	0.76		0.43

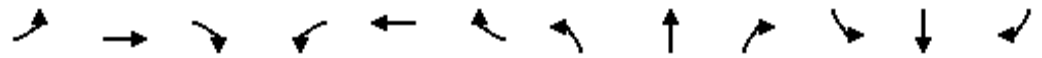
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 10.5                      Intersection LOS: B  
 Intersection Capacity Utilization 62.5%                      ICU Level of Service B  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 672: Clay St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3036	0	0	0	0	0	1887	0	0	1947	0
Flt Permitted		0.993									0.947	
Satd. Flow (perm)	0	3036	0	0	0	0	0	1887	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		239						39				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	48	65	227	0	0	0	0	270	95	41	414	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	358	0	0	0	0	0	384	0	0	479	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.5						27.5			27.5	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.24						0.43			0.56	
Control Delay		4.2						13.0			11.4	
Queue Delay		0.0						0.4			0.2	
Total Delay		4.2						13.4			11.6	
LOS		A						B			B	
Approach Delay		4.2						13.4			11.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B			B		
Queue Length 50th (ft)	12						87			84		
Queue Length 95th (ft)	33						141			115		
Internal Link Dist (ft)	421				163		237			241		
Turn Bay Length (ft)												
Base Capacity (vph)	1474						886			849		
Starvation Cap Reductn	0						177			48		
Spillback Cap Reductn	1						0			13		
Storage Cap Reductn	0						0			0		
Reduced v/c Ratio	0.24						0.54			0.60		

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	2 (3%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	10.0
Intersection LOS:	A
Intersection Capacity Utilization	64.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 673: Clay St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1737	0	0	0	0	0	1492	0	0	1857	0
Flt Permitted		0.999									0.993	
Satd. Flow (perm)	0	1737	0	0	0	0	0	1492	0	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40						36			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	7	148	107	0	0	0	0	76	27	19	774	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	336	0	0	0	0	0	139	0	0	830	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	30.8	30.8	0.0	0.0	0.0	0.0	0.0	59.2	0.0	59.2	59.2	0.0
Total Split (%)	34.2%	34.2%	0.0%	0.0%	0.0%	0.0%	0.0%	65.8%	0.0%	65.8%	65.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.8						56.2			56.2	
Actuated g/C Ratio		0.31						0.62			0.62	
v/c Ratio		0.60						0.15			0.72	
Control Delay		28.2						2.4			9.1	
Queue Delay		0.0						0.0			0.8	
Total Delay		28.2						2.4			9.9	
LOS		C						A			A	
Approach Delay		28.2						2.4			9.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			A	
Queue Length 50th (ft)		141						12			89	
Queue Length 95th (ft)		188						m12			153	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		564						945			1153	
Starvation Cap Reductn		0						0			109	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.60						0.15			0.80	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 7 (8%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 13.8

Intersection LOS: B

Intersection Capacity Utilization 70.6%

ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 679: Washington St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3490	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3490	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8						33				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	30	164	0	0	0	0	0	2457	177	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	303	0	0	0	0	0	2802	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	21.5	21.5	0.0	0.0	0.0	0.0	0.0	68.5	0.0	0.0	0.0	0.0
Total Split (%)	23.9%	23.9%	0.0%	0.0%	0.0%	0.0%	0.0%	76.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		18.5						65.5				
Actuated g/C Ratio		0.21						0.73				
v/c Ratio		0.42						0.81				
Control Delay		24.9						3.0				
Queue Delay		0.0						0.5				
Total Delay		24.9						3.5				
LOS		C						A				
Approach Delay		24.9						3.5				

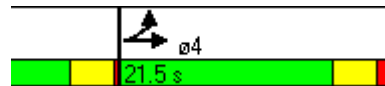


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		43							30				
Queue Length 95th (ft)		54							34				
Internal Link Dist (ft)		442				372			216			289	
Turn Bay Length (ft)													
Base Capacity (vph)		724							3459				
Starvation Cap Reductn		0							265				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.42							0.88				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	9 (10%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	5.6
Intersection LOS:	A
Intersection Capacity Utilization	63.5%
ICU Level of Service	B
Analysis Period (min)	15

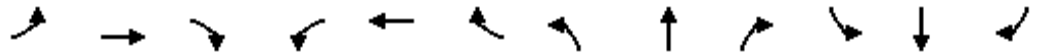
Splits and Phases: 680: Washington St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3330	0	0	0	0	0	1922	0	0	1947	0
Flt Permitted		0.993									0.962	
Satd. Flow (perm)	0	3330	0	0	0	0	0	1922	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	46	196	96	0	0	0	0	277	41	30	359	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	355	0	0	0	0	0	335	0	0	410	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.25						0.36			0.45	
Control Delay		8.5						5.0			8.4	
Queue Delay		0.0						0.2			0.2	
Total Delay		8.5						5.2			8.6	
LOS		A						A			A	
Approach Delay		8.5						5.2			8.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			A	
Queue Length 50th (ft)		28						18			43	
Queue Length 95th (ft)		53						46			74	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1446						938			909	
Starvation Cap Reductn		0						138			94	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.25						0.42			0.50	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	7.5
Intersection LOS:	A
Intersection Capacity Utilization	57.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1861	0	0	1833	0
Flt Permitted		0.690		0.706				0.988				
Satd. Flow (perm)	0	1179	0	1315	1829	0	0	1840	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			2							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	27	0	43	83	290	12	2	81	0	0	679	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	88	0	112	408	0	0	107	0	0	801	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		30.0		30.0	30.0			54.0				54.0
Actuated g/C Ratio		0.33		0.33	0.33			0.60				0.60
v/c Ratio		0.21		0.26	0.67			0.10				0.72
Control Delay		11.5		34.0	42.7			1.8				6.1
Queue Delay		0.0		0.0	0.0			0.0				0.3
Total Delay		11.5		34.0	42.7			1.8				6.3
LOS		B		C	D			A				A
Approach Delay		11.5			40.8			1.8				6.3





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					9			24				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	249	63	136	2351	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	328	0	0	2618	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	67.0	67.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	25.6%	0.0%	74.4%	74.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					20.0			64.0				
Actuated g/C Ratio					0.22			0.71				
v/c Ratio					0.43			0.77				
Control Delay					12.1			1.5				
Queue Delay					0.0			0.2				
Total Delay					12.1			1.7				
LOS					B			A				
Approach Delay					12.1			1.7				

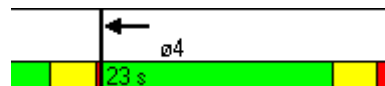


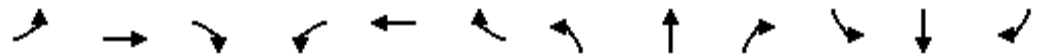
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					85			13				
Queue Length 95th (ft)					122			19				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					765			3390				
Starvation Cap Reductn					0			172				
Spillback Cap Reductn					0			118				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.43			0.81				

**Intersection Summary**

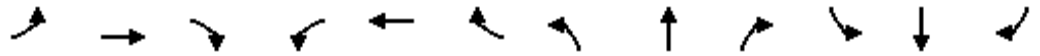
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	16 (18%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	2.8
Intersection LOS:	A
Intersection Capacity Utilization:	63.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3375	0	0	1928	0	0	1881	0
Flt Permitted				0.986			0.770					
Satd. Flow (perm)	0	0	0	0	3375	0	0	1505	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					42						45	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	84	169	46	91	232	0	0	305	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	314	0	0	340	0	0	446	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.22			0.47			0.48	
Control Delay					10.2			9.8			9.5	
Queue Delay					0.0			0.0			0.3	
Total Delay					10.2			9.8			9.8	
LOS					B			A			A	
Approach Delay					10.2			9.8			9.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					31			55			77	
Queue Length 95th (ft)					54			87			149	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1431			727			932	
Starvation Cap Reductn					0			0			138	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.22			0.47			0.56	

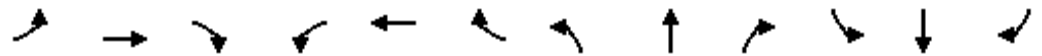
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization	59.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1816	0	0	1829	0	0	1814	0	0	1857	0
Flt Permitted		0.997			0.921						0.991	
Satd. Flow (perm)	0	1813	0	0	1700	0	0	1814	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			26			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	111	24	38	150	14	0	97	23	21	707	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	169	0	0	222	0	0	165	0	0	777	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.31			0.43			0.14			0.67	
Control Delay		24.4			30.3			3.2			10.9	
Queue Delay		0.0			0.0			0.0			1.3	
Total Delay		24.4			30.3			3.2			12.2	
LOS		C			C			A			B	
Approach Delay		24.4			30.3			3.3			12.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				B
Queue Length 50th (ft)		68			107			17				0
Queue Length 95th (ft)		107			m169			26				0
Internal Link Dist (ft)		132			418			229				258
Turn Bay Length (ft)												
Base Capacity (vph)		552			513			1158				1167
Starvation Cap Reductn		0			0			0				198
Spillback Cap Reductn		0			0			0				4
Storage Cap Reductn		0			0			0				0
Reduced v/c Ratio		0.31			0.43			0.14				0.80

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 15.6                      Intersection LOS: B  
 Intersection Capacity Utilization 73.9%                      ICU Level of Service D  
 Analysis Period (min) 15

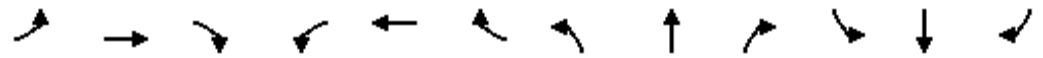
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 693: Pacific Ave. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1846	0	0	1758	0	0	5024	0	0	0	0
Flt Permitted		0.927						0.998				
Satd. Flow (perm)	0	1727	0	0	1758	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			26				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	27	128	0	0	118	84	84	2175	155	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	163	0	0	212	0	0	2540	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			60.0				
Actuated g/C Ratio		0.27			0.27			0.67				
v/c Ratio		0.35			0.45			0.76				
Control Delay		28.1			14.4			3.6				
Queue Delay		0.0			0.0			0.5				
Total Delay		28.1			14.4			4.1				
LOS		C			B			A				
Approach Delay		28.1			14.4			4.1				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1708	0	0	1767	0	0	1856	0	0	1902	0
Flt Permitted		0.952			0.866			0.891			0.973	
Satd. Flow (perm)	0	1634	0	0	1551	0	0	1671	0	0	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			15			46			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	31	136	119	67	168	30	55	138	85	21	238	55
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	301	0	0	280	0	0	292	0	0	331	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.37			0.38			0.39			0.41	
Control Delay		9.0			11.7			4.9			12.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.0			11.7			4.9			12.7	
LOS		A			B			A			B	
Approach Delay		9.0			11.7			4.9			12.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		46			58			10			72	
Queue Length 95th (ft)		94			108			27			129	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		805			732			750			817	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.37			0.38			0.39			0.41	

**Intersection Summary**

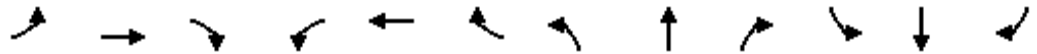
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	11 (18%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization:	64.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3472	0	0	1829	0	0	1848	0
Flt Permitted		0.946			0.699			0.965			0.959	
Satd. Flow (perm)	0	3291	0	0	2462	0	0	1771	0	0	1781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			10			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	5	330	43	207	525	25	7	93	13	52	488	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	397	0	0	891	0	0	157	0	0	602	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	44.0	44.0	0.0	44.0	44.0	0.0	46.0	46.0	0.0	46.0	46.0	0.0
Total Split (%)	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%	51.1%	51.1%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		41.0			41.0			43.0			43.0	
Actuated g/C Ratio		0.46			0.46			0.48			0.48	
v/c Ratio		0.26			0.79			0.18			0.71	
Control Delay		14.9			30.0			12.0			24.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.9			30.0			12.0			24.1	
LOS		B			C			B			C	
Approach Delay		14.9			30.0			12.0			24.1	



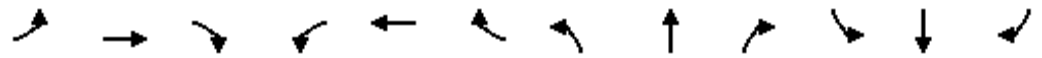
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		66			273			31			258	
Queue Length 95th (ft)		97			322			53			386	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1510			1124			851			852	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.26			0.79			0.18			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	87 (97%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	24.0
Intersection LOS:	C
Intersection Capacity Utilization	78.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 698: Broadway & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3394	0	0	5004	0	0	0	0
Flt Permitted		0.891						0.998				
Satd. Flow (perm)	0	3153	0	0	3394	0	0	5004	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	12	383	0	0	661	252	96	1982	208	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	429	0	0	961	0	0	2484	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.38			0.79			0.86				
Control Delay		27.9			5.5			8.6				
Queue Delay		0.0			0.0			0.5				
Total Delay		27.9			5.5			9.1				
LOS		C			A			A				
Approach Delay		27.9			5.5			9.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A				
Queue Length 50th (ft)		118			13			78				
Queue Length 95th (ft)		167			m16			108				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		1121			1211			2904				
Starvation Cap Reductn		0			0			130				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.38			0.79			0.90				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 37 (41%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 10.3      Intersection LOS: B  
 Intersection Capacity Utilization 77.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 699: Broadway & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3437	0	0	0	0	0	3195	1370	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3401	0	0	0	0	0	3195	933	0	3283	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8							39			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	19	302	20	0	0	0	0	1062	36	0	1316	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	371	0	0	0	0	0	1154	39	0	1371	0
Turn Type	custom								Perm			
Protected Phases	4	4						2			6	
Permitted Phases	4								2			
Detector Phases	4	4						2	2		6	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	25.0	25.0						48.0	48.0		24.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0						0.0	0.0		0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.32						0.60	0.07		0.70	
Control Delay		29.9						2.6	0.2		14.4	
Queue Delay		0.0						0.3	0.0		0.7	
Total Delay		29.9						2.9	0.2		15.2	
LOS		C						A	A		B	
Approach Delay		29.9						2.8			15.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		95						12	0		204	
Queue Length 95th (ft)		m130						15	m0		268	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1151						1917	575		1970	
Starvation Cap Reductn		0						160	0		280	
Spillback Cap Reductn		0						226	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.32						0.68	0.07		0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 12.0                      Intersection LOS: B  
 Intersection Capacity Utilization 59.7%                      ICU Level of Service B  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 700: Washington St. & Van Ness Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1809	0	0	1794	0	0	5040	0	0	0	0
Flt Permitted		0.733						0.997				
Satd. Flow (perm)	0	1365	0	0	1794	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	114	77	0	0	103	39	143	1947	85	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	201	0	0	149	0	0	2289	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.46			0.25			0.74				
Control Delay		28.4			28.1			4.5				
Queue Delay		0.0			0.0			0.1				
Total Delay		28.4			28.1			4.7				
LOS		C			C			A				
Approach Delay		28.4			28.1			4.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		90			82			15				
Queue Length 95th (ft)		156			143			16				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		440			586			3085				
Starvation Cap Reductn		0			0			122				
Spillback Cap Reductn		0			0			95				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.25			0.77				

**Intersection Summary**

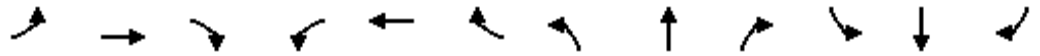
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	58 (64%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	7.8
Intersection LOS:	A
Intersection Capacity Utilization	70.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 701: Green St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1680	0	0	1703	0	0	1826	0	0	1842	0
Flt Permitted		0.979			0.905			0.917			0.972	
Satd. Flow (perm)	0	1648	0	0	1552	0	0	1684	0	0	1796	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			7			12			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	14	281	69	59	334	25	18	109	15	30	401	28
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	444	0	0	491	0	0	241	0	0	522	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.57			0.67			0.33			0.67	
Control Delay		14.4			18.0			12.2			18.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.4			18.0			12.2			18.5	
LOS		B			B			B			B	
Approach Delay		14.4			18.0			12.2			18.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		102			128			51			141	
Queue Length 95th (ft)		154			204			56			229	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		783			728			737			782	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.57			0.67			0.33			0.67	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	16.4
Intersection LOS:	B
Intersection Capacity Utilization	79.2%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 702: Union St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.947						0.996				
Satd. Flow (perm)	0	1637	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						9		11				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			449			345				341
Travel Time (s)		13.7			12.2			9.4				9.3
Volume (vph)	34	292	0	0	257	114	161	1856	83	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	343	0	0	271	120	0	2210	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	37.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	41.1%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		34.0			34.0	34.0		50.0				
Actuated g/C Ratio		0.38			0.38	0.38		0.56				
v/c Ratio		0.56			0.42	0.20		0.79				
Control Delay		26.3			28.9	23.4		5.2				
Queue Delay		0.0			0.0	0.0		0.3				
Total Delay		26.3			28.9	23.4		5.5				
LOS		C			C	C		A				
Approach Delay		26.3			27.3			5.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		151			141	57		38				
Queue Length 95th (ft)		237			210	99		43				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		618			653	604		2802				
Starvation Cap Reductn		0			0	0		165				
Spillback Cap Reductn		0			0	0		52				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.56			0.42	0.20		0.84				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	68 (76%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	10.8
Intersection LOS:	B
Intersection Capacity Utilization:	81.7%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 703: Union St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1811	0	0	5009	0	0	0	0
Flt Permitted		0.966						0.997				
Satd. Flow (perm)	0	1799	0	0	1811	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			31				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	19	122	0	0	47	12	131	1708	165	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	148	0	0	62	0	0	2110	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.26			0.11			0.67				
Control Delay		24.9			24.1			2.2				
Queue Delay		0.0			0.0			0.4				
Total Delay		24.9			24.1			2.5				
LOS		C			C			A				
Approach Delay		24.9			24.1			2.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		63			24			24				
Queue Length 95th (ft)		112			62			31				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		560			572			3128				
Starvation Cap Reductn		0			0			428				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.26			0.11			0.78				

**Intersection Summary**

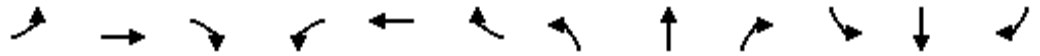
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	4.5
Intersection LOS:	A
Intersection Capacity Utilization	60.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 705: Filbert St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.932						0.995				
Satd. Flow (perm)	0	1736	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		247			452			351				315
Travel Time (s)		6.7			12.3			9.6				8.6
Volume (vph)	29	106	0	0	73	29	165	1502	72	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	143	0	0	108	0	0	1831	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.24			0.17			0.62				
Control Delay		22.4			37.2			2.1				
Queue Delay		0.0			0.0			0.1				
Total Delay		22.4			37.2			2.2				
LOS		C			D			A				
Approach Delay		22.4			37.2			2.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			A				
Queue Length 50th (ft)		57			50			10				
Queue Length 95th (ft)		103			101			10				
Internal Link Dist (ft)		167			372			271			235	
Turn Bay Length (ft)												
Base Capacity (vph)		598			633			2967				
Starvation Cap Reductn		0			0			260				
Spillback Cap Reductn		0			1			183				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.24			0.17			0.68				

**Intersection Summary**

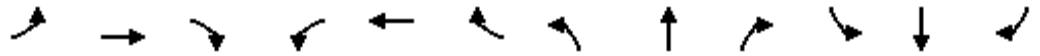
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	54.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 706: Greenwich St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1770	0	0	5050	0	0	0	0
Flt Permitted		0.952						0.999				
Satd. Flow (perm)	0	1773	0	0	1770	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			14				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	14	73	0	0	85	49	47	2112	87	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	92	0	0	141	0	0	2364	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	28.5	28.5	0.0	0.0	28.5	0.0	61.5	61.5	0.0	0.0	0.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	0.0%	31.7%	0.0%	68.3%	68.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.5			25.5			58.5				
Actuated g/C Ratio		0.28			0.28			0.65				
v/c Ratio		0.18			0.28			0.72				
Control Delay		25.6			16.0			3.4				
Queue Delay		0.0			0.0			0.7				
Total Delay		25.6			16.0			4.1				
LOS		C			B			A				
Approach Delay		25.6			16.0			4.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		39			72			59				
Queue Length 95th (ft)		78			131			64				
Internal Link Dist (ft)		423			355			282		257		
Turn Bay Length (ft)												
Base Capacity (vph)		502			509			3287				
Starvation Cap Reductn		0			0			519				
Spillback Cap Reductn		0			0			190				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.18			0.28			0.85				

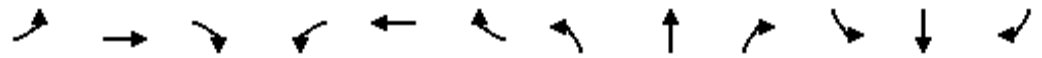
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	45 (50%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization	65.8%
ICU Level of Service	C
Analysis Period (min)	15

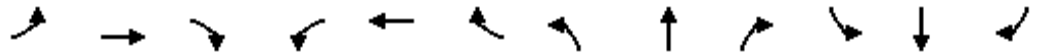
Splits and Phases: 901: Vallejo St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3296	0	0	3014	0	0	2969	1287
Flt Permitted				0.989								
Satd. Flow (perm)	0	0	0	0	3128	0	0	3014	0	0	2969	1113
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13							57
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	81	262	36	0	1081	0	0	1235	50
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	408	0	0	1138	0	0	1403	57
Turn Type				Perm								Perm
Protected Phases					8			2				6
Permitted Phases				8								6
Detector Phases				8	8			2				6
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				30.0	30.0			50.0			50.0	50.0
Total Split (s)	0.0	0.0	0.0	31.0	31.0	0.0	0.0	59.0	0.0	0.0	59.0	59.0
Total Split (%)	0.0%	0.0%	0.0%	34.4%	34.4%	0.0%	0.0%	65.6%	0.0%	0.0%	65.6%	65.6%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				1.0	1.0			0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					28.0			56.0			56.0	56.0
Actuated g/C Ratio					0.31			0.62			0.62	0.62
v/c Ratio					0.42			0.61			0.76	0.08
Control Delay					25.3			6.6			9.4	1.4
Queue Delay					0.2			0.3			0.1	0.0
Total Delay					25.5			6.9			9.5	1.4
LOS					C			A			A	A
Approach Delay					25.5			6.9			9.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			A	
Queue Length 50th (ft)					92			302			122	1
Queue Length 95th (ft)					134			5			130	m1
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												
Base Capacity (vph)					982			1875			1847	714
Starvation Cap Reductn					0			239			47	0
Spillback Cap Reductn					136			0			0	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.48			0.70			0.78	0.08

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	2 (2%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	10.6
Intersection LOS:	B
Intersection Capacity Utilization:	59.7%
ICU Level of Service:	B
Analysis Period (min):	15

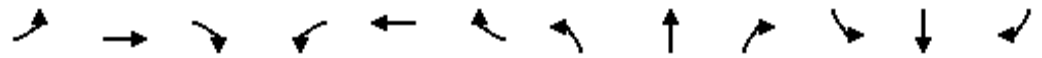
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 902: Jackson St. & Van Ness Avenue



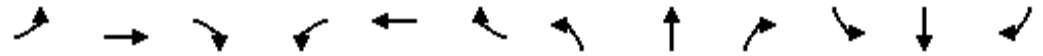
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1626	0	0	1672	0	0	3064	1354	0	2906	1327
Flt Permitted		0.990			0.871							
Satd. Flow (perm)	0	1609	0	0	1446	0	0	3064	1003	0	2906	983
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			14				53			11
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	7	202	74	49	182	47	0	1033	84	0	1162	20
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	336	0	0	442	0	0	1076	88	0	1249	22
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4					2			6
Detector Phases	4	4		4	4			2	2		6	6
Minimum Initial (s)	2.0	2.0		2.0	2.0			13.0	13.0		13.0	13.0
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0	50.0		48.5	48.5
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		36.0			36.0			48.0	48.0		48.0	48.0
Actuated g/C Ratio		0.40			0.40			0.53	0.53		0.53	0.53
v/c Ratio		0.52			0.75			0.66	0.16		0.81	0.04
Control Delay		27.7			32.2			2.8	0.5		23.2	10.0
Queue Delay		0.0			0.0			0.2	0.0		0.1	0.0
Total Delay		27.7			32.2			3.0	0.5		23.2	10.0
LOS		C			C			A	A		C	A
Approach Delay		27.7			32.2			2.8			23.0	



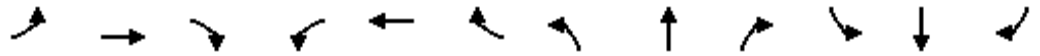


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↑	↑		↑↑	↑	↑	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		1	0		1	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50	50	50	50	50
Trailing Detector (ft)		0			0	0		0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	3014	1306	1627	2969	1287
Flt Permitted										0.176		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	3014	1221	298	2969	1204
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				253			83			8
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	513	78	0	867	272	0	946	141	220	1104	46
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	657	0	0	974	306	0	996	148	237	1187	49
Turn Type						Perm			Perm	pm+pt		Perm
Protected Phases		4			8			2		1		6
Permitted Phases						8			2	6		6
Detector Phases		4			8	8		2	2	1		6
Minimum Initial (s)		4.0			4.0	4.0		4.0	4.0	2.0		4.0
Minimum Split (s)		30.5			31.0	31.0		42.5	42.5	11.0		50.0
Total Split (s)	0.0	32.0	0.0	0.0	32.0	32.0	0.0	44.0	44.0	14.0	58.0	58.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	35.6%	35.6%	0.0%	48.9%	48.9%	15.6%	64.4%	64.4%
Yellow Time (s)		3.5			3.5	3.5		3.5	3.5	3.5		3.5
All-Red Time (s)		1.0			1.0	1.0		0.0	0.0	0.0		0.0
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max	Max	Max	Max	Max
Act Effct Green (s)		29.0			29.0	29.0		41.0	41.0	55.0	55.0	55.0
Actuated g/C Ratio		0.32			0.32	0.32		0.46	0.46	0.61	0.61	0.61
v/c Ratio		0.59			0.85	0.48		0.73	0.25	0.69	0.65	0.07
Control Delay		22.5			37.4	8.2		9.0	1.2	21.4	5.4	2.6
Queue Delay		0.1			0.0	0.0		0.3	0.0	0.0	0.3	0.0
Total Delay		22.6			37.4	8.2		9.3	1.2	21.4	5.7	2.6
LOS		C			D	A		A	A	C	A	A
Approach Delay		22.6			30.5			8.2			8.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1686	0	0	1797	0	0	3064	1354	0	3014	1306
Flt Permitted		0.989			0.831							
Satd. Flow (perm)	0	1667	0	0	1478	0	0	3064	1034	0	3014	998
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			5				29			14
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	6	95	59	67	110	14	0	1172	46	0	1244	24
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	188	0	0	265	0	0	1196	47	0	1309	25
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0	50.0		50.0	50.0
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	56.0	0.0	56.0	56.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	62.2%	0.0%	62.2%	62.2%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		31.0			31.0			53.0	53.0		53.0	53.0
Actuated g/C Ratio		0.34			0.34			0.59	0.59		0.59	0.59
v/c Ratio		0.32			0.52			0.66	0.08		0.74	0.04
Control Delay		25.2			27.5			4.8	0.7		7.9	2.1
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay		25.2			27.5			4.8	0.7		7.9	2.1
LOS		C			C			A	A		A	A
Approach Delay		25.2			27.5			4.7			7.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		79			116			55	0		72	0
Queue Length 95th (ft)		m120			143			80	m1		80	m1
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)								75			75	
Base Capacity (vph)		584			512			1804	621		1775	593
Starvation Cap Reductn		0			0			29	0		3	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.32			0.52			0.67	0.08		0.74	0.04

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 19 (21%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 9.3                      Intersection LOS: A  
 Intersection Capacity Utilization 71.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 907: Vallejo St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1658	0	0	1789	0	0	3014	1306	0	3031	1322
Flt Permitted		0.998			0.952							
Satd. Flow (perm)	0	1653	0	0	1699	0	0	3014	1009	0	3031	1021
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			10				18			16
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	2	85	75	20	115	22	0	1162	30	0	1173	27
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	200	0	0	187	0	0	1174	30	0	1185	27
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0	50.0		50.0	50.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	0.0	54.0	54.0	0.0	54.0	54.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		33.0			33.0			51.0	51.0		51.0	51.0
Actuated g/C Ratio		0.37			0.37			0.57	0.57		0.57	0.57
v/c Ratio		0.32			0.30			0.69	0.05		0.69	0.05
Control Delay		18.8			20.7			10.6	5.8		14.5	7.1
Queue Delay		0.0			0.0			0.0	0.0		0.1	0.0
Total Delay		18.8			20.7			10.6	5.8		14.6	7.1
LOS		B			C			B	A		B	A
Approach Delay		18.8			20.7			10.5			14.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			B			B		
Queue Length 50th (ft)	67			70			88			2		
Queue Length 95th (ft)	m109			112			151			m5		
Internal Link Dist (ft)	381			415			274			242		
Turn Bay Length (ft)							75			75		
Base Capacity (vph)	619			629			1708			580		
Starvation Cap Reductn	0			0			21			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.32			0.30			0.70			0.05		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 15 (17%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 13.5      Intersection LOS: B  
 Intersection Capacity Utilization 60.4%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

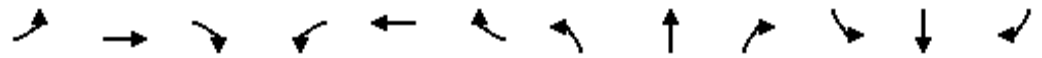
Splits and Phases: 908: Green St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕		↗	↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	1		0	0		0	1		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50	50		50	50
Trailing Detector (ft)	0	0		0	0		0	0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1629	0	0	3376	0	1652	2966	1354	0	3014	1263
Flt Permitted		0.990			0.726		0.171					
Satd. Flow (perm)	0	1611	0	0	2452	0	295	2966	1227	0	3014	1190
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			18				47			46
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	9	309	57	56	195	34	100	1023	63	0	1087	76
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	421	0	0	352	0	101	1033	64	0	1109	78
Turn Type	Perm			Perm			pm+pt		Perm			Perm
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2		2			6
Detector Phases	4	4		4	4		5	2	2		6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0	4.0		4.0	4.0
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	54.5	54.5		50.0	50.0
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	6.0	57.0	57.0	0.0	51.0	51.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	6.7%	63.3%	63.3%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0	0.0		0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		30.0			30.0		54.0	54.0	54.0		48.0	48.0
Actuated g/C Ratio		0.33			0.33		0.60	0.60	0.60		0.53	0.53
v/c Ratio		0.77			0.42		0.45	0.58	0.08		0.69	0.12
Control Delay		40.6			24.0		6.3	1.6	0.2		10.2	4.5
Queue Delay		0.0			0.0		0.0	0.2	0.0		0.1	0.0
Total Delay		40.6			24.0		6.3	1.8	0.2		10.4	4.5
LOS		D			C		A	A	A		B	A
Approach Delay		40.6			24.0			2.1			10.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1735	0	0	1762	0	0	3014	1306	0	3031	1322
Flt Permitted		0.996			0.815							
Satd. Flow (perm)	0	1727	0	0	1437	0	0	3014	998	0	3031	1010
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			11				11			10
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	6	198	83	39	43	14	0	1049	17	0	1041	16
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	346	0	0	114	0	0	1093	18	0	1052	16
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0	18.0		18.0	18.0
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	52.0	0.0	52.0	52.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	57.8%	0.0%	57.8%	57.8%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		35.0			35.0			49.0	49.0		49.0	49.0
Actuated g/C Ratio		0.39			0.39			0.54	0.54		0.54	0.54
v/c Ratio		0.50			0.20			0.67	0.03		0.64	0.03
Control Delay		20.9			17.6			6.6	1.2		4.1	0.1
Queue Delay		0.0			0.0			0.0	0.0		0.1	0.0
Total Delay		20.9			17.6			6.7	1.2		4.1	0.1
LOS		C			B			A	A		A	A
Approach Delay		20.9			17.6			6.6			4.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		50
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	50
Trailing Detector (ft)	0	0		0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1761	0	0	1822	0	0	4513	0	0	3056	1346
Flt Permitted		0.995			0.979							
Satd. Flow (perm)	0	1751	0	0	1783	0	0	4513	0	0	3056	1042
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			5			2				9
Link Speed (mph)		25			25			25				25
Link Distance (ft)		452			487			361				326
Travel Time (s)		12.3			13.3			9.8				8.9
Volume (vph)	5	134	39	7	84	7	0	1061	8	0	1011	18
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	231	0	0	109	0	0	1188	0	0	1087	19
Turn Type	Perm			Perm								Perm
Protected Phases		4			4			2				2
Permitted Phases	4			4								2
Detector Phases	4	4		4	4			2			2	2
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	10.0
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	50.0
Total Split (s)	35.5	35.5	0.0	35.5	35.5	0.0	0.0	54.5	0.0	0.0	54.5	54.5
Total Split (%)	39.4%	39.4%	0.0%	39.4%	39.4%	0.0%	0.0%	60.6%	0.0%	0.0%	60.6%	60.6%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	Max
Act Effct Green (s)		32.5			32.5			51.5			51.5	51.5
Actuated g/C Ratio		0.36			0.36			0.57			0.57	0.57
v/c Ratio		0.36			0.17			0.46			0.62	0.03
Control Delay		19.7			19.6			8.4			17.1	8.6
Queue Delay		0.0			0.0			0.1			0.3	0.0
Total Delay		19.7			19.6			8.5			17.4	8.6
LOS		B			B			A			B	A
Approach Delay		19.7			19.6			8.5			17.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		99			40			61			198	4
Queue Length 95th (ft)		139			77			101			235	m12
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												50
Base Capacity (vph)		644			647			2583			1749	600
Starvation Cap Reductn		0			0			400			191	0
Spillback Cap Reductn		0			0			0			0	0
Storage Cap Reductn		0			0			0			0	0
Reduced v/c Ratio		0.36			0.17			0.54			0.70	0.03

**Intersection Summary**

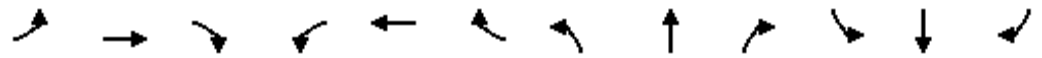
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	13.6
Intersection LOS:	B
Intersection Capacity Utilization:	47.9%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 911: Greenwich St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4818	0	0	4881	0	0	1767	0	0	1768	0
Flt Permitted								0.795			0.989	
Satd. Flow (perm)	0	4818	0	0	4881	0	0	1420	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			6			4			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1072	129	0	1960	40	30	91	8	12	302	43
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1305	0	0	2062	0	0	181	0	0	415	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.44			0.69			0.39			0.73	
Control Delay		9.5			12.6			26.3			35.3	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		9.5			12.6			26.3			35.3	
LOS		A			B			C			D	
Approach Delay		9.5			12.6			26.3			35.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A			B			C			D		
Queue Length 50th (ft)	126			228			77			203		
Queue Length 95th (ft)	157			250			102			293		
Internal Link Dist (ft)	166			429			235			99		
Turn Bay Length (ft)												
Base Capacity (vph)	2961			2985			460			570		
Starvation Cap Reductn	0			84			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.44			0.71			0.39			0.73		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	57 (63%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	14.6
Intersection LOS:	B
Intersection Capacity Utilization:	65.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 922: Lombard St. & Gough St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5060	0	1610	3306	0	0	0	1611
Flt Permitted		0.939					0.950	0.981				
Satd. Flow (perm)	0	4775	0	0	5060	0	1610	3306	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				43
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1090	0	0	1024	34	924	593	43	0	0	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1284	0	0	1138	0	581	1212	0	0	0	69
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	29.0	0.0	48.0	48.0	0.0	0.0	0.0	13.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	32.2%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	14.4%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		42.6			26.0		41.4	41.4				13.6
Actuated g/C Ratio		0.47			0.29		0.46	0.46				0.15
v/c Ratio		0.57			0.78		0.78	0.79				0.25
Control Delay		13.3			12.4		15.2	11.9				20.8
Queue Delay		0.0			0.0		0.3	0.2				0.0
Total Delay		13.3			12.4		15.5	12.1				20.8
LOS		B			B		B	B				C
Approach Delay		13.3			12.4			13.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B				
Queue Length 50th (ft)		103			50		163	190				14
Queue Length 95th (ft)		112			63		273	157				39
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												
Base Capacity (vph)		2259			1465		805	1656				279
Starvation Cap Reductn		0			0		28	63				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.57			0.78		0.75	0.76				0.25

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	59 (66%), Referenced to phase 2:EBTL and 5:SBR, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	13.1
Intersection LOS:	B
Intersection Capacity Utilization	64.5%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 923: Lombard St. & Franklin St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↖	↖			↖	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1781	2601	0	1781	0	4658	1418	0	0	3539	1346
Flt Permitted		0.868					0.950					
Satd. Flow (perm)	0	1498	2601	0	1781	0	3552	1418	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18		8			22				109
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	121	410	602	0	105	14	830	202	41	0	427	123
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	559	634	0	137	0	883	259	0	0	474	137
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.20	0.38		0.24		0.66	0.29			0.45	0.37
Control Delay		129.1	1.1		23.2		14.1	0.8			27.1	10.8
Queue Delay		0.0	0.0		0.0		0.7	0.2			0.2	0.0
Total Delay		129.1	1.1		23.2		14.8	1.0			27.3	10.8
LOS		F	A		C		B	A			C	B
Approach Delay		61.1			23.2			11.7			23.6	



Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12
Grade (%)	0%		0%		0%		0%				
Storage Length (ft)	75				0		0		0	0	0
Storage Lanes	1				3		0		1	3	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)	9		9		15	15		9	15	9	9
Satd. Flow (prot)	3353	1478	3241	1330	1770	3036	2750	0	1652	3610	0
Flt Permitted					0.950	0.950			0.950		
Satd. Flow (perm)	3353	1001	3241	937	1770	3036	2750	0	1652	3610	0
Right Turn on Red	Yes		Yes		No			Yes			Yes
Satd. Flow (RTOR)	38		99				10			18	
Link Speed (mph)	25		25				25				
Link Distance (ft)	258		442				1192				
Travel Time (s)	7.0		12.1				32.5				
Volume (vph)	503	55	983	104	178	773	402	44	134	698	141
Confl. Peds. (#/hr)	327		247				167				140
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			12				16	16			
Mid-Block Traffic (%)	0%		0%				0%				
Lane Group Flow (vph)	529	58	1035	109	187	814	469	0	141	883	0
Turn Type	Perm		Perm		Prot	Prot		Prot custom			
Protected Phases	2		6		7	7	4		8	8	
Permitted Phases	2		6								
Detector Phases	2	2	6	6	7	7	4		8	8	
Minimum Initial (s)	1.0	1.0	2.0	2.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	42.0	42.0	42.0	42.0	40.0	40.0	40.0		37.0	37.0	
Total Split (s)	43.0	43.0	43.0	43.0	40.0	40.0	40.0	0.0	37.0	37.0	0.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	33.3%	33.3%	33.3%	0.0%	30.8%	30.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.3	3.3	3.3		3.3	3.3	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max	Max	Max	Max	Max	Max		Max	Max	
Act Effct Green (s)	40.0	40.0	40.0	40.0	37.0	37.0	37.0		34.0	34.0	
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.31	0.31	0.31		0.28	0.28	
v/c Ratio	0.47	0.16	0.96	0.29	0.34	0.87	0.55		0.30	0.85	
Control Delay	33.4	14.1	58.6	9.0	34.3	50.5	36.7		35.9	49.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	33.4	14.1	58.6	9.0	34.3	50.5	36.7		35.9	49.0	
LOS	C	B	E	A	C	D	D		D	D	
Approach Delay	31.5		53.9				44.1				







Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1725	0	0	1611	3433	1754	0	3274	0	0
Flt Permitted		0.955				0.950					
Satd. Flow (perm)	0	1725	0	0	1275	3433	1754	0	3274	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		2			171		5		7		
Link Speed (mph)		25					25		25		
Link Distance (ft)		489					591		244		
Travel Time (s)		13.3					16.1		6.7		
Volume (vph)	38	66	2	6	12	1410	516	44	646	32	39
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	117	0	0	13	1484	589	0	755	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	38.0	44.0	37.5	0.0	31.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	42.2%	48.9%	41.7%	0.0%	35.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			35.0	41.0	34.5		28.5		
Actuated g/C Ratio		0.13			0.39	0.46	0.38		0.32		
v/c Ratio		0.53			0.02	0.95	0.87		0.72		
Control Delay		45.7			0.1	21.8	52.1		42.9		
Queue Delay		0.0			0.0	0.0	0.0		0.0		
Total Delay		45.7			0.1	21.8	52.1		42.9		
LOS		D			A	C	D		D		
Approach Delay		45.7					30.4		42.9		



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS		D					C		D		
Queue Length 50th (ft)		63			0	457	363		219		
Queue Length 95th (ft)		m119			0	m#558	m410		281		
Internal Link Dist (ft)		409					511		164		
Turn Bay Length (ft)											
Base Capacity (vph)		222			600	1564	675		1042		
Starvation Cap Reductn		0			0	0	0		0		
Spillback Cap Reductn		0			0	0	0		0		
Storage Cap Reductn		0			0	0	0		0		
Reduced v/c Ratio		0.53			0.02	0.95	0.87		0.72		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 62 (69%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 34.1                      Intersection LOS: C  
 Intersection Capacity Utilization 101.1%                      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1350: Page St & Market St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												23
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		404			489			352			353	
Travel Time (s)		11.0			13.3			9.6			9.6	
Volume (vph)	0	36	0	0	32	0	0	0	0	76	1830	121
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	38	0	0	34	0	0	0	0	0	2133	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.05			0.05							0.60
Control Delay		18.2			0.2							4.2
Queue Delay		0.0			0.0							0.5
Total Delay		18.2			0.2							4.7
LOS		B			A							A
Approach Delay		18.2			0.2							4.7





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3314	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3314	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Link Speed (mph)		25				25		25	
Link Distance (ft)		352				649		591	
Travel Time (s)		9.6				17.7		16.1	
Volume (vph)	25	803	925	77	101	1844	87	595	57
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	871	1055	0	106	2033	0	686	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.87	0.79		0.18	0.89		0.45	
Control Delay		16.8	9.4		4.8	28.9		1.6	
Queue Delay		1.6	0.1		0.0	0.4		0.0	
Total Delay		18.4	9.5		4.9	29.3		1.6	
LOS		B	A		A	C		A	
Approach Delay		13.5				29.3		1.6	

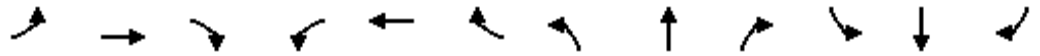




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	58	20	30	86	16	4	111	8	21	504	21
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	5	67	23	32	91	17	5	150	11	23	554	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	94	139	166	600
Volume Left (vph)	5	32	5	23
Volume Right (vph)	23	17	11	23
Hadj (s)	-0.10	0.01	0.00	0.02
Departure Headway (s)	6.1	6.1	5.5	4.9
Degree Utilization, x	0.16	0.23	0.25	0.82
Capacity (veh/h)	536	541	608	600
Control Delay (s)	10.2	10.9	10.3	26.0
Approach Delay (s)	10.2	10.9	10.3	26.0
Approach LOS	B	B	B	D

Intersection Summary			
Delay		19.8	
HCM Level of Service		C	
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	167	45	36	195	15	12	115	4	20	465	44
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	14	190	51	47	253	19	16	151	5	23	528	50

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	255	319	172	601
Volume Left (vph)	14	47	16	23
Volume Right (vph)	51	19	5	50
Hadj (s)	-0.08	0.03	0.03	-0.01
Departure Headway (s)	7.2	7.1	7.4	6.5
Degree Utilization, x	0.51	0.63	0.36	1.08
Capacity (veh/h)	473	492	441	545
Control Delay (s)	17.4	21.4	14.5	86.3
Approach Delay (s)	17.4	21.4	14.5	86.3
Approach LOS	C	C	B	F

Intersection Summary			
Delay		48.7	
HCM Level of Service		E	
Intersection Capacity Utilization	62.4%		ICU Level of Service B
Analysis Period (min)		15	





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	39	13	90	34	22	859
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	46	15	114	43	23	904
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.69	0.97			0.97	
vC, conflicting volume	1086	135			157	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1051	105			128	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	73	98			98	
cM capacity (veh/h)	170	917			1409	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	46	15	157	927
Volume Left	46	0	0	23
Volume Right	0	15	43	0
cSH	170	917	1700	1409
Volume to Capacity	0.27	0.02	0.09	0.02
Queue Length 95th (ft)	26	1	0	1
Control Delay (s)	34.0	9.0	0.0	0.4
Lane LOS	D	A		A
Approach Delay (s)	27.7		0.0	0.4
Approach LOS	D			

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization		66.6%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	106	49	16	214	8	18	109	7	22	384	25
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	14	123	57	17	233	9	23	140	9	27	468	30

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	194	259	172	526
Volume Left (vph)	14	17	23	27
Volume Right (vph)	57	9	9	30
Hadj (s)	-0.13	0.03	0.03	0.01
Departure Headway (s)	6.6	6.6	6.5	5.8
Degree Utilization, x	0.35	0.47	0.31	0.85
Capacity (veh/h)	501	508	493	607
Control Delay (s)	13.1	15.2	12.5	32.8
Approach Delay (s)	13.1	15.2	12.5	32.8
Approach LOS	B	C	B	D

Intersection Summary			
Delay		22.5	
HCM Level of Service		C	
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	102	51	31	133	14	18	113	17	22	377	50
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	9	129	65	44	190	20	24	149	22	24	419	56

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	203	254	195	499
Volume Left (vph)	9	44	24	24
Volume Right (vph)	65	20	22	56
Hadj (s)	-0.15	0.02	-0.01	-0.02
Departure Headway (s)	6.5	6.6	6.5	5.8
Degree Utilization, x	0.37	0.46	0.35	0.81
Capacity (veh/h)	492	488	488	499
Control Delay (s)	13.3	15.1	12.9	28.8
Approach Delay (s)	13.3	15.1	12.9	28.8
Approach LOS	B	C	B	D

Intersection Summary			
Delay		20.3	
HCM Level of Service		C	
Intersection Capacity Utilization	54.2%		ICU Level of Service A
Analysis Period (min)		15	

# 2015 BUILD ALTERNATIVE 3&4 CENTER LANE BRT





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.465								0.950		
Satd. Flow (perm)	866	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			129				14		364	35	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	7	0	98	0	0	0	819	72	706	180	94
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	7	0	103	0	0	0	938	0	743	288	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	39.0	0.0	39.0	0.0	0.0	0.0	51.0	0.0	39.0	39.0	0.0
Total Split (%)	43.3%	0.0%	43.3%	0.0%	0.0%	0.0%	56.7%	0.0%	43.3%	43.3%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	36.0		36.0				48.0		36.0	36.0	
Actuated g/C Ratio	0.40		0.40				0.53		0.40	0.40	
v/c Ratio	0.02		0.14				0.63		0.34	0.51	
Control Delay	16.7		2.5				3.0		9.5	21.5	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	16.7		2.5				3.0		9.5	21.5	
LOS	B		A				A		A	C	
Approach Delay									12.9		

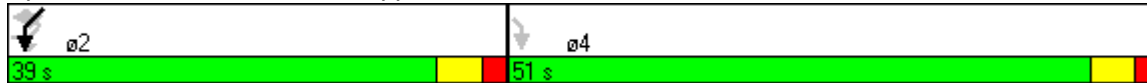


Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Approach LOS										B	
Queue Length 50th (ft)	2		0				28		48	105	
Queue Length 95th (ft)	11		20				m31		74	183	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	346		711				1493		2214	566	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	
Storage Cap Reductn	0		0				0		0	0	
Reduced v/c Ratio	0.02		0.14				0.63		0.34	0.51	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 2 (2%), Referenced to phase 2:EBSWL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 7.9      Intersection LOS: A  
 Intersection Capacity Utilization 54.8%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: McCoppin St. & Otis St.





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.930					0.950		
Satd. Flow (perm)	4995	0	0	4729	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				376		30		12		2
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	561	38	13	1331	702	570	222	84	841	530	168
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	631	0	0	1415	739	600	234	0	973	558	177
Turn Type			Perm		Perm		custom	custom	custom	custom	Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.40			0.96	1.22	0.56	0.63		0.96	0.28	0.30
Control Delay	24.9			47.4	132.0	29.1	32.7		44.0	4.1	5.0
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	24.9			47.4	132.0	29.1	32.7		44.0	4.1	5.0
LOS	C			D	F	C	C		D	A	A
Approach Delay	24.9			76.4						26.9	



Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR	
Approach LOS	C			E						C		
Queue Length 50th (ft)	100			287	~364	125	100		252	30	18	
Queue Length 95th (ft)	134			#389	#585	171	183		#385	42	m36	
Internal Link Dist (ft)	246			307						534		
Turn Bay Length (ft)											50	
Base Capacity (vph)	1562			1471	604	1071	370		1012	2026	590	
Starvation Cap Reductn	0			0	0	0	0		0	0	0	
Spillback Cap Reductn	0			0	0	0	0		0	0	0	
Storage Cap Reductn	0			0	0	0	0		0	0	0	
Reduced v/c Ratio	0.40			0.96	1.22	0.56	0.63		0.96	0.28	0.30	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 47.2                      Intersection LOS: D  
 Intersection Capacity Utilization 101.8%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 18: Duboce St. &**







Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑		↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		65	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3353	1243	0	3353	1583	0	1611	0	0	1627	0
Flt Permitted												
Satd. Flow (perm)	0	3353	817	0	3353	748	0	1611	0	0	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			1		2				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1390	119	0	1023	176	0	476	36	0	540	29
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			23									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1404	120	0	1124	193	0	575	0	0	625	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	47.8%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		0.94	0.33		0.75	0.58		0.73			0.79	
Control Delay		38.0	17.7		34.7	36.6		25.8			11.6	
Queue Delay		0.0	0.0		0.3	0.0		0.0			0.0	
Total Delay		38.0	17.7		35.0	36.6		25.8			11.6	
LOS		D	B		C	D		C			B	
Approach Delay		36.4			35.2			25.8			11.6	

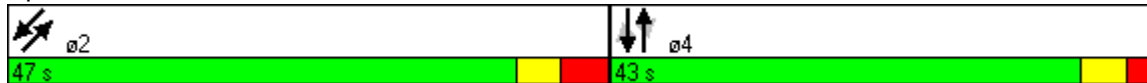


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		D			D			C			B	
Queue Length 50th (ft)		388	39		269	87		352			37	
Queue Length 95th (ft)		#547	82		324	m139		m437			#47	
Internal Link Dist (ft)		306			37			263			106	
Turn Bay Length (ft)			65			115						
Base Capacity (vph)		1490	369		1490	333		789			795	
Starvation Cap Reductn		0	0		66	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.94	0.33		0.79	0.58		0.73			0.79	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 30.7      Intersection LOS: C  
 Intersection Capacity Utilization 80.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.





Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations	↑↑↑	↑	↓	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					3	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	734	0	888	574	108	569
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	773	0	935	604	114	599
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	37.0		37.0	47.0	47.0	47.0
Actuated g/C Ratio	0.41		0.41	0.52	0.52	0.52
v/c Ratio	0.40		0.64	0.62	0.14	0.64
Control Delay	4.4		23.7	22.0	15.9	19.3
Queue Delay	0.0		2.0	0.0	0.0	1.0
Total Delay	4.4		25.7	22.0	15.9	20.2
LOS	A		C	C	B	C
Approach Delay			25.7	21.1		20.2

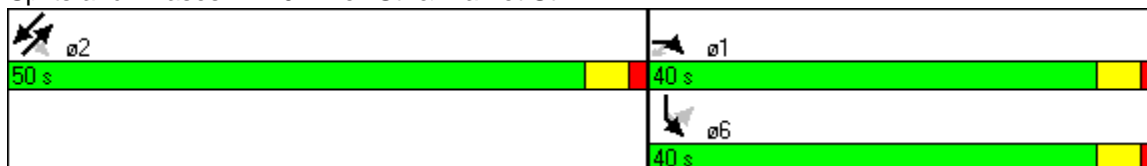


Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Approach LOS			C	C		C
Queue Length 50th (ft)	35		207	219	37	231
Queue Length 95th (ft)	m42		270	335	m63	345
Internal Link Dist (ft)			300	390		455
Turn Bay Length (ft)						
Base Capacity (vph)	1953		1455	973	828	941
Starvation Cap Reductn	0		352	0	0	139
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.40		0.85	0.62	0.14	0.75

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 2:NESW, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	18.1
Intersection LOS:	B
Intersection Capacity Utilization:	62.2%
ICU Level of Service:	B
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	
! Phase conflict between lane groups.	

Splits and Phases: 102: Fell St. & Market St.





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>577</del>	<del>778</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1535	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1535	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			36			5		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	103	1112	1836	168	574	466	84	112
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1279	2110	0	604	697	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.53	0.87		0.92	1.13		
Control Delay		11.2	18.2		41.1	87.8		
Queue Delay		0.0	0.0		0.0	12.7		
Total Delay		11.2	18.2		41.1	100.6		
LOS		B	B		D	F		
Approach Delay		15.6			41.1	100.6		





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22							2			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	43	2016	135	0	0	0	0	446	296	0	527	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2309	0	0	0	0	0	469	312	0	555	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.00						0.68	0.45		0.67	
Control Delay		28.1						21.0	16.9		18.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		28.1						21.0	16.9		18.4	
LOS		C						C	B		B	
Approach Delay		28.1						19.3			18.4	

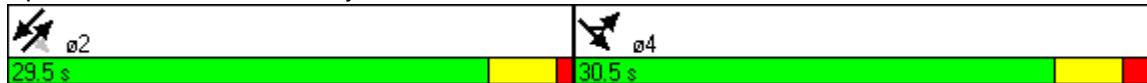


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		C						B			B	
Queue Length 50th (ft)		202						168	104		151	
Queue Length 95th (ft)		#408						m191	m119		251	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2319						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.00						0.68	0.45		0.67	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 24.7      Intersection LOS: C  
 Intersection Capacity Utilization 77.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		13										7
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			364			200	
Travel Time (s)		10.3			6.7			9.9			5.5	
Volume (vph)	0	1210	243	0	0	0	0	0	0	58	1787	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1562	0	0	0	0	0	0	0	0	1921	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		32.0									52.0	
Actuated g/C Ratio		0.36									0.58	
v/c Ratio		0.89									0.88	
Control Delay		35.1									10.6	
Queue Delay		0.0									0.0	
Total Delay		35.1									10.6	
LOS		D									B	
Approach Delay		35.1									10.6	



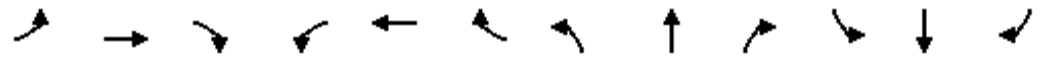
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D										B
Queue Length 50th (ft)		300										171
Queue Length 95th (ft)		#375										356
Internal Link Dist (ft)		296			165			284				120
Turn Bay Length (ft)												
Base Capacity (vph)		1750										2178
Starvation Cap Reductn		0										0
Spillback Cap Reductn		0										0
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.89										0.88

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 87 (97%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 21.6                      Intersection LOS: C  
 Intersection Capacity Utilization 62.2%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘↙					↖		↗↘↙				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	39					14						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			408			169	
Travel Time (s)		6.2			6.0			11.1			4.6	
Volume (vph)	1268	0	0	0	0	42	0	1512	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1349	0	0	0	0	49	0	1559	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	43.0	0.0	0.0	0.0	0.0	43.0	0.0	47.0	0.0	0.0	0.0	0.0
Total Split (%)	47.8%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%	52.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	40.0					40.0		44.0				
Actuated g/C Ratio	0.44					0.44		0.49				
v/c Ratio	0.67					0.08		0.70				
Control Delay	2.1					11.6		1.9				
Queue Delay	0.0					0.0		0.3				
Total Delay	2.1					11.6		2.2				
LOS	A					B		A				
Approach Delay								2.2				

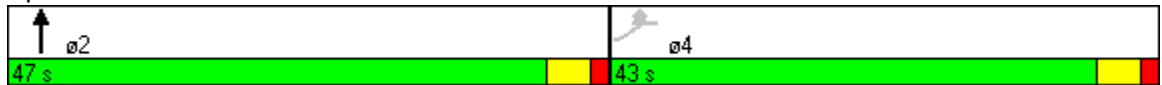


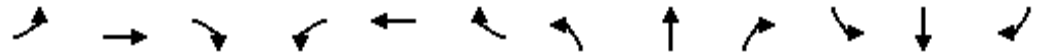
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									A				
Queue Length 50th (ft)	9						11	17					
Queue Length 95th (ft)	m10						29	m19					
Internal Link Dist (ft)	146			141			328			89			
Turn Bay Length (ft)													
Base Capacity (vph)	2018						652	2238					
Starvation Cap Reductn	0						0	179					
Spillback Cap Reductn	0						0	31					
Storage Cap Reductn	0						0	0					
Reduced v/c Ratio	0.67						0.08	0.76					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 18 (20%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 2.3      Intersection LOS: A  
 Intersection Capacity Utilization 70.3%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3441	0	0	0	0	0	4061	1117
Flt Permitted					0.990						0.998	
Satd. Flow (perm)	0	0	0	0	3441	0	0	0	0	0	4061	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											59	59
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	91	359	0	0	0	0	97	1787	1093
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	577	0	0	0	0	0	2414	655
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	22.0	22.0	0.0	0.0	0.0	0.0	68.0	68.0	68.0
Total Split (%)	0.0%	0.0%	0.0%	24.4%	24.4%	0.0%	0.0%	0.0%	0.0%	75.6%	75.6%	75.6%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					19.0						65.0	65.0
Actuated g/C Ratio					0.21						0.72	0.72
v/c Ratio					0.79						0.82	0.80
Control Delay					45.7						4.0	6.0
Queue Delay					0.0						1.4	1.9
Total Delay					45.7						5.4	7.8
LOS					D						A	A
Approach Delay					45.7						5.9	

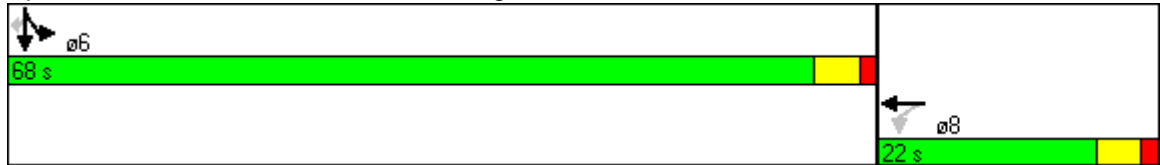


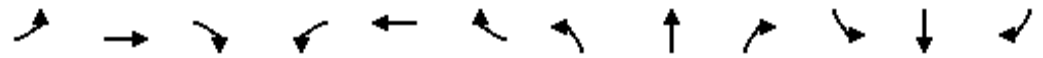
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D						A	
Queue Length 50th (ft)					147						115	73
Queue Length 95th (ft)					172						m101	m63
Internal Link Dist (ft)		289			371			112			228	
Turn Bay Length (ft)												
Base Capacity (vph)					726						2949	823
Starvation Cap Reductn					0						320	68
Spillback Cap Reductn					0						0	0
Storage Cap Reductn					0						0	0
Reduced v/c Ratio					0.79						0.92	0.87

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 12.2      Intersection LOS: B  
 Intersection Capacity Utilization 64.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 406: Fell St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3479	0	0	1863	0	0	4758	1137	0	0	0
Flt Permitted		0.872						0.990				
Satd. Flow (perm)	0	3086	0	0	1863	0	0	4758	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									619			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	33	64	0	0	37	0	413	1659	594	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	108	0	0	39	0	0	2158	619	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	26.0	26.0	0.0	0.0	26.0	0.0	64.0	64.0	64.0	0.0	0.0	0.0
Total Split (%)	28.9%	28.9%	0.0%	0.0%	28.9%	0.0%	71.1%	71.1%	71.1%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		23.0			23.0			61.0	61.0			
Actuated g/C Ratio		0.26			0.26			0.68	0.68			
v/c Ratio		0.14			0.08			0.67	0.64			
Control Delay		22.5			11.7			6.1	2.8			
Queue Delay		0.0			0.0			1.1	0.5			
Total Delay		22.5			11.7			7.2	3.3			
LOS		C			B			A	A			
Approach Delay		22.5			11.7			6.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		19			15			154	9			
Queue Length 95th (ft)		m26			m23			227	16			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		789			476			3225	970			
Starvation Cap Reductn		0			0			670	91			
Spillback Cap Reductn		0			0			747	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.14			0.08			0.87	0.70			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 37 (41%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 7.0                      Intersection LOS: A  
 Intersection Capacity Utilization 60.0%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 407: Fell St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕		↕	↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3468	0	0	0	0	0	3063	0	1770	3153	0
Flt Permitted		0.995								0.950		
Satd. Flow (perm)	0	3468	0	0	0	0	0	3063	0	1770	3153	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						5			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	65	565	28	0	0	0	0	1371	48	121	1087	37
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	723	0	0	0	0	0	1462	0	126	1171	0
Turn Type	Split									Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	35.0	35.0						42.0		8.1	50.0	
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	44.9	0.0	10.1	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	49.9%	0.0%	11.2%	61.1%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.1	2.1						0.9		0.9	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.0						41.9		7.1	52.0	
Actuated g/C Ratio		0.36						0.47		0.08	0.58	
v/c Ratio		0.58						1.02		0.90	0.64	
Control Delay		27.3						27.5		37.0	0.9	
Queue Delay		0.0						0.0		0.0	1.0	
Total Delay		27.3						27.5		37.0	1.8	
LOS		C						C		D	A	
Approach Delay		27.3						27.5			5.3	

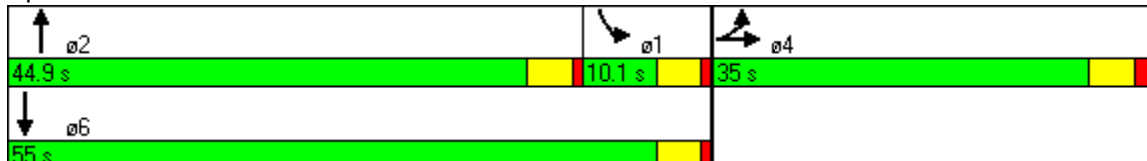


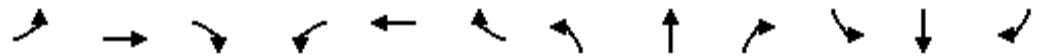
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						C			A	
Queue Length 50th (ft)		203						~470		76	12	
Queue Length 95th (ft)		256						m#506		m73	m10	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)										110		
Base Capacity (vph)		1236						1429		140	1824	
Starvation Cap Reductn		0						0		0	366	
Spillback Cap Reductn		0						0		0	2	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.58						1.02		0.90	0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 19.2                      Intersection LOS: B  
 Intersection Capacity Utilization 83.1%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1639	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1639	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24									3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	76	136	608	412	0	0	0	0	152	2233	39
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	276	0	633	429	0	0	0	0	0	2499	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	26.0	45.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	28.9%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		42.0	42.0						42.0	
Actuated g/C Ratio		0.18		0.47	0.47						0.47	
v/c Ratio		0.89		1.18	0.51						1.13	
Control Delay		63.9		116.5	4.7						76.3	
Queue Delay		0.0		0.0	0.3						8.6	
Total Delay		63.9		116.5	5.0						84.9	
LOS		E		F	A						F	
Approach Delay		63.9			71.5						84.9	

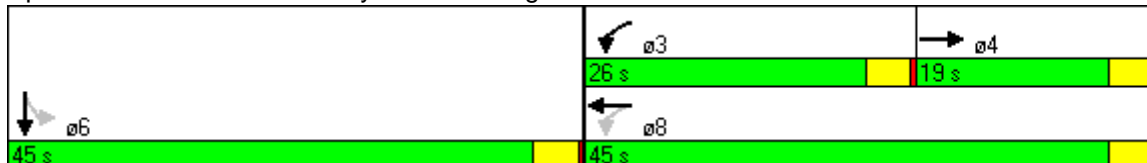


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			E						F	
Queue Length 50th (ft)		142		~372	31						~617	
Queue Length 95th (ft)		#216		m#553	m38						#692	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)		311		535	838						2221	
Starvation Cap Reductn		0		0	95						38	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.89		1.18	0.58						1.14	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 130  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 79.7      Intersection LOS: E  
 Intersection Capacity Utilization 103.1%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3239	1441	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	1796	0	0	3239	1441	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6	6						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	228	0	0	917	687	103	1589	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	240	0	0	1216	528	0	1880	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	45.0	0.0	0.0	45.0	45.0	45.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	50.0%	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		42.0			42.0	42.0		42.0				
Actuated g/C Ratio		0.47			0.47	0.47		0.47				
v/c Ratio		0.29			0.80	0.78		0.84				
Control Delay		18.9			3.4	4.5		16.1				
Queue Delay		0.0			0.3	0.1		1.9				
Total Delay		18.9			3.7	4.7		18.0				
LOS		B			A	A		B				
Approach Delay		18.9			4.0			18.0				

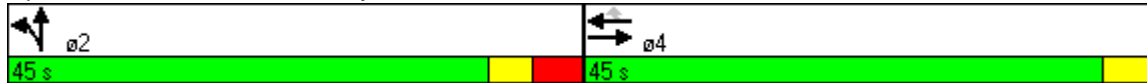


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			A			B					
Queue Length 50th (ft)	106			48			38			273		
Queue Length 95th (ft)	m104			m46			m37			363		
Internal Link Dist (ft)	378			401			243			95		
Turn Bay Length (ft)												
Base Capacity (vph)	838			1515			676			2228		
Starvation Cap Reductn	0			48			6			207		
Spillback Cap Reductn	0			0			0			30		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.29			0.83			0.79			0.93		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 11.7      Intersection LOS: B  
 Intersection Capacity Utilization 103.1%      ICU Level of Service G  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 413: Hayes St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑		↑	↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50		50	50			50	
Trailing Detector (ft)		0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	4567	0	1770	3352	0	0	2985	0
Flt Permitted					0.933		0.950					
Satd. Flow (perm)	0	1818	0	0	4265	0	1770	3352	0	0	2985	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			40			3			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	187	41	22	1243	211	275	1182	22	0	1182	86
Confl. Peds. (#/hr)							224					449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	240	0	0	1553	0	286	1254	0	0	1321	0
Turn Type				Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases				4								
Detector Phases		4		4	4		5	2			6	
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0			39.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	15.0	55.0	0.0	0.0	40.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	16.7%	61.1%	0.0%	0.0%	44.4%	0.0%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		32.0			32.0		12.0	52.0			37.0	
Actuated g/C Ratio		0.36			0.36		0.13	0.58			0.41	
v/c Ratio		0.37			1.01		1.21	0.65			1.07	
Control Delay		6.0			53.9		131.4	1.7			59.2	
Queue Delay		0.0			0.0		0.0	0.6			14.9	
Total Delay		6.0			53.9		131.4	2.3			74.1	
LOS		A			D		F	A			E	
Approach Delay		6.0			53.9			26.3			74.1	

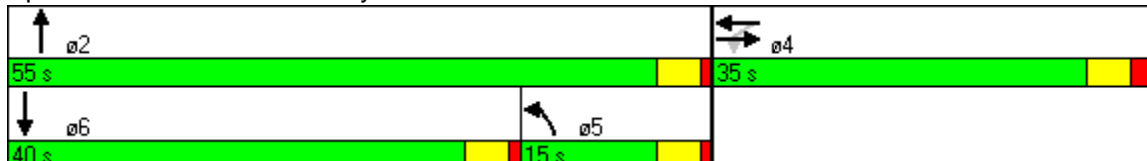


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			D			C			E	
Queue Length 50th (ft)		0			~317		~197	24			~422	
Queue Length 95th (ft)		0			#432		m#206	m24			m#429	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)							172					
Base Capacity (vph)		655			1542		236	1938			1233	
Starvation Cap Reductn		0			0		0	324			40	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.37			1.01		1.21	0.78			1.11	

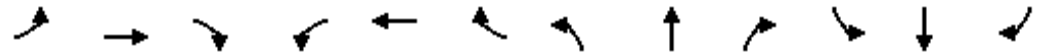
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 48.0 Intersection LOS: D  
 Intersection Capacity Utilization 110.9% ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			103		33							25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	182	89	1408	0	0	0	0	0	619	68
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	192	0	1576	0	0	0	0	0	652	72
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.21		0.53						0.50	0.13
Control Delay			4.3		6.4						9.9	6.0
Queue Delay			0.0		0.0						0.1	0.0
Total Delay			4.3		6.4						9.9	6.0
LOS			A		A						A	A
Approach Delay					6.4						9.5	

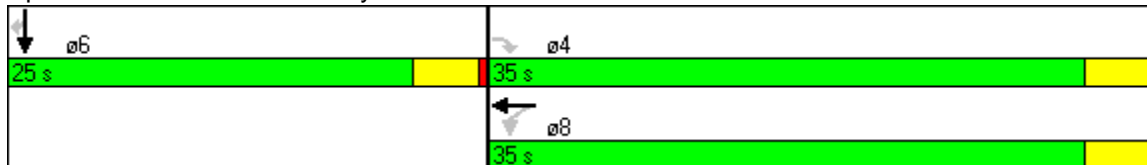


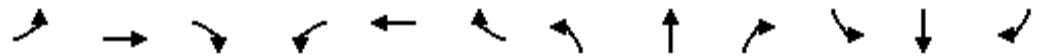
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						A			A			
Queue Length 50th (ft)			14	69					36	1		
Queue Length 95th (ft)			41	m78					74	m17		
Internal Link Dist (ft)	153				70		300			82		
Turn Bay Length (ft)												
Base Capacity (vph)			907		2979					1298		538
Starvation Cap Reductn			0		0					0		0
Spillback Cap Reductn			11		8					54		0
Storage Cap Reductn			0		0					0		0
Reduced v/c Ratio			0.21		0.53					0.52		0.13

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.53  
 Intersection Signal Delay: 7.1                      Intersection LOS: A  
 Intersection Capacity Utilization 60.1%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖			↖			↖	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3371	0	0	0	0	0	5050	0
Flt Permitted					0.561						0.997	
Satd. Flow (perm)	0	1749	0	0	1950	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	267	64	243	152	0	0	0	0	135	2117	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	356	0	0	439	0	0	0	0	0	2386	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0							53.0
Actuated g/C Ratio		0.34			0.34							0.59
v/c Ratio		0.59			1.27dl							0.80
Control Delay		28.6			10.9							5.1
Queue Delay		0.0			0.0							11.2
Total Delay		28.6			10.9							16.3
LOS		C			B							B
Approach Delay		28.6			10.9							16.3

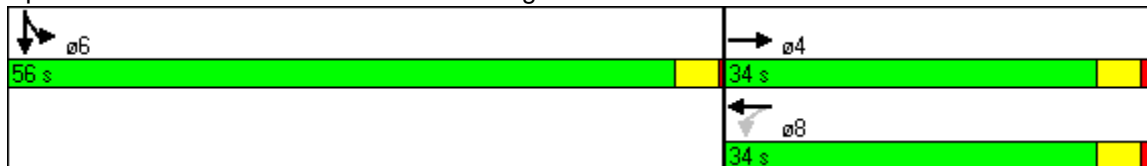


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						B	
Queue Length 50th (ft)		162			23						43	
Queue Length 95th (ft)		252			m39						46	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		606			672						2977	
Starvation Cap Reductn		0			0						213	
Spillback Cap Reductn		1			0						608	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.59			0.65						1.01	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 16.9      Intersection LOS: B  
 Intersection Capacity Utilization 86.4%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3236	0	0	5050	0	0	0	0
Flt Permitted		0.707						0.999				
Satd. Flow (perm)	0	2457	0	0	3236	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	59	343	0	0	363	306	32	2181	93	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	451	0	0	697	0	0	2377	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.55			0.64			0.78				
Control Delay		22.5			10.0			7.1				
Queue Delay		0.0			0.0			1.6				
Total Delay		22.5			10.0			8.8				
LOS		C			B			A				
Approach Delay		22.5			10.0			8.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		72			79			150				
Queue Length 95th (ft)		m124			m94			171				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		819			1083			3035				
Starvation Cap Reductn		0			0			326				
Spillback Cap Reductn		0			0			452				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.55			0.64			0.92				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 10.8      Intersection LOS: B  
 Intersection Capacity Utilization 85.9%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3321	0	0	3459	0	1770	3072	0	0	2854	0
Flt Permitted		0.947			0.893		0.950					
Satd. Flow (perm)	0	3148	0	0	3098	0	1770	3072	0	0	2854	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			1			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	6	393	37	33	453	22	160	1188	66	0	1198	56
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	507	0	0	564	0	170	1334	0	0	1306	0
Turn Type	Perm			Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		3.8	4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0		9.0	31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	12.0	56.0	0.0	0.0	44.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	13.3%	62.2%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1		1.7	1.7			1.7	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		31.0			31.0		9.0	53.0			41.0	
Actuated g/C Ratio		0.34			0.34		0.10	0.59			0.46	
v/c Ratio		0.46			0.53		0.96	0.74			1.00	
Control Delay		26.6			25.6		81.3	7.8			55.7	
Queue Delay		0.0			0.0		0.0	0.1			0.0	
Total Delay		26.6			25.6		81.3	7.9			55.7	
LOS		C			C		F	A			E	
Approach Delay		26.6			25.6			16.2			55.7	

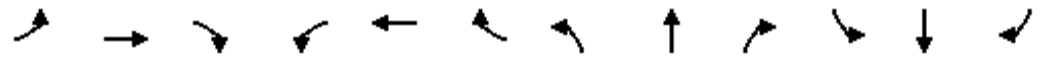






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3138	0
Flt Permitted		0.921			0.914						0.996	
Satd. Flow (perm)	0	2940	1377	0	2888	0	0	0	0	0	3138	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128		16						22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	19	318	122	37	449	34	0	0	0	57	546	59
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	355	128	0	548	0	0	0	0	0	697	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.27	0.19		0.42						0.49	
Control Delay		11.0	3.0		8.7						10.4	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.0	3.0		8.7						10.4	
LOS		B	A		A						B	
Approach Delay		8.9			8.7						10.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1777	0	0	4837	0	1770	0	1267
Flt Permitted	0.559							0.992		0.133		
Satd. Flow (perm)	972	1863	0	0	1777	0	0	4837	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			20				84
Link Speed (mph)		25			25			25				25
Link Distance (ft)		481			198			210				358
Travel Time (s)		13.1			5.4			5.7				9.8
Volume (vph)	160	215	0	0	143	73	297	1485	99	15	0	80
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	168	226	0	0	228	0	0	1980	0	16	0	84
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.43	0.30			0.32			0.82		0.13		0.12
Control Delay	14.4	10.4			14.8			3.1		5.3		1.6
Queue Delay	0.0	0.0			0.0			0.1		0.0		0.0
Total Delay	14.4	10.4			14.8			3.2		5.3		1.6
LOS	B	B			B			A		A		A
Approach Delay		12.1			14.8			3.2				

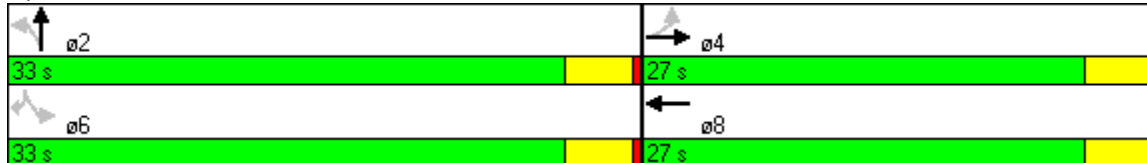


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			B			A					
Queue Length 50th (ft)	51	65			44			19		2		0
Queue Length 95th (ft)	107	120			m65			m26		7		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	389	745			720			2429		124		676
Starvation Cap Reductn	0	0			0			29		0		0
Spillback Cap Reductn	0	0			0			0		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.43	0.30			0.32			0.82		0.13		0.12

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 16 (27%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 5.4                      Intersection LOS: A  
 Intersection Capacity Utilization 70.0%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1792	0	0	1833	0	0	0	0	0	5050	0
Flt Permitted					0.565						0.999	
Satd. Flow (perm)	0	1792	0	0	1052	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	272	105	66	141	0	0	0	0	35	2144	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	419	0	0	238	0	0	0	0	0	2389	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.65			0.64							0.82
Control Delay		29.9			19.6							4.8
Queue Delay		0.0			0.0							0.4
Total Delay		29.9			19.6							5.2
LOS		C			B							A
Approach Delay		29.9			19.6							5.2

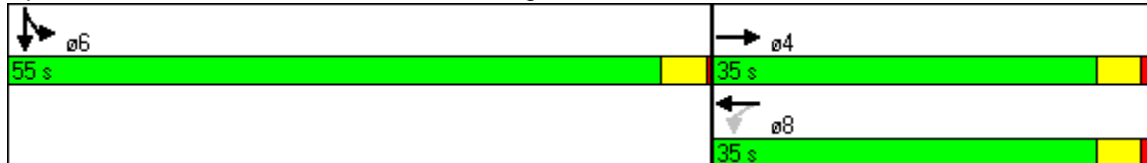


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						A	
Queue Length 50th (ft)		195			111						36	
Queue Length 95th (ft)		298			m119						39	
Internal Link Dist (ft)		407			140			272			253	
Turn Bay Length (ft)												
Base Capacity (vph)		640			374						2923	
Starvation Cap Reductn		0			0						160	
Spillback Cap Reductn		0			0						134	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.65			0.64						0.86	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 9.7                      Intersection LOS: A  
 Intersection Capacity Utilization 85.9%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 428: Fulton St. & Gough St.





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖			↕↕↕		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	307	0	207	2339	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	404	0	0	2624	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	31.0	0.0	59.0	59.0	0.0	0.0
Total Split (%)	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	28.0			56.0		
Actuated g/C Ratio	0.31			0.62		
v/c Ratio	0.73			0.88		
Control Delay	21.7			11.7		
Queue Delay	0.0			1.0		
Total Delay	21.7			12.7		
LOS	C			B		
Approach Delay	21.7			12.7		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	C			B		
Queue Length 50th (ft)	215			405		
Queue Length 95th (ft)	177			431		
Internal Link Dist (ft)	163			265	254	
Turn Bay Length (ft)						
Base Capacity (vph)	551			2989		
Starvation Cap Reductn	0			156		
Spillback Cap Reductn	0			67		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.73			0.93		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	73 (81%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization	83.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 429: Fulton St. & Franklin St.

ø2	ø4
59 s	31 s





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1897	0	4891	0	0	1749
Flt Permitted	0.982					0.662
Satd. Flow (perm)	1897	0	4891	0	0	1173
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	10		13			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	32	54	1660	58	22	63
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	91	0	1808	0	0	89
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.12		0.71			0.15
Control Delay	11.5		4.7			6.4
Queue Delay	0.0		0.1			0.0
Total Delay	11.5		4.8			6.4
LOS	B		A			A
Approach Delay	11.5		4.8			6.4



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	B		A		A	
Queue Length 50th (ft)	18		42			22
Queue Length 95th (ft)	43		58			m36
Internal Link Dist (ft)	152		278			255
Turn Bay Length (ft)						
Base Capacity (vph)	733		2533			606
Starvation Cap Reductn	0		117			0
Spillback Cap Reductn	0		8			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.12		0.75			0.15

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	23 (38%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	5.2
Intersection LOS:	A
Intersection Capacity Utilization	45.1%
ICU Level of Service	A
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 430: Fulton St. & Larkin St.**





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		22			24	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	31	0	0	1733	86
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	33	0	0	1915	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.07			0.68	
Control Delay		10.3			3.1	
Queue Delay		0.0			0.1	
Total Delay		10.3			3.2	
LOS		B			A	
Approach Delay					3.2	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		3			30	
Queue Length 95th (ft)		20			52	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		446			2814	
Starvation Cap Reductn		0			79	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.07			0.70	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	32 (53%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	3.3
Intersection LOS:	A
Intersection Capacity Utilization	45.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↕						↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1723	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.618						0.998	
Satd. Flow (perm)	0	1723	0	0	2187	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	302	42	108	316	0	0	0	0	90	2119	100
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	410	0	0	447	0	0	0	0	0	2456	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						18.0	18.0
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0							53.0
Actuated g/C Ratio		0.34			0.34							0.59
v/c Ratio		0.69			0.59							0.83
Control Delay		32.1			37.6							6.3
Queue Delay		0.0			0.0							1.2
Total Delay		32.1			37.6							7.6
LOS		C			D							A
Approach Delay		32.1			37.6							7.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C				D						A
Queue Length 50th (ft)		195				142						98
Queue Length 95th (ft)		273				m189						101
Internal Link Dist (ft)		361				207		253				268
Turn Bay Length (ft)												
Base Capacity (vph)		597				753						2976
Starvation Cap Reductn		0				0						295
Spillback Cap Reductn		0				0						116
Storage Cap Reductn		0				0						0
Reduced v/c Ratio		0.69				0.59						0.92

**Intersection Summary**

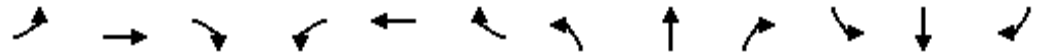
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 14.7      Intersection LOS: B  
 Intersection Capacity Utilization 85.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 435: McAllister St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3203	0	0	5024	0	0	0	0
Flt Permitted		0.844						0.999				
Satd. Flow (perm)	0	1478	0	0	3203	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			25				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	22	370	0	0	384	312	40	2409	197	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	426	0	0	791	0	0	2785	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.86			0.74			0.92				
Control Delay		41.0			9.2			12.0				
Queue Delay		0.0			0.0			7.5				
Total Delay		41.0			9.2			19.5				
LOS		D			A			B				
Approach Delay		41.0			9.2			19.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			A			B				
Queue Length 50th (ft)		250			21			89				
Queue Length 95th (ft)		m#392			27			96				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		493			1070			3024				
Starvation Cap Reductn		0			0			241				
Spillback Cap Reductn		0			0			13				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.86			0.74			1.00				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 19.8      Intersection LOS: B  
 Intersection Capacity Utilization 95.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50			50	50
Trailing Detector (ft)	0	0		0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3428	0	0	3532	1425	0	2939	0	0	3127	1370
Flt Permitted		0.937			0.902							
Satd. Flow (perm)	0	3212	0	0	3183	1142	0	2939	0	0	3127	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				7		7				15
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	11	505	51	32	665	121	0	1171	45	0	1171	31
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	636	0	0	749	130	0	1267	0	0	1233	33
Turn Type	Perm			Perm		Perm						Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4						6
Detector Phases	4	4		4	4	4		2			6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0			3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	30.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	36.0	0.0	54.0	0.0	0.0	54.0	54.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	40.0%	0.0%	60.0%	0.0%	0.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max			Max	Max
Act Effct Green (s)		33.0			33.0	33.0		51.0			51.0	51.0
Actuated g/C Ratio		0.37			0.37	0.37		0.57			0.57	0.57
v/c Ratio		0.54			0.64	0.31		0.76			0.70	0.06
Control Delay		33.7			26.7	21.7		5.4			11.2	5.4
Queue Delay		0.0			0.0	0.0		0.7			0.0	0.0
Total Delay		33.7			26.7	21.7		6.1			11.2	5.4
LOS		C			C	C		A			B	A
Approach Delay		33.7			26.0			6.1			11.0	

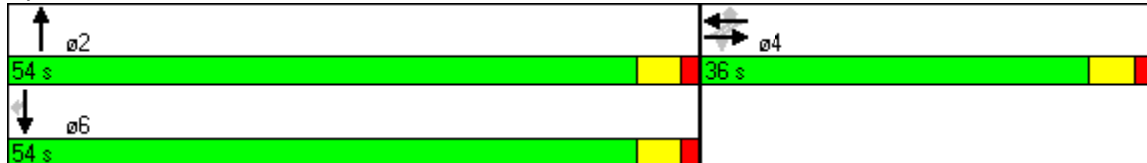


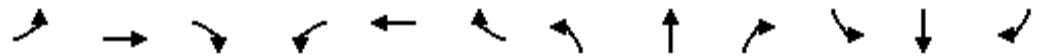
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		164			182	49		33			102	1
Queue Length 95th (ft)		m190			245	95		39			136	m5
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)												70
Base Capacity (vph)		1182			1167	423		1668			1772	509
Starvation Cap Reductn		0			0	0		0			11	0
Spillback Cap Reductn		0			0	0		145			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.54			0.64	0.31		0.83			0.70	0.06

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 16.3      Intersection LOS: B  
 Intersection Capacity Utilization 93.4%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3008	0	1652	2971	0	0	1556	0	0	3175	0
Flt Permitted		0.843		0.372				0.978			0.939	
Satd. Flow (perm)	0	2546	0	647	2971	0	0	1526	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		124			47			28			95	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	47	348	155	123	681	129	3	23	27	34	384	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	578	0	129	853	0	0	55	0	0	581	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	29.5	29.5	0.0	29.5	29.5	0.0	30.5	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.5		26.5	26.5			27.5			27.5	
Actuated g/C Ratio		0.44		0.44	0.44			0.46			0.46	
v/c Ratio		0.48		0.45	0.64			0.08			0.41	
Control Delay		10.8		6.7	4.4			0.3			8.1	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		10.8		6.7	4.4			0.3			8.1	
LOS		B		A	A			A			A	
Approach Delay		10.8			4.7			0.3			8.1	



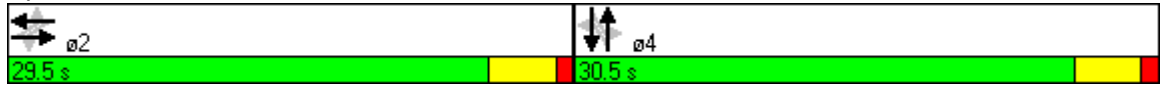
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		55		9	24			0			50	
Queue Length 95th (ft)		94		m11	31			m0			115	
Internal Link Dist (ft)		381			175			592			104	
Turn Bay Length (ft)												
Base Capacity (vph)		1194		286	1338			715			1422	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.48		0.45	0.64			0.08			0.41	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 17 (28%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 7.1                      Intersection LOS: A  
 Intersection Capacity Utilization 68.1%                      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 438: McAllister St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1798	0	0	3426	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.949			0.996				
Satd. Flow (perm)	287	1798	0	0	3255	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			9			7				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	99	234	70	15	798	215	141	1538	35	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	104	320	0	0	1082	0	0	1804	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.84	0.40			0.76			0.77				
Control Delay	77.7	23.4			12.5			4.7				
Queue Delay	0.0	0.0			0.0			0.1				
Total Delay	77.7	23.4			12.5			4.7				
LOS	E	C			B			A				
Approach Delay		36.7			12.5			4.7				

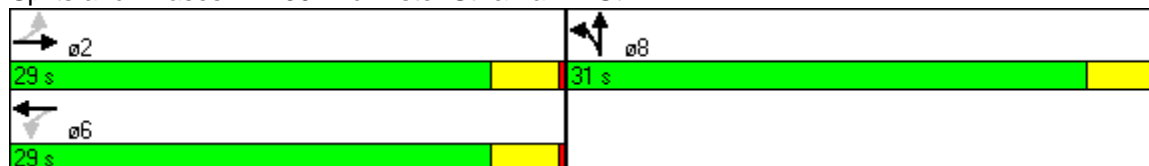


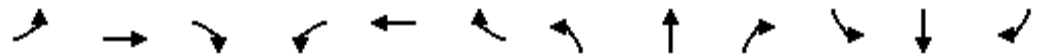
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			B			A					
Queue Length 50th (ft)	41	108			54			16				
Queue Length 95th (ft)	#124	182			127			28				
Internal Link Dist (ft)		169			411			255			118	
Turn Bay Length (ft)												
Base Capacity (vph)	124	797			1416			2345				
Starvation Cap Reductn	0	0			0			31				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.84	0.40			0.76			0.78				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	11.4
Intersection LOS:	B
Intersection Capacity Utilization:	89.3%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases:** 439: McAllister St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			19	19							34	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	269	90	904	0	0	0	0	0	1463	124
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	283	95	952	0	0	0	0	0	1671	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.45	0.14	0.70						0.68	
Control Delay			10.9	10.7	19.0						5.2	
Queue Delay			0.0	0.0	0.0						0.0	
Total Delay			10.9	10.7	19.0						5.3	
LOS			B	B	B						A	
Approach Delay					18.3						5.3	

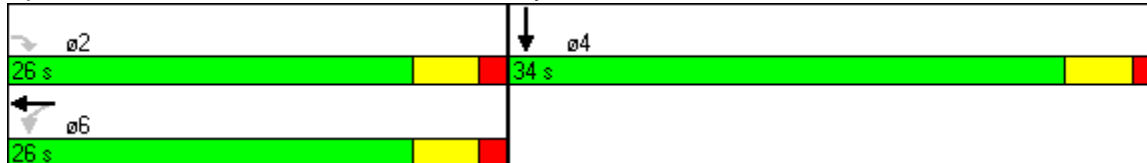


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS								B				A
Queue Length 50th (ft)			21	17	147							47
Queue Length 95th (ft)			m85	43	208							89
Internal Link Dist (ft)		411			257			253				266
Turn Bay Length (ft)												
Base Capacity (vph)			629	690	1357							2467
Starvation Cap Reductn			0	0	0							58
Spillback Cap Reductn			0	0	0							0
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.45	0.14	0.70							0.69

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 3 (5%), Referenced to phase 2:EBR, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 10.3      Intersection LOS: B  
 Intersection Capacity Utilization 62.7%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 440: McAllister St. & Hyde St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4877	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4877	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		11									60	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	550	204	0	0	0	0	0	0	300	2105	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	810	0	0	0	0	0	0	0	0	2505	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		25.0									59.0	
Actuated g/C Ratio		0.28									0.66	
v/c Ratio		0.59									0.80	
Control Delay		29.9									2.8	
Queue Delay		0.0									1.0	
Total Delay		29.9									3.8	
LOS		C									A	
Approach Delay		29.9									3.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									A	
Queue Length 50th (ft)		143									37	
Queue Length 95th (ft)		185									45	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1363									3130	
Starvation Cap Reductn		0									349	
Spillback Cap Reductn		0									123	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.59									0.90	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	37 (41%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	10.2
Intersection LOS:	B
Intersection Capacity Utilization:	68.6%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5697	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5697	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	101	749	0	0	0	0	0	2708	129	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	867	0	0	0	0	0	2925	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.0						58.0				
Actuated g/C Ratio		0.29						0.64				
v/c Ratio		0.60						0.80				
Control Delay		33.2						4.2				
Queue Delay		0.0						1.0				
Total Delay		33.2						5.1				
LOS		C						A				
Approach Delay		33.2						5.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		172							81				
Queue Length 95th (ft)		218							87				
Internal Link Dist (ft)		216				162			71			240	
Turn Bay Length (ft)													
Base Capacity (vph)		1445							3678				
Starvation Cap Reductn		0							446				
Spillback Cap Reductn		0							160				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.60							0.91				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	11.5
Intersection LOS:	B
Intersection Capacity Utilization	64.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4850	0	0	0	0	0	3101	1346	1770	3177	0
Flt Permitted		0.997								0.950		
Satd. Flow (perm)	0	4803	0	0	0	0	0	3101	847	1770	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12							26			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	47	718	113	0	0	0	0	1244	59	101	1089	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					10	10		1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	924	0	0	0	0	0	1309	62	106	1146	0
Turn Type	Split								Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0	6.4	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	46.0	46.0	10.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	11.1%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		31.0						43.0	43.0	7.0	53.0	
Actuated g/C Ratio		0.34						0.48	0.48	0.08	0.59	
v/c Ratio		0.55						0.88	0.15	0.77	0.61	
Control Delay		45.9						25.3	10.5	42.3	1.4	
Queue Delay		0.0						1.9	0.0	0.0	0.3	
Total Delay		45.9						27.1	10.5	42.3	1.7	
LOS		D						C	B	D	A	
Approach Delay		45.9						26.4			5.1	

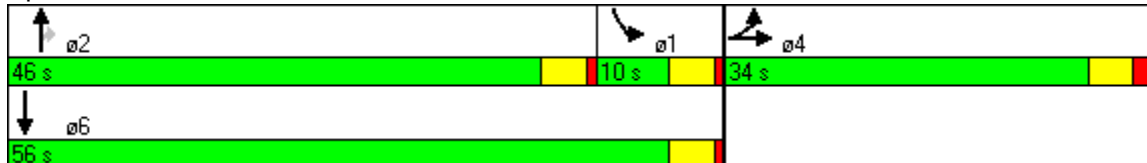


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D						C			A			
Queue Length 50th (ft)	197						185			7	61	14	
Queue Length 95th (ft)	242						#340			m11	m64	m14	
Internal Link Dist (ft)	159						387			98			78
Turn Bay Length (ft)										70	90		
Base Capacity (vph)	1678						1482			418	138	1871	
Starvation Cap Reductn	0						75			0	0	220	
Spillback Cap Reductn	0						0			0	0	0	
Storage Cap Reductn	0						0			0	0	0	
Reduced v/c Ratio	0.55						0.93			0.15	0.77	0.69	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 24.0      Intersection LOS: C  
 Intersection Capacity Utilization 75.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4726	0	0	0	0	0	1608	0	0	3322	0
Flt Permitted		0.996									0.820	
Satd. Flow (perm)	0	4726	0	0	0	0	0	1608	0	0	2757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75						51				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	78	663	137	0	0	0	0	139	60	140	415	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	924	0	0	0	0	0	209	0	0	584	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.6	27.6	0.0	0.0	0.0	0.0	0.0	32.4	0.0	32.4	32.4	0.0
Total Split (%)	46.0%	46.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.0%	0.0%	54.0%	54.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.6						29.4			29.4	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.47						0.26			0.43	
Control Delay		12.7						2.0			15.0	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.7						2.0			15.0	
LOS		B						A			B	
Approach Delay		12.7						2.0			15.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		77						1			78	
Queue Length 95th (ft)		108						m11			122	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		1982						814			1351	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.47						0.26			0.43	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	12.2
Intersection LOS:	B
Intersection Capacity Utilization	54.0%
ICU Level of Service	A
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**

 27.6 s	 32.4 s
 32.4 s	 32.4 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	4751	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	5034	0	0	0	0	0	4751	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						63				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	169	694	0	0	0	0	0	1600	252	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	909	0	0	0	0	0	1949	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.52						0.73				
Control Delay		9.5						5.7				
Queue Delay		0.0						0.0				
Total Delay		9.5						5.7				
LOS		A						A				
Approach Delay		9.5						5.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A				
Queue Length 50th (ft)		42							64				
Queue Length 95th (ft)		56							94				
Internal Link Dist (ft)		419				404			78			233	
Turn Bay Length (ft)													
Base Capacity (vph)		1732							2680				
Starvation Cap Reductn		0							39				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.52							0.74				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	6.9
Intersection LOS:	A
Intersection Capacity Utilization:	60.0%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4851	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4851	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		52									50	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	656	290	0	0	0	0	0	0	140	1297	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	996	0	0	0	0	0	0	0	0	1512	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.67									0.52	
Control Delay		11.4									5.5	
Queue Delay		0.0									0.2	
Total Delay		11.4									5.7	
LOS		B									A	
Approach Delay		11.4									5.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		47									31	
Queue Length 95th (ft)		82									39	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1492									2889	
Starvation Cap Reductn		0									482	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.67									0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				4							18	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	200	996	0	0	0	0	0	2207	141
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	220	1095	0	0	0	0	0	2420	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				34.0	34.0						50.0	
Actuated g/C Ratio				0.38	0.38						0.56	
v/c Ratio				0.36	0.87						0.92	
Control Delay				8.6	21.8						10.3	
Queue Delay				0.0	1.2						1.1	
Total Delay				8.6	23.0						11.3	
LOS				A	C						B	
Approach Delay					20.6						11.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				28	363							65
Queue Length 95th (ft)				m42	#450							#98
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				611	1258							2635
Starvation Cap Reductn				0	50							76
Spillback Cap Reductn				0	0							5
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.36	0.91							0.95

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 14.6      Intersection LOS: B  
 Intersection Capacity Utilization 74.7%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5500	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5500	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	947	268	249	2560	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	986	279	0	2926	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	29.0	29.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	32.2%	32.2%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					26.0	26.0		58.0				
Actuated g/C Ratio					0.29	0.29		0.64				
v/c Ratio					0.68	0.61		0.82				
Control Delay					21.2	22.6		4.0				
Queue Delay					0.2	0.0		1.6				
Total Delay					21.4	22.6		5.5				
LOS					C	C		A				
Approach Delay					21.6			5.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C				A			
Queue Length 50th (ft)					221	166		23				
Queue Length 95th (ft)					m265	m235		25				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1451	459		3548				
Starvation Cap Reductn					0	0		89				
Spillback Cap Reductn					79	0		415				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.72	0.61		0.93				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 10.4      Intersection LOS: B  
 Intersection Capacity Utilization 65.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔		↔	↔↔			↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	90		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4996	0	1770	3135	0	0	2973	0
Flt Permitted				0.998			0.950					
Satd. Flow (perm)	0	0	0	0	4965	0	1654	3135	0	0	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8						10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	38	1024	50	118	1173	0	0	1152	73
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1208	0	124	1235	0	0	1250	0
Turn Type				Split			Prot					
Protected Phases				4	4		5	2			6	
Permitted Phases												
Detector Phases				4	4		5	2			6	
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	
Minimum Split (s)				33.0	33.0		7.0	48.0			38.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	12.0	57.0	0.0	0.0	45.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	13.3%	63.3%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					30.0		9.0	54.0			42.0	
Actuated g/C Ratio					0.33		0.10	0.60			0.47	
v/c Ratio					0.72		0.70	0.66			0.90	
Control Delay					29.2		35.1	1.5			19.2	
Queue Delay					0.0		0.0	0.5			0.8	
Total Delay					29.2		35.1	2.0			19.9	
LOS					C		D	A			B	
Approach Delay					29.2			5.0			19.9	

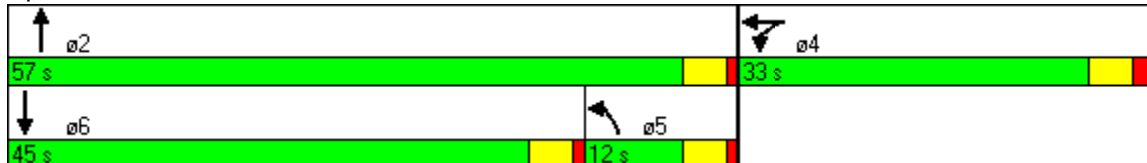


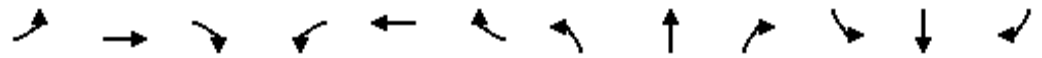
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				B
Queue Length 50th (ft)					217		69	14				105
Queue Length 95th (ft)					269		m81	m16				m#460
Internal Link Dist (ft)		172			389			76				120
Turn Bay Length (ft)							90					
Base Capacity (vph)					1671		177	1881				1393
Starvation Cap Reductn					0		0	252				29
Spillback Cap Reductn					0		0	0				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.72		0.70	0.76				0.92

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 17.5      Intersection LOS: B  
 Intersection Capacity Utilization 75.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4944	0	0	2082	0	0	2065	0
Flt Permitted				0.994			0.765					
Satd. Flow (perm)	0	0	0	0	4944	0	0	1615	0	0	2065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	154	969	79	63	154	0	0	401	80
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1265	0	0	228	0	0	506	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	28.7	28.7	0.0	31.3	31.3	0.0	0.0	31.3	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.8%	47.8%	0.0%	52.2%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.7			28.3			28.3	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.59			0.30			0.51	
Control Delay					6.5			9.7			6.7	
Queue Delay					0.0			0.0			0.4	
Total Delay					6.5			9.7			7.1	
LOS					A			A			A	
Approach Delay					6.5			9.7			7.1	

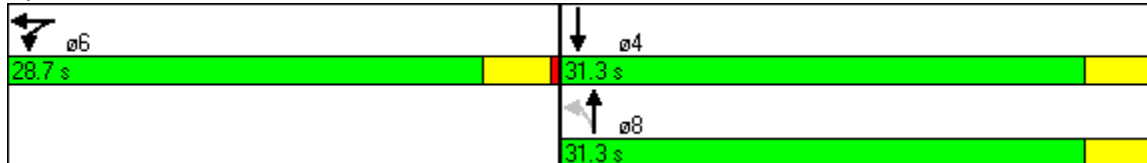


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					47			37			54	
Queue Length 95th (ft)					71			78			m86	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2131			762			986	
Starvation Cap Reductn					0			0			147	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.59			0.30			0.60	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 12 (20%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 7.0                      Intersection LOS: A  
 Intersection Capacity Utilization 71.2%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 469: Turk St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4879	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4879	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					39			30				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	807	104	395	1374	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1001	0	0	1805	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					20.0			34.0				
Actuated g/C Ratio					0.33			0.57				
v/c Ratio					0.61			0.66				
Control Delay					11.5			5.5				
Queue Delay					0.0			0.1				
Total Delay					11.5			5.7				
LOS					B			A				
Approach Delay					11.5			5.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					47			64				
Queue Length 95th (ft)					60			80				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1652			2730				
Starvation Cap Reductn					0			183				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.61			0.71				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	7.8
Intersection LOS:	A
Intersection Capacity Utilization	59.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 470: Turk St. & Larkin St.

← 06	↖ 08
23 s	37 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					55						84	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	235	647	0	0	0	0	0	1202	264
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	919	0	0	0	0	0	1496	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.52						0.57	
Control Delay					15.7						13.7	
Queue Delay					0.0						0.4	
Total Delay					15.7						14.1	
LOS					B						B	
Approach Delay					15.7						14.1	

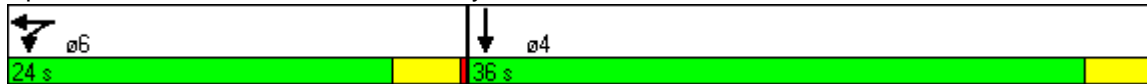


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					87						173	
Queue Length 95th (ft)					121						220	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1778						2610	
Starvation Cap Reductn					0						557	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.52						0.73	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	57 (95%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization	53.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1742	0	0	1800	0	0	0	0	0	5035	0
Flt Permitted					0.670						0.996	
Satd. Flow (perm)	0	1742	0	0	1218	0	0	0	0	0	5035	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	246	113	42	161	0	0	0	0	173	2193	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	408	0	0	238	0	0	0	0	0	2559	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		30.0			30.0							54.0
Actuated g/C Ratio		0.33			0.33							0.60
v/c Ratio		0.70			0.59							0.85
Control Delay		33.2			16.0							6.7
Queue Delay		0.9			0.0							1.2
Total Delay		34.1			16.0							7.9
LOS		C			B							A
Approach Delay		34.1			16.0							7.9

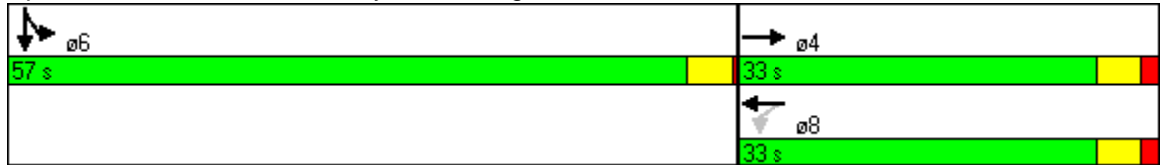


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						A	
Queue Length 50th (ft)		197			30						97	
Queue Length 95th (ft)		293			m48						146	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		585			406						3025	
Starvation Cap Reductn		0			0						254	
Spillback Cap Reductn		46			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.76			0.59						0.92	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 11.9      Intersection LOS: B  
 Intersection Capacity Utilization 88.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 478: Eddy St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1780	0	0	5686	0	0	0	0
Flt Permitted		0.908						0.999				
Satd. Flow (perm)	0	1651	0	0	1780	0	0	5686	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		476			482			188			156	
Travel Time (s)		13.0			13.1			5.1			4.3	
Volume (vph)	59	360	0	0	171	31	32	2660	153	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	531	0	0	255	0	0	2933	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		0.85			0.38			0.93				
Control Delay		30.2			29.6			13.1				
Queue Delay		1.7			0.0			2.8				
Total Delay		32.0			29.6			15.9				
LOS		C			C			B				
Approach Delay		32.0			29.6			15.9				



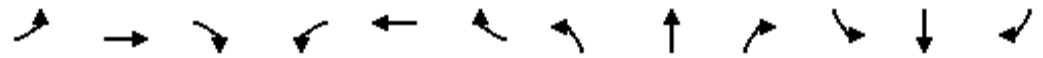
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B				
Queue Length 50th (ft)		164			127			419				
Queue Length 95th (ft)		239			m173			342				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		624			673			3167				
Starvation Cap Reductn		6			0			157				
Spillback Cap Reductn		26			0			112				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.89			0.38			0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 19.1                      Intersection LOS: B  
 Intersection Capacity Utilization 84.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 479: Eddy St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1770	0	0	1787	0	0	2958	0	0	2946	0
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1724	0	0	1703	0	0	2958	0	0	2946	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			6			11			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	27	411	75	12	147	21	0	1145	78	0	1138	55
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								8	8		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	633	0	0	212	0	0	1236	0	0	1193	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.87			0.29			0.81			0.79	
Control Delay		32.8			18.0			19.8			27.7	
Queue Delay		7.3			0.0			0.2			1.7	
Total Delay		40.1			18.0			20.1			29.4	
LOS		D			B			C			C	
Approach Delay		40.1			18.0			20.1			29.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			C			C	
Queue Length 50th (ft)		362			75			165			265	
Queue Length 95th (ft)		m424			118			202			260	
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												
Base Capacity (vph)		731			723			1517			1510	
Starvation Cap Reductn		71			0			1			167	
Spillback Cap Reductn		0			0			31			77	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.96			0.29			0.83			0.89	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 27.2                      Intersection LOS: C  
 Intersection Capacity Utilization 78.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1748	0	0	2005	0	0	2009	0
Flt Permitted		0.943			0.834			0.939			0.875	
Satd. Flow (perm)	0	1675	0	0	1481	0	0	1890	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			22			34			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	70	336	83	39	63	21	21	158	54	138	359	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	515	0	0	129	0	0	245	0	0	624	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.0			26.0			28.0			28.0	
Actuated g/C Ratio		0.43			0.43			0.47			0.47	
v/c Ratio		0.70			0.20			0.27			0.74	
Control Delay		19.4			0.5			5.0			16.5	
Queue Delay		0.0			0.0			0.0			2.9	
Total Delay		19.4			0.5			5.0			19.3	
LOS		B			A			A			B	
Approach Delay		19.4			0.5			5.0			19.3	

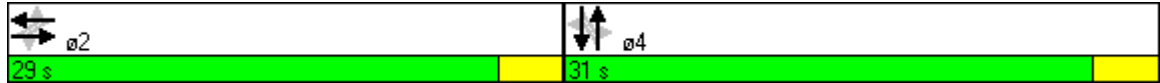


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			B	
Queue Length 50th (ft)		137			1			20			184	
Queue Length 95th (ft)		239			m0			33			#292	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		738			654			900			841	
Starvation Cap Reductn		0			0			0			124	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.70			0.20			0.27			0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 15.4      Intersection LOS: B  
 Intersection Capacity Utilization 84.4%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								45				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		211			283			134				161
Travel Time (s)		5.8			7.7			3.7				4.4
Volume (vph)	80	440	0	0	0	0	123	1191	164	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	547	0	0	0	0	0	1556	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0
Total Split (%)	53.3%	53.3%	0.0%	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		29.0							25.0			
Actuated g/C Ratio		0.48							0.42			
v/c Ratio		0.61							0.75			
Control Delay		12.1							7.6			
Queue Delay		0.0							0.0			
Total Delay		12.1							7.7			
LOS		B							A			
Approach Delay		12.1							7.7			

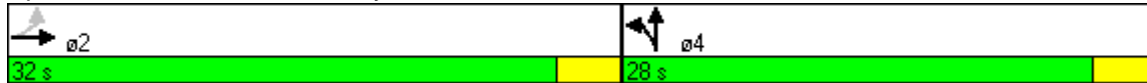


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		111							109				
Queue Length 95th (ft)		m184							163				
Internal Link Dist (ft)		131			203				54		81		
Turn Bay Length (ft)													
Base Capacity (vph)		893							2087				
Starvation Cap Reductn		0							19				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.61							0.75				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 8.8                      Intersection LOS: A  
 Intersection Capacity Utilization 63.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4813	0	0	0	0	0	0	0	0	4714	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4813	0	0	0	0	0	0	0	0	4714	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		69										56
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	418	186	0	0	0	0	0	0	127	1280	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	636	0	0	0	0	0	0	0	0	1481	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.51									0.48	
Control Delay		11.1									1.5	
Queue Delay		0.0									0.3	
Total Delay		11.1									1.8	
LOS		B									A	
Approach Delay		11.1									1.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		20									9	
Queue Length 95th (ft)		m54									17	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1255									3084	
Starvation Cap Reductn		0									792	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.51									0.65	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 36 (60%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 4.6      Intersection LOS: A  
 Intersection Capacity Utilization 46.2%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

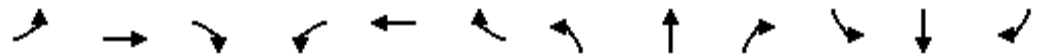
**Splits and Phases: 483: Eddy St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗↖↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			6	6							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	35	213	316	0	0	0	0	0	2207	31
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	62	266	395	0	0	0	0	0	2356	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	31.0	31.0	31.0	0.0	0.0	0.0	0.0	0.0	59.0	0.0
Total Split (%)	0.0%	0.0%	34.4%	34.4%	34.4%	0.0%	0.0%	0.0%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			28.0	28.0	28.0						56.0	
Actuated g/C Ratio			0.31	0.31	0.31						0.62	
v/c Ratio			0.12	0.48	0.68						0.82	
Control Delay			21.3	12.9	20.9						5.4	
Queue Delay			0.0	0.0	0.0						0.2	
Total Delay			21.3	12.9	20.9						5.6	
LOS			C	B	C						A	
Approach Delay					17.7						5.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		478			479			171				185
Travel Time (s)		13.0			13.1			4.7				5.0
Volume (vph)	0	0	0	0	433	460	96	2648	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	471	500	0	2919	0	0	0	0
Turn Type							Perm	Split				
Protected Phases					4			2		2		
Permitted Phases							4					
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	41.0	41.0	49.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.6%	45.6%	54.4%	54.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					38.0	38.0		46.0				
Actuated g/C Ratio					0.42	0.42		0.51				
v/c Ratio					0.32	0.75		0.86				
Control Delay					19.7	33.0		6.8				
Queue Delay					0.0	1.5		1.8				
Total Delay					19.7	34.5		8.6				
LOS					B	C		A				
Approach Delay					27.3			8.6				

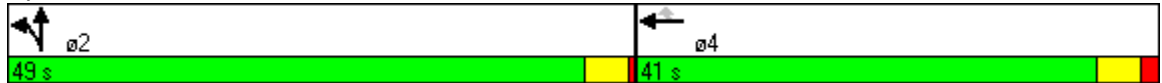


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					137	297		52				
Queue Length 95th (ft)					m181	m394		91				
Internal Link Dist (ft)		398			399			91			105	
Turn Bay Length (ft)												
Base Capacity (vph)					1494	668		3379				
Starvation Cap Reductn					0	58		297				
Spillback Cap Reductn					0	0		12				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.32	0.82		0.95				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 33 (37%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 13.3      Intersection LOS: B  
 Intersection Capacity Utilization 68.5%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 489: Ellis St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4862	0	0	3135	0	0	2830	0
Flt Permitted				0.997								
Satd. Flow (perm)	0	0	0	0	4809	0	0	3135	0	0	2830	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11						8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	51	698	104	0	1157	0	0	1117	195
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	937	0	0	1244	0	0	1381	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Detector Phases				4	4			2			2	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.58			0.66			0.81	
Control Delay					26.1			3.9			11.3	
Queue Delay					2.4			1.9			0.5	
Total Delay					28.5			5.8			11.8	
LOS					C			A			B	
Approach Delay					28.5			5.8			11.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					157			19			115	
Queue Length 95th (ft)					200			m24			m136	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1628			1881			1701	
Starvation Cap Reductn					0			450			0	
Spillback Cap Reductn					535			0			80	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.86			0.87			0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 80 (89%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 14.1      Intersection LOS: B  
 Intersection Capacity Utilization 70.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4939	0	0	2046	0	0	2005	0
Flt Permitted				0.992			0.685					
Satd. Flow (perm)	0	0	0	0	4939	0	0	1423	0	0	2005	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					56						47	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	136	621	123	78	171	0	0	447	154
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	926	0	0	262	0	0	633	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	23.2	23.2	0.0	36.8	36.8	0.0	0.0	36.8	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.7%	38.7%	0.0%	61.3%	61.3%	0.0%	0.0%	61.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.2			33.8			33.8	
Actuated g/C Ratio					0.34			0.56			0.56	
v/c Ratio					0.54			0.33			0.55	
Control Delay					5.9			9.2			4.2	
Queue Delay					0.0			0.0			0.5	
Total Delay					5.9			9.2			4.6	
LOS					A			A			A	
Approach Delay					5.9			9.2			4.6	

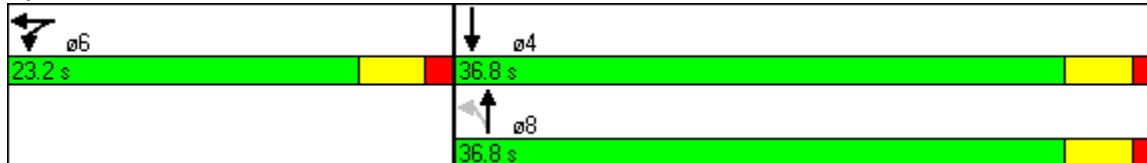


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					26			49			27	
Queue Length 95th (ft)					31			m94			m74	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1700			802			1150	
Starvation Cap Reductn					0			0			177	
Spillback Cap Reductn					28			0			62	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.55			0.33			0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	41 (68%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization:	73.7%
ICU Level of Service:	D
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4902	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					49			58				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	731	232	149	1107	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1013	0	0	1322	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.8	0.0	33.2	33.2	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.7%	0.0%	55.3%	55.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.8			30.2				
Actuated g/C Ratio					0.40			0.50				
v/c Ratio					0.51			0.55				
Control Delay					8.6			2.4				
Queue Delay					0.0			0.0				
Total Delay					8.6			2.4				
LOS					A			A				
Approach Delay					8.6			2.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					36			17				
Queue Length 95th (ft)					54			16				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1974			2416				
Starvation Cap Reductn					0			98				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.51			0.57				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	50.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4635	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4635	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					30						108	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	188	692	0	0	0	0	0	1219	271
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	926	0	0	0	0	0	1568	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.44						0.68	
Control Delay					12.9						8.2	
Queue Delay					0.0						0.2	
Total Delay					12.9						8.4	
LOS					B						A	
Approach Delay					12.9						8.4	

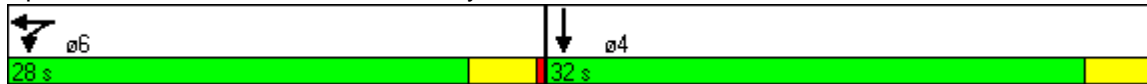


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		399			402			259			292	
Turn Bay Length (ft)												
Base Capacity (vph)					2113						2296	
Starvation Cap Reductn					0						196	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.44						0.75	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	16 (27%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	10.1
Intersection LOS:	B
Intersection Capacity Utilization	53.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 493: Ellis St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6305	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								30				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	357	1048	0	0	0	0	0	2813	295	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1544	0	0	0	0	0	3272	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.08						1.03				
Control Delay		72.9						32.5				
Queue Delay		8.0						13.6				
Total Delay		80.9						46.0				
LOS		F						D				
Approach Delay		80.9						46.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						D				
Queue Length 50th (ft)		~538						~104				
Queue Length 95th (ft)		#678						#623				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3168				
Starvation Cap Reductn		0						7				
Spillback Cap Reductn		25						100				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.10						1.07				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	44 (49%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	57.2
Intersection LOS:	E
Intersection Capacity Utilization	82.6%
ICU Level of Service	E
Analysis Period (min)	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases: 500: Starr King & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	70		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	3110	794	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27						7			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	85	1140	118	0	0	0	0	1159	92	0	1210	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1289	124	0	0	0	0	1171	93	0	1391	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	41.0	41.0	41.0	0.0	0.0	0.0	0.0	49.0	49.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	45.6%	0.0%	0.0%	0.0%	0.0%	54.4%	54.4%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		38.0	38.0					46.0	46.0		46.0	
Actuated g/C Ratio		0.42	0.42					0.51	0.51		0.51	
v/c Ratio		0.87	0.21					0.74	0.23		0.87	
Control Delay		27.5	12.9					5.1	2.8		29.2	
Queue Delay		8.0	0.0					0.3	0.0		0.0	
Total Delay		35.5	12.9					5.5	2.8		29.2	
LOS		D	B					A	A		C	
Approach Delay		33.5						5.3			29.2	

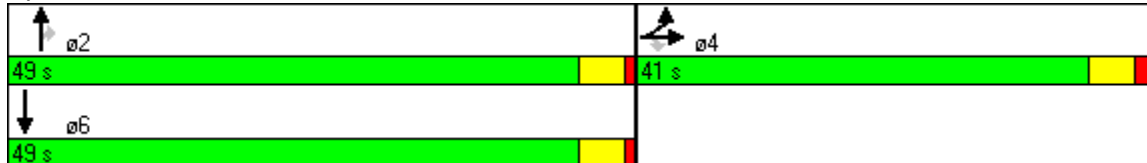


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			C		
Queue Length 50th (ft)		397	43					40	4		266	
Queue Length 95th (ft)		m367	m40					45	m7		268	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1490	581					1590	409		1602	
Starvation Cap Reductn		179	0					91	0		0	
Spillback Cap Reductn		0	0					34	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.98	0.21					0.78	0.23		0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 87 (97%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 23.2      Intersection LOS: C  
 Intersection Capacity Utilization 76.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 501: O'Farrell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3328	1583	0	0	0	0	1936	0	0	2048	0
Flt Permitted		0.994									0.838	
Satd. Flow (perm)	0	3328	1583	0	0	0	0	1936	0	0	1741	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197					45				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	129	974	187	0	0	0	0	108	110	164	414	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1161	197	0	0	0	0	230	0	0	609	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	29.0	29.0	29.0	0.0	0.0	0.0	0.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		26.0	26.0					28.0			28.0	
Actuated g/C Ratio		0.43	0.43					0.47			0.47	
v/c Ratio		0.81	0.25					0.25			0.75	
Control Delay		20.4	2.8					5.6			18.6	
Queue Delay		0.0	0.0					0.0			6.1	
Total Delay		20.4	2.8					5.6			24.7	
LOS		C	A					A			C	
Approach Delay		17.9						5.6			24.7	

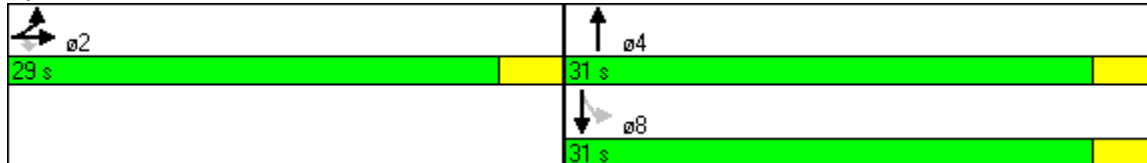


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			C		
Queue Length 50th (ft)	182		0					33		208		
Queue Length 95th (ft)	258		30					57		m300		
Internal Link Dist (ft)	79				45			104		100		
Turn Bay Length (ft)												
Base Capacity (vph)	1442		798					927		812		
Starvation Cap Reductn	0		0					0		153		
Spillback Cap Reductn	0		0					0		0		
Storage Cap Reductn	0		0					0		0		
Reduced v/c Ratio	0.81		0.25					0.25		0.92		

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	33 (55%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	18.5
Intersection LOS:	B
Intersection Capacity Utilization:	83.9%
ICU Level of Service:	E
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 502: O'Farrell St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4616	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4616	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46						21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	143	1105	0	0	0	0	0	1101	312	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1314	0	0	0	0	0	1487	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		24.0						30.0				
Actuated g/C Ratio		0.40						0.50				
v/c Ratio		0.64						0.64				
Control Delay		6.8						7.5				
Queue Delay		0.0						0.2				
Total Delay		6.8						7.7				
LOS		A						A				
Approach Delay		6.8						7.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A				
Queue Length 50th (ft)		38						68				
Queue Length 95th (ft)		48						113				
Internal Link Dist (ft)		288			110			116			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2050						2319				
Starvation Cap Reductn		0						237				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.64						0.71				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 503: O'Farrell St. & Larkin St.

02	08
27 s	33 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			15									46
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1117	300	0	0	0	0	0	0	256	1190	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1176	316	0	0	0	0	0	0	0	1522	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.66	0.40								0.79	
Control Delay		6.5	5.1								9.1	
Queue Delay		0.0	0.0								0.1	
Total Delay		6.5	5.1								9.1	
LOS		A	A								A	
Approach Delay		6.2									9.1	

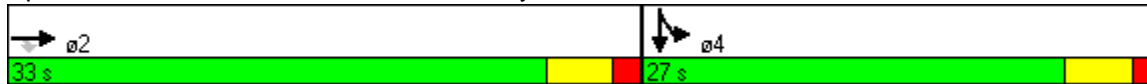


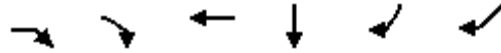
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A											
Queue Length 50th (ft)		57	26								44	
Queue Length 95th (ft)		71	42								54	
Internal Link Dist (ft)		186			409			292			257	
Turn Bay Length (ft)												
Base Capacity (vph)		1770	799								1916	
Starvation Cap Reductn		0	0								15	
Spillback Cap Reductn		0	0								0	
Storage Cap Reductn		0	0								0	
Reduced v/c Ratio		0.66	0.40								0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization	65.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 504: O'Farrell St. & Hyde St.





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		4		12		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1098	345	1470	1814	304	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1156	363	1547	2210	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.81	0.49	0.68	0.95		
Control Delay	26.5	19.2	26.7	19.1		
Queue Delay	0.0	0.0	0.4	5.2		
Total Delay	26.5	19.2	27.1	24.3		
LOS	C	B	C	C		
Approach Delay			27.1	24.3		





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Flt Permitted								0.992				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	959	192	511	2735	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1031	206	0	3279	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.59	0.37		0.86				
Control Delay					28.7	25.7		2.7				
Queue Delay					0.0	0.0		1.1				
Total Delay					28.7	25.7		3.8				
LOS					C	C		A				
Approach Delay					28.2			3.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)				228			118			63		
Queue Length 95th (ft)				272			188			m60		
Internal Link Dist (ft)	405			194			90			242		
Turn Bay Length (ft)												
Base Capacity (vph)				1743			563			3799		
Starvation Cap Reductn				0			0			282		
Spillback Cap Reductn				0			0			33		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.59			0.37			0.93		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 10.5      Intersection LOS: B  
 Intersection Capacity Utilization 63.1%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 514: Geary St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		80
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5070	1469	0	3152	0	0	3035	1583
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	5020	1152	0	3152	0	0	3035	1044
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						46						5
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	74	1051	120	0	1244	0	0	1136	156
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1148	122	0	1257	0	0	1171	161
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.57	0.25		0.75			0.72	0.29
Control Delay					22.3	13.0		5.6			22.1	17.6
Queue Delay					0.2	0.0		0.5			0.3	0.0
Total Delay					22.5	13.0		6.1			22.4	17.6
LOS					C	B		A			C	B
Approach Delay					21.5			6.1			21.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					181	27		28			230	55
Queue Length 95th (ft)					224	66		m33			235	m67
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)												80
Base Capacity (vph)					2028	488		1681			1619	559
Starvation Cap Reductn					0	0		128			86	0
Spillback Cap Reductn					215	0		44			74	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.63	0.25		0.81			0.76	0.29

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 16.6                      Intersection LOS: B  
 Intersection Capacity Utilization 76.0%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 515: Geary St. & Van Ness Avenue**





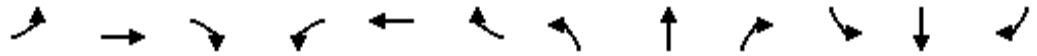


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3325	1583	0	2054	0	0	1976	0
Flt Permitted					0.993			0.548				
Satd. Flow (perm)	0	0	0	0	3325	1583	0	1138	0	0	1976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109						50
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	143	946	104	53	182	0	0	435	246
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1147	109	0	248	0	0	717	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.80	0.15		0.47			0.76	
Control Delay					14.3	1.9		12.5			12.7	
Queue Delay					0.3	0.0		0.0			1.1	
Total Delay					14.7	1.9		12.5			13.8	
LOS					B	A		B			B	
Approach Delay					13.5			12.5			13.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						25		117				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		290			195			167				168
Travel Time (s)		7.9			5.3			4.6				4.6
Volume (vph)	0	0	0	0	855	282	290	973	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	900	297	0	1329	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.48	0.35		0.73				
Control Delay					4.2	3.6		10.3				
Queue Delay					0.0	0.0		0.0				
Total Delay					4.2	3.6		10.3				
LOS					A	A		B				
Approach Delay					4.0			10.3				

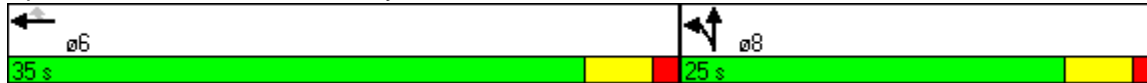


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)					39	14			160			
Queue Length 95th (ft)					m50	m27			161			
Internal Link Dist (ft)	210				115				87	88		
Turn Bay Length (ft)												
Base Capacity (vph)				1887			856			1820		
Starvation Cap Reductn				0			0			6		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.48			0.35			0.73		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 7.3      Intersection LOS: A  
 Intersection Capacity Utilization 55.0%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 517: Geary St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4685	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4685	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					25						65	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	257	903	0	0	0	0	0	1189	234
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1222	0	0	0	0	0	1498	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.80						0.70	
Control Delay					18.9						7.1	
Queue Delay					0.0						0.1	
Total Delay					18.9						7.2	
LOS					B						A	
Approach Delay					18.9						7.2	



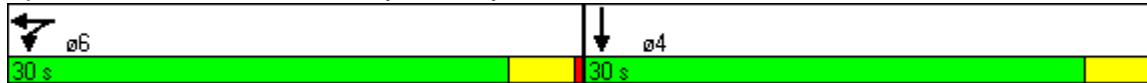
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B						A	
Queue Length 50th (ft)					184						4	
Queue Length 95th (ft)					261						m164	
Internal Link Dist (ft)		198			399			257			277	
Turn Bay Length (ft)												
Base Capacity (vph)					1532						2144	
Starvation Cap Reductn					0						101	
Spillback Cap Reductn					0						49	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.80						0.73	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	49 (82%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization:	67.3%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 518: Geary St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3313	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3313	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		10										37
Link Speed (mph)		25			25			25				25
Link Distance (ft)		482			492			345				334
Travel Time (s)		13.1			13.4			9.4				9.1
Volume (vph)	0	408	99	0	0	0	0	0	0	185	2019	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	576	0	0	0	0	0	0	0	0	2350	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.54									0.76	
Control Delay		26.8									8.3	
Queue Delay		0.0									1.4	
Total Delay		26.8									9.7	
LOS		C									A	
Approach Delay		26.8									9.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									A	
Queue Length 50th (ft)		137									124	
Queue Length 95th (ft)		184									136	
Internal Link Dist (ft)		402			412			265			254	
Turn Bay Length (ft)												
Base Capacity (vph)		1074									3101	
Starvation Cap Reductn		0									306	
Spillback Cap Reductn		0									512	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.54									0.91	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	82 (91%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	13.1
Intersection LOS:	B
Intersection Capacity Utilization:	65.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 535: Post St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2							101			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	102	491	0	0	0	0	0	2579	348	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	667	0	0	0	0	0	2773	374	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	30.7	30.7	0.0	0.0	0.0	0.0	0.0	59.3	59.3	0.0	0.0	0.0
Total Split (%)	34.1%	34.1%	0.0%	0.0%	0.0%	0.0%	0.0%	65.9%	65.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		27.7						56.3	56.3			
Actuated g/C Ratio		0.31						0.63	0.63			
v/c Ratio		0.64						0.80	0.43			
Control Delay		41.2						4.1	1.5			
Queue Delay		0.0						0.8	0.8			
Total Delay		41.2						4.9	2.2			
LOS		D						A	A			
Approach Delay		41.2						4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D							A			
Queue Length 50th (ft)		201						47	4			
Queue Length 95th (ft)		254						51	m6			
Internal Link Dist (ft)		412				226		242			97	
Turn Bay Length (ft)												
Base Capacity (vph)		1042						3450	875			
Starvation Cap Reductn		0						352	244			
Spillback Cap Reductn		0						0	0			
Storage Cap Reductn		0						0	0			
Reduced v/c Ratio		0.64						0.90	0.59			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 54 (60%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 11.0      Intersection LOS: B  
 Intersection Capacity Utilization 60.6%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	3160	913	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53						23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	53	710	76	0	0	0	0	1086	236	0	1177	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	838	84	0	0	0	0	1108	241	0	1226	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		35.0	35.0					49.0	49.0		49.0	
Actuated g/C Ratio		0.39	0.39					0.54	0.54		0.54	
v/c Ratio		0.61	0.15					0.64	0.47		0.73	
Control Delay		30.2	14.2					5.6	4.2		16.5	
Queue Delay		0.0	0.0					1.1	0.5		0.6	
Total Delay		30.2	14.2					6.7	4.7		17.1	
LOS		C	B					A	A		B	
Approach Delay		28.8						6.3			17.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)		228	18					29	4		170	
Queue Length 95th (ft)		291	m46					73	m10		m220	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)									70			
Base Capacity (vph)		1372	555					1720	508		1675	
Starvation Cap Reductn		0	0					317	64		158	
Spillback Cap Reductn		0	0					360	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.61	0.15					0.81	0.54		0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 21 (23%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 16.0      Intersection LOS: B  
 Intersection Capacity Utilization 64.7%      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3388	1583	0	0	0	0	1984	0	0	1928	0
Flt Permitted		0.993									0.836	
Satd. Flow (perm)	0	3388	1583	0	0	0	0	1984	0	0	1634	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			258					70				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	95	606	245	0	0	0	0	165	84	161	421	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	738	258	0	0	0	0	262	0	0	612	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.65	0.37					0.23			0.66	
Control Delay		20.4	4.1					5.8			12.8	
Queue Delay		0.0	0.0					0.0			2.3	
Total Delay		20.4	4.1					5.8			15.1	
LOS		C	A					A			B	
Approach Delay		16.2						5.8			15.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		117	0					24			156	
Queue Length 95th (ft)		170	42					52			m260	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1129	700					1155			926	
Starvation Cap Reductn		0	0					0			189	
Spillback Cap Reductn		0	8					0			51	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.65	0.37					0.23			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 14.4      Intersection LOS: B  
 Intersection Capacity Utilization 74.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 538: Post St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4633	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4633	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						112				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	131	720	0	0	0	0	0	961	303	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	896	0	0	0	0	0	1331	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	29.4	29.4	0.0	0.0	0.0	0.0	0.0	30.6	0.0	0.0	0.0	0.0
Total Split (%)	49.0%	49.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.4						27.6				
Actuated g/C Ratio		0.44						0.46				
v/c Ratio		0.59						0.61				
Control Delay		6.0						4.9				
Queue Delay		0.0						0.1				
Total Delay		6.0						5.0				
LOS		A						A				
Approach Delay		6.0						5.0				

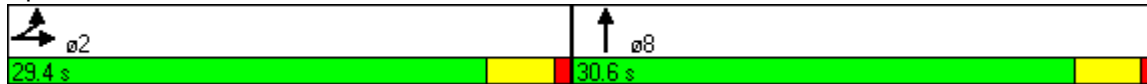


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A				
Queue Length 50th (ft)		43							40				
Queue Length 95th (ft)		58							46				
Internal Link Dist (ft)		424				382			103			91	
Turn Bay Length (ft)													
Base Capacity (vph)		1514							2192				
Starvation Cap Reductn		0							92				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.59							0.63				

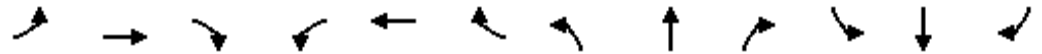
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	55.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 539: Post St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			7									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	752	271	0	0	0	0	0	0	138	1152	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	792	285	0	0	0	0	0	0	0	1358	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.40	0.32								0.84	
Control Delay		5.8	5.6								19.5	
Queue Delay		0.0	0.0								0.0	
Total Delay		5.8	5.6								19.5	
LOS		A	A								B	
Approach Delay		5.7									19.5	



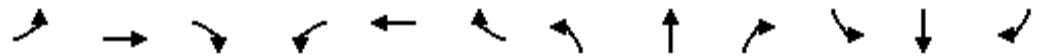
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A											B
Queue Length 50th (ft)		57	37									182
Queue Length 95th (ft)		80	65									#238
Internal Link Dist (ft)		382			406			277				272
Turn Bay Length (ft)												
Base Capacity (vph)		2005	900									1619
Starvation Cap Reductn		0	0									0
Spillback Cap Reductn		0	0									0
Storage Cap Reductn		0	0									0
Reduced v/c Ratio		0.40	0.32									0.84

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 27 (45%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 13.4                      Intersection LOS: B  
 Intersection Capacity Utilization 52.5%                      ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 540: Post St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			9	9							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	126	405	570	0	0	0	0	0	1725	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	148	426	600	0	0	0	0	0	1873	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	40.2	40.2	40.2	0.0	0.0	0.0	0.0	0.0	49.8	0.0
Total Split (%)	0.0%	0.0%	44.7%	44.7%	44.7%	0.0%	0.0%	0.0%	0.0%	0.0%	55.3%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			37.2	37.2	37.2						46.8	
Actuated g/C Ratio			0.41	0.41	0.41						0.52	
v/c Ratio			0.22	0.58	0.42						0.76	
Control Delay			17.1	5.7	4.5						8.0	
Queue Delay			0.0	0.0	0.0						0.3	
Total Delay			17.1	5.7	4.5						8.3	
LOS			B	A	A						A	
Approach Delay					5.0						8.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											A	A
Queue Length 50th (ft)			50	31	24						81	
Queue Length 95th (ft)			85	m43	m32						90	
Internal Link Dist (ft)		81			419			254			75	
Turn Bay Length (ft)												
Base Capacity (vph)			671	737	1416						2473	
Starvation Cap Reductn			0	0	0						122	
Spillback Cap Reductn			0	0	0						147	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.22	0.58	0.42						0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 79 (88%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 7.6      Intersection LOS: A  
 Intersection Capacity Utilization 74.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 554: Sutter St. & Gough St.**

↓ ø6	↘ ø4
49.8 s	40.2 s
	← ø8
	40.2 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	837	265	138	2450	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	881	279	0	2641	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	34.0	34.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	37.8%	37.8%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					31.0	31.0		53.0				
Actuated g/C Ratio					0.34	0.34		0.59				
v/c Ratio					0.75	0.51		0.81				
Control Delay					15.3	11.3		2.9				
Queue Delay					0.4	0.0		0.2				
Total Delay					15.7	11.3		3.1				
LOS					B	B		A				
Approach Delay					14.7			3.1				



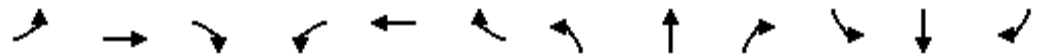
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						B				A		
Queue Length 50th (ft)						267	115	22				
Queue Length 95th (ft)						m323	m120	23				
Internal Link Dist (ft)		419				217		98			76	
Turn Bay Length (ft)												
Base Capacity (vph)						1175	547	3250				
Starvation Cap Reductn						53	0	123				
Spillback Cap Reductn						0	0	114				
Storage Cap Reductn						0	0	0				
Reduced v/c Ratio						0.79	0.51	0.84				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 6.6                      Intersection LOS: A  
 Intersection Capacity Utilization 74.8%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3336	1401
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3336	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						59						9
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	93	1026	80	0	1106	0	0	981	76
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			3	3
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1178	84	0	1164	0	0	1033	80
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.86	0.15		0.67			0.58	0.17
Control Delay					32.9	7.8		12.1			21.6	17.3
Queue Delay					0.9	0.0		1.2			0.4	0.0
Total Delay					33.8	7.8		13.3			21.9	17.3
LOS					C	A		B			C	B
Approach Delay					32.1			13.3			21.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			C	
Queue Length 50th (ft)					315	8		339			204	19
Queue Length 95th (ft)					#416	37		435			258	m48
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												70
Base Capacity (vph)					1365	579		1727			1779	477
Starvation Cap Reductn					51	0		318			276	0
Spillback Cap Reductn					0	6		331			0	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.90	0.15		0.83			0.69	0.17

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 40 (44%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 22.6      Intersection LOS: C  
 Intersection Capacity Utilization 68.3%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 556: Sutter St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1936	0	0	1883	0
Flt Permitted					0.991			0.700				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1369	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						143						37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	237	1014	136	53	205	0	0	345	132
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1316	143	0	272	0	0	502	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0		23.0			23.0	
Actuated g/C Ratio					0.52	0.52		0.38			0.38	
v/c Ratio					0.75	0.16		0.52			0.67	
Control Delay					7.8	0.5		15.9			9.2	
Queue Delay					0.3	0.0		0.0			0.3	
Total Delay					8.1	0.5		16.0			9.5	
LOS					A	A		B			A	
Approach Delay					7.3			16.0			9.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Flt Permitted								0.987				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						65		50				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1091	100	296	802	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1148	105	0	1156	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.67	0.13		0.60				
Control Delay					6.6	0.6		6.1				
Queue Delay					0.0	0.0		0.0				
Total Delay					6.6	0.6		6.1				
LOS					A	A		A				
Approach Delay					6.1			6.1				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					18						69	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	285	1005	0	0	0	0	0	1005	186
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1358	0	0	0	0	0	1254	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					33.0						21.0	
Actuated g/C Ratio					0.55						0.35	
v/c Ratio					0.73						0.77	
Control Delay					12.9						17.6	
Queue Delay					0.0						0.0	
Total Delay					12.9						17.6	
LOS					B						B	
Approach Delay					12.9						17.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		125						272				
Turn Bay Length (ft)												
Base Capacity (vph)												
Starvation Cap Reductn												
Spillback Cap Reductn												
Storage Cap Reductn												
Reduced v/c Ratio												

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization:	66.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4765	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4765	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		17									30	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1080	291	0	0	0	0	0	0	158	1409	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1443	0	0	0	0	0	0	0	0	1667	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		40.0									44.0	
Actuated g/C Ratio		0.44									0.49	
v/c Ratio		0.68									0.71	
Control Delay		21.8									11.0	
Queue Delay		0.0									0.2	
Total Delay		21.8									11.2	
LOS		C									B	
Approach Delay		21.8									11.2	

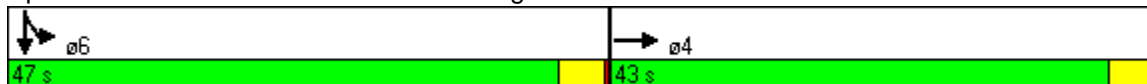


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C										B	
Queue Length 50th (ft)		229										110	
Queue Length 95th (ft)		282										180	
Internal Link Dist (ft)		172					417			94		91	
Turn Bay Length (ft)													
Base Capacity (vph)		2107										2345	
Starvation Cap Reductn		0										150	
Spillback Cap Reductn		0										68	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.68										0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	73 (81%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	16.1
Intersection LOS:	B
Intersection Capacity Utilization:	64.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 583: Bush St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4821	0	0	0	0	0	5623	0	0	0	0
Flt Permitted		0.989										
Satd. Flow (perm)	0	4821	0	0	0	0	0	5623	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	264	974	0	0	0	0	0	2314	348	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1290	0	0	0	0	0	2893	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		30.0						54.0				
Actuated g/C Ratio		0.33						0.60				
v/c Ratio		0.80						0.86				
Control Delay		19.0						7.6				
Queue Delay		0.0						1.0				
Total Delay		19.0						8.6				
LOS		B						A				
Approach Delay		19.0						8.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		89							101				
Queue Length 95th (ft)		150							109				
Internal Link Dist (ft)		417				148			104			82	
Turn Bay Length (ft)													
Base Capacity (vph)		1609							3381				
Starvation Cap Reductn		0							108				
Spillback Cap Reductn		0							243				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.80							0.92				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	68 (76%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization	70.2%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4985	0	0	0	0	0	3353	1417	1770	3362	0
Flt Permitted		0.997								0.950		
Satd. Flow (perm)	0	4945	0	0	0	0	0	3353	942	1661	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13							35			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	89	1153	80	0	0	0	0	1066	83	208	977	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								1	1		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1453	0	0	0	0	0	1211	94	236	1110	0
Turn Type	Split								Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.0	4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0	7.4	48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	36.0	36.0	17.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	18.9%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		34.0						33.0	33.0	14.0	50.0	
Actuated g/C Ratio		0.38						0.37	0.37	0.16	0.56	
v/c Ratio		0.77						0.99	0.26	0.86	0.59	
Control Delay		35.0						33.6	2.4	41.5	3.9	
Queue Delay		0.3						8.7	0.0	0.0	0.3	
Total Delay		35.3						42.3	2.4	41.5	4.2	
LOS		D						D	A	D	A	
Approach Delay		35.3						39.4			10.8	

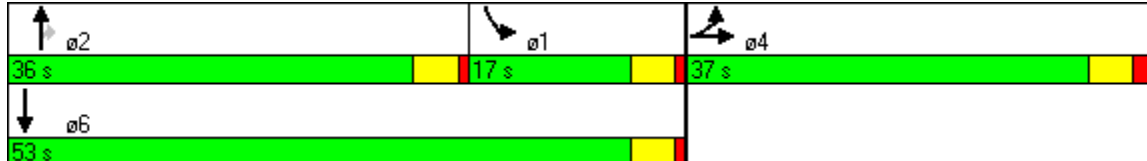


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		D							D			B	
Queue Length 50th (ft)		253						386	3	116	47		
Queue Length 95th (ft)		305						#476	m4	m#174	m55		
Internal Link Dist (ft)		141			225			106				89	
Turn Bay Length (ft)									70	90			
Base Capacity (vph)		1891						1229	368	275	1868		
Starvation Cap Reductn		47						42	0	0	239		
Spillback Cap Reductn		96						0	0	0	0		
Storage Cap Reductn		0						0	0	0	0		
Reduced v/c Ratio		0.81						1.02	0.26	0.86	0.68		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 57 (63%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 28.6      Intersection LOS: C  
 Intersection Capacity Utilization 79.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 585: Bush St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1904	0	0	1939	0
Flt Permitted		0.998									0.889	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1904	0	0	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21						14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	50	1305	89	0	0	0	0	273	66	79	388	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1521	0	0	0	0	0	356	0	0	491	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.8	28.8	0.0	0.0	0.0	0.0	0.0	31.2	0.0	31.2	31.2	0.0
Total Split (%)	48.0%	48.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.0%	0.0%	52.0%	52.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.8						28.2			28.2	
Actuated g/C Ratio		0.43						0.47			0.47	
v/c Ratio		0.73						0.39			0.60	
Control Delay		16.5						10.3			16.5	
Queue Delay		0.0						0.2			3.3	
Total Delay		16.5						10.5			19.8	
LOS		B						B			B	
Approach Delay		16.5						10.5			19.8	

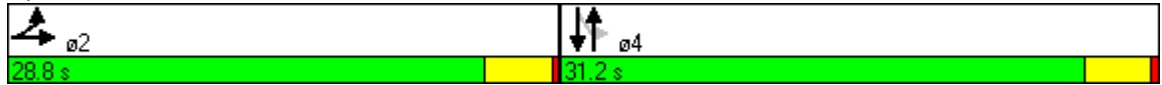


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B			B	
Queue Length 50th (ft)		157						48			161	
Queue Length 95th (ft)		206						102			m255	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		2085						902			817	
Starvation Cap Reductn		0						124			227	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.73						0.46			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 52 (87%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 16.3                      Intersection LOS: B  
 Intersection Capacity Utilization 81.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3024	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3024	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						25	31			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	118	1332	0	0	0	0	0	573	334	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1526	0	0	0	0	0	681	274	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.59						0.61	0.59			
Control Delay		2.4						10.6	12.3			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.4						10.6	12.3			
LOS		A						B	B			
Approach Delay		2.4						11.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	20						123 87					
Queue Length 95th (ft)	23						172 185					
Internal Link Dist (ft)	216						181 103 10					
Turn Bay Length (ft)												
Base Capacity (vph)	2607						1125 461					
Starvation Cap Reductn	0						0 0					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.59						0.61 0.59					

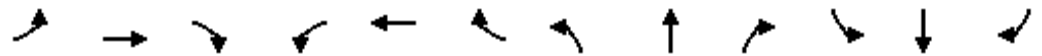
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.7
Intersection LOS:	A
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 587: Bush St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		35										38
Link Speed (mph)		25			25			25				25
Link Distance (ft)		240			465			132				317
Travel Time (s)		6.5			12.7			3.6				8.6
Volume (vph)	0	1302	344	0	0	0	0	0	0	138	847	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)												30
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	1733	0	0	0	0	0	0	0	0	1037	0
Turn Type											Split	
Protected Phases		2									4	4
Permitted Phases												
Detector Phases		2									4	4
Minimum Initial (s)		4.0									4.0	4.0
Minimum Split (s)		36.0									24.0	24.0
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5									3.5	3.5
All-Red Time (s)		0.5									0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0										21.0
Actuated g/C Ratio		0.55										0.35
v/c Ratio		0.66										0.63
Control Delay		4.3										10.5
Queue Delay		0.0										0.0
Total Delay		4.3										10.5
LOS		A										B
Approach Delay		4.3										10.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A										B	
Queue Length 50th (ft)		50										38	
Queue Length 95th (ft)		59										50	
Internal Link Dist (ft)		160				385			52		237		
Turn Bay Length (ft)													
Base Capacity (vph)		2614										1634	
Starvation Cap Reductn		0										0	
Spillback Cap Reductn		0										0	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.66										0.63	

**Intersection Summary**

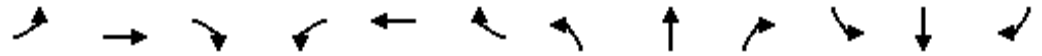
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization:	58.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				24							14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	334	1487	0	0	0	0	0	1177	172
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	352	1565	0	0	0	0	0	1435	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.40	0.66						0.69	
Control Delay				2.0	2.8						9.1	
Queue Delay				0.0	0.1						0.7	
Total Delay				2.0	2.9						9.8	
LOS				A	A						A	
Approach Delay					2.8						9.8	

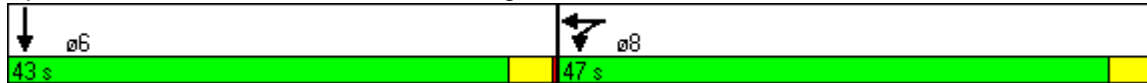


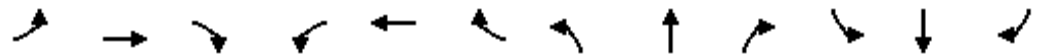
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												A
Queue Length 50th (ft)				13	33							117
Queue Length 95th (ft)				m13	m33							58
Internal Link Dist (ft)		169			423			88				273
Turn Bay Length (ft)												
Base Capacity (vph)				878	2383							2088
Starvation Cap Reductn				0	140							309
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.40	0.70							0.81

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 5.8      Intersection LOS: A  
 Intersection Capacity Utilization 73.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 612: Pine St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6023	0	0	5457	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	6023	0	0	5457	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			452			172				192
Travel Time (s)		13.7			12.3			4.7				5.2
Volume (vph)	0	0	0	0	1604	397	217	2319	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2411	0	0	2698	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					37.0			47.0				
Actuated g/C Ratio					0.41			0.52				
v/c Ratio					0.97			0.95				
Control Delay					18.5			15.6				
Queue Delay					0.2			8.4				
Total Delay					18.6			24.0				
LOS					B			C				
Approach Delay					18.6			24.0				



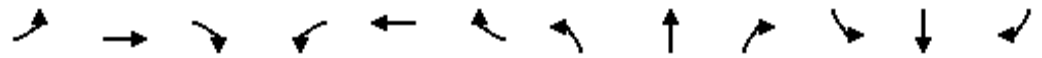
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			C				
Queue Length 50th (ft)					87			126				
Queue Length 95th (ft)					96			#408				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2477			2850				
Starvation Cap Reductn					4			172				
Spillback Cap Reductn					0			93				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.97			1.01				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.97
Intersection Signal Delay:	21.5
Intersection LOS:	C
Intersection Capacity Utilization:	73.5%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 613: Pine St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		70
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6273	0	1770	3345	0	0	3193	1280
Flt Permitted				0.998			0.950					
Satd. Flow (perm)	0	0	0	0	6243	0	1659	3345	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20							33
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	75	1740	134	92	1030	0	0	1141	169
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								2			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2052	0	97	1084	0	0	1201	178
Turn Type				Split			Prot					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases												6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	4.0
Minimum Split (s)				36.0	36.0		7.0	48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	10.0	54.0	0.0	0.0	44.0	44.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	11.1%	60.0%	0.0%	0.0%	48.9%	48.9%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		1.0	1.0			1.0	1.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					33.0		7.0	51.0			41.0	41.0
Actuated g/C Ratio					0.37		0.08	0.57			0.46	0.46
v/c Ratio					0.89		0.70	0.57			0.83	0.44
Control Delay					32.4		38.7	1.7			22.4	16.5
Queue Delay					0.8		0.0	1.4			1.9	0.0
Total Delay					33.2		38.7	3.1			24.4	16.5
LOS					C		D	A			C	B
Approach Delay					33.2			6.1			23.3	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6153	0	0	1939	0	0	1885	0
Flt Permitted				0.998			0.844					
Satd. Flow (perm)	0	0	0	0	6153	0	0	1650	0	0	1885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19							3
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	82	1739	85	52	271	0	0	356	128
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2006	0	0	340	0	0	510	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					26.0			28.0			28.0	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.75			0.44			0.58	
Control Delay					8.3			17.5			8.9	
Queue Delay					0.1			0.9			0.3	
Total Delay					8.4			18.4			9.1	
LOS					A			B			A	
Approach Delay					8.4			18.4			9.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6110	0	0	3144	0	0	0	0
Flt Permitted								0.979				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3144	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					78			16				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		490			280			167				363
Travel Time (s)		13.4			7.6			4.6				9.9
Volume (vph)	0	0	0	0	1608	193	298	397	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1896	0	0	732	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.56			0.66				
Control Delay					4.5			6.8				
Queue Delay					0.0			0.0				
Total Delay					4.5			6.8				
LOS					A			A				
Approach Delay					4.5			6.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					46			29				
Queue Length 95th (ft)					54			40				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3396			1111				
Starvation Cap Reductn					0			3				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.56			0.66				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	39 (65%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	52.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4478	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4478	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					84						11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	252	1592	0	0	0	0	0	733	209
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1941	0	0	0	0	0	992	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.60						0.55	
Control Delay					11.2						15.1	
Queue Delay					0.0						0.0	
Total Delay					11.2						15.1	
LOS					B						B	
Approach Delay					11.2						15.1	

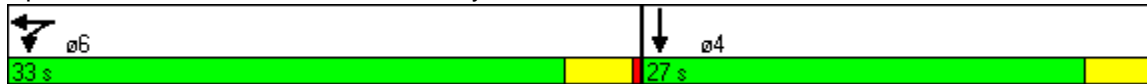


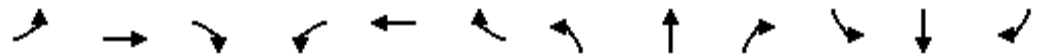
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					127						95	
Queue Length 95th (ft)					161						131	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3224						1798	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.60						0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	52.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3511	0	0	0	0	0	3507	0
Flt Permitted					0.661						0.997	
Satd. Flow (perm)	0	3458	0	0	2339	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29									6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	540	97	113	563	0	0	0	0	73	1139	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	692	0	0	786	0	0	0	0	0	1356	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					25.0	25.0	
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0							44.0
Actuated g/C Ratio		0.44			0.44							0.49
v/c Ratio		0.45			0.76							0.79
Control Delay		17.6			26.6							26.3
Queue Delay		0.0			0.0							14.5
Total Delay		17.6			26.6							40.8
LOS		B			C							D
Approach Delay		17.6			26.6							40.8

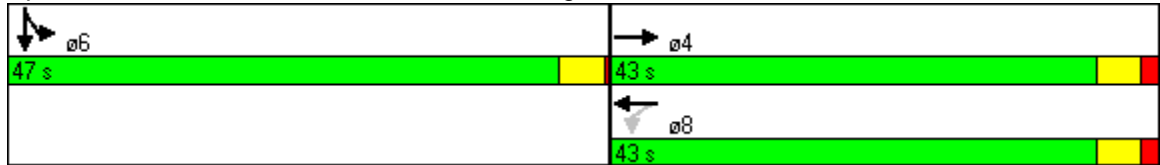


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			D					
Queue Length 50th (ft)	132			123			388					
Queue Length 95th (ft)	180			m154			m448					
Internal Link Dist (ft)	414			438			273		288			
Turn Bay Length (ft)												
Base Capacity (vph)	1553			1040			1718					
Starvation Cap Reductn	0			0			374					
Spillback Cap Reductn	0			0			0					
Storage Cap Reductn	0			0			0					
Reduced v/c Ratio	0.45			0.76			1.01					

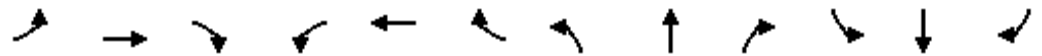
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 71 (79%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 31.2      Intersection LOS: C  
 Intersection Capacity Utilization 82.0%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





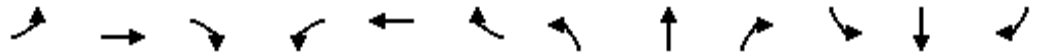


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3472	0	0	5691	0	0	0	0
Flt Permitted	0.154							0.999				
Satd. Flow (perm)	287	3539	0	0	3472	0	0	5691	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	92	521	0	0	596	84	80	2502	134	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	108	613	0	0	800	0	0	3196	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	7.0	33.0	0.0	0.0	26.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	7.8%	36.7%	0.0%	0.0%	28.9%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	30.0	30.0			23.0			54.0				
Actuated g/C Ratio	0.33	0.33			0.26			0.60				
v/c Ratio	0.67	0.52			0.89			0.93				
Control Delay	39.8	13.6			33.0			9.3				
Queue Delay	0.0	0.0			0.0			2.6				
Total Delay	39.8	13.6			33.0			11.9				
LOS	D	B			C			B				
Approach Delay		17.5			33.0			11.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		110	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	
Trailing Detector (ft)	0	0		0	0			0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3335	0	0	3358	0	0	3336	1401	0	3039	0
Flt Permitted		0.897			0.835							
Satd. Flow (perm)	0	2994	0	0	2805	0	0	3336	918	0	3039	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			12				30		11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	23	524	108	39	612	82	0	1067	97	0	1163	68
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								3	3		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	752	0	0	806	0	0	1100	100	0	1309	0
Turn Type	Perm			Perm					Perm			
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			
Detector Phases	4	4		4	4			2	2		2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	0.0	53.0	53.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	58.9%	58.9%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	
Act Effct Green (s)		34.0			34.0			50.0	50.0		50.0	
Actuated g/C Ratio		0.38			0.38			0.56	0.56		0.56	
v/c Ratio		0.66			0.76			0.59	0.19		0.77	
Control Delay		15.1			29.5			3.8	1.3		8.1	
Queue Delay		0.0			0.0			0.1	0.0		0.3	
Total Delay		15.1			29.5			3.9	1.3		8.3	
LOS		B			C			A	A		A	
Approach Delay		15.1			29.5			3.7			8.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	
Queue Length 50th (ft)		68			203			41	1		73	
Queue Length 95th (ft)		m113			276			m48	m4		103	
Internal Link Dist (ft)		361			163			282			265	
Turn Bay Length (ft)								110				
Base Capacity (vph)		1142			1067			1853	523		1693	
Starvation Cap Reductn		0			0			97	0		0	
Spillback Cap Reductn		0			0			0	0		63	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.66			0.76			0.63	0.19		0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 12.4      Intersection LOS: B  
 Intersection Capacity Utilization 90.4%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3382	0	0	3409	0	0	1914	0	0	1903	0
Flt Permitted								0.965			0.920	
Satd. Flow (perm)	0	3382	0	0	3409	0	0	1853	0	0	1761	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			26			20			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	519	102	0	672	85	20	288	48	66	382	83
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	653	0	0	796	0	0	375	0	0	558	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0			31.0			31.0	
Actuated g/C Ratio		0.38			0.38			0.52			0.52	
v/c Ratio		0.49			0.60			0.39			0.61	
Control Delay		14.6			11.7			6.3			10.7	
Queue Delay		0.0			0.0			0.0			0.4	
Total Delay		14.6			11.7			6.3			11.1	
LOS		B			B			A			B	
Approach Delay		14.6			11.7			6.3			11.1	



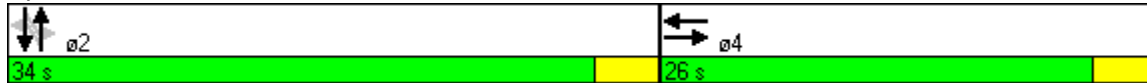
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		84			45			13			95	
Queue Length 95th (ft)		126			105			m90			148	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1324			1323			967			921	
Starvation Cap Reductn		0			0			0			82	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.60			0.39			0.67	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	15 (25%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	11.5
Intersection LOS:	B
Intersection Capacity Utilization:	75.9%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 642: California St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1785	0	1770	0	1290
Flt Permitted		0.908					0.950			0.338		
Satd. Flow (perm)	0	3149	0	0	3455	0	1770	1785	0	630	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			49				58
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	27	606	0	0	622	16	89	362	139	67	0	46
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	674	0	0	768	0	95	533	0	84	0	58
Turn Type	Perm						Perm			custom		custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	0.0	35.0
Total Split (%)	41.7%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	0.0%	58.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		22.0			22.0		32.0	32.0		32.0		32.0
Actuated g/C Ratio		0.37			0.37		0.53	0.53		0.53		0.53
v/c Ratio		0.58			0.60		0.10	0.55		0.25		0.08
Control Delay		14.7			17.8		3.4	5.0		10.0		2.6
Queue Delay		0.0			0.0		0.0	0.1		0.0		0.0
Total Delay		14.7			17.8		3.4	5.1		10.0		2.6
LOS		B			B		A	A		B		A
Approach Delay		14.7			17.8			4.9				

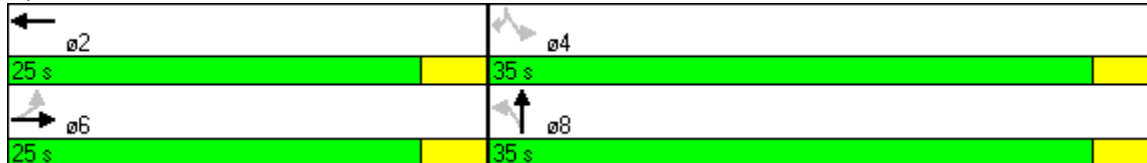


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		54			114		0	51		15		0
Queue Length 95th (ft)		111			147		m12	0		33		11
Internal Link Dist (ft)		412			61			283			587	
Turn Bay Length (ft)												
Base Capacity (vph)		1155			1270		944	975		336		715
Starvation Cap Reductn		0			0		0	37		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0
Reduced v/c Ratio		0.58			0.60		0.10	0.57		0.25		0.08

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 48 (80%), Referenced to phase 2:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 12.5      Intersection LOS: B  
 Intersection Capacity Utilization 77.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 643: California St. & Larkin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1839	0	0	0	0	0	1535	0
Flt Permitted	0.301			0.950								
Satd. Flow (perm)	561	0	1583	1770	1839	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			163	193	5						7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	77	0	114	297	268	26	0	0	0	0	850	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	110	0	163	334	330	0	0	0	0	0	917	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	28.0	0.0	28.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	62.0	0.0
Total Split (%)	31.1%	0.0%	31.1%	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	25.0		25.0	25.0	25.0						59.0	
Actuated g/C Ratio	0.28		0.28	0.28	0.28						0.66	
v/c Ratio	0.71		0.29	0.53	0.64						0.91	
Control Delay	55.9		5.8	4.5	14.3						22.0	
Queue Delay	0.0		1.5	15.2	0.0						3.7	
Total Delay	55.9		7.3	19.7	14.3						25.7	
LOS	E		A	B	B						C	
Approach Delay					17.0						25.7	

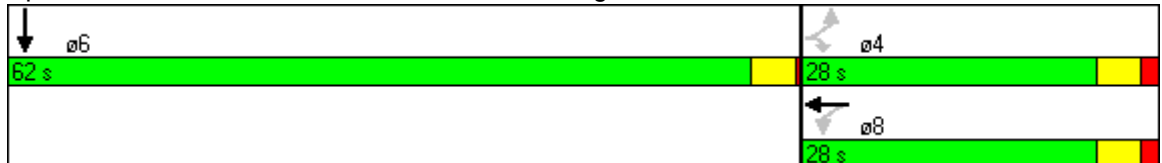


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Approach LOS							B							C
Queue Length 50th (ft)	56		0	0	76						184			
Queue Length 95th (ft)	86		19	m0	m120						#715			
Internal Link Dist (ft)		120			429			288			241			
Turn Bay Length (ft)														
Base Capacity (vph)	156		557	631	514						1009			
Starvation Cap Reductn	0		0	0	0						0			
Spillback Cap Reductn	0		248	278	0						49			
Storage Cap Reductn	0		0	0	0						0			
Reduced v/c Ratio	0.71		0.53	0.95	0.64						0.96			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 22.8                      Intersection LOS: C  
 Intersection Capacity Utilization 81.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 659: Sacramento St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3426	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3426	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					3		68					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	511	137	80	2598	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	704	0	86	2794	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					24.0		60.0	60.0				
Actuated g/C Ratio					0.27		0.67	0.67				
v/c Ratio					0.77		0.07	0.88				
Control Delay					19.5		0.0	3.1				
Queue Delay					0.0		0.0	1.0				
Total Delay					19.5		0.0	4.2				
LOS					B		A	A				
Approach Delay					19.5			4.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					196		0	42				
Queue Length 95th (ft)					256		m0	m36				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					916		1203	3193				
Starvation Cap Reductn					0		0	186				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					0.77		0.07	0.93				

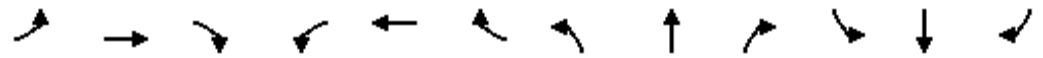
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	7.1
Intersection LOS:	A
Intersection Capacity Utilization:	75.4%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3224	0	0	3150	0	0	3186	1275
Flt Permitted				0.993								
Satd. Flow (perm)	0	0	0	0	3166	0	0	3150	0	0	3186	1035
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20							55
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	103	557	90	0	1172	0	0	1128	91
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	781	0	0	1208	0	0	1187	96
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.60			0.72			0.70	0.17
Control Delay					23.1			4.6			15.2	7.6
Queue Delay					0.0			0.0			0.9	0.0
Total Delay					23.1			4.6			16.0	7.6
LOS					C			A			B	A
Approach Delay					23.1			4.6			15.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					175			37			150	3
Queue Length 95th (ft)					236			52			225	m14
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												80
Base Capacity (vph)					1302			1680			1699	578
Starvation Cap Reductn					0			0			242	0
Spillback Cap Reductn					0			0			14	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.60			0.72			0.81	0.17

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	69 (77%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	13.2
Intersection LOS:	B
Intersection Capacity Utilization:	63.6%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3490	0	0	1947	0	0	1871	0
Flt Permitted				0.993			0.929					
Satd. Flow (perm)	0	0	0	0	3490	0	0	1816	0	0	1871	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						64	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	91	516	30	32	341	0	0	440	202
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	671	0	0	393	0	0	676	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.57			0.38			0.62	
Control Delay					18.6			6.4			5.8	
Queue Delay					0.0			0.2			0.1	
Total Delay					18.6			6.6			5.9	
LOS					B			A			A	
Approach Delay					18.6			6.6			5.9	

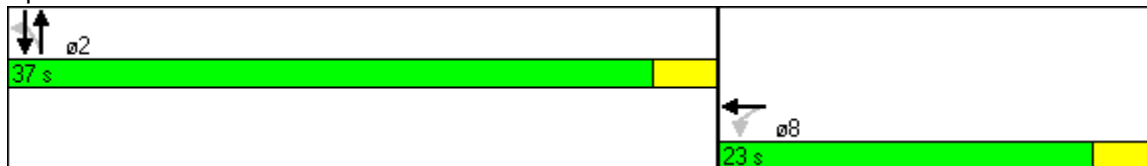


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					101			51			45	
Queue Length 95th (ft)					148			74			86	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1169			1029			1088	
Starvation Cap Reductn					0			154			38	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.57			0.45			0.64	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	18 (30%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	11.0
Intersection LOS:	B
Intersection Capacity Utilization	69.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 662: Sacramento St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1691	0	0	1510	0	0	5019	0	0	0	0
Flt Permitted		0.922						0.999				
Satd. Flow (perm)	0	1580	0	0	1510	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			39				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		516			450			331			296	
Travel Time (s)		14.1			12.3			9.0			8.1	
Volume (vph)	14	42	0	0	17	124	34	2479	222	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	59	0	0	149	0	0	2879	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	23.5	23.5	0.0	0.0	23.5	0.0	66.5	66.5	0.0	0.0	0.0	0.0
Total Split (%)	26.1%	26.1%	0.0%	0.0%	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		20.5			20.5			63.5				
Actuated g/C Ratio		0.23			0.23			0.71				
v/c Ratio		0.16			0.43			0.81				
Control Delay		40.5			38.7			1.7				
Queue Delay		0.0			0.0			0.3				
Total Delay		40.5			38.7			2.0				
LOS		D			D			A				
Approach Delay		40.5			38.7			2.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↗		↑↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1571	0	0	0	0	0	3185	1267	0	2971	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	1565	0	0	0	0	0	3185	802	0	2971	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11							34		25	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	8	215	41	0	0	0	0	1136	126	0	1178	141
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20	20		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	339	0	0	0	0	0	1209	134	0	1388	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.64						0.63	0.27		0.77	
Control Delay		24.7						3.3	1.4		8.0	
Queue Delay		0.6						0.8	0.0		0.0	
Total Delay		25.3						4.1	1.4		8.0	
LOS		C						A	A		A	
Approach Delay		25.3						3.8			8.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A			A	
Queue Length 50th (ft)		150							24	0		73	
Queue Length 95th (ft)		191							30	m1		71	
Internal Link Dist (ft)		370				421			247			76	
Turn Bay Length (ft)										70			
Base Capacity (vph)		531							1911	495		1793	
Starvation Cap Reductn		0							379	0		0	
Spillback Cap Reductn		36							0	0		0	
Storage Cap Reductn		0							0	0		0	
Reduced v/c Ratio		0.68							0.79	0.27		0.77	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	81 (90%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization:	67.5%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3036	0	0	0	0	0	1887	0	0	1947	0
Flt Permitted		0.993									0.946	
Satd. Flow (perm)	0	3036	0	0	0	0	0	1887	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		240						39				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	49	64	228	0	0	0	0	274	97	41	414	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	359	0	0	0	0	0	390	0	0	479	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.5						27.5			27.5	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.24						0.44			0.56	
Control Delay		4.2						8.7			13.6	
Queue Delay		0.0						0.2			0.2	
Total Delay		4.2						8.9			13.8	
LOS		A						A			B	
Approach Delay		4.2						8.9			13.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		12						43			97	
Queue Length 95th (ft)		33						58			145	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1475						886			848	
Starvation Cap Reductn		0						109			47	
Spillback Cap Reductn		0						0			2	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.24						0.50			0.60	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	16 (27%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	9.4
Intersection LOS:	A
Intersection Capacity Utilization	64.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 673: Clay St. & Polk St.

 2	 4
30.5 s	29.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1737	0	0	0	0	0	1478	0	0	1857	0
Flt Permitted		0.999									0.994	
Satd. Flow (perm)	0	1737	0	0	0	0	0	1478	0	0	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40						36			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	7	148	107	0	0	0	0	55	27	19	776	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	336	0	0	0	0	0	110	0	0	832	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	30.8	30.8	0.0	0.0	0.0	0.0	0.0	59.2	0.0	59.2	59.2	0.0
Total Split (%)	34.2%	34.2%	0.0%	0.0%	0.0%	0.0%	0.0%	65.8%	0.0%	65.8%	65.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.8						56.2			56.2	
Actuated g/C Ratio		0.31						0.62			0.62	
v/c Ratio		0.60						0.12			0.72	
Control Delay		28.2						4.1			13.8	
Queue Delay		0.0						0.0			1.6	
Total Delay		28.2						4.1			15.5	
LOS		C						A			B	
Approach Delay		28.2						4.1			15.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		141						23			227	
Queue Length 95th (ft)		188						m25			334	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		564						936			1155	
Starvation Cap Reductn		0						0			168	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.60						0.12			0.84	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	8 (9%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	17.8
Intersection LOS:	B
Intersection Capacity Utilization	70.7%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 679: Washington St. & Gough St.**

 59.2 s	 30.8 s
 59.2 s	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3490	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3490	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	30	164	0	0	0	0	0	2442	175	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	303	0	0	0	0	0	2784	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	22.5	22.5	0.0	0.0	0.0	0.0	0.0	67.5	0.0	0.0	0.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		19.5						64.5				
Actuated g/C Ratio		0.22						0.72				
v/c Ratio		0.40						0.82				
Control Delay		30.0						4.4				
Queue Delay		0.0						0.6				
Total Delay		30.0						4.9				
LOS		C						A				
Approach Delay		30.0						4.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		53							30				
Queue Length 95th (ft)		66							34				
Internal Link Dist (ft)		442				372			216		289		
Turn Bay Length (ft)													
Base Capacity (vph)		762							3407				
Starvation Cap Reductn		0							264				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.40							0.89				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	5 (6%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization:	63.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3330	0	0	0	0	0	1922	0	0	1947	0
Flt Permitted		0.993									0.961	
Satd. Flow (perm)	0	3330	0	0	0	0	0	1922	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	46	193	96	0	0	0	0	281	42	30	359	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	352	0	0	0	0	0	340	0	0	410	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.24						0.36			0.45	
Control Delay		8.5						3.4			12.4	
Queue Delay		0.0						0.2			0.2	
Total Delay		8.5						3.5			12.6	
LOS		A						A			B	
Approach Delay		8.5						3.5			12.6	

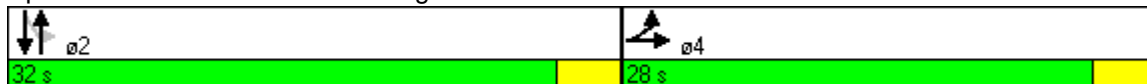


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		28						15			91	
Queue Length 95th (ft)		52						27			136	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1446						938			908	
Starvation Cap Reductn		0						134			93	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.24						0.42			0.50	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	23 (38%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization	57.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↖			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1859	0	0	1833	0
Flt Permitted		0.696		0.706				0.984				
Satd. Flow (perm)	0	1189	0	1315	1829	0	0	1833	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			2							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	27	0	43	82	287	12	2	60	0	0	682	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	88	0	111	404	0	0	80	0	0	804	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		30.0		30.0	30.0			54.0				54.0
Actuated g/C Ratio		0.33		0.33	0.33			0.60				0.60
v/c Ratio		0.20		0.25	0.66			0.07				0.73
Control Delay		11.5		14.2	19.8			7.9				14.2
Queue Delay		0.2		0.3	0.0			0.0				0.4
Total Delay		11.7		14.5	19.8			7.9				14.6
LOS		B		B	B			A				B
Approach Delay		11.7			18.7			7.9				14.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		13		28	107			26			190	
Queue Length 95th (ft)		38		m38	120			m33			220	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		432		438	611			1100			1105	
Starvation Cap Reductn		0		0	0			0			54	
Spillback Cap Reductn		82		90	0			0			1	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.25		0.32	0.66			0.07			0.76	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 25 (28%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 15.5      Intersection LOS: B  
 Intersection Capacity Utilization 71.3%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					9			24				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	246	63	135	2337	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	325	0	0	2602	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	67.0	67.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	25.6%	0.0%	74.4%	74.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					20.0			64.0				
Actuated g/C Ratio					0.22			0.71				
v/c Ratio					0.42			0.77				
Control Delay					11.7			1.4				
Queue Delay					0.0			0.3				
Total Delay					11.7			1.7				
LOS					B			A				
Approach Delay					11.7			1.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					24			13				
Queue Length 95th (ft)					m35			12				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					765			3390				
Starvation Cap Reductn					0			172				
Spillback Cap Reductn					0			234				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.42			0.82				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	12 (13%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	2.8
Intersection LOS:	A
Intersection Capacity Utilization:	63.4%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3375	0	0	1928	0	0	1881	0
Flt Permitted				0.986			0.771					
Satd. Flow (perm)	0	0	0	0	3375	0	0	1507	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					43						45	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	84	166	46	91	236	0	0	305	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	311	0	0	344	0	0	446	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.22			0.47			0.48	
Control Delay					10.1			5.8			8.9	
Queue Delay					0.0			0.0			0.3	
Total Delay					10.1			5.8			9.2	
LOS					B			A			A	
Approach Delay					10.1			5.8			9.2	

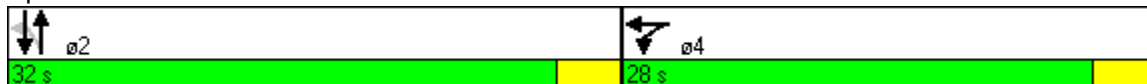


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					31			20			75	
Queue Length 95th (ft)					53			32			123	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1431			728			932	
Starvation Cap Reductn					0			0			123	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.22			0.47			0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	32 (53%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	8.4
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1816	0	0	1829	0	0	1803	0	0	1857	0
Flt Permitted		0.997			0.919						0.992	
Satd. Flow (perm)	0	1813	0	0	1696	0	0	1803	0	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			32			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	113	24	38	147	14	0	76	23	21	710	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	172	0	0	219	0	0	136	0	0	780	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.31			0.43			0.12			0.67	
Control Delay		24.5			16.5			6.2			8.6	
Queue Delay		0.1			0.3			0.0			1.5	
Total Delay		24.6			16.8			6.2			10.1	
LOS		C			B			A			B	
Approach Delay		24.6			16.8			6.2			10.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		70			58			11			140	
Queue Length 95th (ft)		108			m90			26			248	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		552			512			1154			1169	
Starvation Cap Reductn		0			0			0			213	
Spillback Cap Reductn		52			49			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.34			0.47			0.12			0.82	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 35 (39%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 12.7      Intersection LOS: B  
 Intersection Capacity Utilization 74.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1757	0	0	5024	0	0	0	0
Flt Permitted		0.928						0.998				
Satd. Flow (perm)	0	1729	0	0	1757	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			26				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	27	130	0	0	116	84	83	2161	156	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	165	0	0	210	0	0	2526	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			60.0				
Actuated g/C Ratio		0.27			0.27			0.67				
v/c Ratio		0.36			0.44			0.75				
Control Delay		22.5			13.9			5.0				
Queue Delay		0.0			0.0			0.9				
Total Delay		22.5			13.9			5.9				
LOS		C			B			A				
Approach Delay		22.5			13.9			5.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		42			103			153				
Queue Length 95th (ft)		m86			m106			126				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		461			476			3358				
Starvation Cap Reductn		0			0			490				
Spillback Cap Reductn		0			0			150				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.36			0.44			0.88				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 30 (33%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 7.4                      Intersection LOS: A  
 Intersection Capacity Utilization 76.5%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 694: Pacific Ave. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1708	0	0	1767	0	0	1856	0	0	1902	0
Flt Permitted		0.953			0.865			0.893			0.973	
Satd. Flow (perm)	0	1636	0	0	1549	0	0	1674	0	0	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			14			47			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	31	138	120	67	166	29	55	141	86	21	237	55
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	304	0	0	277	0	0	297	0	0	329	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.38			0.38			0.39			0.40	
Control Delay		9.1			11.7			4.7			12.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			11.7			4.7			12.6	
LOS		A			B			A			B	
Approach Delay		9.1			11.7			4.7			12.6	

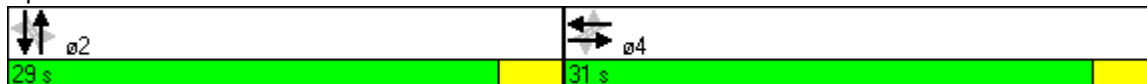


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		47			57			14			71	
Queue Length 95th (ft)		95			107			28			127	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		806			730			752			818	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.38			0.38			0.39			0.40	

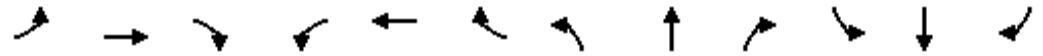
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	40 (67%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	9.6
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3476	0	0	1820	0	0	1848	0
Flt Permitted		0.946			0.699			0.958			0.962	
Satd. Flow (perm)	0	3291	0	0	2462	0	0	1751	0	0	1787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			13			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	5	329	43	207	526	25	7	72	13	52	491	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	396	0	0	892	0	0	128	0	0	606	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	44.0	44.0	0.0	44.0	44.0	0.0	46.0	46.0	0.0	46.0	46.0	0.0
Total Split (%)	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%	51.1%	51.1%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		41.0			41.0			43.0			43.0	
Actuated g/C Ratio		0.46			0.46			0.48			0.48	
v/c Ratio		0.26			0.79			0.15			0.71	
Control Delay		14.9			9.8			11.3			24.2	
Queue Delay		0.0			0.4			0.0			0.0	
Total Delay		14.9			10.2			11.3			24.2	
LOS		B			B			B			C	
Approach Delay		14.9			10.2			11.3			24.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		66			46			63			260	
Queue Length 95th (ft)		97			75			63			389	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1510			1124			843			855	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		48			36			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.82			0.15			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	50 (56%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization	78.2%
ICU Level of Service	D
Analysis Period (min)	15

**Splits and Phases: 698: Broadway & Gough St.**

 46 s	 44 s
 46 s	 44 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3383	0	0	5004	0	0	0	0
Flt Permitted		0.879						0.998				
Satd. Flow (perm)	0	3111	0	0	3383	0	0	5004	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			32				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	12	382	0	0	662	275	96	1968	208	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	428	0	0	986	0	0	2469	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.39			0.82			0.85				
Control Delay		15.6			4.8			6.6				
Queue Delay		0.0			0.0			0.5				
Total Delay		15.6			4.8			7.1				
LOS		B			A			A				
Approach Delay		15.6			4.8			7.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A				
Queue Length 50th (ft)		55			11			47				
Queue Length 95th (ft)		72			m13			57				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		1106			1207			2905				
Starvation Cap Reductn		0			4			132				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.39			0.82			0.89				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 7.5      Intersection LOS: A  
 Intersection Capacity Utilization 78.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 699: Broadway & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50			50	
Trailing Detector (ft)	0	0						0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3436	0	0	0	0	0	3148	0	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3399	0	0	0	0	0	3148	0	0	3283	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8						6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	20	299	20	0	0	0	0	1159	36	0	1299	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	369	0	0	0	0	0	1299	0	0	1353	0
Turn Type	custom											
Protected Phases	4	4						2			6	
Permitted Phases	4											
Detector Phases	4	4						2			6	
Minimum Initial (s)	4.0	4.0						4.0			4.0	
Minimum Split (s)	25.0	25.0						48.0			24.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	1.0	1.0						0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max			Max	
Act Effct Green (s)		30.0						54.0			54.0	
Actuated g/C Ratio		0.33						0.60			0.60	
v/c Ratio		0.32						0.69			0.69	
Control Delay		33.3						3.4			16.1	
Queue Delay		0.0						0.0			1.2	
Total Delay		33.3						3.4			17.4	
LOS		C						A			B	
Approach Delay		33.3						3.4			17.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1809	0	0	1792	0	0	5040	0	0	0	0
Flt Permitted		0.737						0.997				
Satd. Flow (perm)	0	1373	0	0	1792	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11			12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			461			337			345	
Travel Time (s)		13.8			12.6			9.2			9.4	
Volume (vph)	115	78	0	0	100	39	142	1955	86	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	203	0	0	146	0	0	2298	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.46			0.25			0.74				
Control Delay		28.4			25.6			3.1				
Queue Delay		0.0			0.0			0.2				
Total Delay		28.4			25.6			3.4				
LOS		C			C			A				
Approach Delay		28.4			25.6			3.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		91			79			15				
Queue Length 95th (ft)		157			m133			16				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		442			585			3085				
Starvation Cap Reductn		0			0			107				
Spillback Cap Reductn		0			0			203				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.25			0.80				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	56 (62%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	6.5
Intersection LOS:	A
Intersection Capacity Utilization:	70.7%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 701: Green St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1682	0	0	1703	0	0	1820	0	0	1842	0
Flt Permitted		0.979			0.908			0.913			0.975	
Satd. Flow (perm)	0	1650	0	0	1557	0	0	1673	0	0	1802	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			7			15			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	14	280	68	58	332	25	17	90	15	30	408	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	441	0	0	488	0	0	207	0	0	529	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.58			0.69			0.27			0.65	
Control Delay		15.4			19.4			10.8			17.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.4			19.4			10.8			17.3	
LOS		B			B			B			B	
Approach Delay		15.4			19.4			10.8			17.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		105			131			41			138	
Queue Length 95th (ft)		160			209			46			224	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		756			705			761			815	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.58			0.69			0.27			0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	16.6
Intersection LOS:	B
Intersection Capacity Utilization	78.5%
ICU Level of Service	D
Analysis Period (min)	15

**Splits and Phases: 702: Union St. & Gough St.**

	ø2		ø4
30 s		30 s	
	ø6		ø8
30 s		30 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↖↖↖				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.947						0.996				
Satd. Flow (perm)	0	1637	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						9		11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	34	291	0	0	255	114	160	1866	83	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	342	0	0	268	120	0	2219	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	36.0	36.0	0.0	0.0	36.0	36.0	54.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	40.0%	40.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		33.0			33.0	33.0		51.0				
Actuated g/C Ratio		0.37			0.37	0.37		0.57				
v/c Ratio		0.57			0.42	0.20		0.78				
Control Delay		27.4			32.9	27.3		6.2				
Queue Delay		0.0			0.0	0.0		0.3				
Total Delay		27.4			32.9	27.3		6.5				
LOS		C			C	C		A				
Approach Delay		27.4			31.2			6.5				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1811	0	0	5009	0	0	0	0
Flt Permitted		0.966						0.997				
Satd. Flow (perm)	0	1799	0	0	1811	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			460			341			351	
Travel Time (s)		13.8			12.5			9.3			9.6	
Volume (vph)	19	123	0	0	47	12	130	1718	166	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	149	0	0	62	0	0	2120	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.27			0.11			0.68				
Control Delay		24.9			29.6			2.5				
Queue Delay		0.0			0.0			0.4				
Total Delay		24.9			29.6			2.8				
LOS		C			C			A				
Approach Delay		24.9			29.6			2.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		63			24			24				
Queue Length 95th (ft)		112			m56			31				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		560			572			3128				
Starvation Cap Reductn		0			0			427				
Spillback Cap Reductn		0			0			198				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.27			0.11			0.78				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	77 (86%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	4.9
Intersection LOS:	A
Intersection Capacity Utilization:	60.4%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 705: Filbert St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.933						0.995				
Satd. Flow (perm)	0	1738	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	29	107	0	0	71	29	163	1513	73	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	144	0	0	106	0	0	1842	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.24			0.17			0.62				
Control Delay		22.5			9.8			5.1				
Queue Delay		0.0			0.0			0.3				
Total Delay		22.5			9.8			5.4				
LOS		C			A			A				
Approach Delay		22.5			9.8			5.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A				
Queue Length 50th (ft)		58			14			144				
Queue Length 95th (ft)		103			m29			118				
Internal Link Dist (ft)		167			372			271			235	
Turn Bay Length (ft)												
Base Capacity (vph)		599			633			2967				
Starvation Cap Reductn		0			0			464				
Spillback Cap Reductn		0			0			56				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.24			0.17			0.74				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	4 (4%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	6.8
Intersection LOS:	A
Intersection Capacity Utilization	54.7%
ICU Level of Service	A
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 706: Greenwich St. & Franklin St.**

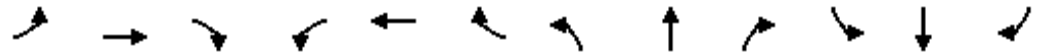






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1768	0	0	5050	0	0	0	0
Flt Permitted		0.952						0.999				
Satd. Flow (perm)	0	1773	0	0	1768	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			14				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	14	73	0	0	83	49	47	2120	88	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	92	0	0	139	0	0	2374	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	28.5	28.5	0.0	0.0	28.5	0.0	61.5	61.5	0.0	0.0	0.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	0.0%	31.7%	0.0%	68.3%	68.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.5			25.5			58.5				
Actuated g/C Ratio		0.28			0.28			0.65				
v/c Ratio		0.18			0.27			0.72				
Control Delay		25.6			14.3			3.1				
Queue Delay		0.0			0.0			0.4				
Total Delay		25.6			14.3			3.6				
LOS		C			B			A				
Approach Delay		25.6			14.3			3.6				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3295	0	0	3014	0	0	2936	0
Flt Permitted				0.989								
Satd. Flow (perm)	0	0	0	0	3128	0	0	3014	0	0	2936	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	80	260	36	0	1179	0	0	1219	49
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	405	0	0	1241	0	0	1441	0
Turn Type				Perm								
Protected Phases					8			2			6	
Permitted Phases				8								
Detector Phases				8	8			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				30.0	30.0			50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					27.0			57.0			57.0	
Actuated g/C Ratio					0.30			0.63			0.63	
v/c Ratio					0.43			0.65			0.77	
Control Delay					26.1			2.2			6.3	
Queue Delay					0.3			0.8			0.1	
Total Delay					26.4			3.0			6.3	
LOS					C			A			A	
Approach Delay					26.4			3.0			6.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			A	
Queue Length 50th (ft)					93			25			80	
Queue Length 95th (ft)					136			30			87	
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												
Base Capacity (vph)					948			1909			1863	
Starvation Cap Reductn					0			347			23	
Spillback Cap Reductn					146			0			16	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.50			0.79			0.78	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	7 (8%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

**Splits and Phases: 902: Jackson St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1627	0	0	1672	0	0	2979	0	0	2885	0
Flt Permitted		0.990			0.868							
Satd. Flow (perm)	0	1610	0	0	1441	0	0	2979	0	0	2885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			14			13			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	7	205	74	49	180	47	0	1131	84	0	1145	20
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	340	0	0	439	0	0	1266	0	0	1253	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0			13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			48.5	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.52			0.75			0.79			0.81	
Control Delay		25.4			32.1			6.3			25.8	
Queue Delay		0.0			0.0			0.3			0.1	
Total Delay		25.4			32.1			6.6			25.9	
LOS		C			C			A			C	
Approach Delay		25.4			32.1			6.6			25.9	

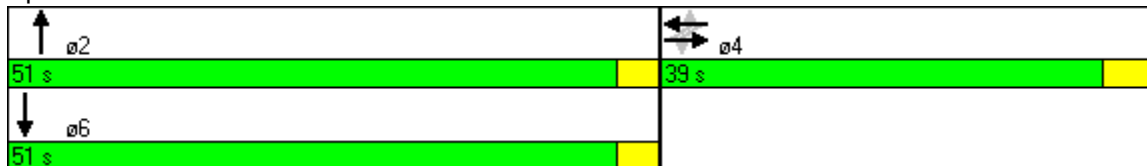


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			C	
Queue Length 50th (ft)		160			203			35			259	
Queue Length 95th (ft)		214			186			50			261	
Internal Link Dist (ft)		119			413			253			253	
Turn Bay Length (ft)												
Base Capacity (vph)		651			585			1595			1540	
Starvation Cap Reductn		0			0			1			17	
Spillback Cap Reductn		0			0			55			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.52			0.75			0.82			0.82	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	19.2
Intersection LOS:	B
Intersection Capacity Utilization	78.1%
ICU Level of Service	D
Analysis Period (min)	15

**Splits and Phases: 903: Pacific Ave. & Van Ness Avenue**

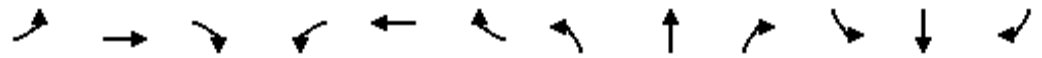




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↑	↑		↑↓		↑↓	↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	2		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	2933	0	3156	2944	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	2933	0	3096	2944	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				225		23			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	512	78	0	891	275	0	1042	143	291	1087	46
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	656	0	0	1001	309	0	1248	0	313	1218	0
Turn Type						Perm					Prot	
Protected Phases		4			8			2		1	6	
Permitted Phases						8						
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		39.0		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	46.0	0.0	13.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	51.1%	0.0%	14.4%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		43.0		10.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.48		0.11	0.62	
v/c Ratio		0.60			0.91	0.52		0.88		0.89	0.66	
Control Delay		30.2			43.2	10.8		11.1		50.0	5.1	
Queue Delay		0.3			0.0	0.0		0.8		0.0	0.4	
Total Delay		30.5			43.2	10.8		11.9		50.0	5.5	
LOS		C			D	B		B		D	A	
Approach Delay		30.5			35.6			11.9			14.6	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1680	0	0	1792	0	0	3024	0	0	2993	0
Flt Permitted		0.986			0.816							
Satd. Flow (perm)	0	1655	0	0	1445	0	0	3024	0	0	2993	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			7			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	94	60	67	108	15	0	1270	47	0	1297	24
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	190	0	0	264	0	0	1344	0	0	1390	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	0.0	58.0	0.0	0.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		29.0			29.0			55.0			55.0	
Actuated g/C Ratio		0.32			0.32			0.61			0.61	
v/c Ratio		0.35			0.56			0.73			0.76	
Control Delay		27.4			30.3			5.1			7.2	
Queue Delay		0.0			0.0			0.3			0.0	
Total Delay		27.4			30.3			5.4			7.2	
LOS		C			C			A			A	
Approach Delay		27.4			30.3			5.4			7.2	



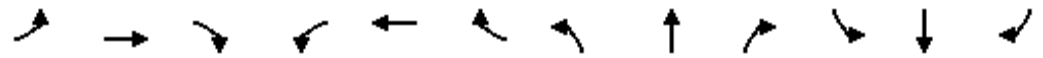
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		81			121			64			82	
Queue Length 95th (ft)		m126			149			m110			92	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		544			469			1851			1831	
Starvation Cap Reductn		0			0			115			4	
Spillback Cap Reductn		0			0			14			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.56			0.77			0.76	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 18 (20%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 9.6                      Intersection LOS: A  
 Intersection Capacity Utilization 73.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 907: Vallejo St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1655	0	0	1784	0	0	2990	0	0	3008	0
Flt Permitted		0.998			0.951							
Satd. Flow (perm)	0	1651	0	0	1692	0	0	2990	0	0	3008	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			10			4			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	2	87	75	20	113	23	0	1262	30	0	1226	26
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	202	0	0	186	0	0	1305	0	0	1264	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0			50.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.35			0.32			0.74			0.71	
Control Delay		21.4			22.3			11.2			5.2	
Queue Delay		0.0			0.0			0.1			0.2	
Total Delay		21.4			22.3			11.3			5.4	
LOS		C			C			B			A	
Approach Delay		21.4			22.3			11.3			5.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		73			72			122			60	
Queue Length 95th (ft)		m117			117			148			87	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)												
Base Capacity (vph)		582			589			1762			1773	
Starvation Cap Reductn		0			0			37			98	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.32			0.76			0.75	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 15 (17%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 10.2                      Intersection LOS: B  
 Intersection Capacity Utilization 64.0%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 908: Green St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1629	0	0	3375	0	1652	2929	0	0	2976	0
Flt Permitted		0.990			0.715		0.950					
Satd. Flow (perm)	0	1611	0	0	2415	0	1572	2929	0	0	2976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			18			12			11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	9	308	57	56	192	34	101	1122	64	0	1139	76
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	420	0	0	348	0	102	1198	0	0	1240	0
Turn Type	Perm			Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	54.5			45.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	11.0	58.0	0.0	0.0	47.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	12.2%	64.4%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		29.0			29.0		8.0	55.0			44.0	
Actuated g/C Ratio		0.32			0.32		0.09	0.61			0.49	
v/c Ratio		0.80			0.44		0.69	0.67			0.85	
Control Delay		40.8			24.9		43.4	3.0			16.4	
Queue Delay		0.0			0.0		0.0	0.1			0.1	
Total Delay		40.8			24.9		43.4	3.1			16.4	
LOS		D			C		D	A			B	
Approach Delay		40.8			24.9			6.3			16.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A			B	
Queue Length 50th (ft)		236			76		50	22			107	
Queue Length 95th (ft)		m#356			103		m75	23			209	
Internal Link Dist (ft)		369			662			242			259	
Turn Bay Length (ft)							120					
Base Capacity (vph)		527			790		147	1795			1461	
Starvation Cap Reductn		0			0		0	86			6	
Spillback Cap Reductn		0			0		0	26			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.80			0.44		0.69	0.70			0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 16.4 Intersection LOS: B  
 Intersection Capacity Utilization 85.8% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 909: Union St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1724	0	0	1755	0	0	2997	0	0	3016	0
Flt Permitted		0.995			0.747							
Satd. Flow (perm)	0	1713	0	0	1310	0	0	2997	0	0	3016	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			10			3			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	199	83	38	43	14	0	1147	18	0	1094	16
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	348	0	0	113	0	0	1214	0	0	1121	0
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Detector Phases	4	4		8	8			2			6	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0			18.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	0.0	52.5	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	0.0%	58.3%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag								Lag				
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		28.0			28.0			49.5			56.0	
Actuated g/C Ratio		0.31			0.31			0.55			0.62	
v/c Ratio		0.63			0.27			0.74			0.60	
Control Delay		30.6			23.4			13.0			2.0	
Queue Delay		0.0			0.0			0.2			0.1	
Total Delay		30.6			23.4			13.2			2.1	
LOS		C			C			B			A	
Approach Delay		30.6			23.4			13.2			2.1	





<b>Lane Group</b>	<b>ø1</b>
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phases	
Minimum Initial (s)	2.0
Minimum Split (s)	6.5
Total Split (s)	6.5
Total Split (%)	7%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		156			44			106			16	
Queue Length 95th (ft)		218			80			112			20	
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)												
Base Capacity (vph)		549			414			1650			1878	
Starvation Cap Reductn		0			0			55			74	
Spillback Cap Reductn		0			0			0			44	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.63			0.27			0.76			0.62	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	24 (27%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	11.3
Intersection LOS:	B
Intersection Capacity Utilization	65.9%
ICU Level of Service	C
Analysis Period (min)	15

**Splits and Phases: 910: Filbert St. & Van Ness Avenue**



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Lane Group	ø1
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑↑↑			↑↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1818	0	0	4513	0	0	3038	0
Flt Permitted		0.995			0.979							
Satd. Flow (perm)	0	1753	0	0	1779	0	0	4513	0	0	3038	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			6			2			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	5	136	39	7	82	8	0	1160	8	0	1064	18
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	234	0	0	108	0	0	1298	0	0	1163	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	35.5	35.5	0.0	35.5	35.5	0.0	0.0	54.5	0.0	0.0	54.5	0.0
Total Split (%)	39.4%	39.4%	0.0%	39.4%	39.4%	0.0%	0.0%	60.6%	0.0%	0.0%	60.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		32.5			32.5			51.5			51.5	
Actuated g/C Ratio		0.36			0.36			0.57			0.57	
v/c Ratio		0.36			0.17			0.50			0.67	
Control Delay		18.4			19.3			11.3			16.2	
Queue Delay		0.0			0.0			0.2			0.4	
Total Delay		18.4			19.3			11.4			16.7	
LOS		B			B			B			B	
Approach Delay		18.4			19.3			11.4			16.7	



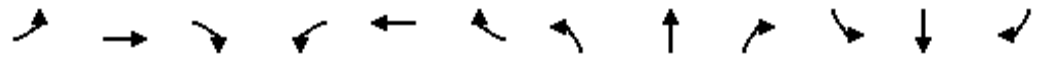
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		59			39			105			340	
Queue Length 95th (ft)		78			75			103			414	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		644			646			2583			1740	
Starvation Cap Reductn		0			0			415			190	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.36			0.17			0.60			0.75	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	17 (19%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	14.5
Intersection LOS:	B
Intersection Capacity Utilization:	50.1%
ICU Level of Service:	A
Analysis Period (min):	15

**Splits and Phases: 911: Greenwich St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4808	0	0	4881	0	0	1761	0	0	1768	0
Flt Permitted								0.792			0.989	
Satd. Flow (perm)	0	4808	0	0	4881	0	0	1413	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			6			4			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1052	146	0	2003	40	29	75	8	12	292	42
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1302	0	0	2106	0	0	158	0	0	403	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.44			0.71			0.34			0.71	
Control Delay		9.5			12.0			25.3			34.2	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		9.5			12.1			25.3			34.2	
LOS		A			B			C			C	
Approach Delay		9.5			12.1			25.3			34.2	

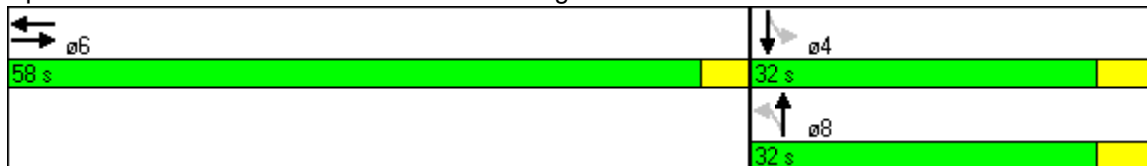


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A			B			C			C		
Queue Length 50th (ft)	125			229			66			195		
Queue Length 95th (ft)	155			253			90			282		
Internal Link Dist (ft)	166			429			235			99		
Turn Bay Length (ft)												
Base Capacity (vph)	2958			2985			458			570		
Starvation Cap Reductn	0			76			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.44			0.72			0.34			0.71		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	57 (63%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	14.0
Intersection LOS:	B
Intersection Capacity Utilization	65.4%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5060	0	1610	3306	0	0	0	1611
Flt Permitted		0.939					0.950	0.981				
Satd. Flow (perm)	0	4775	0	0	5060	0	1610	3306	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				42
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1070	0	0	1066	34	925	603	43	0	0	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1261	0	0	1183	0	584	1221	0	0	0	69
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	30.0	0.0	48.0	48.0	0.0	0.0	0.0	12.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	33.3%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	13.3%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		42.1			27.0		41.9	41.9				12.1
Actuated g/C Ratio		0.47			0.30		0.47	0.47				0.13
v/c Ratio		0.57			0.78		0.78	0.79				0.27
Control Delay		13.2			15.1		12.1	9.0				22.2
Queue Delay		0.0			0.0		0.3	0.2				0.0
Total Delay		13.2			15.1		12.4	9.2				22.2
LOS		B			B		B	A				C
Approach Delay		13.2			15.1			10.3				



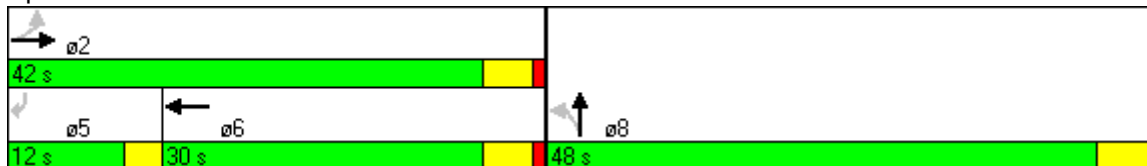


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B				
Queue Length 50th (ft)		99			230		37	37				14
Queue Length 95th (ft)		108			292		42	39				40
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												
Base Capacity (vph)		2231			1522		805	1656				252
Starvation Cap Reductn		0			0		28	61				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.57			0.78		0.75	0.77				0.27

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	60 (67%), Referenced to phase 2:EBTL and 5:SBR, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization	65.5%
ICU Level of Service	C
Analysis Period (min)	15

**Splits and Phases: 923: Lombard St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↖	↖			↖	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1777	2601	0	1781	0	4658	1437	0	0	3539	1346
Flt Permitted		0.853					0.950					
Satd. Flow (perm)	0	1462	2601	0	1781	0	3555	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17		8			17				107
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	121	338	654	0	105	14	872	259	42	0	428	123
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	483	688	0	137	0	928	321	0	0	476	137
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.06	0.42		0.24		0.69	0.36			0.45	0.38
Control Delay		72.8	1.9		23.2		13.2	1.0			27.1	11.0
Queue Delay		0.0	0.0		0.0		0.4	0.1			0.5	0.0
Total Delay		72.8	1.9		23.2		13.6	1.1			27.6	11.0
LOS		E	A		C		B	A			C	B
Approach Delay		31.2			23.2			10.4			23.9	



	↑	↗	↓	↙	↘	↖	↗	↘	↙	↘	↗	↖
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↗	↘	↘	↑↑		↘	↗↗		
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900	
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12	
Grade (%)	0%		0%				0%					
Storage Length (ft)		0					0	0	0	0		
Storage Lanes		0					2	0	1	3		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Leading Detector (ft)	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0		0	0	0	0	0		0	0		
Turning Speed (mph)		9		9	15	15		9	15	9	9	
Satd. Flow (prot)	3208	0	3241	1330	1770	1424	2596	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.977		0.950			
Satd. Flow (perm)	3208	0	3241	899	1770	1424	2596	0	1652	3610	0	
Right Turn on Red		Yes		Yes	No			Yes			Yes	
Satd. Flow (RTOR)	8			95			5			25		
Link Speed (mph)	25		25				25					
Link Distance (ft)	258		442				1192					
Travel Time (s)	7.0		12.1				32.5					
Volume (vph)	598	55	977	104	178	771	363	44	133	698	141	
Confl. Peds. (#/hr)		327		247				167			140	
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)				12			16	16				
Mid-Block Traffic (%)	0%		0%				0%					
Lane Group Flow (vph)	687	0	1028	109	187	438	802	0	140	883	0	
Turn Type				Perm	Prot	Prot				Prot custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6								
Detector Phases	2		6	6	7	7	4		8	8		
Minimum Initial (s)	1.0		2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.06	0.32	0.36	1.06	1.05		0.32	0.90		
Control Delay	41.7		86.1	11.1	36.2	101.0	88.9		37.7	54.5		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	41.7		86.1	11.1	36.2	101.0	88.9		37.7	54.5		
LOS	D		F	B	D	F	F		D	D		
Approach Delay	41.7		78.9				85.7					





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1725	0	0	1611	3433	1749	0	3337	0	0
Flt Permitted		0.955				0.950					
Satd. Flow (perm)	0	1725	0	0	1275	3433	1749	0	3337	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		2			173		6		7		
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					584		250		
Travel Time (s)		13.2					15.9		6.8		
Volume (vph)	38	66	2	6	12	1435	481	44	645	32	39
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	117	0	0	13	1511	552	0	754	0	0
Turn Type	Perm				custom	Prot					
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	38.0	46.0	37.5	0.0	29.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	42.2%	51.1%	41.7%	0.0%	32.8%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			35.0	43.0	34.5		26.5		
Actuated g/C Ratio		0.13			0.39	0.48	0.38		0.29		
v/c Ratio		0.53			0.02	0.92	0.82		0.76		
Control Delay		43.7			0.1	18.0	47.2		33.5		
Queue Delay		0.0			0.0	1.2	0.0		0.0		
Total Delay		43.7			0.1	19.2	47.2		33.5		
LOS		D			A	B	D		C		
Approach Delay		43.7					26.7		33.5		



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS		D					C		C		
Queue Length 50th (ft)		52			0	466	338		222		
Queue Length 95th (ft)		m120			0	m#561	m385		288		
Internal Link Dist (ft)		404					504		170		
Turn Bay Length (ft)											
Base Capacity (vph)		222			602	1640	674		988		
Starvation Cap Reductn		0			0	37	0		0		
Spillback Cap Reductn		0			0	0	0		0		
Storage Cap Reductn		0			0	0	0		0		
Reduced v/c Ratio		0.53			0.02	0.94	0.82		0.76		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 29.0 Intersection LOS: C  
 Intersection Capacity Utilization 101.8% ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**

ø3	ø4	ø10
38 s	37.5 s	14.5 s
ø7	ø8	
46 s	29.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												23
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		401			484			341			364	
Travel Time (s)		10.9			13.2			9.3			9.9	
Volume (vph)	0	36	0	0	32	0	0	0	0	76	1832	122
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	38	0	0	34	0	0	0	0	0	2136	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.05			0.05							0.60
Control Delay		18.2			0.2							4.5
Queue Delay		0.0			0.0							0.5
Total Delay		18.2			0.2							5.0
LOS		B			A							A
Approach Delay		18.2			0.2							5.0



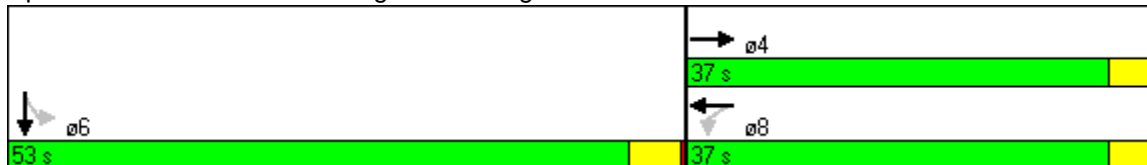


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A						A	
Queue Length 50th (ft)		14			0						61	
Queue Length 95th (ft)		34			m0						72	
Internal Link Dist (ft)		321			404			261			284	
Turn Bay Length (ft)												
Base Capacity (vph)		704			704						3531	
Starvation Cap Reductn		0			0						790	
Spillback Cap Reductn		0			0						104	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.05			0.05						0.78	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 5.1                      Intersection LOS: A  
 Intersection Capacity Utilization 39.7%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1351: Page St & Gough St.**





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3314	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3314	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Link Speed (mph)		25				25		25	
Link Distance (ft)		341				649		584	
Travel Time (s)		9.3				17.7		15.9	
Volume (vph)	25	804	926	77	101	1834	87	594	57
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	872	1056	0	106	2023	0	685	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.87	0.79		0.18	0.89		0.45	
Control Delay		16.1	8.9		3.3	28.6		2.0	
Queue Delay		1.1	0.0		0.0	0.5		0.0	
Total Delay		17.2	8.9		3.3	29.1		2.0	
LOS		B	A		A	C		A	
Approach Delay		12.7				29.1		2.0	

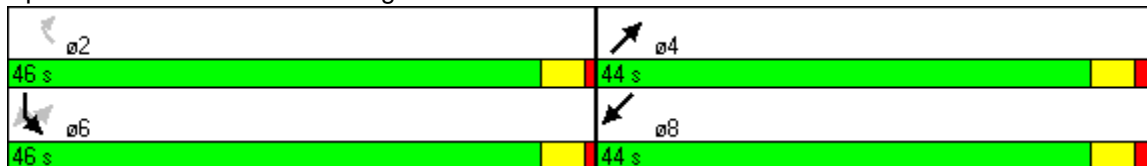


Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Approach LOS	B				C			A	
Queue Length 50th (ft)	267	206			4	370		1	
Queue Length 95th (ft)	#477	0			4	443		1	
Internal Link Dist (ft)	261					569		504	
Turn Bay Length (ft)									
Base Capacity (vph)	1000	1338			601	2273		1510	
Starvation Cap Reductn	0	0			0	0		0	
Spillback Cap Reductn	31	0			24	50		0	
Storage Cap Reductn	0	0			0	0		0	
Reduced v/c Ratio	0.90	0.79			0.18	0.91		0.45	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 6:SBL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 17.9      Intersection LOS: B  
 Intersection Capacity Utilization 84.7%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 1390: Haight St & Market St.**





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	58	20	29	85	16	4	90	8	21	508	21
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	5	67	23	31	89	17	5	122	11	23	558	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	94	137	138	604
Volume Left (vph)	5	31	5	23
Volume Right (vph)	23	17	11	23
Hadj (s)	-0.10	0.00	-0.01	0.02
Departure Headway (s)	6.0	6.0	5.4	4.8
Degree Utilization, x	0.16	0.23	0.21	0.81
Capacity (veh/h)	543	549	609	604
Control Delay (s)	10.1	10.7	9.9	25.4
Approach Delay (s)	10.1	10.7	9.9	25.4
Approach LOS	B	B	A	D

Intersection Summary			
Delay		19.6	
HCM Level of Service		C	
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	169	44	35	192	15	11	95	4	20	471	43
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	14	192	50	45	249	19	14	125	5	23	535	49

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	256	314	145	607
Volume Left (vph)	14	45	14	23
Volume Right (vph)	50	19	5	49
Hadj (s)	-0.07	0.03	0.03	-0.01
Departure Headway (s)	7.0	7.0	7.4	6.3
Degree Utilization, x	0.50	0.61	0.30	1.06
Capacity (veh/h)	484	502	442	559
Control Delay (s)	16.9	20.2	13.4	80.7
Approach Delay (s)	16.9	20.2	13.4	80.7
Approach LOS	C	C	B	F

Intersection Summary			
Delay		46.6	
HCM Level of Service		E	
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	38	13	69	34	22	861
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	45	15	87	43	23	906
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.68	0.98			0.98	
vC, conflicting volume	1061	109			130	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1053	93			115	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	73	98			98	
cM capacity (veh/h)	167	947			1448	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	45	15	130	929
Volume Left	45	0	0	23
Volume Right	0	15	43	0
cSH	167	947	1700	1448
Volume to Capacity	0.27	0.02	0.08	0.02
Queue Length 95th (ft)	26	1	0	1
Control Delay (s)	34.4	8.9	0.0	0.4
Lane LOS	D	A		A
Approach Delay (s)	27.9		0.0	0.4
Approach LOS	D			

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization		63.2%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	107	48	16	210	8	17	92	7	22	392	24
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	14	124	56	17	228	9	22	118	9	27	478	29

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	194	254	149	534
Volume Left (vph)	14	17	22	27
Volume Right (vph)	56	9	9	29
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.5	6.5	6.5	5.7
Degree Utilization, x	0.35	0.46	0.27	0.85
Capacity (veh/h)	511	516	494	617
Control Delay (s)	12.9	14.8	11.9	32.4
Approach Delay (s)	12.9	14.8	11.9	32.4
Approach LOS	B	B	B	D

Intersection Summary			
Delay		22.4	
HCM Level of Service		C	
Intersection Capacity Utilization	48.2%		ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	103	50	30	133	14	17	95	17	22	385	49
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	9	130	63	43	190	20	22	125	22	24	428	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	203	253	170	507
Volume Left (vph)	9	43	22	24
Volume Right (vph)	63	20	22	54
Hadj (s)	-0.14	0.02	-0.02	-0.02
Departure Headway (s)	6.4	6.5	6.4	5.7
Degree Utilization, x	0.36	0.45	0.30	0.81
Capacity (veh/h)	501	495	499	507
Control Delay (s)	13.0	14.7	12.2	28.5
Approach Delay (s)	13.0	14.7	12.2	28.5
Approach LOS	B	B	B	D

Intersection Summary			
Delay	20.2		
HCM Level of Service	C		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		



# 2015 BUILD ALTERNATIVE 3&4 CENTER LANE BRT WITH DESIGN OPTION B





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.191								0.950		
Satd. Flow (perm)	356	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			51				11		144	263	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	7	0	98	0	0	0	819	72	706	180	525
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	7	0	103	0	0	0	938	0	743	742	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	53.0	0.0	53.0	0.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0
Total Split (%)	58.9%	0.0%	58.9%	0.0%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	50.0		50.0				34.0		50.0	50.0	
Actuated g/C Ratio	0.56		0.56				0.38		0.56	0.56	
v/c Ratio	0.04		0.11				0.88		0.26	0.85	
Control Delay	9.7		5.6				15.9		8.5	21.9	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	9.7		5.6				15.9		8.5	21.9	
LOS	A		A				B		A	C	
Approach Delay									15.2		



Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Approach LOS										B	
Queue Length 50th (ft)	2		13				192		57	225	
Queue Length 95th (ft)	8		36				m#235		77	#509	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	198		902				1060		2836	874	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	
Storage Cap Reductn	0		0				0		0	0	
Reduced v/c Ratio	0.04		0.11				0.88		0.26	0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:EBSWL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 15.0 Intersection LOS: B  
 Intersection Capacity Utilization 81.5% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: McCoppin St. & Otis St.





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%						0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.930					0.950		
Satd. Flow (perm)	4995	0	0	4729	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				376		30		12		2
Link Speed (mph)	25			25							25
Link Distance (ft)	326			387							614
Travel Time (s)	8.9			10.6							16.7
Volume (vph)	561	38	13	1331	702	570	222	84	841	530	168
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											12
Mid-Block Traffic (%)	0%			0%							0%
Lane Group Flow (vph)	631	0	0	1415	739	600	234	0	973	558	177
Turn Type			Perm		Perm	custom	custom	custom	custom		Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1		6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.40			0.96	1.22	0.56	0.63		0.96	0.28	0.30
Control Delay	24.9			47.4	132.0	29.1	32.7		39.7	3.9	4.7
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	24.9			47.4	132.0	29.1	32.7		39.7	3.9	4.7
LOS	C			D	F	C	C		D	A	A
Approach Delay	24.9			76.4						24.4	

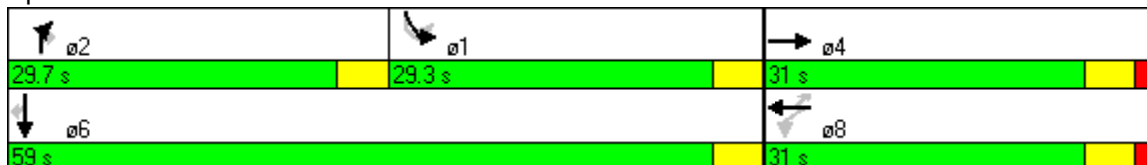














Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR	
Approach LOS	C			E						C		
Queue Length 50th (ft)	100			287	~364	125	100		241	31	19	
Queue Length 95th (ft)	134			#389	#585	171	183		m#363	m41	m28	
Internal Link Dist (ft)	246			307						534		
Turn Bay Length (ft)											50	
Base Capacity (vph)	1562			1471	604	1071	370		1012	2026	590	
Starvation Cap Reductn	0			0	0	0	0		0	0	0	
Spillback Cap Reductn	0			0	0	0	0		0	0	0	
Storage Cap Reductn	0			0	0	0	0		0	0	0	
Reduced v/c Ratio	0.40			0.96	1.22	0.56	0.63		0.96	0.28	0.30	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 27 (30%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 46.4 Intersection LOS: D  
 Intersection Capacity Utilization 101.8% ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 18: Duboce St. &**



												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↗		↑↑	↗		↘			↘	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		65	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3353	1243	0	3353	1583	0	1611	0	0	1627	0
Flt Permitted												
Satd. Flow (perm)	0	3353	817	0	3353	748	0	1611	0	0	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			1		2			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	959	119	0	1023	176	0	476	36	0	540	29
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			23									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	969	120	0	1124	193	0	575	0	0	625	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	47.8%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		0.65	0.33		0.75	0.58		0.73			0.79	
Control Delay		22.1	17.7		31.0	32.6		11.0			11.3	
Queue Delay		0.0	0.0		0.3	0.0		0.0			0.0	
Total Delay		22.1	17.7		31.3	32.6		11.0			11.3	
LOS		C	B		C	C		B			B	
Approach Delay		21.6			31.5			11.0			11.3	





Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations	↑↑↑	↑	↓	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					3	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	692	0	932	574	108	569
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	728	0	981	604	114	599
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	37.0		37.0	47.0	47.0	47.0
Actuated g/C Ratio	0.41		0.41	0.52	0.52	0.52
v/c Ratio	0.37		0.67	0.62	0.14	0.64
Control Delay	3.5		24.5	22.7	16.2	19.3
Queue Delay	0.0		2.7	0.0	0.0	1.0
Total Delay	3.5		27.2	22.7	16.2	20.2
LOS	A		C	C	B	C
Approach Delay			27.2	21.6		20.2







Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>577</del>	<del>778</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1535	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1535	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			35			5		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	103	1077	1871	168	574	466	84	112
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1242	2146	0	604	697	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.51	0.88		0.92	1.13		
Control Delay		11.0	19.1		41.1	87.8		
Queue Delay		0.0	0.1		0.0	12.7		
Total Delay		11.0	19.2		41.1	100.6		
LOS		B	B		D	F		
Approach Delay		16.2			41.1	100.6		





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22							2			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	43	2016	135	0	0	0	0	446	296	0	527	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2309	0	0	0	0	0	469	312	0	555	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.00						0.68	0.45		0.67	
Control Delay		28.1						21.0	16.9		18.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		28.1						21.0	16.9		18.4	
LOS		C						C	B		B	
Approach Delay		28.1						19.4			18.4	

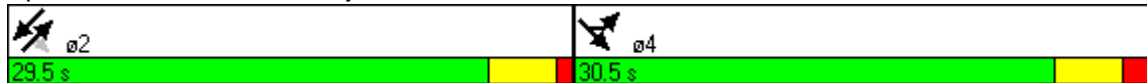


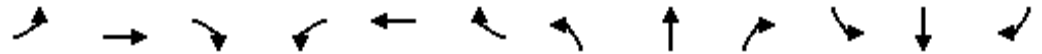
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		C						B			B	
Queue Length 50th (ft)		202						167	104		151	
Queue Length 95th (ft)		#408						m190	m118		251	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2319						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.00						0.68	0.45		0.67	

**Intersection Summary**

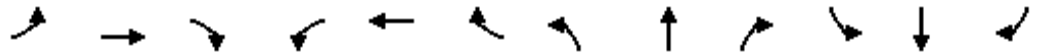
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 24.7                      Intersection LOS: C  
 Intersection Capacity Utilization 77.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		13										7
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			364			200	
Travel Time (s)		10.3			6.7			9.9			5.5	
Volume (vph)	0	1210	243	0	0	0	0	0	0	58	1787	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1562	0	0	0	0	0	0	0	0	1921	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		32.0									52.0	
Actuated g/C Ratio		0.36									0.58	
v/c Ratio		0.89									0.88	
Control Delay		35.1									20.5	
Queue Delay		0.0									0.7	
Total Delay		35.1									21.2	
LOS		D									C	
Approach Delay		35.1									21.2	



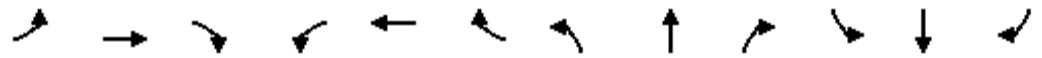
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D										C
Queue Length 50th (ft)		300										537
Queue Length 95th (ft)		#375										614
Internal Link Dist (ft)		296			165			284				120
Turn Bay Length (ft)												
Base Capacity (vph)		1750										2178
Starvation Cap Reductn		0										0
Spillback Cap Reductn		0										71
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.89										0.91

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	12 (13%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	27.4
Intersection LOS:	C
Intersection Capacity Utilization	62.2%
ICU Level of Service	B
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗↘					↖		↖↗↘				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	21					8						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			408			169	
Travel Time (s)		6.2			6.0			11.1			4.6	
Volume (vph)	1268	0	0	0	0	42	0	1943	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1349	0	0	0	0	49	0	2003	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	37.0	0.0	0.0	0.0	0.0	37.0	0.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	0.0%	0.0%	0.0%	0.0%	41.1%	0.0%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	34.0					34.0		50.0				
Actuated g/C Ratio	0.38					0.38		0.56				
v/c Ratio	0.79					0.09		0.79				
Control Delay	3.2					16.3		2.7				
Queue Delay	0.0					0.0		0.9				
Total Delay	3.2					16.3		3.5				
LOS	A					B		A				
Approach Delay								3.5				





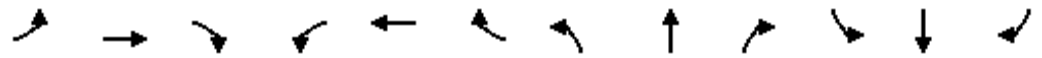
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									A				
Queue Length 50th (ft)	13						15	12					
Queue Length 95th (ft)	m14						36	m8					
Internal Link Dist (ft)	146			141			328			89			
Turn Bay Length (ft)													
Base Capacity (vph)	1710					553		2543					
Starvation Cap Reductn	0					0		261					
Spillback Cap Reductn	0					0		183					
Storage Cap Reductn	0					0		0					
Reduced v/c Ratio	0.79					0.09		0.88					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 3.6                      Intersection LOS: A  
 Intersection Capacity Utilization 79.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3448	0	0	0	0	0	4078	1117
Flt Permitted					0.992						0.996	
Satd. Flow (perm)	0	0	0	0	3448	0	0	0	0	0	4078	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											38	38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	91	474	0	0	0	0	176	1787	978
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	725	0	0	0	0	0	2386	645
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	0.0	65.0	65.0	65.0
Total Split (%)	0.0%	0.0%	0.0%	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	72.2%	72.2%	72.2%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					22.0						62.0	62.0
Actuated g/C Ratio					0.24						0.69	0.69
v/c Ratio					0.86						0.85	0.83
Control Delay					49.4						4.7	6.9
Queue Delay					0.0						2.0	2.3
Total Delay					49.4						6.7	9.3
LOS					D						A	A
Approach Delay					49.4						7.2	

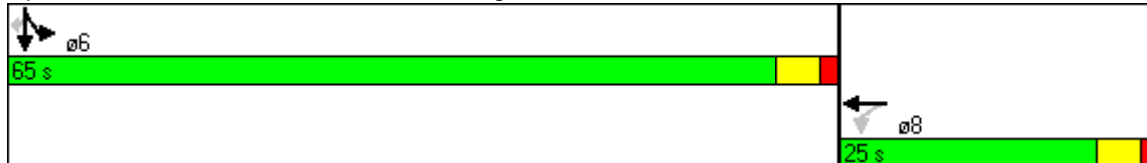


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D					A						
Queue Length 50th (ft)	233					126 81						
Queue Length 95th (ft)	253					m109 m69						
Internal Link Dist (ft)	289		371			112			228			
Turn Bay Length (ft)												
Base Capacity (vph)	843					2821 781						
Starvation Cap Reductn	0					284 57						
Spillback Cap Reductn	0					0 0						
Storage Cap Reductn	0					0 0						
Reduced v/c Ratio	0.86					0.94 0.89						

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 15.4      Intersection LOS: B  
 Intersection Capacity Utilization 67.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 406: Fell St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3507	0	0	1863	0	0	4758	1137	0	0	0
Flt Permitted		0.904						0.990				
Satd. Flow (perm)	0	3199	0	0	1863	0	0	4758	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									473			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	33	143	0	0	37	0	528	1975	594	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	196	0	0	39	0	0	2607	619	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	65.0	65.0	65.0	0.0	0.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	0.0%	27.8%	0.0%	72.2%	72.2%	72.2%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		22.0			22.0			62.0	62.0			
Actuated g/C Ratio		0.24			0.24			0.69	0.69			
v/c Ratio		0.25			0.09			0.80	0.67			
Control Delay		17.8			30.7			6.9	3.2			
Queue Delay		0.0			0.0			5.4	0.7			
Total Delay		17.8			30.7			12.3	3.8			
LOS		B			C			B	A			
Approach Delay		17.8			30.7			10.7				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50			50	
Trailing Detector (ft)	0	0						0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3475	0	0	0	0	0	3039	0	0	3153	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3475	0	0	0	0	0	3039	0	0	3153	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						9			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	65	644	28	0	0	0	0	940	48	0	1087	37
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	810	0	0	0	0	0	1018	0	0	1171	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Detector Phases	4	4						2			6	
Minimum Initial (s)	4.0	4.0						4.0			4.0	
Minimum Split (s)	35.0	35.0						42.0			50.0	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.1	2.1						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max			Max	
Act Effct Green (s)		35.0						49.0			49.0	
Actuated g/C Ratio		0.39						0.54			0.54	
v/c Ratio		0.60						0.61			0.68	
Control Delay		20.2						3.1			5.1	
Queue Delay		0.0						0.3			0.4	
Total Delay		20.2						3.4			5.5	
LOS		C						A			A	
Approach Delay		20.2						3.4			5.5	

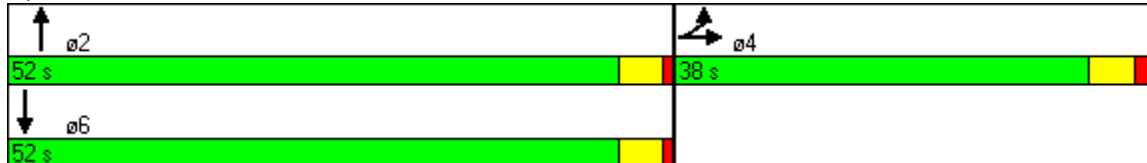


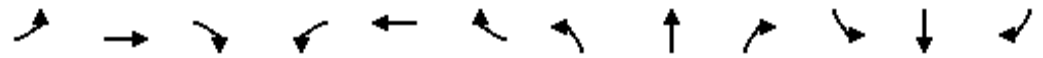
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			A	
Queue Length 50th (ft)		165						16			40	
Queue Length 95th (ft)		213						15			m76	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)												
Base Capacity (vph)		1354						1659			1719	
Starvation Cap Reductn		0						200			156	
Spillback Cap Reductn		0						0			8	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.60						0.70			0.75	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 53 (59%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 8.8                      Intersection LOS: A  
 Intersection Capacity Utilization 64.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1639	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1639	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26									3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	76	136	589	412	0	0	0	0	152	2216	39
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	276	0	614	429	0	0	0	0	0	2482	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	26.0	45.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	28.9%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		42.0	42.0						42.0	
Actuated g/C Ratio		0.18		0.47	0.47						0.47	
v/c Ratio		0.88		1.15	0.51						1.12	
Control Delay		62.6		101.2	7.0						72.7	
Queue Delay		0.0		0.0	0.3						8.3	
Total Delay		62.6		101.2	7.3						81.0	
LOS		E		F	A						F	
Approach Delay		62.6			62.6						81.0	



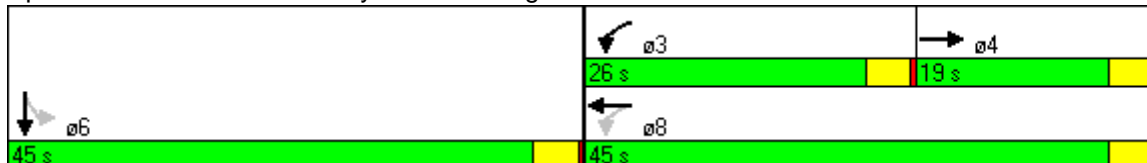


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			E							F
Queue Length 50th (ft)		141		~344	54							~610
Queue Length 95th (ft)		#214		m#482	m69							#684
Internal Link Dist (ft)		335			378			228				265
Turn Bay Length (ft)												
Base Capacity (vph)		313		535	838							2221
Starvation Cap Reductn		0		0	99							37
Spillback Cap Reductn		0		0	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		0.88		1.15	0.58							1.14

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 130  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.15  
 Intersection Signal Delay: 74.6      Intersection LOS: E  
 Intersection Capacity Utilization 101.7%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3226	1441	0	4765	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	1796	0	0	3226	1441	0	4765	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5	5						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	228	0	0	806	655	195	1813	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	240	0	0	1108	480	0	2231	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	40.0	0.0	0.0	40.0	40.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	44.4%	0.0%	0.0%	44.4%	44.4%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		37.0			37.0	37.0		47.0				
Actuated g/C Ratio		0.41			0.41	0.41		0.52				
v/c Ratio		0.33			0.83	0.81		0.90				
Control Delay		24.3			7.2	10.5		15.7				
Queue Delay		0.0			0.1	0.0		8.0				
Total Delay		24.3			7.3	10.5		23.8				
LOS		C			A	B		C				
Approach Delay		24.3			8.3			23.8				



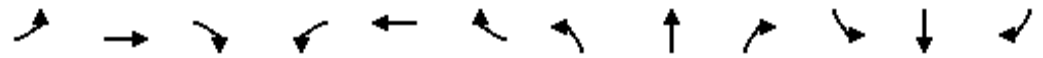
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C				A				C		
Queue Length 50th (ft)		123			39	32		334				
Queue Length 95th (ft)		m121			m43	m37		305				
Internal Link Dist (ft)		378			401			243			95	
Turn Bay Length (ft)												
Base Capacity (vph)		738			1329	595		2488				
Starvation Cap Reductn		0			7	0		251				
Spillback Cap Reductn		0			0	0		42				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.33			0.84	0.81		1.00				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 17.7      Intersection LOS: B  
 Intersection Capacity Utilization 101.7%      ICU Level of Service G  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 413: Hayes St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑			↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50			50			50	
Trailing Detector (ft)		0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1824	0	0	4638	0	0	3352	0	0	2926	0
Flt Permitted					0.933							
Satd. Flow (perm)	0	1824	0	0	4331	0	0	3352	0	0	2926	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			25			4			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	193	35	22	1339	153	0	1026	22	0	1067	122
Confl. Peds. (#/hr)						224						449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	240	0	0	1593	0	0	1092	0	0	1238	0
Turn Type				Perm								
Protected Phases		4			4			2			6	
Permitted Phases				4								
Detector Phases		4		4	4			2			6	
Minimum Initial (s)		4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)		35.0		35.0	35.0			51.0			39.0	
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max			Max			Max	
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.33			0.91			0.61			0.79	
Control Delay		12.4			34.5			5.2			16.5	
Queue Delay		0.0			0.3			0.1			0.7	
Total Delay		12.4			34.8			5.3			17.3	
LOS		B			C			A			B	
Approach Delay		12.4			34.8			5.3			17.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		13			302			47			150	
Queue Length 95th (ft)		90			#405			55			196	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)												
Base Capacity (vph)		733			1747			1790			1561	
Starvation Cap Reductn		0			0			126			106	
Spillback Cap Reductn		0			16			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.92			0.66			0.85	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	52 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	20.6
Intersection LOS:	C
Intersection Capacity Utilization:	90.7%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			90		34							28
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	188	89	1373	0	0	0	0	0	655	141
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	198	0	1539	0	0	0	0	0	689	148
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.22		0.52						0.53	0.27
Control Delay			4.9		6.3						11.1	8.4
Queue Delay			0.0		0.0						0.1	0.0
Total Delay			4.9		6.3						11.2	8.4
LOS			A		A						B	A
Approach Delay					6.3						10.7	

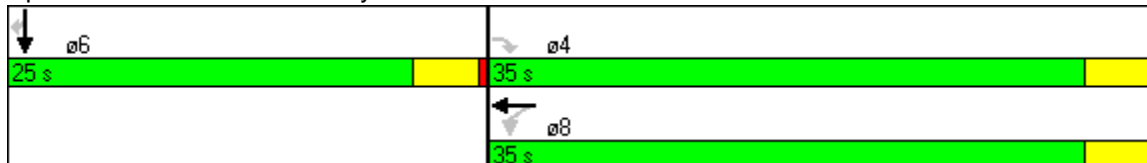


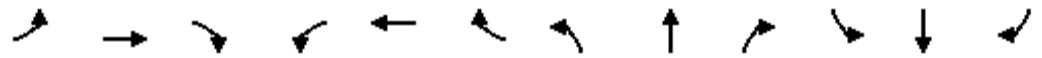
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)			18		68						47	12
Queue Length 95th (ft)			45		m76						88	41
Internal Link Dist (ft)		153			70			300			82	
Turn Bay Length (ft)												
Base Capacity (vph)			901		2979						1298	540
Starvation Cap Reductn			0		0						0	0
Spillback Cap Reductn			17		14						70	0
Storage Cap Reductn			0		0						0	0
Reduced v/c Ratio			0.22		0.52						0.56	0.27

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.53  
 Intersection Signal Delay: 7.6                      Intersection LOS: A  
 Intersection Capacity Utilization 61.0%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3375	0	0	0	0	0	5050	0
Flt Permitted					0.564						0.997	
Satd. Flow (perm)	0	1749	0	0	1960	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	267	64	220	152	0	0	0	0	135	2123	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	356	0	0	413	0	0	0	0	0	2393	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0							53.0
Actuated g/C Ratio		0.34			0.34							0.59
v/c Ratio		0.59			1.15dl							0.80
Control Delay		28.6			15.4							4.4
Queue Delay		0.0			0.0							9.4
Total Delay		28.6			15.4							13.8
LOS		C			B							B
Approach Delay		28.6			15.4							13.8



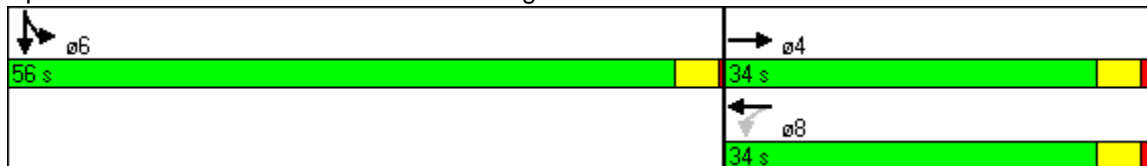


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						B	
Queue Length 50th (ft)		162			35						42	
Queue Length 95th (ft)		252			m69						46	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		606			675						2977	
Starvation Cap Reductn		0			0						160	
Spillback Cap Reductn		1			0						585	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.59			0.61						1.00	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	67 (74%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization:	85.3%
ICU Level of Service:	E
Analysis Period (min):	15
m	Volume for 95th percentile queue is metered by upstream signal.
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3225	0	0	5050	0	0	0	0
Flt Permitted		0.719						0.999				
Satd. Flow (perm)	0	2499	0	0	3225	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	59	343	0	0	304	280	68	2337	93	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	451	0	0	609	0	0	2575	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	0.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		27.0			27.0			57.0				
Actuated g/C Ratio		0.30			0.30			0.63				
v/c Ratio		0.60			0.63			0.80				
Control Delay		22.8			12.5			6.6				
Queue Delay		0.0			0.0			1.4				
Total Delay		22.8			12.5			8.0				
LOS		C			B			A				
Approach Delay		22.8			12.5			8.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		66			50			154				
Queue Length 95th (ft)		m117			m60			171				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		750			972			3203				
Starvation Cap Reductn		0			0			400				
Spillback Cap Reductn		0			0			292				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.60			0.63			0.92				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 10.6      Intersection LOS: B  
 Intersection Capacity Utilization 87.2%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3369	0	0	3496	0	0	2979	0	0	2789	0
Flt Permitted		0.947			0.894							
Satd. Flow (perm)	0	3194	0	0	3135	0	0	2979	0	0	2789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			2			1			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	6	405	25	33	471	10	0	1061	139	0	1131	113
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	507	0	0	571	0	0	1277	0	0	1296	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.7			1.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.46			0.53			0.73			0.79	
Control Delay		28.2			25.7			5.8			20.7	
Queue Delay		0.0			0.0			0.2			0.1	
Total Delay		28.2			25.7			6.0			20.8	
LOS		C			C			A			C	
Approach Delay		28.2			25.7			6.0			20.8	



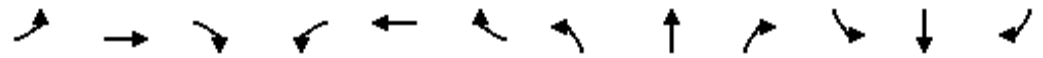
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			C	
Queue Length 50th (ft)		96			134			58			238	
Queue Length 95th (ft)		m132			186			m68			307	
Internal Link Dist (ft)		397			406			90			592	
Turn Bay Length (ft)												
Base Capacity (vph)		1105			1081			1755			1644	
Starvation Cap Reductn		0			0			88			0	
Spillback Cap Reductn		0			0			0			23	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.46			0.53			0.77			0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 59 (66%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 17.4                      Intersection LOS: B  
 Intersection Capacity Utilization 82.8%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

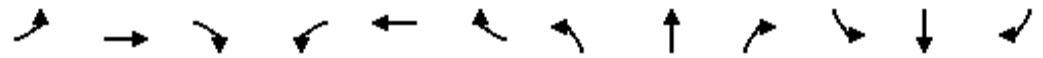
**Splits and Phases: 418: Grove St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3134	0
Flt Permitted		0.921			0.914						0.996	
Satd. Flow (perm)	0	2940	1377	0	2888	0	0	0	0	0	3134	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190		16						24	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	19	318	207	37	449	34	0	0	0	57	570	65
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	355	218	0	548	0	0	0	0	0	728	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.27	0.30		0.42						0.51	
Control Delay		11.0	3.8		8.9						9.8	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.0	3.8		8.9						9.8	
LOS		B	A		A						A	
Approach Delay		8.3			8.9						9.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1777	0	0	4837	0	1770	0	1267
Flt Permitted	0.559							0.992		0.133		
Satd. Flow (perm)	972	1863	0	0	1777	0	0	4837	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			20				84
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			198			210			358	
Travel Time (s)		13.1			5.4			5.7			9.8	
Volume (vph)	160	215	0	0	143	73	297	1520	99	15	0	80
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	168	226	0	0	228	0	0	2017	0	16	0	84
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.43	0.30			0.32			0.83		0.13		0.12
Control Delay	14.3	10.3			15.2			3.8		5.5		1.6
Queue Delay	0.0	0.0			0.0			0.1		0.0		0.0
Total Delay	14.3	10.3			15.2			3.9		5.5		1.6
LOS	B	B			B			A		A		A
Approach Delay		12.0			15.2			3.9				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1792	0	0	1833	0	0	0	0	0	5050	0
Flt Permitted					0.565						0.999	
Satd. Flow (perm)	0	1792	0	0	1052	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	272	105	66	141	0	0	0	0	35	2150	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	419	0	0	238	0	0	0	0	0	2395	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.65			0.64							0.82
Control Delay		29.9			20.2							5.4
Queue Delay		0.0			0.0							0.6
Total Delay		29.9			20.2							6.0
LOS		C			C							A
Approach Delay		29.9			20.2							6.0

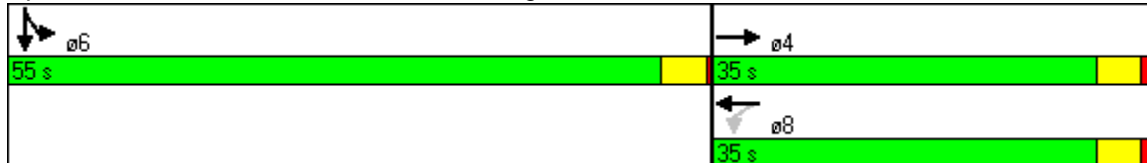


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C						A	
Queue Length 50th (ft)		195			111						36	
Queue Length 95th (ft)		298			m119						39	
Internal Link Dist (ft)		407			140			272			253	
Turn Bay Length (ft)												
Base Capacity (vph)		640			374						2923	
Starvation Cap Reductn		0			0						206	
Spillback Cap Reductn		0			0						78	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.65			0.64						0.88	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 10.4      Intersection LOS: B  
 Intersection Capacity Utilization 86.0%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 428: Fulton St. & Gough St.**





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	307	0	207	2469	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	404	0	0	2758	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	29.0	0.0	61.0	61.0	0.0	0.0
Total Split (%)	32.2%	0.0%	67.8%	67.8%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	26.0			58.0		
Actuated g/C Ratio	0.29			0.64		
v/c Ratio	0.79			0.89		
Control Delay	25.7			9.0		
Queue Delay	0.0			0.6		
Total Delay	25.7			9.5		
LOS	C			A		
Approach Delay	25.7			9.5		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	C			A		
Queue Length 50th (ft)	216			90		
Queue Length 95th (ft)	180			101		
Internal Link Dist (ft)	163			265		254
Turn Bay Length (ft)						
Base Capacity (vph)	511			3095		
Starvation Cap Reductn	0			39		
Spillback Cap Reductn	0			96		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.79			0.92		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	11.6
Intersection LOS:	B
Intersection Capacity Utilization	85.7%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑↑↑			↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1897	0	4891	0	0	1749
Flt Permitted	0.982					0.657
Satd. Flow (perm)	1897	0	4891	0	0	1164
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	9		12			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	32	54	1695	58	22	63
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	91	0	1845	0	0	89
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.12		0.73			0.15
Control Delay	11.6		4.9			5.7
Queue Delay	0.0		0.1			0.0
Total Delay	11.6		5.0			5.7
LOS	B		A			A
Approach Delay	11.6		5.0			5.7



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	B		A		A	
Queue Length 50th (ft)	18		43		17	
Queue Length 95th (ft)	44		60		m28	
Internal Link Dist (ft)	152		278		255	
Turn Bay Length (ft)						
Base Capacity (vph)	733		2533		601	
Starvation Cap Reductn	0		116		0	
Spillback Cap Reductn	0		21		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.12		0.76		0.15	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 22 (37%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 5.3      Intersection LOS: A  
 Intersection Capacity Utilization 45.8%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 430: Fulton St. & Larkin St.**





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		22			24	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	31	0	0	1733	86
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	33	0	0	1915	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.07			0.68	
Control Delay		10.3			3.1	
Queue Delay		0.0			0.1	
Total Delay		10.3			3.2	
LOS		B			A	
Approach Delay					3.2	





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		3			30	
Queue Length 95th (ft)		20			52	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		446			2814	
Starvation Cap Reductn		0			79	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.07			0.70	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	32 (53%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	3.3
Intersection LOS:	A
Intersection Capacity Utilization	45.4%
ICU Level of Service	A
Analysis Period (min)	15

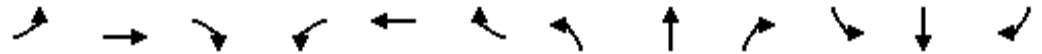
Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1723	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.618						0.998	
Satd. Flow (perm)	0	1723	0	0	2187	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	302	42	108	316	0	0	0	0	90	2125	100
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	410	0	0	447	0	0	0	0	0	2463	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						18.0	18.0
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0							53.0
Actuated g/C Ratio		0.34			0.34							0.59
v/c Ratio		0.69			0.59							0.83
Control Delay		32.1			35.8							6.1
Queue Delay		0.0			0.0							1.5
Total Delay		32.1			35.8							7.6
LOS		C			D							A
Approach Delay		32.1			35.8							7.6





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3179	0	0	5019	0	0	0	0
Flt Permitted		0.777						0.999				
Satd. Flow (perm)	0	1361	0	0	3179	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			27				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	22	370	0	0	384	373	40	2519	217	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	426	0	0	860	0	0	2922	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.94			0.81			0.97				
Control Delay		52.9			13.7			16.4				
Queue Delay		0.0			0.0			20.6				
Total Delay		52.9			13.7			36.9				
LOS		D			B			D				
Approach Delay		52.9			13.7			36.9				



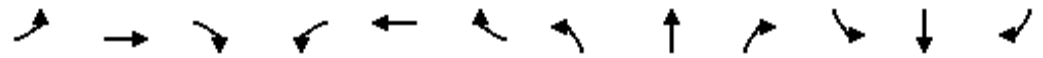
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			D				
Queue Length 50th (ft)		254			47			90				
Queue Length 95th (ft)		m#416			57			#172				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		454			1061			3022				
Starvation Cap Reductn		0			0			230				
Spillback Cap Reductn		0			0			42				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.94			0.81			1.05				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 33.8      Intersection LOS: C  
 Intersection Capacity Utilization 98.4%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50			50	50
Trailing Detector (ft)	0	0		0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3454	0	0	3532	1425	0	2926	0	0	3127	1370
Flt Permitted		0.937			0.901							
Satd. Flow (perm)	0	3237	0	0	3180	1142	0	2926	0	0	3127	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				11		9				14
Link Speed (mph)		25			25			25				25
Link Distance (ft)		497			461			672				184
Travel Time (s)		13.6			12.6			18.3				5.0
Volume (vph)	11	537	39	32	686	88	0	1026	51	0	1173	71
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	659	0	0	772	95	0	1122	0	0	1235	75
Turn Type	Perm			Perm		Perm						Perm
Protected Phases		4			4			2				6
Permitted Phases	4			4		4						6
Detector Phases	4	4		4	4	4		2			6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0			3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	30.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	36.0	0.0	54.0	0.0	0.0	54.0	54.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	40.0%	0.0%	60.0%	0.0%	0.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max			Max	Max
Act Effct Green (s)		33.0			33.0	33.0		51.0			51.0	51.0
Actuated g/C Ratio		0.37			0.37	0.37		0.57			0.57	0.57
v/c Ratio		0.55			0.66	0.22		0.68			0.70	0.15
Control Delay		29.2			27.2	19.1		2.0			14.2	8.3
Queue Delay		0.0			0.0	0.0		0.0			0.1	0.0
Total Delay		29.2			27.2	19.1		2.0			14.3	8.3
LOS		C			C	B		A			B	A
Approach Delay		29.2			26.3			2.0			13.9	

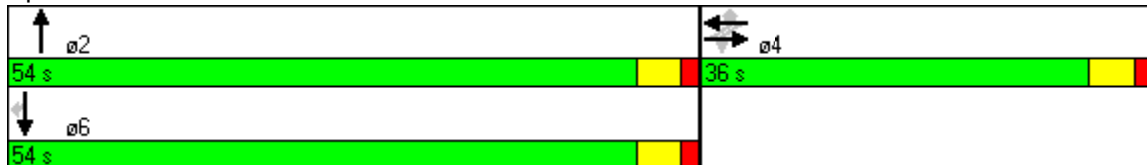


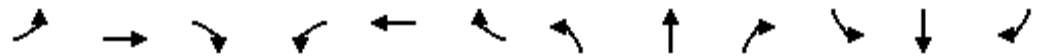
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		154			190	32		6			177	13
Queue Length 95th (ft)		m166			254	69		7			191	m20
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)												70
Base Capacity (vph)		1191			1166	426		1662			1772	508
Starvation Cap Reductn		0			0	0		0			37	0
Spillback Cap Reductn		0			0	0		3			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.55			0.66	0.22		0.68			0.71	0.15

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 15.8                      Intersection LOS: B  
 Intersection Capacity Utilization 89.4%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	2996	0	1652	2971	0	0	1556	0	0	3175	0
Flt Permitted		0.778		0.348				0.978			0.939	
Satd. Flow (perm)	0	2345	0	605	2971	0	0	1526	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		136			48			28			91	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	67	348	173	123	669	129	3	23	27	34	396	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	619	0	129	840	0	0	55	0	0	594	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	29.5	29.5	0.0	29.5	29.5	0.0	30.5	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.5		26.5	26.5			27.5			27.5	
Actuated g/C Ratio		0.44		0.44	0.44			0.46			0.46	
v/c Ratio		0.56		0.48	0.63			0.08			0.42	
Control Delay		11.8		7.4	4.3			0.5			7.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		11.8		7.4	4.3			0.5			7.6	
LOS		B		A	A			A			A	
Approach Delay		11.8			4.7			0.5			7.6	

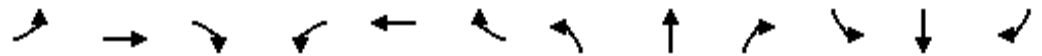






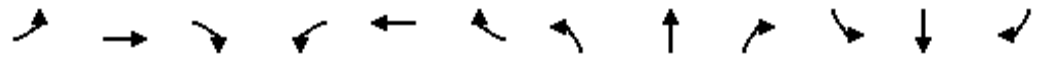
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1798	0	0	3419	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.949			0.996				
Satd. Flow (perm)	287	1798	0	0	3248	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			8			7				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	99	234	70	15	786	227	141	1573	35	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	104	320	0	0	1082	0	0	1841	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.84	0.40			0.77			0.79				
Control Delay	75.9	22.9			12.6			4.6				
Queue Delay	0.0	0.0			0.0			0.1				
Total Delay	75.9	22.9			12.6			4.6				
LOS	E	C			B			A				
Approach Delay		35.9			12.6			4.6				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			19	19							34	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	269	90	904	0	0	0	0	0	1463	124
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	283	95	952	0	0	0	0	0	1671	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.45	0.14	0.70						0.68	
Control Delay			10.9	10.7	19.0						5.2	
Queue Delay			0.0	0.0	0.0						0.0	
Total Delay			10.9	10.7	19.0						5.3	
LOS			B	B	B						A	
Approach Delay					18.3						5.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4877	0	0	0	0	0	0	0	0	4738	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4877	0	0	0	0	0	0	0	0	4738	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		11										64
Link Speed (mph)		25			25			25				25
Link Distance (ft)		496			174			348				327
Travel Time (s)		13.5			4.7			9.5				8.9
Volume (vph)	0	550	204	0	0	0	0	0	0	330	2111	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	810	0	0	0	0	0	0	0	0	2543	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		25.0									59.0	
Actuated g/C Ratio		0.28									0.66	
v/c Ratio		0.59									0.81	
Control Delay		29.9									3.1	
Queue Delay		0.0									0.9	
Total Delay		29.9									4.0	
LOS		C									A	
Approach Delay		29.9									4.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									A	
Queue Length 50th (ft)		143									40	
Queue Length 95th (ft)		185									m45	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1363									3128	
Starvation Cap Reductn		0									307	
Spillback Cap Reductn		0									91	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.59									0.90	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 36 (40%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 10.3      Intersection LOS: B  
 Intersection Capacity Utilization 69.3%      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5691	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5691	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						23				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	101	779	0	0	0	0	0	2839	169	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	898	0	0	0	0	0	3101	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.0						58.0				
Actuated g/C Ratio		0.29						0.64				
v/c Ratio		0.62						0.84				
Control Delay		33.5						4.8				
Queue Delay		0.0						2.3				
Total Delay		33.5						7.0				
LOS		C						A				
Approach Delay		33.5						7.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		178							97				
Queue Length 95th (ft)		225							m104				
Internal Link Dist (ft)		216				162			71			240	
Turn Bay Length (ft)													
Base Capacity (vph)		1444							3676				
Starvation Cap Reductn		0							428				
Spillback Cap Reductn		0							101				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.62							0.95				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 89 (99%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 13.0      Intersection LOS: B  
 Intersection Capacity Utilization 67.7%      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 451: Golden Gate Ave. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑		↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4892	0	0	0	0	0	3101	1346	0	3177	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	4847	0	0	0	0	0	3101	847	0	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10							7			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	47	800	101	0	0	0	0	1066	59	0	1143	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					10	10		1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	997	0	0	0	0	0	1122	62	0	1203	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			6	
Permitted Phases									2			
Detector Phases	4	4						2	2		6	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0		48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		31.0						53.0	53.0		53.0	
Actuated g/C Ratio		0.34						0.59	0.59		0.59	
v/c Ratio		0.59						0.61	0.12		0.64	
Control Delay		12.4						4.3	1.6		5.4	
Queue Delay		0.0						0.6	0.0		0.2	
Total Delay		12.4						4.8	1.6		5.5	
LOS		B						A	A		A	
Approach Delay		12.4						4.7			5.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4707	0	0	0	0	0	1594	0	0	3319	0
Flt Permitted		0.995									0.805	
Satd. Flow (perm)	0	4707	0	0	0	0	0	1594	0	0	2707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92						68				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	78	632	149	0	0	0	0	139	80	151	415	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	904	0	0	0	0	0	230	0	0	596	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases											4	
Detector Phases	2	2						8			4	4
Minimum Initial (s)	4.0	4.0						4.0			4.0	4.0
Minimum Split (s)	20.5	20.5						20.5			20.5	20.5
Total Split (s)	27.6	27.6	0.0	0.0	0.0	0.0	0.0	32.4	0.0	32.4	32.4	0.0
Total Split (%)	46.0%	46.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.0%	0.0%	54.0%	54.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.6						29.4			29.4	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.46						0.28			0.45	
Control Delay		12.3						1.7			13.8	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.3						1.7			13.8	
LOS		B						A			B	
Approach Delay		12.3						1.7			13.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		73						0			71	
Queue Length 95th (ft)		103						m8			117	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		1984						816			1326	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.46						0.28			0.45	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.46  
 Intersection Signal Delay: 11.4                      Intersection LOS: B  
 Intersection Capacity Utilization 55.2%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**

 ø2 27.6 s	 ø4 32.4 s
	 ø8 32.4 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	4751	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	5034	0	0	0	0	0	4751	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16						63				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	169	694	0	0	0	0	0	1647	252	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	909	0	0	0	0	0	1999	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.53						0.75				
Control Delay		10.2						6.0				
Queue Delay		0.0						0.0				
Total Delay		10.2						6.0				
LOS		B						A				
Approach Delay		10.2						6.0				



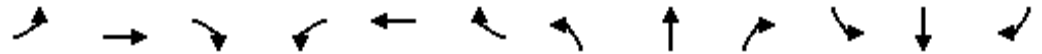
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		48							70				
Queue Length 95th (ft)		65							103				
Internal Link Dist (ft)		419				404			78			233	
Turn Bay Length (ft)													
Base Capacity (vph)		1730							2680				
Starvation Cap Reductn		0							37				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.53							0.76				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization:	60.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4851	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4851	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		52									50	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	656	290	0	0	0	0	0	0	140	1297	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	996	0	0	0	0	0	0	0	0	1512	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.67									0.52	
Control Delay		11.6									5.5	
Queue Delay		0.0									0.2	
Total Delay		11.6									5.7	
LOS		B									A	
Approach Delay		11.6									5.7	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		49									31	
Queue Length 95th (ft)		82									39	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1492									2889	
Starvation Cap Reductn		0									482	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.67									0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				3							17	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	200	996	0	0	0	0	0	2241	141
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	220	1095	0	0	0	0	0	2455	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				34.0	34.0						50.0	
Actuated g/C Ratio				0.38	0.38						0.56	
v/c Ratio				0.36	0.87						0.93	
Control Delay				10.2	23.3						11.4	
Queue Delay				0.0	1.2						1.5	
Total Delay				10.2	24.5						12.9	
LOS				B	C						B	
Approach Delay					22.1						12.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				31	357							72
Queue Length 95th (ft)				m69	m#445							#144
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				610	1258							2635
Starvation Cap Reductn				0	49							75
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.36	0.91							0.96

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 16.1      Intersection LOS: B  
 Intersection Capacity Utilization 75.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5494	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5494	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		181			233			320				205
Travel Time (s)		4.9			6.4			8.7				5.6
Volume (vph)	0	0	0	0	912	244	284	2656	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	950	254	0	3063	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	29.0	29.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	32.2%	32.2%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					26.0	26.0		58.0				
Actuated g/C Ratio					0.29	0.29		0.64				
v/c Ratio					0.65	0.55		0.86				
Control Delay					5.6	6.6		3.6				
Queue Delay					0.1	0.0		3.6				
Total Delay					5.7	6.6		7.2				
LOS					A	A		A				
Approach Delay					5.9			7.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					16	10		23				
Queue Length 95th (ft)					20	m14		25				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1451	459		3545				
Starvation Cap Reductn					0	0		50				
Spillback Cap Reductn					54	0		397				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.68	0.55		0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 6.8                      Intersection LOS: A  
 Intersection Capacity Utilization 67.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↔↔			↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	90		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5003	0	0	3135	0	0	2970	0
Flt Permitted				0.998								
Satd. Flow (perm)	0	0	0	0	4973	0	0	3135	0	0	2970	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8							1
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	38	1083	50	0	1113	0	0	1105	73
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1272	0	0	1172	0	0	1202	0
Turn Type				Split								
Protected Phases				4	4			2			6	
Permitted Phases												
Detector Phases				4	4			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			38.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	45.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.76			0.62			0.67	
Control Delay					30.2			4.2			13.5	
Queue Delay					0.0			0.1			0.3	
Total Delay					30.2			4.3			13.8	
LOS					C			A			B	
Approach Delay					30.2			4.3			13.8	

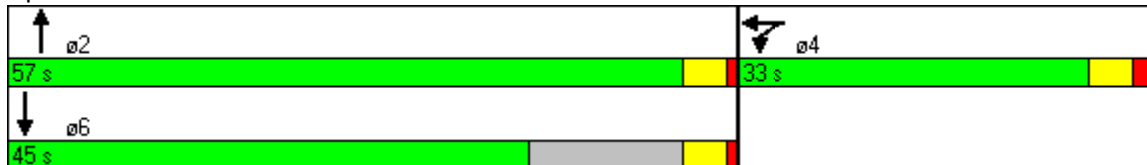


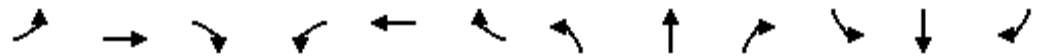
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					232			41			156	
Queue Length 95th (ft)					286			43			m237	
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)												
Base Capacity (vph)					1673			1881			1782	
Starvation Cap Reductn					0			13			144	
Spillback Cap Reductn					0			129			2	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.76			0.67			0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 86 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 16.5                      Intersection LOS: B  
 Intersection Capacity Utilization 65.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4949	0	0	2082	0	0	2058	0
Flt Permitted					0.994			0.737				
Satd. Flow (perm)	0	0	0	0	4949	0	0	1556	0	0	2058	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22						25	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	154	1016	79	63	154	0	0	412	92
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1314	0	0	228	0	0	531	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	28.7	28.7	0.0	31.3	31.3	0.0	0.0	31.3	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.8%	47.8%	0.0%	52.2%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.7			28.3			28.3	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.62			0.31			0.54	
Control Delay					7.3			11.1			7.8	
Queue Delay					0.0			0.0			0.5	
Total Delay					7.3			11.1			8.2	
LOS					A			B			A	
Approach Delay					7.3			11.1			8.2	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4879	0	0	4790	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	4879	0	0	4790	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					39			30				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	807	104	442	1374	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1001	0	0	1853	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					20.0			34.0				
Actuated g/C Ratio					0.33			0.57				
v/c Ratio					0.61			0.68				
Control Delay					11.5			5.5				
Queue Delay					0.0			0.1				
Total Delay					11.5			5.6				
LOS					B			A				
Approach Delay					11.5			5.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					47			65				
Queue Length 95th (ft)					60			80				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1652			2727				
Starvation Cap Reductn					0			179				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.61			0.73				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization	60.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 470: Turk St. & Larkin St.

← ø6	↖ ø8
23 s	37 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					55						84	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	235	647	0	0	0	0	0	1202	264
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	919	0	0	0	0	0	1496	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.52						0.57	
Control Delay					15.7						13.7	
Queue Delay					0.0						0.4	
Total Delay					15.7						14.1	
LOS					B						B	
Approach Delay					15.7						14.1	

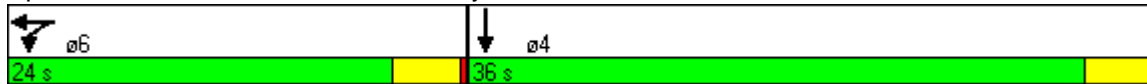


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					87						173	
Queue Length 95th (ft)					121						220	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1778						2610	
Starvation Cap Reductn					0						557	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.52						0.73	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	57 (95%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization	53.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1742	0	0	1794	0	0	0	0	0	5040	0
Flt Permitted					0.583						0.997	
Satd. Flow (perm)	0	1742	0	0	1060	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	246	113	57	161	0	0	0	0	173	2212	91
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	408	0	0	256	0	0	0	0	0	2579	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					17.0	17.0	
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		30.0			30.0						54.0	
Actuated g/C Ratio		0.33			0.33						0.60	
v/c Ratio		0.70			0.73						0.85	
Control Delay		33.3			23.6						7.0	
Queue Delay		1.1			0.0						1.4	
Total Delay		34.4			23.6						8.4	
LOS		C			C						A	
Approach Delay		34.4			23.6						8.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1783	0	0	5686	0	0	0	0
Flt Permitted		0.883						0.999				
Satd. Flow (perm)	0	1605	0	0	1783	0	0	5686	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			17				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	59	360	0	0	186	31	32	2732	153	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	531	0	0	274	0	0	3007	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		0.88			0.41			0.95				
Control Delay		34.2			15.0			14.5				
Queue Delay		3.9			0.0			6.9				
Total Delay		38.1			15.0			21.3				
LOS		D			B			C				
Approach Delay		38.1			15.0			21.3				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			C				
Queue Length 50th (ft)		175			66			375				
Queue Length 95th (ft)		#256			m84			#431				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		606			674			3166				
Starvation Cap Reductn		1			0			168				
Spillback Cap Reductn		35			0			75				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.93			0.41			1.00				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 23.2                      Intersection LOS: C  
 Intersection Capacity Utilization 86.5%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1783	0	0	1787	0	0	2925	0	0	2913	0
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1737	0	0	1703	0	0	2925	0	0	2913	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			7			14			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	27	422	64	12	147	21	0	1073	90	0	1102	70
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								8	8		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	633	0	0	212	0	0	1175	0	0	1172	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.86			0.29			0.78			0.78	
Control Delay		32.2			17.9			8.3			15.8	
Queue Delay		0.9			0.0			0.5			1.5	
Total Delay		33.1			17.9			8.8			17.3	
LOS		C			B			A			B	
Approach Delay		33.1			17.9			8.8			17.3	



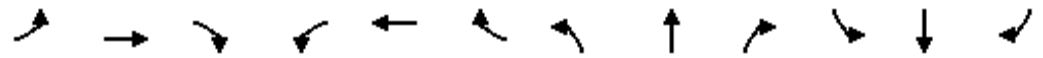
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		238			75			66			177	
Queue Length 95th (ft)		m294			118			70			169	
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												
Base Capacity (vph)		737			723			1502			1494	
Starvation Cap Reductn		18			0			82			159	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.88			0.29			0.83			0.88	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 17 (19%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 17.3      Intersection LOS: B  
 Intersection Capacity Utilization 76.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1755	0	0	1748	0	0	2005	0	0	2009	0
Flt Permitted		0.945			0.833			0.939			0.875	
Satd. Flow (perm)	0	1670	0	0	1480	0	0	1890	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			22			34			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	70	336	106	39	63	21	21	158	54	138	359	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	540	0	0	129	0	0	245	0	0	624	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		26.0			26.0			28.0			28.0	
Actuated g/C Ratio		0.43			0.43			0.47			0.47	
v/c Ratio		0.73			0.20			0.27			0.74	
Control Delay		20.7			0.5			4.6			16.5	
Queue Delay		0.0			0.0			0.0			2.9	
Total Delay		20.7			0.5			4.6			19.3	
LOS		C			A			A			B	
Approach Delay		20.7			0.5			4.6			19.3	

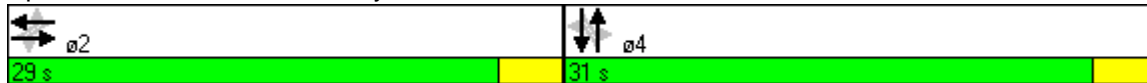


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A			B	
Queue Length 50th (ft)		146			1			18			184	
Queue Length 95th (ft)		#264			m1			m30			#292	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		740			654			900			841	
Starvation Cap Reductn		0			0			0			124	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.73			0.20			0.27			0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 15.9      Intersection LOS: B  
 Intersection Capacity Utilization 85.8%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								45				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		211			283			134				161
Travel Time (s)		5.8			7.7			3.7				4.4
Volume (vph)	80	440	0	0	0	0	123	1191	164	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	547	0	0	0	0	0	1556	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0
Total Split (%)	53.3%	53.3%	0.0%	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		29.0							25.0			
Actuated g/C Ratio		0.48							0.42			
v/c Ratio		0.61							0.75			
Control Delay		12.0							7.6			
Queue Delay		0.0							0.0			
Total Delay		12.0							7.7			
LOS		B							A			
Approach Delay		12.0							7.7			

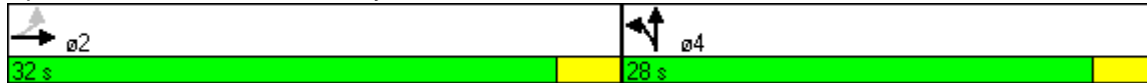


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		108							111				
Queue Length 95th (ft)		m181							160				
Internal Link Dist (ft)		131			203				54		81		
Turn Bay Length (ft)													
Base Capacity (vph)		893							2087				
Starvation Cap Reductn		0							21				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.61							0.75				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 8.8                      Intersection LOS: A  
 Intersection Capacity Utilization 63.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

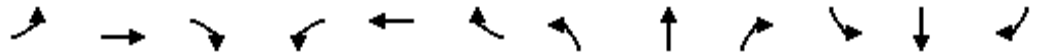
Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4813	0	0	0	0	0	0	0	0	4714	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4813	0	0	0	0	0	0	0	0	4714	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		69										56
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	418	186	0	0	0	0	0	0	127	1280	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	636	0	0	0	0	0	0	0	0	1481	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.51									0.48	
Control Delay		11.1									1.5	
Queue Delay		0.0									0.3	
Total Delay		11.1									1.8	
LOS		B									A	
Approach Delay		11.1									1.8	





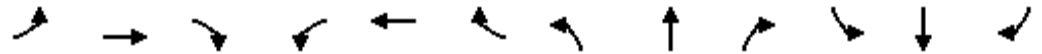
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		20									9	
Queue Length 95th (ft)		m54									17	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1255									3084	
Starvation Cap Reductn		0									792	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.51									0.65	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 36 (60%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 4.6                      Intersection LOS: A  
 Intersection Capacity Utilization 46.2%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗↖↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			6	6							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	35	213	316	0	0	0	0	0	2228	31
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	62	266	395	0	0	0	0	0	2378	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	31.0	31.0	31.0	0.0	0.0	0.0	0.0	0.0	59.0	0.0
Total Split (%)	0.0%	0.0%	34.4%	34.4%	34.4%	0.0%	0.0%	0.0%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			28.0	28.0	28.0						56.0	
Actuated g/C Ratio			0.31	0.31	0.31						0.62	
v/c Ratio			0.12	0.48	0.68						0.83	
Control Delay			21.3	17.2	22.3						5.6	
Queue Delay			0.0	0.0	0.0						0.2	
Total Delay			21.3	17.2	22.3						5.8	
LOS			C	B	C						A	
Approach Delay					20.2						5.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												C
Queue Length 50th (ft)			23	52	84							63
Queue Length 95th (ft)			31	m89	m132							m77
Internal Link Dist (ft)		79			398			249				162
Turn Bay Length (ft)												
Base Capacity (vph)			505	555	580							2864
Starvation Cap Reductn			0	0	0							0
Spillback Cap Reductn			0	0	0							78
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.12	0.48	0.68							0.85

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	21 (23%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization:	68.9%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 488: Ellis St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		478			479			171			185	
Travel Time (s)		13.0			13.1			4.7			5.0	
Volume (vph)	0	0	0	0	433	474	96	2720	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	471	515	0	2996	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	41.0	41.0	49.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.6%	45.6%	54.4%	54.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					38.0	38.0		46.0				
Actuated g/C Ratio					0.42	0.42		0.51				
v/c Ratio					0.32	0.77		0.89				
Control Delay					6.0	19.4		6.5				
Queue Delay					0.0	1.9		3.1				
Total Delay					6.0	21.3		9.7				
LOS					A	C		A				
Approach Delay					14.0			9.7				

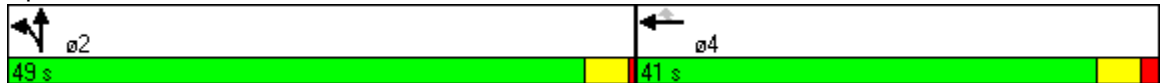


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A					
Queue Length 50th (ft)					28	287			47			
Queue Length 95th (ft)					m38	m#410			m60			
Internal Link Dist (ft)	398			399			91			105		
Turn Bay Length (ft)												
Base Capacity (vph)					1494	668			3379			
Starvation Cap Reductn					0	58			293			
Spillback Cap Reductn					0	0			0			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.32	0.84			0.97			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 33 (37%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 10.8      Intersection LOS: B  
 Intersection Capacity Utilization 68.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↔↔			↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4887	0	0	3135	0	0	2824	0
Flt Permitted				0.997								
Satd. Flow (perm)	0	0	0	0	4834	0	0	3135	0	0	2824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13						8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	51	712	90	0	1085	0	0	1096	195
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	937	0	0	1167	0	0	1359	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Detector Phases				4	4			2			2	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.57			0.62			0.80	
Control Delay					26.0			4.2			15.3	
Queue Delay					0.1			0.2			1.1	
Total Delay					26.1			4.4			16.4	
LOS					C			A			B	
Approach Delay					26.1			4.4			16.4	



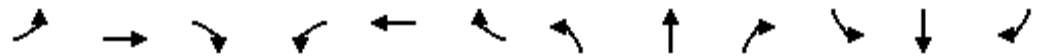
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					156			36			166	
Queue Length 95th (ft)					199			m76			238	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1638			1881			1698	
Starvation Cap Reductn					0			169			0	
Spillback Cap Reductn					70			0			148	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.60			0.68			0.88	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 15.0      Intersection LOS: B  
 Intersection Capacity Utilization 69.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





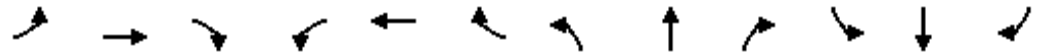
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4939	0	0	2046	0	0	2005	0
Flt Permitted					0.992			0.685				
Satd. Flow (perm)	0	0	0	0	4939	0	0	1423	0	0	2005	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					56						47	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	136	621	123	78	171	0	0	447	154
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	926	0	0	262	0	0	633	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	23.2	23.2	0.0	36.8	36.8	0.0	0.0	36.8	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.7%	38.7%	0.0%	61.3%	61.3%	0.0%	0.0%	61.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.2			33.8			33.8	
Actuated g/C Ratio					0.34			0.56			0.56	
v/c Ratio					0.54			0.33			0.55	
Control Delay					5.9			9.1			4.2	
Queue Delay					0.0			0.0			0.5	
Total Delay					5.9			9.1			4.6	
LOS					A			A			A	
Approach Delay					5.9			9.1			4.6	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4902	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					49			58				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		495			479			180			163	
Travel Time (s)		13.5			13.1			4.9			4.4	
Volume (vph)	0	0	0	0	731	232	149	1107	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1013	0	0	1322	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.8	0.0	33.2	33.2	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.7%	0.0%	55.3%	55.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.8			30.2				
Actuated g/C Ratio					0.40			0.50				
v/c Ratio					0.51			0.55				
Control Delay					8.6			2.4				
Queue Delay					0.0			0.0				
Total Delay					8.6			2.5				
LOS					A			A				
Approach Delay					8.6			2.5				

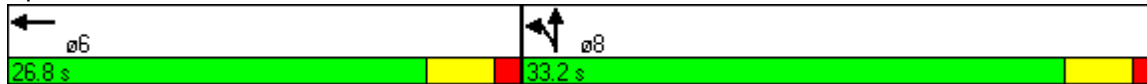


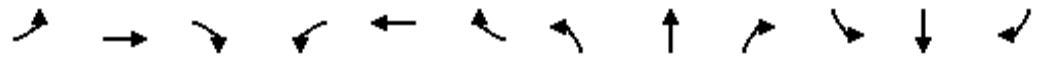
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					36			17				
Queue Length 95th (ft)					54			16				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1974			2416				
Starvation Cap Reductn					0			98				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.51			0.57				

**Intersection Summary**

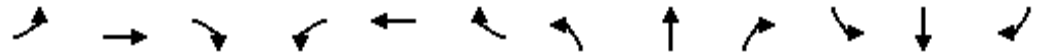
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	50.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4635	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4635	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					30						108	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	188	692	0	0	0	0	0	1219	271
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	926	0	0	0	0	0	1568	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.44						0.68	
Control Delay					12.9						8.2	
Queue Delay					0.0						0.2	
Total Delay					12.9						8.4	
LOS					B						A	
Approach Delay					12.9						8.4	

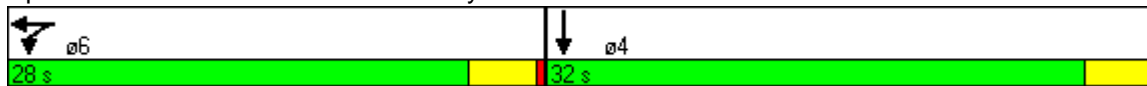


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					80						95	
Queue Length 95th (ft)					110						112	
Internal Link Dist (ft)		399			402			259			292	
Turn Bay Length (ft)												
Base Capacity (vph)					2113						2296	
Starvation Cap Reductn					0						196	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.44						0.75	

**Intersection Summary**

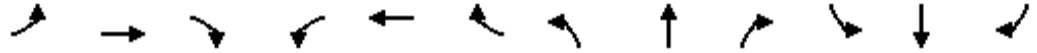
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	16 (27%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	10.1
Intersection LOS:	B
Intersection Capacity Utilization	53.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑↔				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6305	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	357	1043	0	0	0	0	0	2899	295	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1538	0	0	0	0	0	3363	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.07						1.06				
Control Delay		70.2						44.0				
Queue Delay		10.2						0.7				
Total Delay		80.4						44.7				
LOS		F						D				
Approach Delay		80.4						44.7				



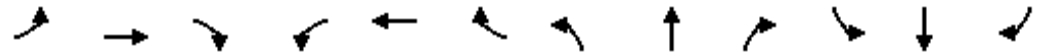
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						D				
Queue Length 50th (ft)		~535						~133				
Queue Length 95th (ft)		#674						#650				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3168				
Starvation Cap Reductn		0						5				
Spillback Cap Reductn		32						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.10						1.06				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	42 (47%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	100
Control Type:	Pretimed
Maximum v/c Ratio:	1.07
Intersection Signal Delay:	55.9
Intersection LOS:	E
Intersection Capacity Utilization:	83.4%
ICU Level of Service:	E
Analysis Period (min):	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

**Splits and Phases: 500: Starr King & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	70		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	3110	794	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			29						7			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	85	1140	113	0	0	0	0	1073	92	0	1194	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1289	119	0	0	0	0	1084	93	0	1372	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	41.0	41.0	41.0	0.0	0.0	0.0	0.0	49.0	49.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	45.6%	0.0%	0.0%	0.0%	0.0%	54.4%	54.4%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		38.0	38.0					46.0	46.0		46.0	
Actuated g/C Ratio		0.42	0.42					0.51	0.51		0.51	
v/c Ratio		0.87	0.20					0.68	0.23		0.86	
Control Delay		30.8	19.6					5.8	3.7		26.3	
Queue Delay		1.5	0.0					0.2	0.0		0.0	
Total Delay		32.3	19.6					6.0	3.7		26.3	
LOS		C	B					A	A		C	
Approach Delay		31.2						5.8			26.3	



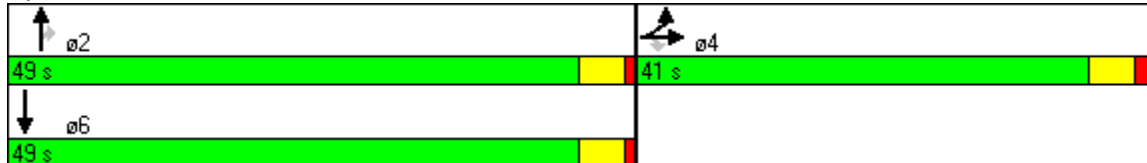


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			C		
Queue Length 50th (ft)		305	33					65	8		246	
Queue Length 95th (ft)		m281	m29					105	m12		258	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1490	582					1590	409		1602	
Starvation Cap Reductn		80	0					97	0		0	
Spillback Cap Reductn		0	0					28	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.91	0.20					0.73	0.23		0.86	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 21.9      Intersection LOS: C  
 Intersection Capacity Utilization 75.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 501: O'Farrell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3328	1583	0	0	0	0	1936	0	0	2048	0
Flt Permitted		0.994									0.838	
Satd. Flow (perm)	0	3328	1583	0	0	0	0	1936	0	0	1741	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197					45				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	129	974	187	0	0	0	0	108	110	164	414	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1161	197	0	0	0	0	230	0	0	609	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	29.0	29.0	29.0	0.0	0.0	0.0	0.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		26.0	26.0					28.0			28.0	
Actuated g/C Ratio		0.43	0.43					0.47			0.47	
v/c Ratio		0.81	0.25					0.25			0.75	
Control Delay		20.4	2.8					5.6			18.9	
Queue Delay		0.0	0.0					0.0			6.1	
Total Delay		20.4	2.8					5.6			25.0	
LOS		C	A					A			C	
Approach Delay		17.9						5.6			25.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			C		
Queue Length 50th (ft)		182	0					33			208	
Queue Length 95th (ft)		258	30					57			m300	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1442	798					927			812	
Starvation Cap Reductn		0	0					0			153	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.81	0.25					0.25			0.92	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	33 (55%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	18.6
Intersection LOS:	B
Intersection Capacity Utilization:	83.9%
ICU Level of Service:	E
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 502: O'Farrell St. & Polk St.**

 29 s	 31 s
 29 s	 31 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4616	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4616	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46						21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	143	1105	0	0	0	0	0	1101	312	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1314	0	0	0	0	0	1487	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		24.0						30.0				
Actuated g/C Ratio		0.40						0.50				
v/c Ratio		0.64						0.64				
Control Delay		6.8						7.5				
Queue Delay		0.0						0.2				
Total Delay		6.8						7.8				
LOS		A						A				
Approach Delay		6.8						7.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A				
Queue Length 50th (ft)		38							69				
Queue Length 95th (ft)		48							120				
Internal Link Dist (ft)		288				110			116			99	
Turn Bay Length (ft)													
Base Capacity (vph)		2050							2319				
Starvation Cap Reductn		0							237				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.64							0.71				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 503: O'Farrell St. & Larkin St.

02	08
27 s	33 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			15									46
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1117	300	0	0	0	0	0	0	256	1190	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1176	316	0	0	0	0	0	0	0	1522	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.66	0.40								0.79	
Control Delay		6.5	5.1								9.6	
Queue Delay		0.0	0.0								0.1	
Total Delay		6.5	5.1								9.7	
LOS		A	A								A	
Approach Delay		6.2									9.7	



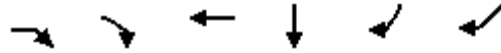
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A										A
Queue Length 50th (ft)		57	26									43
Queue Length 95th (ft)		71	42									62
Internal Link Dist (ft)		186			409			292				257
Turn Bay Length (ft)												
Base Capacity (vph)		1770	799									1916
Starvation Cap Reductn		0	0									15
Spillback Cap Reductn		0	0									0
Storage Cap Reductn		0	0									0
Reduced v/c Ratio		0.66	0.40									0.80

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization:	65.7%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 504: O'Farrell St. & Hyde St.

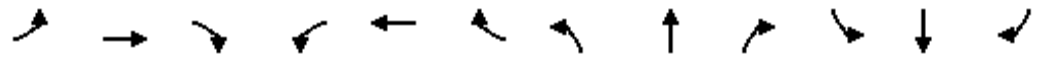




Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		4		12		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1093	350	1470	1830	304	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1151	368	1547	2226	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.81	0.50	0.68	0.96		
Control Delay	26.3	19.4	26.4	19.5		
Queue Delay	0.0	0.0	0.4	6.3		
Total Delay	26.3	19.4	26.8	25.9		
LOS	C	B	C	C		
Approach Delay			26.8	25.9		







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Flt Permitted								0.992				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6560	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	959	202	511	2821	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1031	217	0	3365	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.59	0.39		0.89				
Control Delay					9.6	9.7		2.9				
Queue Delay					0.0	0.0		1.8				
Total Delay					9.6	9.7		4.7				
LOS					A	A		A				
Approach Delay					9.7			4.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						A			A			
Queue Length 50th (ft)						52	30		63			
Queue Length 95th (ft)						61	45		m59			
Internal Link Dist (ft)		405				194			90		242	
Turn Bay Length (ft)												
Base Capacity (vph)						1743	563		3799			
Starvation Cap Reductn						0	0		278			
Spillback Cap Reductn						0	0		39			
Storage Cap Reductn						0	0		0			
Reduced v/c Ratio						0.59	0.39		0.96			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 6.1  
 Intersection LOS: A  
 Intersection Capacity Utilization 64.1%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 514: Geary St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		80
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5070	1469	0	3152	0	0	3035	1583
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	5021	1152	0	3152	0	0	3035	1044
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						58						5
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	74	1061	110	0	1158	0	0	1120	156
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1159	112	0	1170	0	0	1155	161
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.57	0.23		0.70			0.71	0.29
Control Delay					22.4	10.7		4.5			11.5	9.4
Queue Delay					0.1	0.0		0.2			0.2	0.0
Total Delay					22.5	10.7		4.7			11.8	9.4
LOS					C	B		A			B	A
Approach Delay					21.4			4.7			11.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)					183	19		28		100	24	
Queue Length 95th (ft)					227	54		m34		160	m46	
Internal Link Dist (ft)		115			394			274		79		
Turn Bay Length (ft)												80
Base Capacity (vph)					2028	496		1681		1619	559	
Starvation Cap Reductn					0	0		96		88	0	
Spillback Cap Reductn					112	0		0		67	0	
Storage Cap Reductn					0	0		0		0	0	
Reduced v/c Ratio					0.60	0.23		0.74		0.75	0.29	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 12.7      Intersection LOS: B  
 Intersection Capacity Utilization 75.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 515: Geary St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3325	1583	0	2054	0	0	1976	0
Flt Permitted					0.993			0.548				
Satd. Flow (perm)	0	0	0	0	3325	1583	0	1138	0	0	1976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109						50
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	143	946	104	53	182	0	0	435	246
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1147	109	0	248	0	0	717	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.80	0.15		0.47			0.76	
Control Delay					14.3	1.9		12.6			12.6	
Queue Delay					0.4	0.0		0.0			1.1	
Total Delay					14.7	1.9		12.6			13.7	
LOS					B	A		B			B	
Approach Delay					13.6			12.6			13.7	

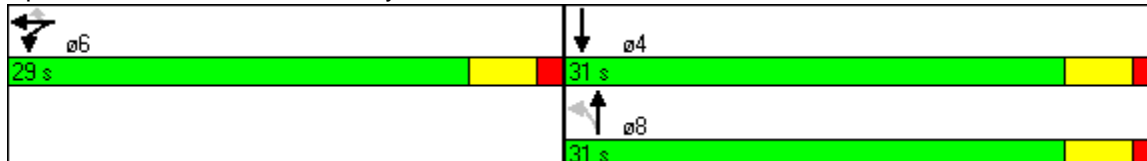


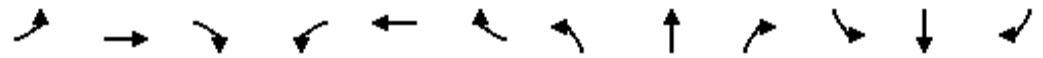
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B				B
Queue Length 50th (ft)					85	0		45				73
Queue Length 95th (ft)					212	m8		m77				#227
Internal Link Dist (ft)		394			132			88				90
Turn Bay Length (ft)												
Base Capacity (vph)					1441	748		531				949
Starvation Cap Reductn					0	0		0				80
Spillback Cap Reductn					57	0		0				68
Storage Cap Reductn					0	0		0				0
Reduced v/c Ratio					0.83	0.15		0.47				0.83

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 7 (12%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 13.5                      Intersection LOS: B  
 Intersection Capacity Utilization 90.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 516: Geary St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						25		117				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		290			195			167				168
Travel Time (s)		7.9			5.3			4.6				4.6
Volume (vph)	0	0	0	0	855	282	290	973	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	900	297	0	1329	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.48	0.35		0.73				
Control Delay					4.2	3.6		9.6				
Queue Delay					0.0	0.0		0.0				
Total Delay					4.2	3.6		9.6				
LOS					A	A		A				
Approach Delay					4.0			9.6				



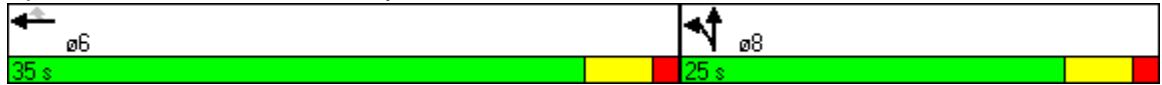


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					39	14		123				
Queue Length 95th (ft)					m50	m27		131				
Internal Link Dist (ft)		210			115			87			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1887	856		1820				
Starvation Cap Reductn					0	0		7				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.48	0.35		0.73				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 7.0      Intersection LOS: A  
 Intersection Capacity Utilization 55.0%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 517: Geary St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4685	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4685	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					25						65	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	257	903	0	0	0	0	0	1189	234
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1222	0	0	0	0	0	1498	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.80						0.70	
Control Delay					18.9						6.6	
Queue Delay					0.0						0.1	
Total Delay					18.9						6.8	
LOS					B						A	
Approach Delay					18.9						6.8	

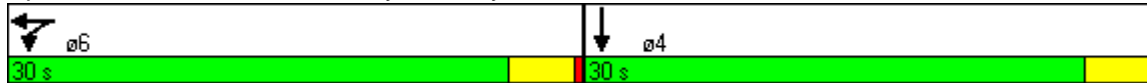


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						B						A
Queue Length 50th (ft)					184						6	
Queue Length 95th (ft)					261						m20	
Internal Link Dist (ft)		198			399			257			277	
Turn Bay Length (ft)												
Base Capacity (vph)					1532						2144	
Starvation Cap Reductn					0						101	
Spillback Cap Reductn					0						67	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.80						0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 48 (80%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 12.2      Intersection LOS: B  
 Intersection Capacity Utilization 67.3%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 518: Geary St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3306	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3306	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		9										37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	403	104	0	0	0	0	0	0	185	2030	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	576	0	0	0	0	0	0	0	0	2362	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.54									0.76	
Control Delay		26.8									8.1	
Queue Delay		0.0									1.0	
Total Delay		26.8									9.1	
LOS		C									A	
Approach Delay		26.8									9.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									A	
Queue Length 50th (ft)		137									106	
Queue Length 95th (ft)		184									163	
Internal Link Dist (ft)		402			412			265			254	
Turn Bay Length (ft)												
Base Capacity (vph)		1071									3101	
Starvation Cap Reductn		0									401	
Spillback Cap Reductn		0									438	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.54									0.89	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization:	65.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2							104			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	102	486	0	0	0	0	0	2675	348	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	661	0	0	0	0	0	2876	374	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	30.7	30.7	0.0	0.0	0.0	0.0	0.0	59.3	59.3	0.0	0.0	0.0
Total Split (%)	34.1%	34.1%	0.0%	0.0%	0.0%	0.0%	0.0%	65.9%	65.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		27.7						56.3	56.3			
Actuated g/C Ratio		0.31						0.63	0.63			
v/c Ratio		0.63						0.83	0.43			
Control Delay		37.8						4.1	1.2			
Queue Delay		0.0						0.9	0.8			
Total Delay		37.8						4.9	1.9			
LOS		D						A	A			
Approach Delay		37.8						4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D							A			
Queue Length 50th (ft)		198						51	2			
Queue Length 95th (ft)		247						55	m3			
Internal Link Dist (ft)		412			226			242			97	
Turn Bay Length (ft)												
Base Capacity (vph)		1042						3450	876			
Starvation Cap Reductn		0						286	242			
Spillback Cap Reductn		0						38	0			
Storage Cap Reductn		0						0	0			
Reduced v/c Ratio		0.63						0.91	0.59			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 10.2      Intersection LOS: B  
 Intersection Capacity Utilization 61.8%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3529	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	3160	913	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55						23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	53	710	71	0	0	0	0	990	236	0	1166	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	838	78	0	0	0	0	1010	241	0	1215	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		35.0	35.0					49.0	49.0		49.0	
Actuated g/C Ratio		0.39	0.39					0.54	0.54		0.54	
v/c Ratio		0.61	0.14					0.59	0.47		0.73	
Control Delay		19.4	8.5					3.5	3.8		10.7	
Queue Delay		0.0	0.0					0.3	0.2		0.0	
Total Delay		19.4	8.5					3.8	4.0		10.7	
LOS		B	A					A	A		B	
Approach Delay		18.5						3.9			10.7	



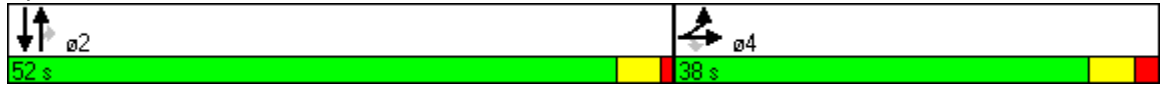


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		133	0					24	5		92	
Queue Length 95th (ft)		212	m23					34	m13		m154	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)									70			
Base Capacity (vph)		1372	557					1720	508		1675	
Starvation Cap Reductn		0	0					231	37		0	
Spillback Cap Reductn		0	0					0	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.61	0.14					0.68	0.51		0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 10.3      Intersection LOS: B  
 Intersection Capacity Utilization 64.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3388	1583	0	0	0	0	1984	0	0	1928	0
Flt Permitted		0.993									0.836	
Satd. Flow (perm)	0	3388	1583	0	0	0	0	1984	0	0	1634	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			258					70				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	95	606	245	0	0	0	0	165	84	161	421	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	738	258	0	0	0	0	262	0	0	612	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.65	0.37					0.23			0.66	
Control Delay		20.4	4.1					5.6			11.9	
Queue Delay		0.0	0.0					0.0			2.3	
Total Delay		20.4	4.1					5.6			14.2	
LOS		C	A					A			B	
Approach Delay		16.2						5.6			14.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		117	0					22			156	
Queue Length 95th (ft)		170	42					47			m260	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1129	700					1155			926	
Starvation Cap Reductn		0	0					0			189	
Spillback Cap Reductn		0	7					0			46	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.65	0.37					0.23			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 14.0      Intersection LOS: B  
 Intersection Capacity Utilization 74.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 538: Post St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4633	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4633	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						112				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	131	720	0	0	0	0	0	961	303	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	896	0	0	0	0	0	1331	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	29.4	29.4	0.0	0.0	0.0	0.0	0.0	30.6	0.0	0.0	0.0	0.0
Total Split (%)	49.0%	49.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.4						27.6				
Actuated g/C Ratio		0.44						0.46				
v/c Ratio		0.59						0.61				
Control Delay		6.0						5.1				
Queue Delay		0.0						0.1				
Total Delay		6.0						5.2				
LOS		A						A				
Approach Delay		6.0						5.2				

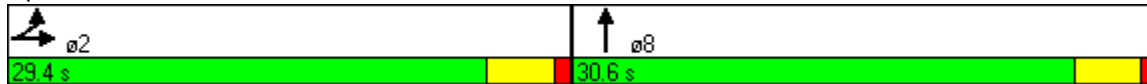


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A				
Queue Length 50th (ft)		43							41				
Queue Length 95th (ft)		58							49				
Internal Link Dist (ft)		424			382				103		91		
Turn Bay Length (ft)													
Base Capacity (vph)		1514							2192				
Starvation Cap Reductn		0							151				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.59							0.65				

**Intersection Summary**

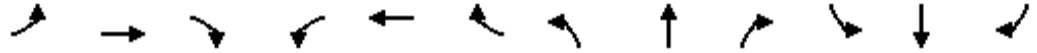
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization:	55.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			7									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	752	271	0	0	0	0	0	0	138	1152	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	792	285	0	0	0	0	0	0	0	1358	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.40	0.32								0.84	
Control Delay		5.4	5.3								19.9	
Queue Delay		0.0	0.0								0.0	
Total Delay		5.4	5.3								19.9	
LOS		A	A								B	
Approach Delay		5.4									19.9	



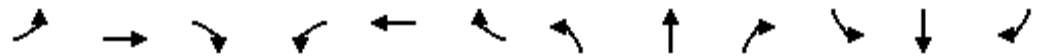
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A											B
Queue Length 50th (ft)		55	34									180
Queue Length 95th (ft)		77	63									#238
Internal Link Dist (ft)		382			406			277				272
Turn Bay Length (ft)												
Base Capacity (vph)		2005	900									1619
Starvation Cap Reductn		0	0									0
Spillback Cap Reductn		0	0									0
Storage Cap Reductn		0	0									0
Reduced v/c Ratio		0.40	0.32									0.84

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 27 (45%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 13.5                      Intersection LOS: B  
 Intersection Capacity Utilization 52.5%                      ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 540: Post St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			9	9							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	126	405	570	0	0	0	0	0	1736	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	148	426	600	0	0	0	0	0	1884	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	40.2	40.2	40.2	0.0	0.0	0.0	0.0	0.0	49.8	0.0
Total Split (%)	0.0%	0.0%	44.7%	44.7%	44.7%	0.0%	0.0%	0.0%	0.0%	0.0%	55.3%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			37.2	37.2	37.2						46.8	
Actuated g/C Ratio			0.41	0.41	0.41						0.52	
v/c Ratio			0.22	0.58	0.42						0.76	
Control Delay			17.1	5.7	4.5						7.7	
Queue Delay			0.0	0.0	0.0						0.6	
Total Delay			17.1	5.7	4.5						8.3	
LOS			B	A	A						A	
Approach Delay					5.0						8.3	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	837	314	138	2546	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	881	331	0	2739	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	34.0	34.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	37.8%	37.8%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					31.0	31.0		53.0				
Actuated g/C Ratio					0.34	0.34		0.59				
v/c Ratio					0.75	0.61		0.84				
Control Delay					8.4	7.9		3.8				
Queue Delay					0.1	0.0		0.5				
Total Delay					8.5	7.9		4.3				
LOS					A	A		A				
Approach Delay					8.3			4.3				



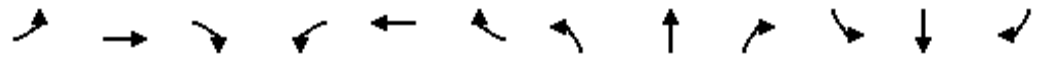
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					27	19		20				
Queue Length 95th (ft)					m60	m26		21				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1175	547		3250				
Starvation Cap Reductn					18	0		122				
Spillback Cap Reductn					0	0		165				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.76	0.61		0.89				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 5.5      Intersection LOS: A  
 Intersection Capacity Utilization 75.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3336	1401
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3336	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						55						8
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	93	1054	52	0	1010	0	0	970	97
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			3	3
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1207	55	0	1063	0	0	1021	102
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.88	0.10		0.62			0.57	0.21
Control Delay					34.5	5.4		3.8			19.0	14.9
Queue Delay					1.3	0.0		0.1			0.5	0.0
Total Delay					35.8	5.4		3.9			19.4	14.9
LOS					D	A		A			B	B
Approach Delay					34.5			3.9			19.0	



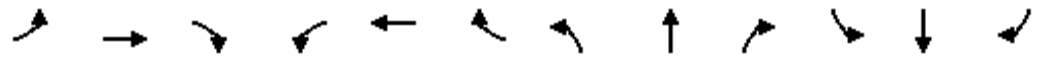
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					327	0		28			193	31
Queue Length 95th (ft)					#458	22		34			m197	m46
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												70
Base Capacity (vph)					1365	576		1727			1779	476
Starvation Cap Reductn					51	0		44			332	0
Spillback Cap Reductn					0	1		79			28	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.92	0.10		0.65			0.71	0.21

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 20.0      Intersection LOS: C  
 Intersection Capacity Utilization 66.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 556: Sutter St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1936	0	0	1883	0
Flt Permitted				0.991			0.700					
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1369	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						143						37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	237	1014	136	53	205	0	0	345	132
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1316	143	0	272	0	0	502	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0		23.0			23.0	
Actuated g/C Ratio					0.52	0.52		0.38			0.38	
v/c Ratio					0.75	0.16		0.52			0.67	
Control Delay					7.8	0.5		15.8			9.9	
Queue Delay					0.3	0.0		0.1			0.3	
Total Delay					8.2	0.5		15.8			10.3	
LOS					A	A		B			B	
Approach Delay					7.4			15.8			10.3	

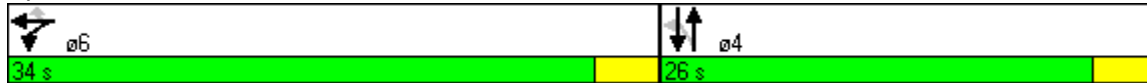


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A					B			B				
Queue Length 50th (ft)	70					0	62			41			
Queue Length 95th (ft)	86					m1	m124			m103			
Internal Link Dist (ft)	410				250		97			66			
Turn Bay Length (ft)													
Base Capacity (vph)					1747	887	525			745			
Starvation Cap Reductn					0	0	0			36			
Spillback Cap Reductn					100	0	8			13			
Storage Cap Reductn					0	0	0			0			
Reduced v/c Ratio					0.80	0.16	0.53			0.71			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 27 (45%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 9.1      Intersection LOS: A  
 Intersection Capacity Utilization 84.8%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 557: Sutter St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Flt Permitted								0.987				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						65		50				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1091	100	296	802	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1148	105	0	1156	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.67	0.13		0.60				
Control Delay					6.7	0.6		6.5				
Queue Delay					0.0	0.0		0.0				
Total Delay					6.7	0.6		6.5				
LOS					A	A		A				
Approach Delay					6.2			6.5				



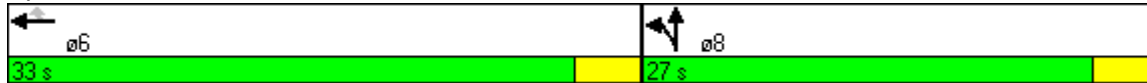


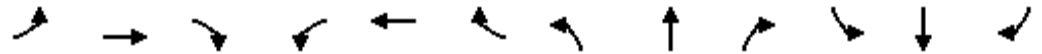
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					43	0		32				
Queue Length 95th (ft)					63	m0		48				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	824		1927				
Starvation Cap Reductn					0	0		0				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.67	0.13		0.60				

**Intersection Summary**

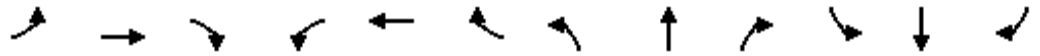
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 18 (30%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 6.4      Intersection LOS: A  
 Intersection Capacity Utilization 58.3%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					18						69	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	285	1005	0	0	0	0	0	1005	186
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1358	0	0	0	0	0	1254	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					33.0						21.0	
Actuated g/C Ratio					0.55						0.35	
v/c Ratio					0.73						0.77	
Control Delay					12.9						16.6	
Queue Delay					0.0						0.0	
Total Delay					12.9						16.6	
LOS					B						B	
Approach Delay					12.9						16.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					171						162	
Queue Length 95th (ft)					243						207	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1864						1639	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.73						0.77	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	3 (5%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization:	66.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4746	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4746	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		16										34
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1080	291	0	0	0	0	0	0	304	1420	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1443	0	0	0	0	0	0	0	0	1834	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		40.0									44.0	
Actuated g/C Ratio		0.44									0.49	
v/c Ratio		0.69									0.78	
Control Delay		21.8									12.0	
Queue Delay		0.0									0.4	
Total Delay		21.8									12.4	
LOS		C									B	
Approach Delay		21.8									12.4	

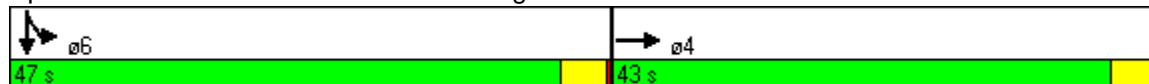


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		229										129
Queue Length 95th (ft)		282										205
Internal Link Dist (ft)		172				417		94		91		
Turn Bay Length (ft)												
Base Capacity (vph)		2106										2338
Starvation Cap Reductn		0										133
Spillback Cap Reductn		0										47
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.69										0.83

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization:	67.6%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4831	0	0	0	0	0	5617	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	4831	0	0	0	0	0	5617	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						9				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	264	1120	0	0	0	0	0	2438	390	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1442	0	0	0	0	0	3074	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		30.0						54.0				
Actuated g/C Ratio		0.33						0.60				
v/c Ratio		0.89						0.91				
Control Delay		25.8						10.0				
Queue Delay		1.0						12.0				
Total Delay		26.8						22.0				
LOS		C						C				
Approach Delay		26.8						22.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						C				
Queue Length 50th (ft)		145						126				
Queue Length 95th (ft)		#248						142				
Internal Link Dist (ft)		417			148			104			82	
Turn Bay Length (ft)												
Base Capacity (vph)		1612						3374				
Starvation Cap Reductn		0						92				
Spillback Cap Reductn		48						351				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.92						1.02				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	65 (72%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	23.5
Intersection LOS:	C
Intersection Capacity Utilization	75.5%
ICU Level of Service	D
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑		↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4995	0	0	0	0	0	3353	1417	0	3362	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	4960	0	0	0	0	0	3353	942	0	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11							1			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	89	1341	80	0	0	0	0	942	83	0	1008	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								1	1		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1660	0	0	0	0	0	1070	94	0	1145	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			6	
Permitted Phases									2			
Detector Phases	4	4						2	2		6	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0		48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	36.0	36.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		34.0						50.0	50.0		50.0	
Actuated g/C Ratio		0.38						0.56	0.56		0.56	
v/c Ratio		0.88						0.57	0.18		0.61	
Control Delay		20.5						6.1	2.7		5.4	
Queue Delay		0.4						0.8	0.0		0.1	
Total Delay		20.9						6.8	2.7		5.5	
LOS		C						A	A		A	
Approach Delay		20.9						6.5			5.5	



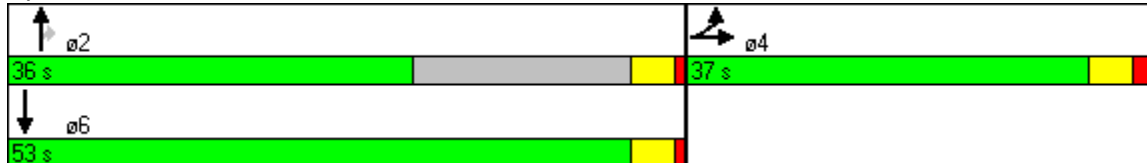


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A			A	
Queue Length 50th (ft)		160							127	7		42	
Queue Length 95th (ft)		m190							130	m12		m47	
Internal Link Dist (ft)		141							225			89	
Turn Bay Length (ft)										70			
Base Capacity (vph)		1894							1863	524		1868	
Starvation Cap Reductn		42							445	0		63	
Spillback Cap Reductn		0							0	0		0	
Storage Cap Reductn		0							0	0		0	
Reduced v/c Ratio		0.90							0.75	0.18		0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 12.2      Intersection LOS: B  
 Intersection Capacity Utilization 66.6%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 585: Bush St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1904	0	0	1936	0
Flt Permitted		0.998									0.862	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1904	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22						15				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	50	1285	89	0	0	0	0	273	66	99	388	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1500	0	0	0	0	0	356	0	0	512	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.8	28.8	0.0	0.0	0.0	0.0	0.0	31.2	0.0	31.2	31.2	0.0
Total Split (%)	48.0%	48.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.0%	0.0%	52.0%	52.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.8						28.2			28.2	
Actuated g/C Ratio		0.43						0.47			0.47	
v/c Ratio		0.72						0.39			0.65	
Control Delay		16.3						8.9			19.2	
Queue Delay		0.0						0.2			4.5	
Total Delay		16.3						9.1			23.6	
LOS		B						A			C	
Approach Delay		16.3						9.1			23.6	

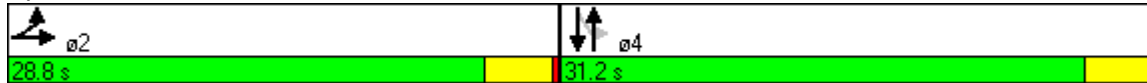


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			C	
Queue Length 50th (ft)		153						48			177	
Queue Length 95th (ft)		202						92			m271	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		2086						903			792	
Starvation Cap Reductn		0						124			205	
Spillback Cap Reductn		0						0			5	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.72						0.46			0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 55 (92%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 16.8      Intersection LOS: B  
 Intersection Capacity Utilization 82.1%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3024	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3024	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						25	31			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	118	1332	0	0	0	0	0	573	334	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1526	0	0	0	0	0	681	274	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.59						0.61	0.59			
Control Delay		2.5						10.6	12.4			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.5						10.6	12.4			
LOS		A						B	B			
Approach Delay		2.5						11.1				

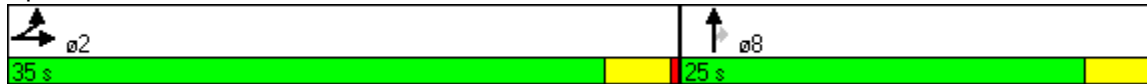


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	23						133 96					
Queue Length 95th (ft)	24						184 12					
Internal Link Dist (ft)	216				181		103				10	
Turn Bay Length (ft)												
Base Capacity (vph)	2607						1125 461					
Starvation Cap Reductn	0						0 0					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.59						0.61 0.59					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.8
Intersection LOS:	A
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		35									38	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1302	344	0	0	0	0	0	0	138	847	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1733	0	0	0	0	0	0	0	0	1037	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.66									0.63	
Control Delay		5.3									10.8	
Queue Delay		0.0									0.0	
Total Delay		5.3									10.8	
LOS		A									B	
Approach Delay		5.3									10.8	



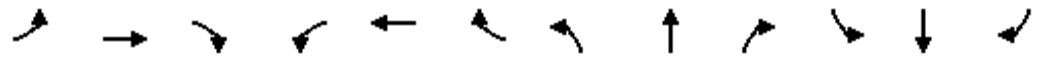
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A										B	
Queue Length 50th (ft)		57										36	
Queue Length 95th (ft)		69										47	
Internal Link Dist (ft)		160				385			52		237		
Turn Bay Length (ft)													
Base Capacity (vph)		2614										1634	
Starvation Cap Reductn		0										0	
Spillback Cap Reductn		0										0	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.66										0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	58.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4686	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4686	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				16							14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	376	1487	0	0	0	0	0	1292	172
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	396	1565	0	0	0	0	0	1557	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.45	0.66						0.74	
Control Delay				3.8	4.3						10.1	
Queue Delay				0.0	0.1						1.2	
Total Delay				3.8	4.4						11.3	
LOS				A	A						B	
Approach Delay					4.3						11.3	



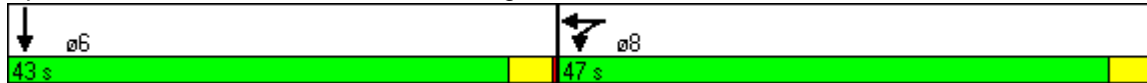


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											A	B
Queue Length 50th (ft)				24	43							64
Queue Length 95th (ft)				m31	m54							75
Internal Link Dist (ft)		169			423			88				273
Turn Bay Length (ft)												
Base Capacity (vph)				874	2383							2090
Starvation Cap Reductn				0	132							296
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.45	0.70							0.87

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 82 (91%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 7.4      Intersection LOS: A  
 Intersection Capacity Utilization 74.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 612: Pine St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6029	0	0	5452	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5452	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			452			172			192	
Travel Time (s)		13.7			12.3			4.7			5.2	
Volume (vph)	0	0	0	0	1600	379	263	2397	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2385	0	0	2830	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					37.0			47.0				
Actuated g/C Ratio					0.41			0.52				
v/c Ratio					0.96			0.99				
Control Delay					17.7			21.6				
Queue Delay					0.1			22.4				
Total Delay					17.8			44.0				
LOS					B			D				
Approach Delay					17.8			44.0				



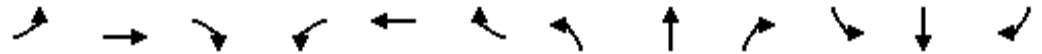
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			D				
Queue Length 50th (ft)					85			153				
Queue Length 95th (ft)					109			#617				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2479			2848				
Starvation Cap Reductn					3			179				
Spillback Cap Reductn					0			12				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.96			1.06				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	32.0
Intersection LOS:	C
Intersection Capacity Utilization:	74.9%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 613: Pine St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑			↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		70
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6284	0	0	3345	0	0	3193	1280
Flt Permitted				0.998								
Satd. Flow (perm)	0	0	0	0	6254	0	0	3345	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18							
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	75	1768	124	0	998	0	0	964	211
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								2			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2071	0	0	1051	0	0	1015	222
Turn Type				Split								Perm
Protected Phases				8	8			2			6	
Permitted Phases												6
Detector Phases				8	8			2			6	6
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				36.0	36.0			48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	54.0	0.0	0.0	44.0	44.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	60.0%	0.0%	0.0%	48.9%	48.9%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.2	2.2			1.0			1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					33.0			51.0			51.0	51.0
Actuated g/C Ratio					0.37			0.57			0.57	0.57
v/c Ratio					0.89			0.55			0.56	0.46
Control Delay					32.9			4.3			11.7	12.5
Queue Delay					0.0			0.1			0.3	0.0
Total Delay					32.9			4.4			12.0	12.5
LOS					C			A			B	B
Approach Delay					32.9			4.4			12.1	

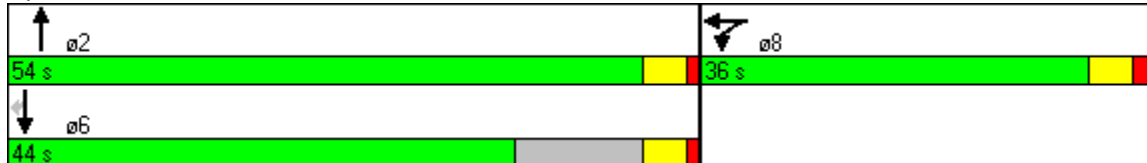


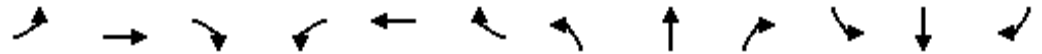
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					315			41			120	48
Queue Length 95th (ft)					368			m51			133	m63
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)												70
Base Capacity (vph)					2316			1896			1809	482
Starvation Cap Reductn					0			113			292	0
Spillback Cap Reductn					0			0			0	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.89			0.59			0.67	0.46

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 20.1      Intersection LOS: C  
 Intersection Capacity Utilization 63.5%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6153	0	0	1939	0	0	1881	0
Flt Permitted					0.998			0.796				
Satd. Flow (perm)	0	0	0	0	6153	0	0	1556	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	82	1739	85	52	271	0	0	376	146
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2006	0	0	340	0	0	550	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					26.0			28.0			28.0	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.75			0.47			0.63	
Control Delay					8.4			15.7			10.4	
Queue Delay					0.1			0.8			0.4	
Total Delay					8.5			16.5			10.8	
LOS					A			B			B	
Approach Delay					8.5			16.5			10.8	

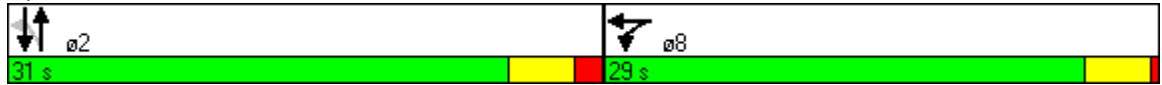


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B			B	
Queue Length 50th (ft)					93			113			60	
Queue Length 95th (ft)					107			m188			145	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2677			726			879	
Starvation Cap Reductn					0			163			67	
Spillback Cap Reductn					79			0			70	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.77			0.60			0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 56 (93%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 9.9                      Intersection LOS: A  
 Intersection Capacity Utilization 83.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6110	0	0	3144	0	0	0	0
Flt Permitted								0.979				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3144	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					78			16				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1608	193	298	397	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1896	0	0	732	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.56			0.66				
Control Delay					4.2			6.6				
Queue Delay					0.0			0.0				
Total Delay					4.2			6.6				
LOS					A			A				
Approach Delay					4.2			6.6				





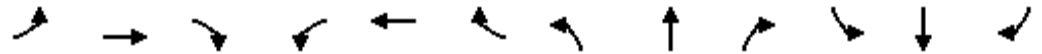
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					43			28				
Queue Length 95th (ft)					51			39				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3396			1111				
Starvation Cap Reductn					0			3				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.56			0.66				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	39 (65%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	4.9
Intersection LOS:	A
Intersection Capacity Utilization	52.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4478	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4478	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					84						11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	252	1592	0	0	0	0	0	733	209
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1941	0	0	0	0	0	992	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.60						0.55	
Control Delay					11.2						15.1	
Queue Delay					0.0						0.0	
Total Delay					11.2						15.1	
LOS					B						B	
Approach Delay					11.2						15.1	

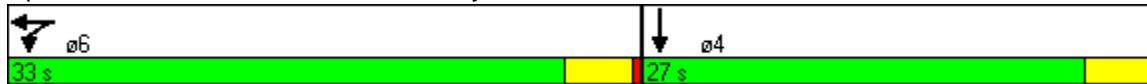


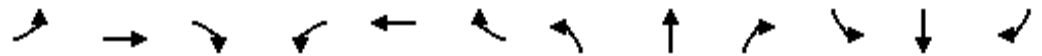
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					127						95	
Queue Length 95th (ft)					161						131	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3224						1798	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.60						0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	35 (58%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	52.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3500	0	0	0	0	0	3507	0
Flt Permitted					0.607						0.997	
Satd. Flow (perm)	0	3458	0	0	2148	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29									6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	540	97	155	563	0	0	0	0	73	1212	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	692	0	0	835	0	0	0	0	0	1434	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					25.0	25.0	
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0						44.0	
Actuated g/C Ratio		0.44			0.44						0.49	
v/c Ratio		0.45			0.87						0.83	
Control Delay		17.6			36.5						27.4	
Queue Delay		0.0			0.0						28.5	
Total Delay		17.6			36.5						55.9	
LOS		B			D						E	
Approach Delay		17.6			36.5						55.9	

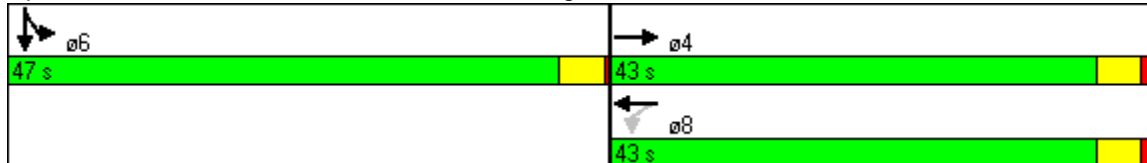


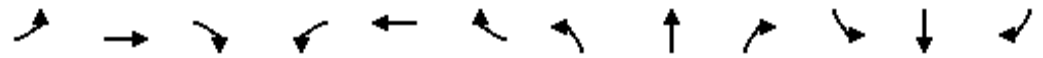
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B				D				E		
Queue Length 50th (ft)		132				168				428		
Queue Length 95th (ft)		180				m184				m455		
Internal Link Dist (ft)		414				438				273		
Turn Bay Length (ft)												
Base Capacity (vph)		1553				955				1718		
Starvation Cap Reductn		0				0				356		
Spillback Cap Reductn		0				0				0		
Storage Cap Reductn		0				0				0		
Reduced v/c Ratio		0.45				0.87				1.05		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 41.5      Intersection LOS: D  
 Intersection Capacity Utilization 85.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	5691	0	0	0	0
Flt Permitted	0.154							0.999				
Satd. Flow (perm)	287	3539	0	0	3479	0	0	5691	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	92	521	0	0	638	84	80	2562	134	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	108	613	0	0	850	0	0	3266	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	7.0	33.0	0.0	0.0	26.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	7.8%	36.7%	0.0%	0.0%	28.9%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	30.0	30.0			23.0			54.0				
Actuated g/C Ratio	0.33	0.33			0.26			0.60				
v/c Ratio	0.67	0.52			0.94			0.95				
Control Delay	39.8	13.5			41.2			9.8				
Queue Delay	0.0	0.0			0.0			6.5				
Total Delay	39.8	13.5			41.2			16.3				
LOS	D	B			D			B				
Approach Delay		17.4			41.2			16.3				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		110	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	
Trailing Detector (ft)	0	0		0	0			0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3352	0	0	3358	0	0	3336	1401	0	2983	0
Flt Permitted		0.897			0.835							
Satd. Flow (perm)	0	3009	0	0	2805	0	0	3336	918	0	2983	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			14				29		20	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	23	534	98	39	612	82	0	1007	115	0	1038	110
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								3	3		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	753	0	0	806	0	0	1038	119	0	1221	0
Turn Type	Perm			Perm					Perm			
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			
Detector Phases	4	4		4	4			2	2		2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	0.0	53.0	53.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	58.9%	58.9%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	
Act Effct Green (s)		34.0			34.0			50.0	50.0		50.0	
Actuated g/C Ratio		0.38			0.38			0.56	0.56		0.56	
v/c Ratio		0.65			0.75			0.56	0.23		0.73	
Control Delay		13.8			29.4			4.6	2.0		7.2	
Queue Delay		0.0			0.0			0.1	0.0		0.0	
Total Delay		13.8			29.4			4.6	2.0		7.2	
LOS		B			C			A	A		A	
Approach Delay		13.8			29.4			4.4			7.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			A			A		
Queue Length 50th (ft)	64			202			43			2		
Queue Length 95th (ft)	m96			275			m56			m8		
Internal Link Dist (ft)	361			163			282			265		
Turn Bay Length (ft)							110					
Base Capacity (vph)	1153			1068			1853			523		
Starvation Cap Reductn	0			0			116			0		
Spillback Cap Reductn	0			0			53			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.65			0.75			0.60			0.23		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 12.2      Intersection LOS: B  
 Intersection Capacity Utilization 88.6%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3364	0	0	3409	0	0	1914	0	0	1903	0
Flt Permitted								0.965			0.921	
Satd. Flow (perm)	0	3364	0	0	3409	0	0	1853	0	0	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			26			20			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	519	130	0	672	85	20	288	48	66	392	83
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	683	0	0	796	0	0	375	0	0	569	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0			31.0			31.0	
Actuated g/C Ratio		0.38			0.38			0.52			0.52	
v/c Ratio		0.51			0.60			0.39			0.62	
Control Delay		14.5			11.7			6.8			9.8	
Queue Delay		0.0			0.0			0.0			0.4	
Total Delay		14.5			11.7			6.8			10.2	
LOS		B			B			A			B	
Approach Delay		14.5			11.7			6.8			10.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		86			45			15			92	
Queue Length 95th (ft)		131			105			m97			109	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1327			1323			967			922	
Starvation Cap Reductn		0			0			0			81	
Spillback Cap Reductn		0			0			0			4	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.60			0.39			0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 15 (25%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 11.4      Intersection LOS: B  
 Intersection Capacity Utilization 76.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 642: California St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1785	0	1770	0	1290
Flt Permitted		0.908					0.950			0.338		
Satd. Flow (perm)	0	3149	0	0	3455	0	1770	1785	0	630	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			49				58
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	27	606	0	0	622	16	89	362	139	67	0	46
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	674	0	0	768	0	95	533	0	84	0	58
Turn Type	Perm						Perm			custom		custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	0.0	35.0
Total Split (%)	41.7%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	0.0%	58.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		22.0			22.0		32.0	32.0		32.0		32.0
Actuated g/C Ratio		0.37			0.37		0.53	0.53		0.53		0.53
v/c Ratio		0.58			0.60		0.10	0.55		0.25		0.08
Control Delay		15.1			17.8		3.5	5.2		10.0		2.6
Queue Delay		0.0			0.0		0.0	0.1		0.0		0.0
Total Delay		15.1			17.8		3.5	5.2		10.0		2.6
LOS		B			B		A	A		B		A
Approach Delay		15.1			17.8			5.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		57			114		9	54		15		0
Queue Length 95th (ft)		114			147		m13	0		33		11
Internal Link Dist (ft)		412			61			283			587	
Turn Bay Length (ft)												
Base Capacity (vph)		1155			1270		944	975		336		715
Starvation Cap Reductn		0			0		0	37		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0
Reduced v/c Ratio		0.58			0.60		0.10	0.57		0.25		0.08

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization	77.8%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 643: California St. & Larkin St.**

← ø2	↖ ø4
25 s	35 s
→ ø6	↗ ø8
25 s	35 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1839	0	0	0	0	0	1535	0
Flt Permitted	0.301			0.950								
Satd. Flow (perm)	561	0	1583	1770	1839	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			163	180	5						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	77	0	114	339	268	26	0	0	0	0	881	49
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	110	0	163	381	330	0	0	0	0	0	949	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	28.0	0.0	28.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	62.0	0.0
Total Split (%)	31.1%	0.0%	31.1%	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	25.0		25.0	25.0	25.0						59.0	
Actuated g/C Ratio	0.28		0.28	0.28	0.28						0.66	
v/c Ratio	0.71		0.29	0.61	0.64						0.94	
Control Delay	55.9		5.8	6.0	13.3						25.9	
Queue Delay	0.0		1.1	29.7	0.0						40.5	
Total Delay	55.9		6.9	35.7	13.3						66.3	
LOS	E		A	D	B						E	
Approach Delay					25.3						66.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3433	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3433	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					3		53					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	553	137	80	2658	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	750	0	86	2858	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					24.0		60.0	60.0				
Actuated g/C Ratio					0.27		0.67	0.67				
v/c Ratio					0.82		0.07	0.90				
Control Delay					24.2		0.0	3.5				
Queue Delay					0.0		0.0	1.6				
Total Delay					24.2		0.0	5.1				
LOS					C		A	A				
Approach Delay					24.2			4.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					214		0	41				
Queue Length 95th (ft)					#290		m0	m35				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					918		1198	3193				
Starvation Cap Reductn					0		0	182				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					0.82		0.07	0.95				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 78 (87%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 8.8                      Intersection LOS: A  
 Intersection Capacity Utilization 77.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3224	0	0	3150	0	0	3186	1275
Flt Permitted				0.993								
Satd. Flow (perm)	0	0	0	0	3166	0	0	3150	0	0	3186	1035
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20							57
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	103	557	90	0	1112	0	0	1045	133
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	781	0	0	1146	0	0	1100	140
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.60			0.68			0.65	0.24
Control Delay					23.1			11.6			14.6	8.7
Queue Delay					0.0			0.1			0.8	0.0
Total Delay					23.1			11.7			15.4	8.7
LOS					C			B			B	A
Approach Delay					23.1			11.7			14.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			B	
Queue Length 50th (ft)					175			101			139	9
Queue Length 95th (ft)					236			157			211	m40
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												80
Base Capacity (vph)					1302			1680			1699	579
Starvation Cap Reductn					0			0			303	0
Spillback Cap Reductn					0			55			17	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.60			0.71			0.79	0.24

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 15.7      Intersection LOS: B  
 Intersection Capacity Utilization 61.9%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3490	0	0	1947	0	0	1873	0
Flt Permitted					0.993			0.927				
Satd. Flow (perm)	0	0	0	0	3490	0	0	1812	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						62	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	91	516	30	32	341	0	0	450	202
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	671	0	0	393	0	0	687	0
Turn Type				Perm		Perm						
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.57			0.38			0.63	
Control Delay					18.6			10.7			7.9	
Queue Delay					0.0			0.2			0.1	
Total Delay					18.6			10.9			8.0	
LOS					B			B			A	
Approach Delay					18.6			10.9			8.0	

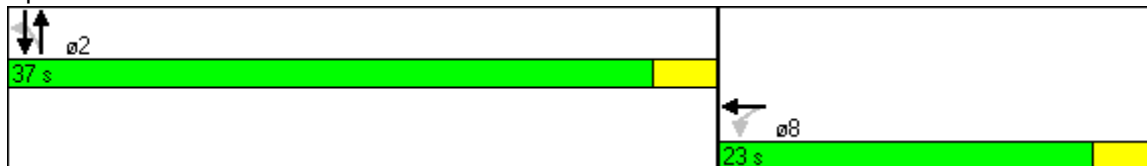


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B			A	
Queue Length 50th (ft)					101			83			69	
Queue Length 95th (ft)					148			100			135	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1169			1027			1088	
Starvation Cap Reductn					0			152			37	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.57			0.45			0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	13 (22%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization	69.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 662: Sacramento St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1695	0	0	1510	0	0	5019	0	0	0	0
Flt Permitted		0.933						0.999				
Satd. Flow (perm)	0	1599	0	0	1510	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			38				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		516			450			331			296	
Travel Time (s)		14.1			12.3			9.0			8.1	
Volume (vph)	14	52	0	0	17	124	34	2539	222	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	70	0	0	149	0	0	2943	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	23.5	23.5	0.0	0.0	23.5	0.0	66.5	66.5	0.0	0.0	0.0	0.0
Total Split (%)	26.1%	26.1%	0.0%	0.0%	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		20.5			20.5			63.5				
Actuated g/C Ratio		0.23			0.23			0.71				
v/c Ratio		0.19			0.43			0.83				
Control Delay		38.3			38.2			1.7				
Queue Delay		0.0			0.0			0.4				
Total Delay		38.3			38.2			2.1				
LOS		D			D			A				
Approach Delay		38.3			38.2			2.1				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↗		↑↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1575	0	0	0	0	0	3185	1267	0	2961	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	1569	0	0	0	0	0	3185	802	0	2961	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11							33		26	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	8	225	41	0	0	0	0	1076	126	0	1137	141
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20	20		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	351	0	0	0	0	0	1145	134	0	1345	0
Turn Type	Split						Perm					
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.66						0.60	0.27		0.75	
Control Delay		25.2						4.4	1.7		7.0	
Queue Delay		0.0						0.7	0.0		0.0	
Total Delay		25.2						5.1	1.7		7.0	
LOS		C						A	A		A	
Approach Delay		25.2						4.8			7.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			A	
Queue Length 50th (ft)		151						31	0		58	
Queue Length 95th (ft)		m193						71	m2		61	
Internal Link Dist (ft)		370			421			247			76	
Turn Bay Length (ft)									70			
Base Capacity (vph)		532						1911	494		1787	
Starvation Cap Reductn		0						411	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.66						0.76	0.27		0.75	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	82 (91%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	66.3%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3030	0	0	0	0	0	1887	0	0	1947	0
Flt Permitted		0.993									0.946	
Satd. Flow (perm)	0	3030	0	0	0	0	0	1887	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		251						39				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	49	64	238	0	0	0	0	274	97	41	414	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	370	0	0	0	0	0	390	0	0	479	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.5						27.5			27.5	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.25						0.44			0.56	
Control Delay		4.1						4.6			13.9	
Queue Delay		0.0						0.2			0.2	
Total Delay		4.1						4.8			14.1	
LOS		A						A			B	
Approach Delay		4.1						4.8			14.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		12						11			98	
Queue Length 95th (ft)		33						32			162	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1478						886			848	
Starvation Cap Reductn		0						109			55	
Spillback Cap Reductn		0						0			4	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.25						0.50			0.60	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	15 (25%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	65.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 673: Clay St. & Polk St.

ø2	ø4
30.5 s	29.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1737	0	0	0	0	0	1478	0	0	1857	0
Flt Permitted		0.999									0.994	
Satd. Flow (perm)	0	1737	0	0	0	0	0	1478	0	0	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40						36			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	7	148	107	0	0	0	0	55	27	19	817	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	336	0	0	0	0	0	110	0	0	874	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	30.8	30.8	0.0	0.0	0.0	0.0	0.0	59.2	0.0	59.2	59.2	0.0
Total Split (%)	34.2%	34.2%	0.0%	0.0%	0.0%	0.0%	0.0%	65.8%	0.0%	65.8%	65.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.8						56.2			56.2	
Actuated g/C Ratio		0.31						0.62			0.62	
v/c Ratio		0.60						0.12			0.76	
Control Delay		28.2						5.4			14.0	
Queue Delay		0.0						0.0			1.3	
Total Delay		28.2						5.4			15.4	
LOS		C						A			B	
Approach Delay		28.2						5.4			15.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		141						32			217	
Queue Length 95th (ft)		188						m33			332	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		564						936			1154	
Starvation Cap Reductn		0						0			121	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.60						0.12			0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 17.8                      Intersection LOS: B  
 Intersection Capacity Utilization 72.8%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 679: Washington St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3490	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3490	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6						31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	30	164	0	0	0	0	0	2502	175	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	303	0	0	0	0	0	2848	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	22.5	22.5	0.0	0.0	0.0	0.0	0.0	67.5	0.0	0.0	0.0	0.0
Total Split (%)	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		19.5						64.5				
Actuated g/C Ratio		0.22						0.72				
v/c Ratio		0.40						0.84				
Control Delay		35.2						4.4				
Queue Delay		0.0						0.6				
Total Delay		35.2						4.9				
LOS		D						A				
Approach Delay		35.2						4.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A				
Queue Length 50th (ft)		63						34				
Queue Length 95th (ft)		74						36				
Internal Link Dist (ft)		442			372			216			289	
Turn Bay Length (ft)												
Base Capacity (vph)		761						3407				
Starvation Cap Reductn		0						221				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.40						0.89				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	4 (4%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization	64.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3330	0	0	0	0	0	1922	0	0	1947	0
Flt Permitted		0.993									0.961	
Satd. Flow (perm)	0	3330	0	0	0	0	0	1922	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	46	193	96	0	0	0	0	281	42	30	359	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	352	0	0	0	0	0	340	0	0	410	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.24						0.36			0.45	
Control Delay		8.5						3.6			12.2	
Queue Delay		0.0						0.2			0.2	
Total Delay		8.5						3.8			12.4	
LOS		A						A			B	
Approach Delay		8.5						3.8			12.4	



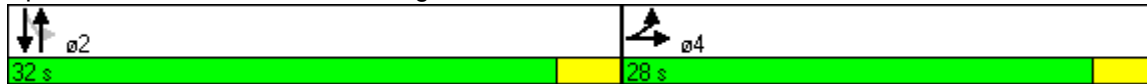


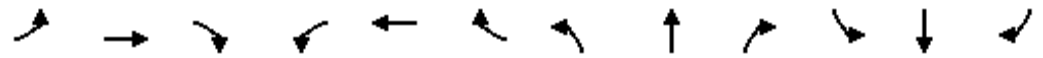
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		28						15			90	
Queue Length 95th (ft)		52						27			129	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1446						938			908	
Starvation Cap Reductn		0						168			93	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.24						0.44			0.50	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	24 (40%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization	57.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1859	0	0	1835	0
Flt Permitted		0.696		0.706				0.983				
Satd. Flow (perm)	0	1189	0	1315	1829	0	0	1831	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			2							12
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	27	0	43	82	287	12	2	60	0	0	723	90
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	88	0	111	404	0	0	80	0	0	847	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		30.0		30.0	30.0			54.0				54.0
Actuated g/C Ratio		0.33		0.33	0.33			0.60				0.60
v/c Ratio		0.20		0.25	0.66			0.07				0.77
Control Delay		11.5		14.2	19.5			6.0				15.2
Queue Delay		0.2		0.3	0.0			0.0				0.7
Total Delay		11.6		14.5	19.5			6.0				16.0
LOS		B		B	B			A				B
Approach Delay		11.6			18.4			6.0				16.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		13		28	108			9			195	
Queue Length 95th (ft)		38		m38	119			m13			235	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		432		438	611			1099			1106	
Starvation Cap Reductn		0		0	0			0			72	
Spillback Cap Reductn		75		83	0			0			1	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.25		0.31	0.66			0.07			0.82	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	24 (27%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	16.0
Intersection LOS:	B
Intersection Capacity Utilization	73.5%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3402	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3402	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					8			24				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	246	68	135	2397	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	331	0	0	2665	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	67.0	67.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	25.6%	0.0%	74.4%	74.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					20.0			64.0				
Actuated g/C Ratio					0.22			0.71				
v/c Ratio					0.43			0.79				
Control Delay					12.0			1.3				
Queue Delay					0.0			0.3				
Total Delay					12.0			1.6				
LOS					B			A				
Approach Delay					12.0			1.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					25			9				
Queue Length 95th (ft)					m36			11				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					762			3390				
Starvation Cap Reductn					0			168				
Spillback Cap Reductn					0			236				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.43			0.84				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 2.8                      Intersection LOS: A  
 Intersection Capacity Utilization 64.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 687: Jackson St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3375	0	0	1928	0	0	1881	0
Flt Permitted				0.986			0.771					
Satd. Flow (perm)	0	0	0	0	3375	0	0	1507	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					43							45
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	84	166	46	91	236	0	0	305	119
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	311	0	0	344	0	0	446	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.22			0.47			0.48	
Control Delay					10.1			5.5			9.1	
Queue Delay					0.0			0.0			0.3	
Total Delay					10.1			5.5			9.3	
LOS					B			A			A	
Approach Delay					10.1			5.5			9.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					31			19			76	
Queue Length 95th (ft)					53			30			132	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1431			728			932	
Starvation Cap Reductn					0			0			123	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.22			0.47			0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	32 (53%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	8.3
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1816	0	0	1829	0	0	1803	0	0	1857	0
Flt Permitted		0.997			0.919						0.992	
Satd. Flow (perm)	0	1813	0	0	1696	0	0	1803	0	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			32			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	113	24	38	147	14	0	76	23	21	751	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	172	0	0	219	0	0	136	0	0	824	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.31			0.43			0.12			0.71	
Control Delay		24.5			16.3			6.0			8.9	
Queue Delay		0.2			0.4			0.0			1.7	
Total Delay		24.7			16.7			6.0			10.6	
LOS		C			B			A			B	
Approach Delay		24.7			16.7			6.0			10.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		70			58			10			137	
Queue Length 95th (ft)		108			m86			24			271	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		552			512			1154			1168	
Starvation Cap Reductn		0			0			0			187	
Spillback Cap Reductn		78			73			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.36			0.50			0.12			0.84	

**Intersection Summary**

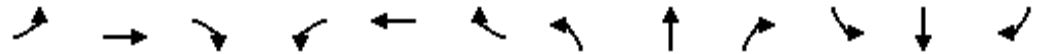
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 35 (39%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 12.9      Intersection LOS: B  
 Intersection Capacity Utilization 76.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1753	0	0	5029	0	0	0	0
Flt Permitted		0.927						0.998				
Satd. Flow (perm)	0	1727	0	0	1753	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9			25				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	27	130	0	0	116	89	83	2226	156	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	165	0	0	216	0	0	2594	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			60.0				
Actuated g/C Ratio		0.27			0.27			0.67				
v/c Ratio		0.36			0.46			0.77				
Control Delay		24.2			13.4			5.0				
Queue Delay		0.0			0.0			0.9				
Total Delay		24.2			13.4			5.9				
LOS		C			B			A				
Approach Delay		24.2			13.4			5.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		42			102			146				
Queue Length 95th (ft)		m94			m107			135				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		461			474			3361				
Starvation Cap Reductn		0			0			446				
Spillback Cap Reductn		0			0			219				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.36			0.46			0.89				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 7.5                      Intersection LOS: A  
 Intersection Capacity Utilization 78.0%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 694: Pacific Ave. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1708	0	0	1767	0	0	1856	0	0	1902	0
Flt Permitted		0.953			0.865			0.893			0.973	
Satd. Flow (perm)	0	1636	0	0	1549	0	0	1674	0	0	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			14			47			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	31	138	120	67	166	29	55	141	86	21	237	55
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	304	0	0	277	0	0	297	0	0	329	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.38			0.38			0.39			0.40	
Control Delay		9.1			11.7			4.4			12.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			11.7			4.4			12.6	
LOS		A			B			A			B	
Approach Delay		9.1			11.7			4.4			12.6	

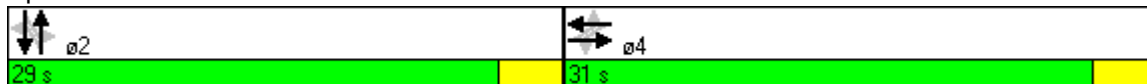


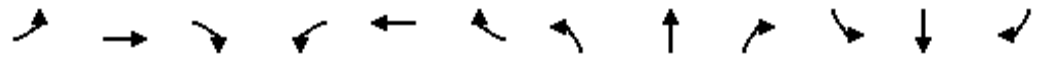
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		47			57			12			71	
Queue Length 95th (ft)		95			107			25			127	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		806			730			752			818	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.38			0.38			0.39			0.40	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	41 (68%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3476	0	0	1820	0	0	1850	0
Flt Permitted		0.946			0.699			0.955			0.965	
Satd. Flow (perm)	0	3291	0	0	2462	0	0	1745	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			13			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	5	329	43	207	526	25	7	72	13	52	532	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	396	0	0	892	0	0	128	0	0	650	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	44.0	44.0	0.0	44.0	44.0	0.0	46.0	46.0	0.0	46.0	46.0	0.0
Total Split (%)	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%	51.1%	51.1%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		41.0			41.0			43.0			43.0	
Actuated g/C Ratio		0.46			0.46			0.48			0.48	
v/c Ratio		0.26			0.79			0.15			0.76	
Control Delay		14.9			11.2			10.5			26.2	
Queue Delay		0.0			0.6			0.0			0.0	
Total Delay		14.9			11.8			10.5			26.2	
LOS		B			B			B			C	
Approach Delay		14.9			11.8			10.5			26.2	

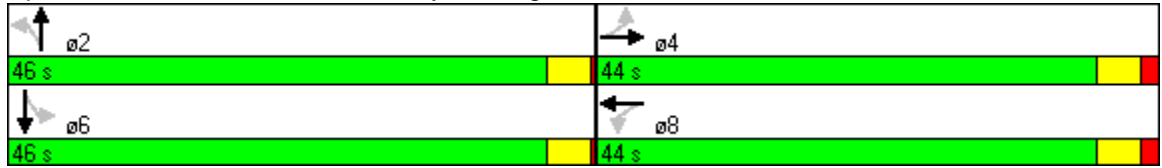


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		66			51			21			289	
Queue Length 95th (ft)		97			m92			26			434	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1510			1124			841			857	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		66			49			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.83			0.15			0.76	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 16.9                      Intersection LOS: B  
 Intersection Capacity Utilization 80.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

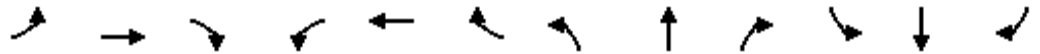
**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3373	0	0	5009	0	0	0	0
Flt Permitted		0.866						0.998				
Satd. Flow (perm)	0	3065	0	0	3373	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			30				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		500			455			330				362
Travel Time (s)		13.6			12.4			9.0				9.9
Volume (vph)	12	382	0	0	662	301	96	2038	208	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	428	0	0	1014	0	0	2545	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.39			0.84			0.88				
Control Delay		15.1			5.5			8.1				
Queue Delay		0.0			0.0			0.7				
Total Delay		15.1			5.5			8.8				
LOS		B			A			A				
Approach Delay		15.1			5.5			8.8				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			A			A					
Queue Length 50th (ft)	54			13			48					
Queue Length 95th (ft)	m68			m12			62					
Internal Link Dist (ft)	420			375			250			282		
Turn Bay Length (ft)												
Base Capacity (vph)	1090			1203			2907					
Starvation Cap Reductn	0			0			127					
Spillback Cap Reductn	0			0			0					
Storage Cap Reductn	0			0			0					
Reduced v/c Ratio	0.39			0.84			0.92					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 8.7                      Intersection LOS: A  
 Intersection Capacity Utilization 80.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 699: Broadway & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50			50	
Trailing Detector (ft)	0	0						0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3436	0	0	0	0	0	3147	0	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3399	0	0	0	0	0	3147	0	0	3283	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8						6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	20	299	20	0	0	0	0	1099	36	0	1258	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	369	0	0	0	0	0	1234	0	0	1310	0
Turn Type	custom											
Protected Phases	4	4						2			6	
Permitted Phases	4											
Detector Phases	4	4						2			6	
Minimum Initial (s)	4.0	4.0						4.0			4.0	
Minimum Split (s)	25.0	25.0						48.0			24.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	1.0	1.0						0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max			Max	
Act Effct Green (s)		30.0						54.0			54.0	
Actuated g/C Ratio		0.33						0.60			0.60	
v/c Ratio		0.32						0.65			0.66	
Control Delay		34.2						3.3			16.1	
Queue Delay		0.0						0.0			1.1	
Total Delay		34.2						3.3			17.2	
LOS		C						A			B	
Approach Delay		34.2						3.3			17.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		99						23			217	
Queue Length 95th (ft)		m128						24			288	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1151						1891			1970	
Starvation Cap Reductn		0						0			396	
Spillback Cap Reductn		0						11			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.32						0.66			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 80 (89%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 13.5      Intersection LOS: B  
 Intersection Capacity Utilization 58.1%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1809	0	0	1786	0	0	5040	0	0	0	0
Flt Permitted		0.729						0.997				
Satd. Flow (perm)	0	1358	0	0	1786	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	115	78	0	0	100	44	142	2051	86	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	203	0	0	151	0	0	2399	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.46			0.26			0.78				
Control Delay		28.6			25.5			3.4				
Queue Delay		0.0			0.0			0.4				
Total Delay		28.6			25.5			3.8				
LOS		C			C			A				
Approach Delay		28.6			25.5			3.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		91			83			15				
Queue Length 95th (ft)		157			m138			16				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		438			581			3085				
Starvation Cap Reductn		0			0			103				
Spillback Cap Reductn		0			0			228				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.26			0.84				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 56 (62%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 6.8      Intersection LOS: A  
 Intersection Capacity Utilization 72.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 701: Green St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1675	0	0	1703	0	0	1820	0	0	1844	0
Flt Permitted		0.979			0.908			0.909			0.976	
Satd. Flow (perm)	0	1643	0	0	1557	0	0	1666	0	0	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			7			15			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	14	270	78	58	332	25	17	90	15	30	439	27
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	441	0	0	488	0	0	207	0	0	564	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.58			0.69			0.27			0.69	
Control Delay		15.3			19.4			10.8			18.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.3			19.4			10.8			18.5	
LOS		B			B			B			B	
Approach Delay		15.3			19.4			10.8			18.5	

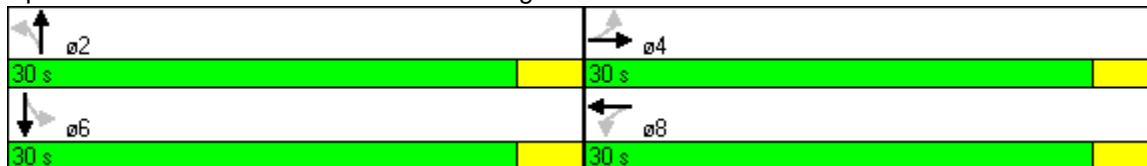


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		104			131			41			152	
Queue Length 95th (ft)		158			209			46			246	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		756			705			758			816	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.58			0.69			0.27			0.69	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	17.0
Intersection LOS:	B
Intersection Capacity Utilization:	80.1%
ICU Level of Service:	D
Analysis Period (min):	15

**Splits and Phases: 702: Union St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↖↖↖				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5030	0	0	0	0
Flt Permitted		0.952						0.995				
Satd. Flow (perm)	0	1646	0	0	1729	1583	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						8		10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	34	281	0	0	195	73	220	1907	83	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	332	0	0	205	77	0	2326	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	36.0	36.0	0.0	0.0	36.0	36.0	54.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	40.0%	40.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		33.0			33.0	33.0		51.0				
Actuated g/C Ratio		0.37			0.37	0.37		0.57				
v/c Ratio		0.55			0.32	0.13		0.81				
Control Delay		26.8			25.7	20.6		6.8				
Queue Delay		0.0			0.0	0.0		0.4				
Total Delay		26.8			25.7	20.6		7.2				
LOS		C			C	C		A				
Approach Delay		26.8			24.3			7.2				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		147			107	36		40				
Queue Length 95th (ft)		233			m177	m73		64				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		604			634	586		2855				
Starvation Cap Reductn		0			0	0		160				
Spillback Cap Reductn		0			0	0		26				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.55			0.32	0.13		0.86				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 11.0                      Intersection LOS: B  
 Intersection Capacity Utilization 80.1%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 703: Union St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1811	0	0	5009	0	0	0	0
Flt Permitted		0.964						0.997				
Satd. Flow (perm)	0	1796	0	0	1811	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			460			341			351	
Travel Time (s)		13.8			12.5			9.3			9.6	
Volume (vph)	19	113	0	0	47	12	130	1718	166	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	139	0	0	62	0	0	2120	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.25			0.11			0.68				
Control Delay		24.7			26.5			1.8				
Queue Delay		0.0			0.0			0.6				
Total Delay		24.7			26.5			2.4				
LOS		C			C			A				
Approach Delay		24.7			26.5			2.4				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.933						0.995				
Satd. Flow (perm)	0	1738	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	29	107	0	0	71	29	163	1513	73	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	144	0	0	106	0	0	1842	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.24			0.17			0.62				
Control Delay		22.5			9.8			3.2				
Queue Delay		0.0			0.0			0.2				
Total Delay		22.5			9.8			3.4				
LOS		C			A			A				
Approach Delay		22.5			9.8			3.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A				
Queue Length 50th (ft)		58			11			8				
Queue Length 95th (ft)		103			m29			9				
Internal Link Dist (ft)		167			372			271			235	
Turn Bay Length (ft)												
Base Capacity (vph)		599			633			2967				
Starvation Cap Reductn		0			0			325				
Spillback Cap Reductn		0			0			13				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.24			0.17			0.70				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 3 (3%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 5.0                      Intersection LOS: A  
 Intersection Capacity Utilization 54.7%                      ICU Level of Service A  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 706: Greenwich St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1768	0	0	5050	0	0	0	0
Flt Permitted		0.952						0.999				
Satd. Flow (perm)	0	1773	0	0	1768	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			435			362			337	
Travel Time (s)		13.7			11.9			9.9			9.2	
Volume (vph)	14	73	0	0	83	49	47	2216	88	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	92	0	0	139	0	0	2475	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	28.5	28.5	0.0	0.0	28.5	0.0	61.5	61.5	0.0	0.0	0.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	0.0%	31.7%	0.0%	68.3%	68.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.5			25.5			58.5				
Actuated g/C Ratio		0.28			0.28			0.65				
v/c Ratio		0.18			0.27			0.75				
Control Delay		25.6			16.3			3.4				
Queue Delay		0.0			0.0			0.6				
Total Delay		25.6			16.3			3.9				
LOS		C			B			A				
Approach Delay		25.6			16.3			3.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C				B				A		
Queue Length 50th (ft)		39				71				73		
Queue Length 95th (ft)		78				m125				75		
Internal Link Dist (ft)		423				355				282		
Turn Bay Length (ft)										257		
Base Capacity (vph)		502				507				3287		
Starvation Cap Reductn		0				0				388		
Spillback Cap Reductn		0				0				71		
Storage Cap Reductn		0				0				0		
Reduced v/c Ratio		0.18				0.27				0.85		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 5.3                      Intersection LOS: A  
 Intersection Capacity Utilization 67.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 901: Vallejo St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3314	0	0	3014	0	0	2935	0
Flt Permitted				0.989								
Satd. Flow (perm)	0	0	0	0	3146	0	0	3014	0	0	2935	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	80	265	31	0	1119	0	0	1178	49
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	404	0	0	1178	0	0	1395	0
Turn Type				Perm								
Protected Phases					8			2			6	
Permitted Phases				8								
Detector Phases				8	8			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				30.0	30.0			50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					27.0			57.0			57.0	
Actuated g/C Ratio					0.30			0.63			0.63	
v/c Ratio					0.42			0.62			0.75	
Control Delay					26.3			2.2			5.5	
Queue Delay					0.2			0.7			0.1	
Total Delay					26.5			2.9			5.6	
LOS					C			A			A	
Approach Delay					26.5			2.9			5.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			A	
Queue Length 50th (ft)					93			26			71	
Queue Length 95th (ft)					136			30			73	
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												
Base Capacity (vph)					951			1909			1862	
Starvation Cap Reductn					0			380			23	
Spillback Cap Reductn					141			0			18	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.50			0.77			0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	8 (9%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15

**Splits and Phases: 902: Jackson St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1627	0	0	1683	0	0	2972	0	0	2884	0
Flt Permitted		0.990			0.868							
Satd. Flow (perm)	0	1610	0	0	1450	0	0	2972	0	0	2884	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			12			14			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	7	205	74	49	185	42	0	1066	84	0	1104	20
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	340	0	0	439	0	0	1198	0	0	1209	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0			13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			48.5	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.52			0.75			0.75			0.79	
Control Delay		25.9			32.0			5.5			21.3	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		25.9			32.0			5.5			21.4	
LOS		C			C			A			C	
Approach Delay		25.9			32.0			5.5			21.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑		↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	2928	0	1627	2943	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	2928	0	1606	2943	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				280		22			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	512	78	0	917	249	0	972	143	291	1046	46
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	656	0	0	1030	280	0	1174	0	313	1174	0
Turn Type						Perm					Prot	
Protected Phases		4			8			2		1	6	
Permitted Phases						8						
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		39.0		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	40.0	0.0	19.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	44.4%	0.0%	21.1%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		37.0		16.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.41		0.18	0.62	
v/c Ratio		0.60			0.94	0.44		0.96		1.08	0.64	
Control Delay		30.8			46.6	5.4		25.5		96.0	4.2	
Queue Delay		0.0			0.0	0.0		3.4		0.0	0.3	
Total Delay		30.8			46.6	5.4		28.9		96.0	4.5	
LOS		C			D	A		C		F	A	
Approach Delay		30.8			37.8			28.9			23.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			D			C			C		
Queue Length 50th (ft)	146			297			0			~195		
Queue Length 95th (ft)	m194			#417			53			#174		
Internal Link Dist (ft)	375			167			253			278		
Turn Bay Length (ft)												
Base Capacity (vph)	1085			1101			638			1217		
Starvation Cap Reductn	0			0			0			27		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.60			0.94			0.44			0.99		

**Intersection Summary**

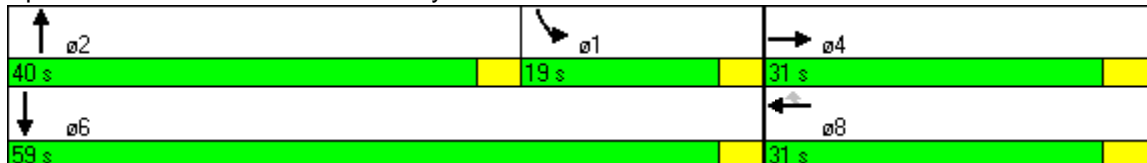
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 30.0      Intersection LOS: C  
 Intersection Capacity Utilization 83.6%      ICU Level of Service E  
 Analysis Period (min) 15

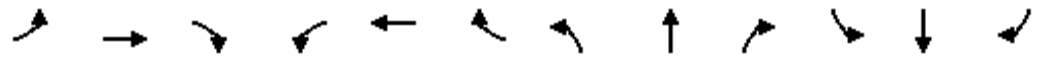
~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

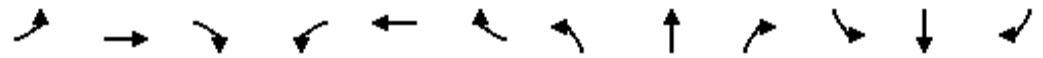
**Splits and Phases: 904: Broadway & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1682	0	0	1793	0	0	3018	0	0	2992	0
Flt Permitted		0.987			0.823							
Satd. Flow (perm)	0	1659	0	0	1459	0	0	3018	0	0	2992	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			8			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	94	60	67	108	15	0	1174	47	0	1256	24
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	190	0	0	264	0	0	1246	0	0	1347	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		30.0			30.0			54.0			54.0	
Actuated g/C Ratio		0.33			0.33			0.60			0.60	
v/c Ratio		0.34			0.54			0.69			0.75	
Control Delay		26.3			28.8			3.3			8.7	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		26.3			28.8			3.5			8.8	
LOS		C			C			A			A	
Approach Delay		26.3			28.8			3.5			8.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1655	0	0	1800	0	0	2986	0	0	3008	0
Flt Permitted		0.998			0.951							
Satd. Flow (perm)	0	1651	0	0	1707	0	0	2986	0	0	3008	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			8			5			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	2	87	75	20	118	18	0	1166	30	0	1185	26
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	202	0	0	185	0	0	1208	0	0	1223	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0			50.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.35			0.31			0.69			0.69	
Control Delay		21.3			22.5			10.0			11.1	
Queue Delay		0.0			0.0			0.1			0.2	
Total Delay		21.3			22.5			10.1			11.3	
LOS		C			C			B			B	
Approach Delay		21.3			22.5			10.1			11.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		73			73			105			114	
Queue Length 95th (ft)		m113			117			126			174	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)												
Base Capacity (vph)		584			593			1760			1773	
Starvation Cap Reductn		0			0			41			101	
Spillback Cap Reductn		0			0			0			19	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.31			0.70			0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 16 (18%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 12.2                      Intersection LOS: B  
 Intersection Capacity Utilization 61.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 908: Green St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	0	3375	0	0	2929	0	0	2974	0
Flt Permitted		0.989			0.721							
Satd. Flow (perm)	0	1621	0	0	2434	0	0	2929	0	0	2974	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			18			12			14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	9	308	47	56	192	34	0	1122	64	0	1108	76
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	409	0	0	348	0	0	1198	0	0	1209	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5			54.5			45.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	0.0	58.0	0.0	0.0	47.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	64.4%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		29.0			29.0			55.0			55.0	
Actuated g/C Ratio		0.32			0.32			0.61			0.61	
v/c Ratio		0.77			0.44			0.67			0.66	
Control Delay		41.5			24.8			1.9			4.1	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		41.5			24.8			1.9			4.1	
LOS		D			C			A			A	
Approach Delay		41.5			24.8			1.9			4.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1737	0	0	1755	0	0	2997	0	0	3015	0
Flt Permitted		0.995			0.758							
Satd. Flow (perm)	0	1726	0	0	1328	0	0	2997	0	0	3015	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			10			3			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	199	73	38	43	14	0	1147	18	0	1073	16
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	336	0	0	113	0	0	1214	0	0	1100	0
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Detector Phases	4	4		8	8			2			6	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0			18.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	0.0	52.5	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	0.0%	58.3%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag								Lag				
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		28.0			28.0			49.5			56.0	
Actuated g/C Ratio		0.31			0.31			0.55			0.62	
v/c Ratio		0.61			0.27			0.74			0.59	
Control Delay		29.2			23.3			11.5			2.3	
Queue Delay		0.0			0.0			0.2			0.1	
Total Delay		29.2			23.3			11.7			2.4	
LOS		C			C			B			A	
Approach Delay		29.2			23.3			11.7			2.4	



<b>Lane Group</b>	<b>ø1</b>
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phases	
Minimum Initial (s)	2.0
Minimum Split (s)	6.5
Total Split (s)	6.5
Total Split (%)	7%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		141			43			86			16	
Queue Length 95th (ft)		205			80			101			20	
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)												
Base Capacity (vph)		551			420			1650			1877	
Starvation Cap Reductn		0			0			55			143	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.61			0.27			0.76			0.63	

**Intersection Summary**

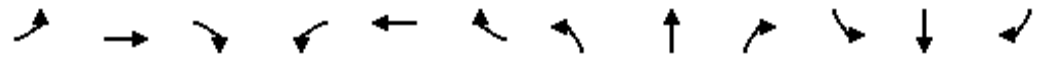
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	30 (33%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	10.6
Intersection LOS:	B
Intersection Capacity Utilization	65.6%
ICU Level of Service	C
Analysis Period (min)	15

**Splits and Phases: 910: Filbert St. & Van Ness Avenue**



Lane Group	ø1
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1818	0	0	4513	0	0	3038	0
Flt Permitted		0.995			0.979							
Satd. Flow (perm)	0	1753	0	0	1779	0	0	4513	0	0	3038	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			6			2			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	5	136	39	7	82	8	0	1160	8	0	1043	18
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	234	0	0	108	0	0	1298	0	0	1141	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	35.5	35.5	0.0	35.5	35.5	0.0	0.0	54.5	0.0	0.0	54.5	0.0
Total Split (%)	39.4%	39.4%	0.0%	39.4%	39.4%	0.0%	0.0%	60.6%	0.0%	0.0%	60.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		32.5			32.5			51.5			51.5	
Actuated g/C Ratio		0.36			0.36			0.57			0.57	
v/c Ratio		0.36			0.17			0.50			0.66	
Control Delay		18.3			19.3			13.8			16.4	
Queue Delay		0.0			0.0			0.2			0.2	
Total Delay		18.3			19.3			14.0			16.6	
LOS		B			B			B			B	
Approach Delay		18.3			19.3			14.0			16.6	



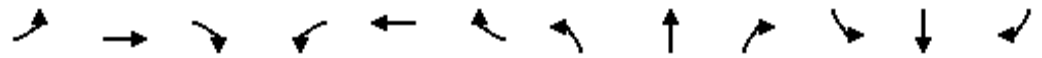
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		59			39			121			211	
Queue Length 95th (ft)		78			75			154			250	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		644			646			2583			1740	
Starvation Cap Reductn		0			0			415			123	
Spillback Cap Reductn		0			0			45			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.36			0.17			0.60			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	16 (18%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	15.6
Intersection LOS:	B
Intersection Capacity Utilization	49.5%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 911: Greenwich St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4793	0	0	4881	0	0	1761	0	0	1768	0
Flt Permitted								0.792			0.989	
Satd. Flow (perm)	0	4793	0	0	4881	0	0	1413	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		63			6			4			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1031	167	0	2003	40	29	75	8	12	292	42
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1303	0	0	2106	0	0	158	0	0	403	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.44			0.71			0.34			0.71	
Control Delay		9.4			11.2			25.3			34.2	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		9.4			11.2			25.3			34.2	
LOS		A			B			C			C	
Approach Delay		9.4			11.2			25.3			34.2	

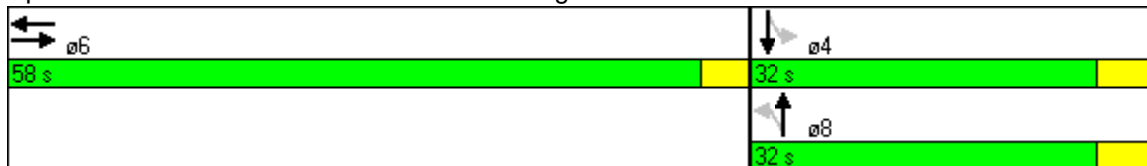


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A			B			C			C		
Queue Length 50th (ft)	124			214			66			195		
Queue Length 95th (ft)	154			297			90			282		
Internal Link Dist (ft)	166			429			235			99		
Turn Bay Length (ft)												
Base Capacity (vph)	2954			2985			458			570		
Starvation Cap Reductn	0			76			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.44			0.72			0.34			0.71		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	48 (53%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization	65.4%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↔	↑↑				↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5060	0	1610	3306	0	0	0	1611
Flt Permitted		0.939					0.950	0.981				
Satd. Flow (perm)	0	4775	0	0	5060	0	1610	3306	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				42
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1049	0	0	1066	34	925	603	43	0	0	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1236	0	0	1183	0	584	1221	0	0	0	69
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	30.0	0.0	48.0	48.0	0.0	0.0	0.0	12.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	33.3%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	13.3%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		41.5			27.0		42.5	42.5				11.5
Actuated g/C Ratio		0.46			0.30		0.47	0.47				0.13
v/c Ratio		0.56			0.78		0.77	0.78				0.28
Control Delay		12.3			11.8		11.8	8.7				22.4
Queue Delay		0.0			0.0		0.3	0.2				0.0
Total Delay		12.3			11.8		12.1	8.8				22.4
LOS		B			B		B	A				C
Approach Delay		12.3			11.8			9.9				

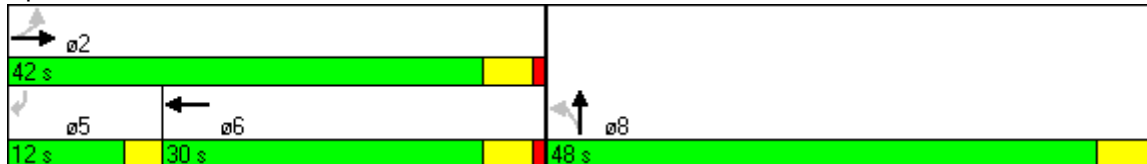


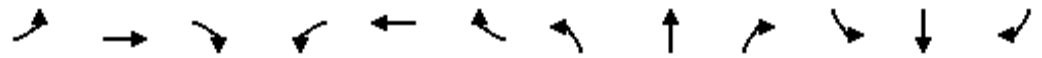
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		83			49		52	53				14
Queue Length 95th (ft)		91			63		59	55				40
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												
Base Capacity (vph)		2203			1522		805	1656				243
Starvation Cap Reductn		0			0		28	61				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.56			0.78		0.75	0.77				0.28

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	56 (62%), Referenced to phase 2:EBTL and 5:SBR, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	11.3
Intersection LOS:	B
Intersection Capacity Utilization	65.5%
ICU Level of Service	C
Analysis Period (min)	15

**Splits and Phases: 923: Lombard St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↖	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1777	2601	0	1781	0	4658	1437	0	0	3539	1346
Flt Permitted		0.853					0.950					
Satd. Flow (perm)	0	1462	2601	0	1781	0	3555	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17		8			17				107
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	121	338	633	0	105	14	872	259	42	0	428	123
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	483	666	0	137	0	928	321	0	0	476	137
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.06	0.40		0.24		0.69	0.36			0.45	0.38
Control Delay		79.3	1.1		23.2		18.5	1.7			27.1	11.0
Queue Delay		0.0	0.1		0.0		1.9	0.3			0.0	0.0
Total Delay		79.3	1.1		23.2		20.4	2.0			27.1	11.0
LOS		E	A		C		C	A			C	B
Approach Delay		34.0			23.2		15.7				23.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C				C				B		C
Queue Length 50th (ft)		~318	5		54		143	0			114	12
Queue Length 95th (ft)		m#515	5		96		219	0			160	60
Internal Link Dist (ft)		390				403				246		91
Turn Bay Length (ft)						300						
Base Capacity (vph)		455	1654		560		1346	901			1062	365
Starvation Cap Reductn		0	0		0		261	197			0	0
Spillback Cap Reductn		0	156		0		0	0			5	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.06	0.44		0.24		0.86	0.46			0.45	0.38

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 28 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 24.2                      Intersection LOS: C  
 Intersection Capacity Utilization 79.8%                      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**





	↑	↗	↓	↘	↖	↗	↘	↖	↗	↘	↖	↗
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↗	↖	↖	↑↑		↖	↗↗		
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900	
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12	
Grade (%)	0%		0%				0%					
Storage Length (ft)		0				0		0	0	0		
Storage Lanes		0				2		0	1	3		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Leading Detector (ft)	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0		0	0	0	0	0		0	0		
Turning Speed (mph)		9		9	15	15		9	15	9	9	
Satd. Flow (prot)	3208	0	3241	1330	1770	1424	2598	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.991		0.950			
Satd. Flow (perm)	3208	0	3241	899	1770	1424	2598	0	1652	3610	0	
Right Turn on Red		Yes		Yes	Yes			Yes			Yes	
Satd. Flow (RTOR)	8			95	419		8				21	
Link Speed (mph)	25		25				25					
Link Distance (ft)	258		442				1192					
Travel Time (s)	7.0		12.1				32.5					
Volume (vph)	598	55	977	104	592	357	363	44	133	715	124	
Confl. Peds. (#/hr)		327		247				167			140	
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)				12			16	16				
Mid-Block Traffic (%)	0%		0%				0%					
Lane Group Flow (vph)	687	0	1028	109	623	283	521	0	140	884	0	
Turn Type				Perm	Prot	Prot				Prot custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6								
Detector Phases	2		6	6	7	7	4		8	8		
Minimum Initial (s)	1.0		2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.06	0.32	0.77	0.68	0.68		0.32	0.90		
Control Delay	41.7		86.1	11.1	19.3	47.3	42.4		37.7	55.1		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	41.7		86.1	11.1	19.3	47.3	42.4		37.7	55.1		
LOS	D		F	B	B	D	D		D	E		
Approach Delay	41.7		78.9				33.3					





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1726	0	0	1611	3433	1747	0	3338	0	0
Flt Permitted		0.955				0.950					
Satd. Flow (perm)	0	1726	0	0	1291	3433	1747	0	3338	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			214		6		7		
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					584		250		
Travel Time (s)		13.2					15.9		6.8		
Volume (vph)	38	66	2	6	12	1866	481	44	645	32	39
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	117	0	0	13	1964	552	0	754	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	16.5	16.5	0.0	0.0	40.0	43.0	33.5	0.0	30.5	0.0	0.0
Total Split (%)	18.3%	18.3%	0.0%	0.0%	44.4%	47.8%	37.2%	0.0%	33.9%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		13.5			37.0	40.0	30.5		27.5		
Actuated g/C Ratio		0.15			0.41	0.44	0.34		0.31		
v/c Ratio		0.45			0.02	1.29	0.93		0.74		
Control Delay		34.3			0.1	149.6	43.9		40.5		
Queue Delay		0.0			0.0	0.0	0.0		0.0		
Total Delay		34.3			0.1	149.6	43.9		40.5		
LOS		C			A	F	D		D		
Approach Delay		34.3					126.5		40.5		

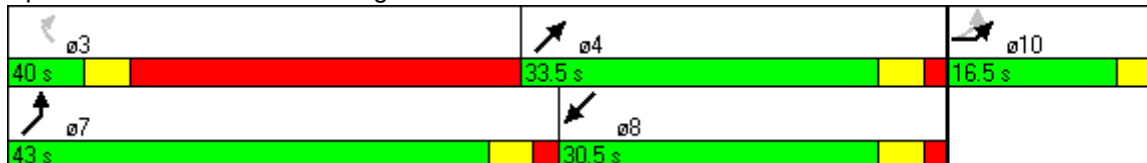


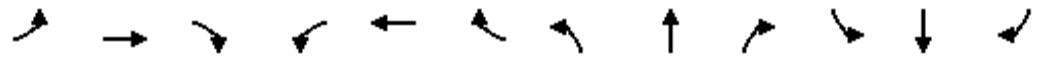
Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS	C			F			D				
Queue Length 50th (ft)	53			0			~752	323	215		
Queue Length 95th (ft)	m93			0			m#852	m#386	263		
Internal Link Dist (ft)	404						504		170		
Turn Bay Length (ft)											
Base Capacity (vph)	261			657			1526	596	1025		
Starvation Cap Reductn	0			0			0	0	0		
Spillback Cap Reductn	0			0			0	0	0		
Storage Cap Reductn	0			0			0	0	0		
Reduced v/c Ratio	0.45			0.02			1.29	0.93	0.74		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 105  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.29  
 Intersection Signal Delay: 103.7      Intersection LOS: F  
 Intersection Capacity Utilization 114.1%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												23
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		401			484			341			364	
Travel Time (s)		10.9			13.2			9.3			9.9	
Volume (vph)	0	36	0	0	32	0	0	0	0	76	1832	122
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	38	0	0	34	0	0	0	0	0	2136	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.05			0.05							0.60
Control Delay		18.2			2.1							9.8
Queue Delay		0.0			0.0							2.0
Total Delay		18.2			2.1							11.8
LOS		B			A							B
Approach Delay		18.2			2.1							11.8





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3314	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3314	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Link Speed (mph)		25				25		25	
Link Distance (ft)		341				649		584	
Travel Time (s)		9.3				17.7		15.9	
Volume (vph)	25	804	926	77	532	1834	87	594	57
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	872	1056	0	560	2023	0	685	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.87	0.79		0.93	0.89		0.45	
Control Delay		20.3	12.9		28.9	28.6		15.6	
Queue Delay		0.5	0.1		0.0	0.0		0.0	
Total Delay		20.8	13.0		28.9	28.6		15.6	
LOS		C	B		C	C		B	
Approach Delay		16.5				28.6		15.6	



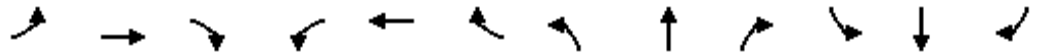




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	58	20	29	85	16	4	90	8	21	549	21
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	5	67	23	31	89	17	5	122	11	23	603	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	94	137	138	649
Volume Left (vph)	5	31	5	23
Volume Right (vph)	23	17	11	23
Hadj (s)	-0.10	0.00	-0.01	0.02
Departure Headway (s)	6.1	6.1	5.5	4.9
Degree Utilization, x	0.16	0.23	0.21	0.88
Capacity (veh/h)	549	550	614	729
Control Delay (s)	10.3	11.0	10.0	32.2
Approach Delay (s)	10.3	11.0	10.0	32.2
Approach LOS	B	B	B	D

Intersection Summary			
Delay		24.3	
HCM Level of Service		C	
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	169	44	35	192	15	11	95	4	20	512	43
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	14	192	50	45	249	19	14	125	5	23	582	49

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	256	314	145	653
Volume Left (vph)	14	45	14	23
Volume Right (vph)	50	19	5	49
Hadj (s)	-0.07	0.03	0.03	0.00
Departure Headway (s)	7.0	7.0	7.4	6.3
Degree Utilization, x	0.50	0.61	0.30	1.15
Capacity (veh/h)	484	502	441	560
Control Delay (s)	16.9	20.2	13.4	108.1
Approach Delay (s)	16.9	20.2	13.4	108.1
Approach LOS	C	C	B	F

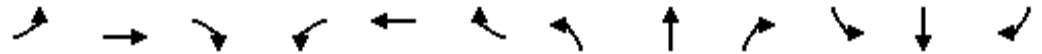
Intersection Summary			
Delay		60.8	
HCM Level of Service		F	
Intersection Capacity Utilization	64.0%		ICU Level of Service B
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↷			↶
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	38	13	69	34	32	892
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	45	15	87	43	34	939
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.64	0.98			0.98	
vC, conflicting volume	1115	109			130	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1139	93			115	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	68	98			98	
cM capacity (veh/h)	139	947			1448	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	45	15	130	973
Volume Left	45	0	0	34
Volume Right	0	15	43	0
cSH	139	947	1700	1448
Volume to Capacity	0.32	0.02	0.08	0.02
Queue Length 95th (ft)	33	1	0	2
Control Delay (s)	42.8	8.9	0.0	0.6
Lane LOS	E	A		A
Approach Delay (s)	34.2		0.0	0.6
Approach LOS	D			

Intersection Summary			
Average Delay		2.3	
Intersection Capacity Utilization		65.4%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	107	48	16	210	8	17	92	7	22	413	24
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	14	124	56	17	228	9	22	118	9	27	504	29

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	194	254	149	560
Volume Left (vph)	14	17	22	27
Volume Right (vph)	56	9	9	29
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.6	6.6	6.6	5.7
Degree Utilization, x	0.36	0.46	0.27	0.89
Capacity (veh/h)	511	517	494	617
Control Delay (s)	13.2	15.1	12.0	38.5
Approach Delay (s)	13.2	15.1	12.0	38.5
Approach LOS	B	C	B	E

Intersection Summary			
Delay		25.7	
HCM Level of Service		D	
Intersection Capacity Utilization	49.3%		ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	93	60	30	133	14	17	95	17	22	406	49
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	9	118	76	43	190	20	22	125	22	24	451	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	203	253	170	530
Volume Left (vph)	9	43	22	24
Volume Right (vph)	76	20	22	54
Hadj (s)	-0.18	0.02	-0.02	-0.02
Departure Headway (s)	6.5	6.6	6.5	5.8
Degree Utilization, x	0.37	0.46	0.31	0.85
Capacity (veh/h)	508	508	495	610
Control Delay (s)	13.2	15.0	12.4	32.8
Approach Delay (s)	13.2	15.0	12.4	32.8
Approach LOS	B	C	B	D

Intersection Summary			
Delay		22.5	
HCM Level of Service		C	
Intersection Capacity Utilization	54.9%		ICU Level of Service A
Analysis Period (min)		15	

# 2015 LOCALLY PREFERRED ALTERNATIVE (LPA)





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.94	1.00	0.91
Fr <sub>t</sub>			0.850				0.850			0.850	
Fl <sub>t</sub> Protected	0.950								0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Fl <sub>t</sub> Permitted	0.191								0.950		
Satd. Flow (perm)	356	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			51				11		144	263	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.21	1.00
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	7	0	98	0	0	0	819	72	706	180	525
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										8	8
Adj. Flow (vph)	7	0	103	0	0	0	862	76	743	189	553
Lane Group Flow (vph)	7	0	103	0	0	0	938	0	743	742	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	53.0	0.0	53.0	0.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0
Total Split (%)	58.9%	0.0%	58.9%	0.0%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Act Effct Green (s)	50.0		50.0				34.0		50.0	50.0	
Actuated g/C Ratio	0.56		0.56				0.38		0.56	0.56	
v/c Ratio	0.04		0.11				0.88		0.26	0.85	
Control Delay	9.7		5.6				15.9		8.5	21.9	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	9.7		5.6				15.9		8.5	21.9	
LOS	A		A				B		A	C	
Approach Delay									15.2		
Approach LOS									B		
Queue Length 50th (ft)	2		13				192		57	225	
Queue Length 95th (ft)	8		36				m#235		77	#509	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	198		902				1060		2836	874	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	



Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Storage Cap Reductn	0		0				0		0	0	
Reduced v/c Ratio	0.04		0.11				0.88		0.26	0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:EBSWL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 15.0 Intersection LOS: B  
 Intersection Capacity Utilization 81.5% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: McCoppin St. & Otis St.







Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)		9	15			9	9	9	15	15	9
Lane Util. Factor	0.91	0.91	0.91	0.91	1.00	0.76	1.00	0.95	0.97	0.95	1.00
Ped Bike Factor	0.99				0.70		0.74				0.71
Frt	0.990				0.850	0.850	0.850				0.850
Flt Protected									0.950		
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.930					0.950		
Satd. Flow (perm)	4995	0	0	4729	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				376		30		12		2
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.25
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	561	38	13	1331	702	570	222	84	841	530	168
Confl. Peds. (#/hr)		72			187		160				195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										12	12
Adj. Flow (vph)	591	40	14	1401	739	600	234	88	885	558	177
Lane Group Flow (vph)	631	0	0	1415	739	600	234	0	973	558	177
Turn Type			Perm		Perm	custom	custom	custom	custom		Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.40			0.96	1.22	0.56	0.63		0.96	0.28	0.30
Control Delay	24.9			47.4	132.0	29.1	32.7		39.7	3.9	4.7
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	24.9			47.4	132.0	29.1	32.7		39.7	3.9	4.7
LOS	C			D	F	C	C		D	A	A
Approach Delay	24.9			76.4						24.4	
Approach LOS	C			E						C	
Queue Length 50th (ft)	100			287	~364	125	100		241	31	19
Queue Length 95th (ft)	134			#389	#585	171	183		m#363	m41	m28
Internal Link Dist (ft)	246			307						534	
Turn Bay Length (ft)											50
Base Capacity (vph)	1562			1471	604	1071	370		1012	2026	590



Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Starvation Cap Reductn	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0			0	0	0	0		0	0	0
Storage Cap Reductn	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.40			0.96	1.22	0.56	0.63		0.96	0.28	0.30

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 27 (30%), Referenced to phase 1:SBL and 6:SBT, Start of Green
- Natural Cycle: 120
- Control Type: Pretimed
- Maximum v/c Ratio: 1.22
- Intersection Signal Delay: 46.4
- Intersection LOS: D
- Intersection Capacity Utilization 101.8%
- ICU Level of Service G
- Analysis Period (min) 15
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 18: Duboce St. &**

29.7 s	29.3 s	31 s
59 s	31 s	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑			↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		65	0		115	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.96				0.47		0.98			0.98	
Frt		0.983				0.850		0.991			0.993	
Flt Protected												
Satd. Flow (prot)	0	3172	0	0	3353	1583	0	1611	0	0	1627	0
Flt Permitted												
Satd. Flow (perm)	0	3172	0	0	3353	748	0	1611	0	0	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				1		2			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.16	1.00	1.00	1.15	1.00
Link Speed (mph)		25				25		25			25	
Link Distance (ft)		386				117		343			186	
Travel Time (s)		10.5				3.2		9.4			5.1	
Volume (vph)	0	959	119	0	1023	176	0	476	36	0	540	29
Confl. Peds. (#/hr)			554			404			496			823
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			23									
Adj. Flow (vph)	0	969	120	0	1124	193	0	535	40	0	593	32
Lane Group Flow (vph)	0	1089	0	0	1124	193	0	575	0	0	625	0
Turn Type						Perm						
Protected Phases		4			4			2			2	
Permitted Phases						4						
Minimum Split (s)		43.0			43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	0.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7			2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		40.0			40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44			0.44	0.44		0.49			0.49	
v/c Ratio		0.77			0.75	0.58		0.73			0.79	
Control Delay		25.4			30.9	32.6		11.0			11.3	
Queue Delay		0.0			0.3	0.0		0.0			0.0	
Total Delay		25.4			31.2	32.6		11.0			11.3	
LOS		C			C	C		B			B	
Approach Delay		25.4			31.4			11.0			11.3	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		263			253	81		238			32	
Queue Length 95th (ft)		346			273	m112		m350			#41	
Internal Link Dist (ft)		306			37			263			106	
Turn Bay Length (ft)						115						


















Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Base Capacity (vph)		1416			1490	333		789			796	
Starvation Cap Reductn		0			66	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.77			0.79	0.58		0.73			0.79	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	87 (97%), Referenced to phase 2:NESW, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	22.9
Intersection LOS:	C
Intersection Capacity Utilization	72.9%
ICU Level of Service	C
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.



						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations	  		 			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	9	15		9	
Lane Util. Factor	*1.00	1.00	*1.00	1.00	1.00	*1.00
Fr <sub>t</sub>	0.850				0.850	
Fl <sub>t</sub> Protected			0.950			
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Fl <sub>t</sub> Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.04
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	692	0	932	574	108	569
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	728	0	981	604	114	599
Lane Group Flow (vph)	728	0	981	604	114	599
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	37.0		37.0	47.0	47.0	47.0
Actuated g/C Ratio	0.41		0.41	0.52	0.52	0.52
v/c Ratio	0.37		0.67	0.62	0.14	0.64
Control Delay	3.5		24.5	21.7	15.6	19.3
Queue Delay	0.0		2.7	0.0	0.0	1.0
Total Delay	3.5		27.2	21.7	15.6	20.2
LOS	A		C	C	B	C
Approach Delay			27.2	20.8		20.2
Approach LOS			C	C		C
Queue Length 50th (ft)	9		221	222	34	231
Queue Length 95th (ft)	12		287	335	m58	345
Internal Link Dist (ft)			300	390		455
Turn Bay Length (ft)						
Base Capacity (vph)	1953		1455	973	828	941
Starvation Cap Reductn	0		346	0	0	139
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.37		0.88	0.62	0.14	0.75

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 18.6 Intersection LOS: B  
 Intersection Capacity Utilization 63.5% ICU Level of Service B  
 Analysis Period (min) 15  
 \* User Entered Value  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 102: Fell St. & Market St.





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>TTT</del>	<del>TTT</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	9			9	9
Lane Util. Factor	0.91	*0.91	*0.91	0.91	1.00	1.00	1.00	1.00
Frt			*0.950			0.960		
Flt Protected		0.950						
Satd. Flow (prot)	0	4831	4831	0	1635	1535	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1535	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			35			5		
Headway Factor	1.00	1.00	1.00	1.00	1.18	1.21	1.04	1.00
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	103	1077	1871	168	574	466	84	112
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Adj. Flow (vph)	108	1134	1969	177	604	491	88	118
Lane Group Flow (vph)	0	1242	2146	0	604	697	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.51	0.88		0.92	1.13		
Control Delay		11.0	19.1		41.1	87.8		
Queue Delay		0.0	0.1		0.0	12.7		
Total Delay		11.0	19.2		41.1	100.6		
LOS		B	B		D	F		
Approach Delay		16.2			41.1	100.6		
Approach LOS		B			D	F		
Queue Length 50th (ft)		102	230		200	~291		
Queue Length 95th (ft)		135	#310		#388	m#445		
Internal Link Dist (ft)		272			455	524		
Turn Bay Length (ft)								
Base Capacity (vph)		2416	2433		654	617		
Starvation Cap Reductn		0	0		0	0		
Spillback Cap Reductn		3	16		0	16		



Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Storage Cap Reductn		0	0		0	0		
Reduced v/c Ratio		0.51	0.89		0.92	1.16		

**Intersection Summary**

- Area Type: Other
- Cycle Length: 60
- Actuated Cycle Length: 60
- Offset: 39 (65%), Referenced to phase 2:NESW, Start of Green
- Natural Cycle: 65
- Control Type: Pretimed
- Maximum v/c Ratio: 1.13
- Intersection Signal Delay: 31.9
- Intersection LOS: C
- Intersection Capacity Utilization 90.7%
- ICU Level of Service E
- Analysis Period (min) 15
- \* User Entered Value
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.







Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.991							0.850			
Flt Protected		0.999										
Satd. Flow (prot)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5034	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22							2			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.24	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25			25	
Link Distance (ft)		100				334		604			477	
Travel Time (s)		2.7				9.1		16.5			13.0	
Volume (vph)	43	2016	135	0	0	0	0	446	296	0	527	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Adj. Flow (vph)	45	2122	142	0	0	0	0	469	312	0	555	0
Lane Group Flow (vph)	0	2309	0	0	0	0	0	469	312	0	555	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.00						0.68	0.45		0.67	
Control Delay		28.1						21.0	16.9		18.4	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		28.1						21.0	16.9		18.4	
LOS		C						C	B		B	
Approach Delay		28.1						19.4			18.4	
Approach LOS		C						B			B	
Queue Length 50th (ft)		202						167	104		151	
Queue Length 95th (ft)		#408						m190	m118		251	
Internal Link Dist (ft)		20				254		524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2319						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.00						0.68	0.45		0.67	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 20 (33%), Referenced to phase 2:NESW, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 24.7

Intersection LOS: C

Intersection Capacity Utilization 77.2%

ICU Level of Service D

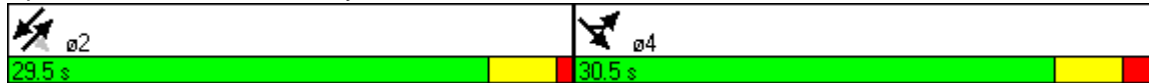
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.53	1.00
Frt		0.975										
Flt Protected											0.998	
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		13									7	
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			364			200	
Travel Time (s)		10.3			6.7			9.9			5.5	
Volume (vph)	0	1210	243	0	0	0	0	0	0	58	1787	0
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Adj. Flow (vph)	0	1301	261	0	0	0	0	0	0	60	1861	0
Lane Group Flow (vph)	0	1562	0	0	0	0	0	0	0	0	1921	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0									52.0	
Actuated g/C Ratio		0.36									0.58	
v/c Ratio		0.89									0.88	
Control Delay		35.1									20.5	
Queue Delay		0.0									0.7	
Total Delay		35.1									21.2	
LOS		D									C	
Approach Delay		35.1									21.2	
Approach LOS		D									C	
Queue Length 50th (ft)		300									537	
Queue Length 95th (ft)		#375									614	
Internal Link Dist (ft)		296			165			284			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1750									2178	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									71	
Storage Cap Reductn		0									0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.89						0.91					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 27.4                      Intersection LOS: C  
 Intersection Capacity Utilization 62.2%                      ICU Level of Service B  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔↔↔					↔		↔↔↔					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	
Frt	0.865												
Flt Protected	0.950												
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0	
Flt Permitted	0.950												
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)	21	8											
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	
Link Speed (mph)	25			25			25			25			
Link Distance (ft)	226			221			408			169			
Travel Time (s)	6.2			6.0			11.1			4.6			
Volume (vph)	1268	0	0	0	0	42	0	1943	0	0	0	0	
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95	
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)							13	13					
Adj. Flow (vph)	1349	0	0	0	0	49	0	2003	0	0	0	0	
Lane Group Flow (vph)	1349	0	0	0	0	49	0	2003	0	0	0	0	
Turn Type	custom					custom							
Protected Phases									2				
Permitted Phases	4					4							
Minimum Split (s)	21.0						21.0						20.0
Total Split (s)	37.0	0.0	0.0	0.0	0.0	37.0	0.0	53.0	0.0	0.0	0.0	0.0	
Total Split (%)	41.1%	0.0%	0.0%	0.0%	0.0%	41.1%	0.0%	58.9%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)	3.5					3.5							
All-Red Time (s)	1.5					1.5							
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)	34.0					34.0			50.0				
Actuated g/C Ratio	0.38					0.38			0.56				
v/c Ratio	0.79					0.09			0.79				
Control Delay	3.2					16.3			2.7				
Queue Delay	0.0					0.0			0.9				
Total Delay	3.2					16.3			3.5				
LOS	A					B			A				
Approach Delay									3.5				
Approach LOS									A				
Queue Length 50th (ft)	13					15			12				
Queue Length 95th (ft)	m14					36			m8				
Internal Link Dist (ft)	146				141			328				89	
Turn Bay Length (ft)													
Base Capacity (vph)	1710					553			2543				
Starvation Cap Reductn	0					0			261				
Spillback Cap Reductn	0					0			183				
Storage Cap Reductn	0					0			0				



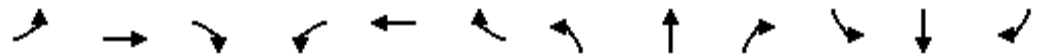
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.79			0.09			0.88					

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	26 (29%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	3.6
Intersection LOS:	A
Intersection Capacity Utilization	79.5%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.91	*0.75	0.86
Frt											0.977	0.850
Flt Protected					0.992						0.996	
Satd. Flow (prot)	0	0	0	0	3448	0	0	0	0	0	4078	1117
Flt Permitted					0.992						0.996	
Satd. Flow (perm)	0	0	0	0	3448	0	0	0	0	0	4078	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											38	38
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.29
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	91	474	0	0	0	0	176	1787	978
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Adj. Flow (vph)	0	0	0	117	608	0	0	0	0	181	1842	1008
Lane Group Flow (vph)	0	0	0	0	725	0	0	0	0	0	2386	645
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	0.0	65.0	65.0	65.0
Total Split (%)	0.0%	0.0%	0.0%	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	72.2%	72.2%	72.2%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					22.0						62.0	62.0
Actuated g/C Ratio					0.24						0.69	0.69
v/c Ratio					0.86						0.85	0.83
Control Delay					49.4						4.7	6.9
Queue Delay					0.0						2.0	2.3
Total Delay					49.4						6.7	9.3
LOS					D						A	A
Approach Delay					49.4						7.2	
Approach LOS					D						A	
Queue Length 50th (ft)					233						126	81
Queue Length 95th (ft)					253						m109	m69
Internal Link Dist (ft)		289			371			112			228	
Turn Bay Length (ft)												
Base Capacity (vph)					843						2821	781
Starvation Cap Reductn					0						284	57
Spillback Cap Reductn					0						0	0
Storage Cap Reductn					0						0	0



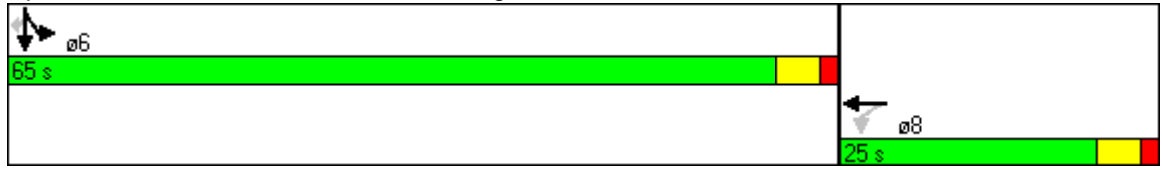
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.86						0.94	0.89

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 15.4      Intersection LOS: B  
 Intersection Capacity Utilization 67.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 \* User Entered Value

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 406: Fell St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.86	0.86	1.00	1.00	1.00
Frt									0.850			
Flt Protected		0.991						0.990				
Satd. Flow (prot)	0	3507	0	0	1863	0	0	4758	1137	0	0	0
Flt Permitted		0.904						0.990				
Satd. Flow (perm)	0	3199	0	0	1863	0	0	4758	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									473			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.26	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	33	143	0	0	37	0	528	1975	594	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Parking (#/hr)							13		13			
Adj. Flow (vph)	37	159	0	0	39	0	550	2057	619	0	0	0
Lane Group Flow (vph)	0	196	0	0	39	0	0	2607	619	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	65.0	65.0	65.0	0.0	0.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	0.0%	27.8%	0.0%	72.2%	72.2%	72.2%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		22.0			22.0			62.0	62.0			
Actuated g/C Ratio		0.24			0.24			0.69	0.69			
v/c Ratio		0.25			0.09			0.80	0.67			
Control Delay		17.8			30.7			6.9	3.2			
Queue Delay		0.0			0.0			5.4	0.7			
Total Delay		17.8			30.7			12.3	3.8			
LOS		B			C			B	A			
Approach Delay		17.8			30.7			10.7				
Approach LOS		B			C			B				
Queue Length 50th (ft)		41			24			193	10			
Queue Length 95th (ft)		m53			m36			385	m26			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		782			455			3278	930			
Starvation Cap Reductn		0			0			618	93			
Spillback Cap Reductn		0			0			421	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.25			0.09			0.98	0.74			

**Intersection Summary**

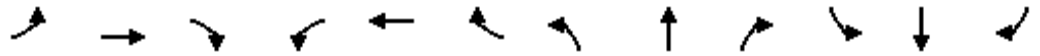
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 55 (61%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 11.3                      Intersection LOS: B  
 Intersection Capacity Utilization 68.4%              ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 407: Fell St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99						0.98				
Frt		0.994						0.993			0.995	
Flt Protected		0.996										
Satd. Flow (prot)	0	3475	0	0	0	0	0	3039	0	0	3153	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3475	0	0	0	0	0	3039	0	0	3153	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						9			6	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	65	644	28	0	0	0	0	940	48	0	1087	37
Confl. Peds. (#/hr)			224			224			449			
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Parking (#/hr)								8	8		2	
Adj. Flow (vph)	71	708	31	0	0	0	0	969	49	0	1132	39
Lane Group Flow (vph)	0	810	0	0	0	0	0	1018	0	0	1171	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Minimum Split (s)	35.0	35.0						42.0			50.0	
Total Split (s)	38.0	38.0	0.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.1	2.1						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		35.0						49.0			49.0	
Actuated g/C Ratio		0.39						0.54			0.54	
v/c Ratio		0.60						0.61			0.68	
Control Delay		20.2						2.2			5.0	
Queue Delay		0.0						0.4			0.4	
Total Delay		20.2						2.6			5.3	
LOS		C						A			A	
Approach Delay		20.2						2.6			5.3	
Approach LOS		C						A			A	
Queue Length 50th (ft)		165						14			41	
Queue Length 95th (ft)		213						16			m76	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)												
Base Capacity (vph)		1354						1659			1719	



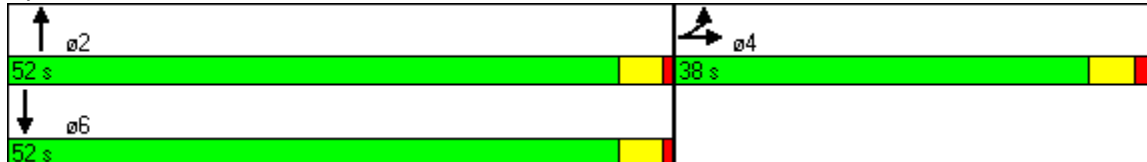
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0						224			156	
Spillback Cap Reductn		0						0			7	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.60						0.71			0.75	

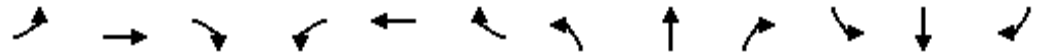
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	53 (59%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	8.4
Intersection LOS:	A
Intersection Capacity Utilization	64.1%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖		↗	↖						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.913									0.998	
Fl <sub>t</sub> Protected				0.950							0.997	
Satd. Flow (prot)	0	1639	0	1770	1796	0	0	0	0	0	4756	0
Fl <sub>t</sub> Permitted				0.211							0.997	
Satd. Flow (perm)	0	1639	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26									3	
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	76	136	589	412	0	0	0	0	152	2216	39
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	99	177	614	429	0	0	0	0	157	2285	40
Lane Group Flow (vph)	0	276	0	614	429	0	0	0	0	0	2482	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Minimum Split (s)		19.0		8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	0.0	26.0	45.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	28.9%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Act Effct Green (s)		16.0		42.0	42.0						42.0	
Actuated g/C Ratio		0.18		0.47	0.47						0.47	
v/c Ratio		0.88		1.15	0.51						1.12	
Control Delay		62.6		101.2	7.0						72.7	
Queue Delay		0.0		0.0	0.3						8.3	
Total Delay		62.6		101.2	7.3						81.0	
LOS		E		F	A						F	
Approach Delay		62.6			62.6						81.0	
Approach LOS		E			E						F	
Queue Length 50th (ft)		141		~344	54						~610	
Queue Length 95th (ft)		#214		m#482	m69						#684	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)		313		535	838						2221	
Starvation Cap Reductn		0		0	99						37	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	

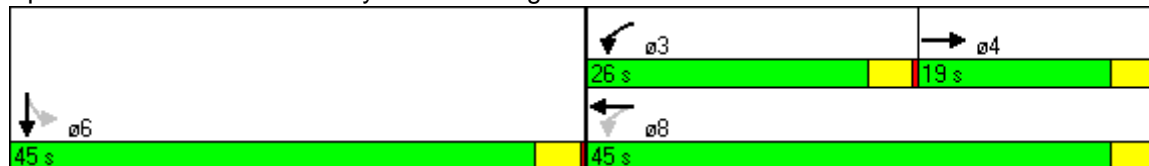


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.88		1.15	0.58						1.14	

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 76 (84%), Referenced to phase 6:SBTL, Start of Green
- Natural Cycle: 130
- Control Type: Pretimed
- Maximum v/c Ratio: 1.15
- Intersection Signal Delay: 74.6
- Intersection LOS: E
- Intersection Capacity Utilization 101.7%
- ICU Level of Service G
- Analysis Period (min) 15
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 412: Hayes St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.969	0.850						
Flt Protected								0.995				
Satd. Flow (prot)	0	1796	0	0	3226	1441	0	4765	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	1796	0	0	3226	1441	0	4765	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5	5						
Headway Factor	1.00	1.05	1.00	1.00	1.02	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		458			481			323				175
Travel Time (s)		12.5			13.1			8.8				4.8
Volume (vph)	0	228	0	0	806	655	195	1813	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Adj. Flow (vph)	0	240	0	0	876	712	217	2014	0	0	0	0
Lane Group Flow (vph)	0	240	0	0	1108	480	0	2231	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	40.0	0.0	0.0	40.0	40.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	44.4%	0.0%	0.0%	44.4%	44.4%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		37.0			37.0	37.0		47.0				
Actuated g/C Ratio		0.41			0.41	0.41		0.52				
v/c Ratio		0.33			0.83	0.81		0.90				
Control Delay		24.3			7.2	10.5		15.7				
Queue Delay		0.0			0.1	0.0		8.0				
Total Delay		24.3			7.3	10.5		23.8				
LOS		C			A	B		C				
Approach Delay		24.3			8.3			23.8				
Approach LOS		C			A			C				
Queue Length 50th (ft)		123			39	32		334				
Queue Length 95th (ft)		m121			m43	m37		305				
Internal Link Dist (ft)		378			401			243			95	
Turn Bay Length (ft)												
Base Capacity (vph)		738			1329	595		2488				
Starvation Cap Reductn		0			7	0		251				
Spillback Cap Reductn		0			0	0		42				
Storage Cap Reductn		0			0	0		0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.33			0.84	0.81		1.00				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	65 (72%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	17.7
Intersection LOS:	B
Intersection Capacity Utilization	101.7%
ICU Level of Service	G
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

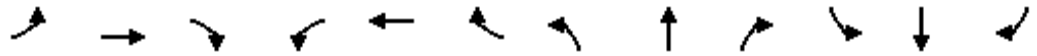
Splits and Phases: 413: Hayes St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑			↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor					0.98						0.96	
Frt		0.979			0.985			0.997			0.985	
Flt Protected					0.999							
Satd. Flow (prot)	0	1824	0	0	4638	0	0	3352	0	0	2926	0
Flt Permitted					0.933							
Satd. Flow (perm)	0	1824	0	0	4331	0	0	3352	0	0	2926	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			25			4			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.11	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	193	35	22	1339	153	0	1026	22	0	1067	122
Confl. Peds. (#/hr)						224						449
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0			10	10
Adj. Flow (vph)	0	203	37	23	1409	161	0	1069	23	0	1111	127
Lane Group Flow (vph)	0	240	0	0	1593	0	0	1092	0	0	1238	0
Turn Type				Perm								
Protected Phases		4			4			2			6	
Permitted Phases				4								
Minimum Split (s)		35.0		35.0	35.0			51.0			39.0	
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.33			0.91			0.61			0.79	
Control Delay		12.4			34.5			5.5			16.4	
Queue Delay		0.0			0.3			0.1			0.7	
Total Delay		12.4			34.8			5.7			17.2	
LOS		B			C			A			B	
Approach Delay		12.4			34.8			5.7			17.2	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		13			302			47			148	
Queue Length 95th (ft)		90			#405			67			196	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)												
Base Capacity (vph)		733			1747			1790			1561	

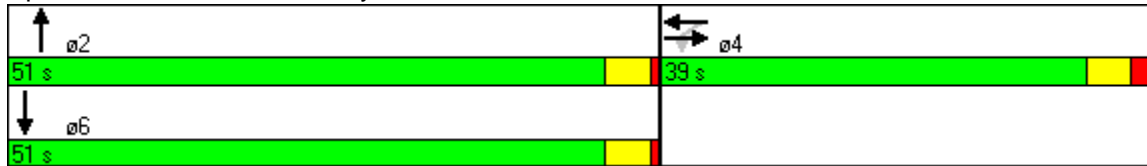


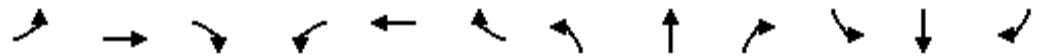
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			126			106	
Spillback Cap Reductn		0			16			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.92			0.66			0.85	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	52 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	20.6
Intersection LOS:	C
Intersection Capacity Utilization	90.7%
ICU Level of Service	E
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.865									0.850
Flt Protected					0.997							
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			90		34							28
Headway Factor	1.00	1.00	1.00	1.00	1.19	1.14	1.00	1.00	1.00	1.00	1.00	1.14
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	188	89	1373	0	0	0	0	0	655	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Adj. Flow (vph)	0	0	198	94	1445	0	0	0	0	0	689	148
Lane Group Flow (vph)	0	0	198	0	1539	0	0	0	0	0	689	148
Turn Type			custom		Perm							Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.22		0.52						0.53	0.27
Control Delay			4.9		6.3						11.1	8.4
Queue Delay			0.0		0.0						0.1	0.0
Total Delay			4.9		6.3						11.2	8.4
LOS			A		A						B	A
Approach Delay					6.3						10.7	
Approach LOS					A						B	
Queue Length 50th (ft)			18		68						47	12
Queue Length 95th (ft)			45		m76						88	41
Internal Link Dist (ft)		153			70			300			82	
Turn Bay Length (ft)												
Base Capacity (vph)			901		2979						1298	540
Starvation Cap Reductn			0		0						0	0
Spillback Cap Reductn			17		14						70	0



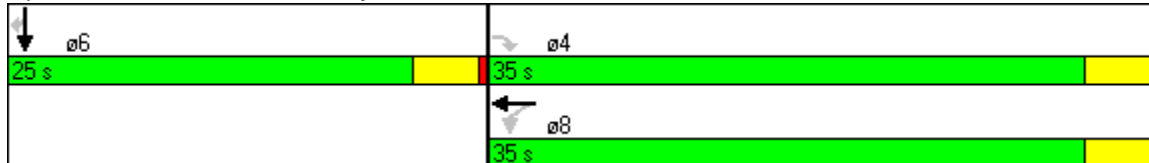
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn			0		0						0	0
Reduced v/c Ratio			0.22		0.52						0.56	0.27

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	58 (97%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	61.0%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**



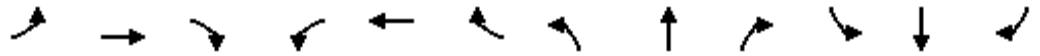


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.974									0.996	
Flt Protected					0.971						0.997	
Satd. Flow (prot)	0	1749	0	0	3375	0	0	0	0	0	5050	0
Flt Permitted					0.564						0.997	
Satd. Flow (perm)	0	1749	0	0	1960	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									8	
Headway Factor	1.00	1.05	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	267	64	220	152	0	0	0	0	135	2123	63
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	287	69	244	169	0	0	0	0	139	2189	65
Lane Group Flow (vph)	0	356	0	0	413	0	0	0	0	0	2393	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					17.0	17.0	
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0			31.0						53.0	
Actuated g/C Ratio		0.34			0.34						0.59	
v/c Ratio		0.59			1.15dl						0.80	
Control Delay		28.6			15.4						4.4	
Queue Delay		0.0			0.0						9.4	
Total Delay		28.6			15.4						13.8	
LOS		C			B						B	
Approach Delay		28.6			15.4						13.8	
Approach LOS		C			B						B	
Queue Length 50th (ft)		162			35						42	
Queue Length 95th (ft)		252			m69						46	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		606			675						2977	
Starvation Cap Reductn		0			0						160	
Spillback Cap Reductn		1			0						585	
Storage Cap Reductn		0			0						0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.928			0.994				
Flt Protected		0.993						0.999				
Satd. Flow (prot)	0	3451	0	0	3225	0	0	5050	0	0	0	0
Flt Permitted		0.719						0.999				
Satd. Flow (perm)	0	2499	0	0	3225	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			12				
Headway Factor	1.00	1.02	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	59	343	0	0	304	280	68	2337	93	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Adj. Flow (vph)	66	385	0	0	317	292	70	2409	96	0	0	0
Lane Group Flow (vph)	0	451	0	0	609	0	0	2575	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	0.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0			27.0			57.0				
Actuated g/C Ratio		0.30			0.30			0.63				
v/c Ratio		0.60			0.63			0.80				
Control Delay		22.8			12.5			6.6				
Queue Delay		0.0			0.0			1.4				
Total Delay		22.8			12.5			8.0				
LOS		C			B			A				
Approach Delay		22.8			12.5			8.0				
Approach LOS		C			B			A				
Queue Length 50th (ft)		66			50			154				
Queue Length 95th (ft)		m117			m60			171				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		750			972			3203				
Starvation Cap Reductn		0			0			400				
Spillback Cap Reductn		0			0			292				
Storage Cap Reductn		0			0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.60			0.63			0.92					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 10.6      Intersection LOS: B  
 Intersection Capacity Utilization 87.2%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

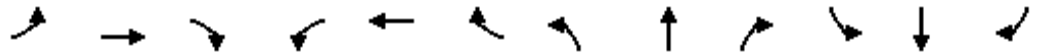
Splits and Phases: 417: Grove St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.98			0.99			0.96			0.97	
Frt		0.991			0.997			0.983			0.986	
Flt Protected		0.999			0.997							
Satd. Flow (prot)	0	3369	0	0	3496	0	0	2979	0	0	2789	0
Flt Permitted		0.947			0.894							
Satd. Flow (perm)	0	3194	0	0	3135	0	0	2979	0	0	2789	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			2			1			4	
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.19	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	6	405	25	33	471	10	0	1061	139	0	1131	113
Confl. Peds. (#/hr)			631			409			414			414
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Adj. Flow (vph)	7	471	29	37	523	11	0	1129	148	0	1178	118
Lane Group Flow (vph)	0	507	0	0	571	0	0	1277	0	0	1296	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Minimum Split (s)	34.0	34.0		34.0	34.0			31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.7			1.7	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.46			0.53			0.73			0.79	
Control Delay		28.2			25.7			5.8			19.8	
Queue Delay		0.0			0.0			0.2			0.1	
Total Delay		28.2			25.7			6.0			19.9	
LOS		C			C			A			B	
Approach Delay		28.2			25.7			6.0			19.9	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		96			134			58			239	
Queue Length 95th (ft)		m132			186			m68			316	
Internal Link Dist (ft)		397			406			90			592	
Turn Bay Length (ft)												

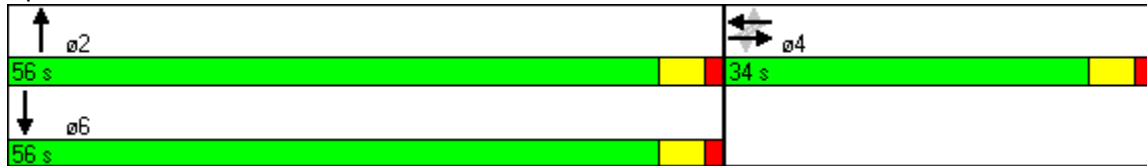


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		1105			1081			1755			1644	
Starvation Cap Reductn		0			0			88			0	
Spillback Cap Reductn		0			0			0			23	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.46			0.53			0.77			0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	59 (66%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	17.1
Intersection LOS:	B
Intersection Capacity Utilization	82.8%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 418: Grove St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.990						0.986	
Flt Protected		0.997			0.996						0.996	
Satd. Flow (prot)	0	3182	1378	0	3147	0	0	0	0	0	3134	0
Flt Permitted		0.921			0.914						0.996	
Satd. Flow (perm)	0	2940	1378	0	2888	0	0	0	0	0	3134	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190		16						24	
Headway Factor	1.09	1.14	1.19	1.04	1.14	1.04	1.00	1.00	1.00	1.04	1.14	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	19	318	207	37	449	34	0	0	0	57	570	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Adj. Flow (vph)	20	335	218	39	473	36	0	0	0	60	600	68
Lane Group Flow (vph)	0	355	218	0	548	0	0	0	0	0	728	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4					2	2	
Permitted Phases	4		4	4								
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.27	0.30		0.42						0.51	
Control Delay		11.0	3.8		8.9						9.8	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.0	3.8		8.9						9.8	
LOS		B	A		A						A	
Approach Delay		8.3			8.9						9.8	
Approach LOS		A			A						A	
Queue Length 50th (ft)		40	5		40						72	
Queue Length 95th (ft)		64	38		m58						98	
Internal Link Dist (ft)		406			401			95			592	
Turn Bay Length (ft)												
Base Capacity (vph)		1323	725		1308						1424	
Starvation Cap Reductn		0	0		0						0	
Spillback Cap Reductn		0	0		0						0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.27	0.30		0.42						0.51	

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 56 (93%), Referenced to phase 2:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.51

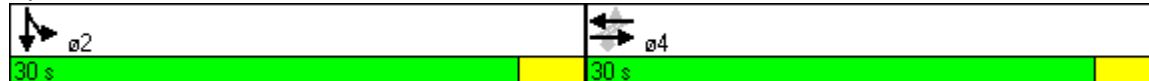
Intersection Signal Delay: 9.1 Intersection LOS: A

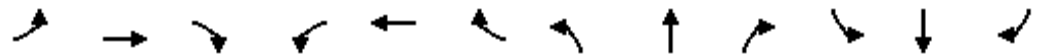
Intersection Capacity Utilization 56.9% ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 419: Grove St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.954			0.992				0.850
Flt Protected	0.950							0.992		0.950		
Satd. Flow (prot)	1652	1863	0	0	1777	0	0	4837	0	1770	0	1267
Flt Permitted	0.559							0.992		0.133		
Satd. Flow (perm)	972	1863	0	0	1777	0	0	4837	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			20				84
Headway Factor	1.09	1.00	1.04	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.32
Link Speed (mph)		25			25			25				25
Link Distance (ft)		481			198			210				358
Travel Time (s)		13.1			5.4			5.7				9.8
Volume (vph)	160	215	0	0	143	73	297	1520	99	15	0	80
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)									5			20
Adj. Flow (vph)	168	226	0	0	151	77	313	1600	104	16	0	84
Lane Group Flow (vph)	168	226	0	0	228	0	0	2017	0	16	0	84
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	24.0	24.0			24.0		30.0	30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40		0.50	0.50		0.50		0.50
v/c Ratio	0.43	0.30			0.32		0.83	0.83		0.13		0.12
Control Delay	14.4	10.3			15.2		3.8	3.8		5.5		1.6
Queue Delay	0.0	0.0			0.0		0.1	0.1		0.0		0.0
Total Delay	14.4	10.3			15.2		3.9	3.9		5.5		1.6
LOS	B	B			B		A	A		A		A
Approach Delay		12.0			15.2		3.9	3.9				
Approach LOS		B			B		A	A				
Queue Length 50th (ft)	51	65			46		24	24		2		0
Queue Length 95th (ft)	107	120			m68		m36	m36		7		0
Internal Link Dist (ft)		401			118		130	130				278
Turn Bay Length (ft)												
Base Capacity (vph)	389	745			719		2429	2429		124		676
Starvation Cap Reductn	0	0			0		29	29		0		0
Spillback Cap Reductn	0	0			0		0	0		0		0
Storage Cap Reductn	0	0			0		0	0		0		0

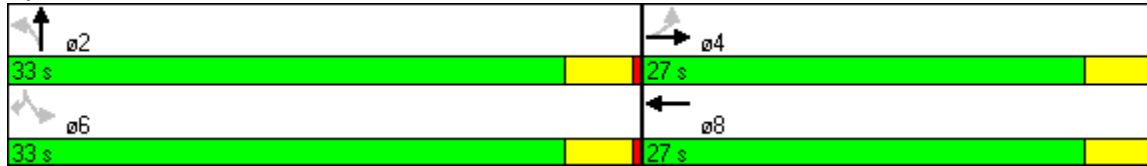


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.43	0.30			0.32			0.84		0.13		0.12

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	15 (25%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization	70.6%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**



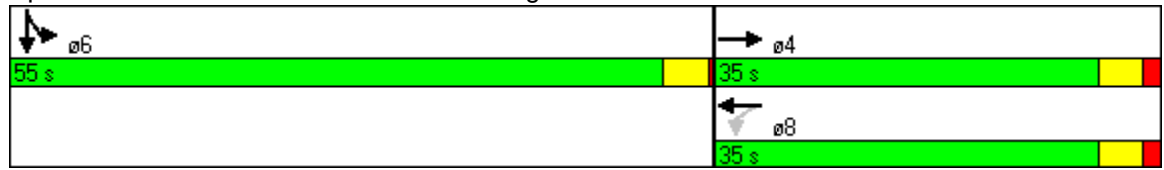


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.962									0.994	
Fl <sub>t</sub> Protected					0.984						0.999	
Satd. Flow (prot)	0	1792	0	0	1833	0	0	0	0	0	5050	0
Fl <sub>t</sub> Permitted					0.565						0.999	
Satd. Flow (perm)	0	1792	0	0	1052	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									12	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25		25		25
Link Distance (ft)		487			220			352		333		
Travel Time (s)		13.3			6.0			9.6		9.1		
Volume (vph)	0	272	105	66	141	0	0	0	0	35	2150	90
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										17		17
Adj. Flow (vph)	0	302	117	76	162	0	0	0	0	37	2263	95
Lane Group Flow (vph)	0	419	0	0	238	0	0	0	0	0	2395	0
Turn Type			Perm								Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					20.0	20.0	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0			32.0						52.0	
Actuated g/C Ratio		0.36			0.36						0.58	
v/c Ratio		0.65			0.64						0.82	
Control Delay		29.9			20.2						5.4	
Queue Delay		0.0			0.0						0.6	
Total Delay		29.9			20.2						6.0	
LOS		C			C						A	
Approach Delay		29.9			20.2						6.0	
Approach LOS		C			C						A	
Queue Length 50th (ft)		195			111						36	
Queue Length 95th (ft)		298			m119						39	
Internal Link Dist (ft)		407			140			272			253	
Turn Bay Length (ft)												
Base Capacity (vph)		640			374						2923	
Starvation Cap Reductn		0			0						206	
Spillback Cap Reductn		0			0						78	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.65			0.64						0.88	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 10.4                      Intersection LOS: B  
 Intersection Capacity Utilization 86.0%              ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 428: Fulton St. & Gough St.







Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↗↗↗		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
<b>Fr</b>						
Flt Protected	0.950			0.996		
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
<b>Satd. Flow (RTOR)</b>						
Headway Factor	1.00	1.00	1.00	1.07	1.00	1.00
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	307	0	207	2469	0	0
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Parking (#/hr)			11	11		
Adj. Flow (vph)	404	0	213	2545	0	0
Lane Group Flow (vph)	404	0	0	2758	0	0
<b>Turn Type</b>						
Protected Phases	4		2	2		
<b>Permitted Phases</b>						
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	29.0	0.0	61.0	61.0	0.0	0.0
Total Split (%)	32.2%	0.0%	67.8%	67.8%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Act Effct Green (s)	26.0			58.0		
Actuated g/C Ratio	0.29			0.64		
v/c Ratio	0.79			0.89		
Control Delay	25.7			9.0		
Queue Delay	0.0			0.6		
Total Delay	25.7			9.5		
LOS	C			A		
Approach Delay	25.7			9.5		
Approach LOS	C			A		
Queue Length 50th (ft)	216			90		
Queue Length 95th (ft)	180			101		
Internal Link Dist (ft)	163			265	254	
<b>Turn Bay Length (ft)</b>						
Base Capacity (vph)	511			3095		
Starvation Cap Reductn	0			39		
Spillback Cap Reductn	0			96		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.79			0.92		

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 71 (79%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 11.6

Intersection LOS: B

Intersection Capacity Utilization 85.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑			↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Frt	0.915		0.995			
Flt Protected	0.982					0.987
Satd. Flow (prot)	1897	0	4891	0	0	1749
Flt Permitted	0.982					0.657
Satd. Flow (perm)	1897	0	4891	0	0	1164
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	9		12			
Headway Factor	0.85	0.85	1.04	1.04	1.04	1.07
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	32	54	1695	58	22	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Adj. Flow (vph)	34	57	1784	61	23	66
Lane Group Flow (vph)	91	0	1845	0	0	89
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.12		0.73			0.15
Control Delay	11.6		4.9			5.7
Queue Delay	0.0		0.1			0.0
Total Delay	11.6		5.0			5.7
LOS	B		A			A
Approach Delay	11.6		5.0			5.7
Approach LOS	B		A			A
Queue Length 50th (ft)	18		43			17
Queue Length 95th (ft)	44		60			m28
Internal Link Dist (ft)	152		278			255
Turn Bay Length (ft)						
Base Capacity (vph)	733		2533			601
Starvation Cap Reductn	0		116			0
Spillback Cap Reductn	0		21			0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.12		0.76			0.15

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	22 (37%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	5.3
Intersection LOS:	A
Intersection Capacity Utilization	45.8%
ICU Level of Service	A
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 430: Fulton St. & Larkin St.**

 34 s	 26 s
 34 s	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		22			24	
Headway Factor	1.00	1.00	1.00	1.00	1.18	1.04
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	31	0	0	1733	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)					16	5
Adj. Flow (vph)	0	33	0	0	1824	91
Lane Group Flow (vph)	0	33	0	0	1915	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.07			0.68	
Control Delay		10.3			3.1	
Queue Delay		0.0			0.1	
Total Delay		10.3			3.2	
LOS		B			A	
Approach Delay					3.2	
Approach LOS					A	
Queue Length 50th (ft)		3			30	
Queue Length 95th (ft)		20			52	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		446			2814	
Starvation Cap Reductn		0			79	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Reduced v/c Ratio		0.07			0.70	

**Intersection Summary**

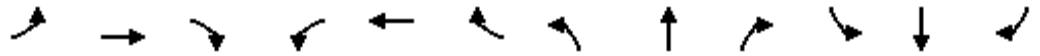
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	32 (53%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	3.3
Intersection LOS:	A
Intersection Capacity Utilization	45.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.984									0.994	
Flt Protected					0.987						0.998	
Satd. Flow (prot)	0	1723	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.618						0.998	
Satd. Flow (perm)	0	1723	0	0	2187	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									13	
Headway Factor	1.00	1.08	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	302	42	108	316	0	0	0	0	90	2125	100
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	360	50	114	333	0	0	0	0	96	2261	106
Lane Group Flow (vph)	0	410	0	0	447	0	0	0	0	0	2463	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					18.0	18.0	
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0			31.0						53.0	
Actuated g/C Ratio		0.34			0.34						0.59	
v/c Ratio		0.69			0.59						0.83	
Control Delay		32.1			35.8						6.1	
Queue Delay		0.0			0.0						1.5	
Total Delay		32.1			35.8						7.6	
LOS		C			D						A	
Approach Delay		32.1			35.8						7.6	
Approach LOS		C			D						A	
Queue Length 50th (ft)		195			142						90	
Queue Length 95th (ft)		273			m174						120	
Internal Link Dist (ft)		361			207			253			268	
Turn Bay Length (ft)												
Base Capacity (vph)		597			753						2976	
Starvation Cap Reductn		0			0						314	
Spillback Cap Reductn		0			0						172	
Storage Cap Reductn		0			0						0	

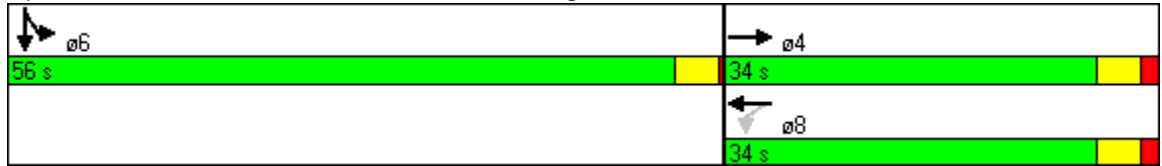


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.69			0.59						0.93	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	47 (52%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	14.4
Intersection LOS:	B
Intersection Capacity Utilization	85.4%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 435: McAllister St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.926			0.988				
Fl <sub>t</sub> Protected		0.997						0.999				
Satd. Flow (prot)	0	1746	0	0	3179	0	0	5019	0	0	0	0
Fl <sub>t</sub> Permitted		0.777						0.999				
Satd. Flow (perm)	0	1361	0	0	3179	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			27				
Headway Factor	1.00	1.08	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	22	370	0	0	384	373	40	2519	217	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Adj. Flow (vph)	24	402	0	0	436	424	42	2652	228	0	0	0
Lane Group Flow (vph)	0	426	0	0	860	0	0	2922	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.94			0.81			0.97				
Control Delay		52.9			13.8			16.4				
Queue Delay		0.0			0.0			20.6				
Total Delay		52.9			13.8			36.9				
LOS		D			B			D				
Approach Delay		52.9			13.8			36.9				
Approach LOS		D			B			D				
Queue Length 50th (ft)		254			49			90				
Queue Length 95th (ft)		m#416			58			#172				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		454			1061			3022				
Starvation Cap Reductn		0			0			230				
Spillback Cap Reductn		0			0			42				
Storage Cap Reductn		0			0			0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	125		70
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			1.00	0.80		0.98			0.98	
Frt		0.990				0.850		0.993			0.991	
Flt Protected		0.999			0.998							
Satd. Flow (prot)	0	3454	0	0	3532	1425	0	2926	0	0	3036	0
Flt Permitted		0.937			0.901							
Satd. Flow (perm)	0	3237	0	0	3180	1142	0	2926	0	0	3036	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				11		9			11	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.16	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	11	537	39	32	686	88	0	1026	51	0	1173	71
Confl. Peds. (#/hr)	200		200	200		200			399			399
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Adj. Flow (vph)	12	603	44	34	738	95	0	1069	53	0	1235	75
Lane Group Flow (vph)	0	659	0	0	772	95	0	1122	0	0	1310	0
Turn Type	Perm			Perm		Perm						
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4						
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	
Total Split (s)	36.0	36.0	0.0	36.0	36.0	36.0	0.0	54.0	0.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	40.0%	0.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		33.0			33.0	33.0		51.0			51.0	
Actuated g/C Ratio		0.37			0.37	0.37		0.57			0.57	
v/c Ratio		0.55			0.66	0.22		0.68			0.76	
Control Delay		29.2			27.2	19.1		2.1			15.5	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		29.2			27.2	19.1		2.1			15.5	
LOS		C			C	B		A			B	
Approach Delay		29.2			26.3			2.1			15.5	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		154			190	32		6			182	
Queue Length 95th (ft)		m166			254	69		10			192	
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)												

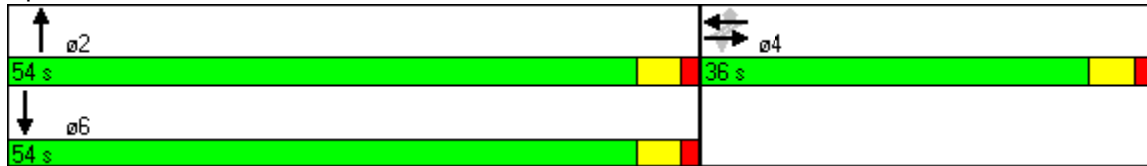


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		1191			1166	426		1662			1725	
Starvation Cap Reductn		0			0	0		0			1	
Spillback Cap Reductn		0			0	0		27			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.55			0.66	0.22		0.69			0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	70
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	16.4
Intersection LOS:	B
Intersection Capacity Utilization	89.4%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.956			0.976			0.931			0.964	
Flt Protected		0.994		0.950				0.997			0.997	
Satd. Flow (prot)	0	2996	0	1652	2971	0	0	1556	0	0	3175	0
Flt Permitted		0.778		0.348				0.978			0.939	
Satd. Flow (perm)	0	2345	0	605	2971	0	0	1526	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		136			48			28			91	
Headway Factor	1.04	1.16	1.04	1.09	1.21	1.00	1.00	1.14	1.00	1.09	1.09	1.09
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	67	348	173	123	669	129	3	23	27	34	396	134
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Adj. Flow (vph)	71	366	182	129	704	136	3	24	28	36	417	141
Lane Group Flow (vph)	0	619	0	129	840	0	0	55	0	0	594	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	29.5	29.5	0.0	29.5	29.5	0.0	30.5	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.5		26.5	26.5			27.5			27.5	
Actuated g/C Ratio		0.44		0.44	0.44			0.46			0.46	
v/c Ratio		0.56		0.48	0.63			0.08			0.42	
Control Delay		11.8		7.4	4.3			0.5			7.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		11.8		7.4	4.3			0.5			7.6	
LOS		B		A	A			A			A	
Approach Delay		11.8			4.7			0.5			7.6	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		62		9	23			0			36	
Queue Length 95th (ft)		106		m11	m31			m0			113	
Internal Link Dist (ft)		381			175			592			104	
Turn Bay Length (ft)												
Base Capacity (vph)		1112		267	1339			715			1420	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	



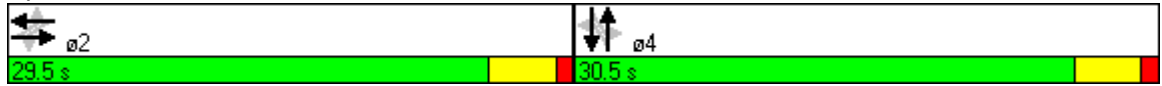
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.56		0.48	0.63			0.08			0.42	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	17 (28%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	69.3%
ICU Level of Service	C
Analysis Period (min)	15

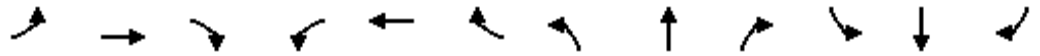
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 438: McAllister St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>		0.965			0.967			0.997				
Fl <sub>t</sub> Protected	0.950				0.999			0.996				
Satd. Flow (prot)	1770	1798	0	0	3419	0	0	5016	0	0	0	0
Fl <sub>t</sub> Permitted	0.154				0.949			0.996				
Satd. Flow (perm)	287	1798	0	0	3248	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			8			7				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	99	234	70	15	786	227	141	1573	35	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Adj. Flow (vph)	104	246	74	16	827	239	148	1656	37	0	0	0
Lane Group Flow (vph)	104	320	0	0	1082	0	0	1841	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.84	0.40			0.77			0.79				
Control Delay	75.9	22.9			12.6			4.6				
Queue Delay	0.0	0.0			0.0			0.1				
Total Delay	75.9	22.9			12.6			4.6				
LOS	E	C			B			A				
Approach Delay		35.9			12.6			4.6				
Approach LOS		D			B			A				
Queue Length 50th (ft)	41	108			55			12				
Queue Length 95th (ft) m#107		182			127			20				
Internal Link Dist (ft)		169			411			255			118	
Turn Bay Length (ft)												
Base Capacity (vph)	124	797			1412			2345				
Starvation Cap Reductn	0	0			0			31				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				

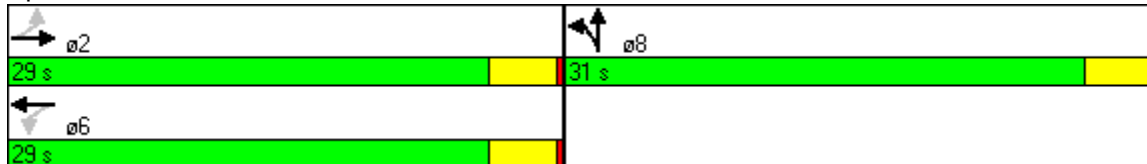


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.84	0.40			0.77			0.80				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	11.2
Intersection LOS:	B
Intersection Capacity Utilization	90.0%
ICU Level of Service	E
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 439: McAllister St. & Larkin St.

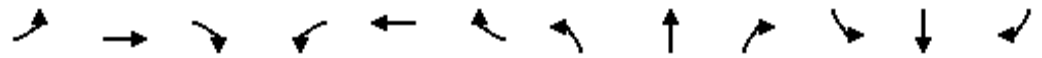






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>			0.865								0.988	
Fl <sub>t</sub> Protected				0.950								
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Fl <sub>t</sub> Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			19	19							34	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	269	90	904	0	0	0	0	0	1463	124
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Adj. Flow (vph)	0	0	283	95	952	0	0	0	0	0	1540	131
Lane Group Flow (vph)	0	0	283	95	952	0	0	0	0	0	1671	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.45	0.14	0.70						0.68	
Control Delay			10.9	10.7	19.0						5.2	
Queue Delay			0.0	0.0	0.0						0.0	
Total Delay			10.9	10.7	19.0						5.3	
LOS			B	B	B						A	
Approach Delay					18.3						5.3	
Approach LOS					B						A	
Queue Length 50th (ft)			21	17	147						48	
Queue Length 95th (ft)			m85	43	208						89	
Internal Link Dist (ft)		411			257			253			266	
Turn Bay Length (ft)												
Base Capacity (vph)			629	690	1357						2467	
Starvation Cap Reductn			0	0	0						58	
Spillback Cap Reductn			0	0	0						0	
Storage Cap Reductn			0	0	0						0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.959										
Flt Protected											0.993	
Satd. Flow (prot)	0	4877	0	0	0	0	0	0	0	0	4738	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4877	0	0	0	0	0	0	0	0	4738	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		11										64
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	550	204	0	0	0	0	0	0	330	2111	0
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Parking (#/hr)										17	17	
Adj. Flow (vph)	0	591	219	0	0	0	0	0	0	344	2199	0
Lane Group Flow (vph)	0	810	0	0	0	0	0	0	0	0	2543	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.0									59.0	
Actuated g/C Ratio		0.28									0.66	
v/c Ratio		0.59									0.81	
Control Delay		29.9									3.1	
Queue Delay		0.0									0.9	
Total Delay		29.9									4.0	
LOS		C									A	
Approach Delay		29.9									4.0	
Approach LOS		C									A	
Queue Length 50th (ft)		143									40	
Queue Length 95th (ft)		185									m45	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1363									3128	
Starvation Cap Reductn		0									307	
Spillback Cap Reductn		0									91	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.59									0.90	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 36 (40%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 10.3                      Intersection LOS: B

Intersection Capacity Utilization 69.3%                      ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	*0.77	0.86	1.00	1.00	1.00
Frt								0.992				
Flt Protected		0.994										
Satd. Flow (prot)	0	4994	0	0	0	0	0	5691	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5691	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						23				
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25				25
Link Distance (ft)		296				242		151				320
Travel Time (s)		8.1				6.6		4.1				8.7
Volume (vph)	101	779	0	0	0	0	0	2839	169	0	0	0
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Adj. Flow (vph)	103	795	0	0	0	0	0	2927	174	0	0	0
Lane Group Flow (vph)	0	898	0	0	0	0	0	3101	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.0						58.0				
Actuated g/C Ratio		0.29						0.64				
v/c Ratio		0.62						0.84				
Control Delay		33.5						4.8				
Queue Delay		0.0						2.3				
Total Delay		33.5						7.0				
LOS		C						A				
Approach Delay		33.5						7.0				
Approach LOS		C						A				
Queue Length 50th (ft)		178						97				
Queue Length 95th (ft)		225						m104				
Internal Link Dist (ft)		216				162		71			240	
Turn Bay Length (ft)												
Base Capacity (vph)		1444						3676				
Starvation Cap Reductn		0						428				
Spillback Cap Reductn		0						101				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.62						0.95					

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	89 (99%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization	67.7%
ICU Level of Service	C
Analysis Period (min)	15
* User Entered Value	

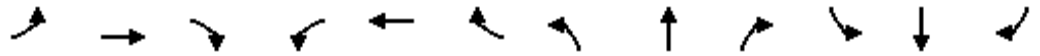
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.97						0.98				
Frt		0.984						0.992				
Flt Protected		0.998										
Satd. Flow (prot)	0	4892	0	0	0	0	0	3017	0	0	3177	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	4847	0	0	0	0	0	3017	0	0	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10						7				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.00	1.00	1.07	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	47	800	101	0	0	0	0	1066	59	0	1143	0
Confl. Peds. (#/hr)	193		193						387			387
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)			0					10	10		1	
Adj. Flow (vph)	49	842	106	0	0	0	0	1122	62	0	1203	0
Lane Group Flow (vph)	0	997	0	0	0	0	0	1184	0	0	1203	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Minimum Split (s)	34.0	34.0						38.0			48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	46.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.2	2.2						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0						53.0			53.0	
Actuated g/C Ratio		0.34						0.59			0.59	
v/c Ratio		0.59						0.67			0.64	
Control Delay		12.4						5.1			5.4	
Queue Delay		0.0						0.6			0.2	
Total Delay		12.4						5.8			5.5	
LOS		B						A			A	
Approach Delay		12.4						5.8			5.5	
Approach LOS		B						A			A	
Queue Length 50th (ft)		48						22			60	
Queue Length 95th (ft)		m102						83			61	
Internal Link Dist (ft)		159			387			98			78	
Turn Bay Length (ft)												
Base Capacity (vph)		1692						1780			1871	



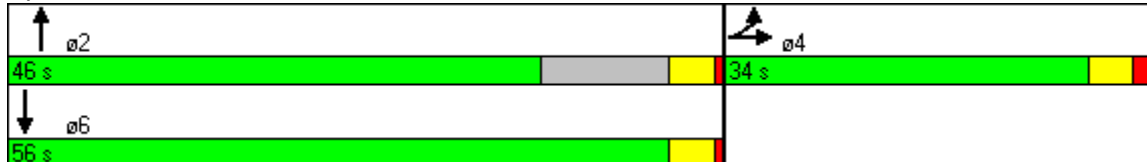
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0						261			128	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.59						0.78			0.69	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	63.8%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

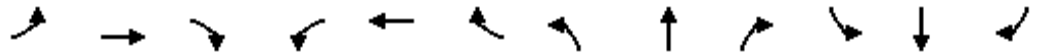
**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.974						0.951				
Flt Protected		0.995									0.987	
Satd. Flow (prot)	0	4707	0	0	0	0	0	1594	0	0	3319	0
Flt Permitted		0.995									0.805	
Satd. Flow (perm)	0	4707	0	0	0	0	0	1594	0	0	2707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92						68				
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.07	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	78	632	149	0	0	0	0	139	80	151	415	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Adj. Flow (vph)	82	665	157	0	0	0	0	146	84	159	437	0
Lane Group Flow (vph)	0	904	0	0	0	0	0	230	0	0	596	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.6	27.6	0.0	0.0	0.0	0.0	0.0	32.4	0.0	32.4	32.4	0.0
Total Split (%)	46.0%	46.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.0%	0.0%	54.0%	54.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		24.6						29.4			29.4	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.46						0.28			0.45	
Control Delay		12.3						1.7			13.8	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.3						1.7			13.8	
LOS		B						A			B	
Approach Delay		12.3						1.7			13.8	
Approach LOS		B						A			B	
Queue Length 50th (ft)		73						0			71	
Queue Length 95th (ft)		103						m8			117	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		1984						816			1326	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.46						0.28			0.45	

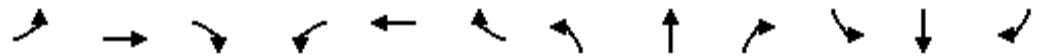
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	57 (95%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	11.4
Intersection LOS:	B
Intersection Capacity Utilization	55.2%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**

 27.6 s	 32.4 s
 32.4 s	 32.4 s




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑						↑↑↑					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	
Fr <sub>t</sub>									0.980				
Flt Protected	0.990												
Satd. Flow (prot)	0	5034	0	0	0	0	0	4751	0	0	0	0	
Flt Permitted	0.990												
Satd. Flow (perm)	0	5034	0	0	0	0	0	4751	0	0	0	0	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)	16								63				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00	1.00	
Link Speed (mph)	25						25			25			
Link Distance (ft)	499						484			158			
Travel Time (s)	13.6						13.2			4.3			
Volume (vph)	169	694	0	0	0	0	0	1647	252	0	0	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Parking (#/hr)							8			13			
Adj. Flow (vph)	178	731	0	0	0	0	0	1734	265	0	0	0	
Lane Group Flow (vph)	0	909	0	0	0	0	0	1999	0	0	0	0	
Turn Type	Split												
Protected Phases	2	2							8				
Permitted Phases													
Minimum Split (s)	23.5	23.5							36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0	
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)	3.5	3.5											
All-Red Time (s)	0.0	0.0											
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)	20.5								33.5				
Actuated g/C Ratio	0.34								0.56				
v/c Ratio	0.53								0.75				
Control Delay	10.2								6.0				
Queue Delay	0.0								0.0				
Total Delay	10.2								6.0				
LOS	B								A				
Approach Delay	10.2								6.0				
Approach LOS	B								A				
Queue Length 50th (ft)	48								70				
Queue Length 95th (ft)	65								103				
Internal Link Dist (ft)	419						404			78			233
Turn Bay Length (ft)													
Base Capacity (vph)	1730								2680				
Starvation Cap Reductn	0								37				
Spillback Cap Reductn	0								0				
Storage Cap Reductn	0								0				
Reduced v/c Ratio	0.53								0.76				

**Intersection Summary**

Area Type: Other	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 7 (12%), Referenced to phase 2:EBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

 2	 8
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Fr <sub>t</sub>		0.954										
Flt Protected											0.995	
Satd. Flow (prot)	0	4851	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4851	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		52									50	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	656	290	0	0	0	0	0	0	140	1297	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										18	13	
Adj. Flow (vph)	0	691	305	0	0	0	0	0	0	147	1365	0
Lane Group Flow (vph)	0	996	0	0	0	0	0	0	0	0	1512	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.67									0.52	
Control Delay		11.6									5.5	
Queue Delay		0.0									0.2	
Total Delay		11.6									5.7	
LOS		B									A	
Approach Delay		11.6									5.7	
Approach LOS		B									A	
Queue Length 50th (ft)		49									31	
Queue Length 95th (ft)		82									39	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1492									2889	
Starvation Cap Reductn		0									482	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.67									0.63	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 12 (20%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.991
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				3								17
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25				25			25
Link Distance (ft)		983			291				327			402
Travel Time (s)		26.8			7.9				8.9			11.0
Volume (vph)	0	0	0	200	996	0	0	0	0	0	2241	141
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												17
Adj. Flow (vph)	0	0	0	220	1095	0	0	0	0	0	2310	145
Lane Group Flow (vph)	0	0	0	220	1095	0	0	0	0	0	2455	0
Turn Type				Split								
Protected Phases				8	8							6
Permitted Phases												
Minimum Split (s)				20.0	20.0							18.0
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)				3.5	3.5							3.5
All-Red Time (s)				0.5	0.5							1.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)				34.0	34.0							50.0
Actuated g/C Ratio				0.38	0.38							0.56
v/c Ratio				0.36	0.87							0.93
Control Delay				10.2	23.3							11.4
Queue Delay				0.0	1.2							1.5
Total Delay				10.2	24.5							12.9
LOS				B	C							B
Approach Delay					22.1							12.9
Approach LOS					C							B
Queue Length 50th (ft)				31	357							72
Queue Length 95th (ft)				m69	m#445							#144
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				610	1258							2635
Starvation Cap Reductn				0	49							75
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0

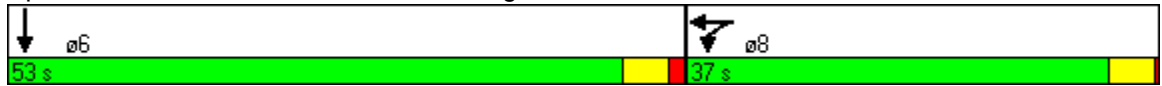


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio				0.36	0.91						0.96	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	32 (36%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	16.1
Intersection LOS:	B
Intersection Capacity Utilization	75.3%
ICU Level of Service	D
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

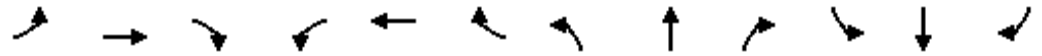
Splits and Phases: 466: Turk St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	0.86	*0.77	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.995				
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5494	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5494	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		12				
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		181			233			320				205
Travel Time (s)		4.9			6.4			8.7				5.6
Volume (vph)	0	0	0	0	912	244	284	2656	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Adj. Flow (vph)	0	0	0	0	950	254	296	2767	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	950	254	0	3063	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	29.0	29.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	32.2%	32.2%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					26.0	26.0		58.0				
Actuated g/C Ratio					0.29	0.29		0.64				
v/c Ratio					0.65	0.55		0.86				
Control Delay					5.6	6.6		3.6				
Queue Delay					0.1	0.0		3.6				
Total Delay					5.7	6.6		7.2				
LOS					A	A		A				
Approach Delay					5.9			7.2				
Approach LOS					A			A				
Queue Length 50th (ft)					16	10		23				
Queue Length 95th (ft)					20	m14		25				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1451	459		3545				
Starvation Cap Reductn					0	0		50				
Spillback Cap Reductn					54	0		397				
Storage Cap Reductn					0	0		0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.68	0.55		0.97				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	8 (9%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	6.8
Intersection LOS:	A
Intersection Capacity Utilization	67.1%
ICU Level of Service	C
Analysis Period (min)	15
* User Entered Value	

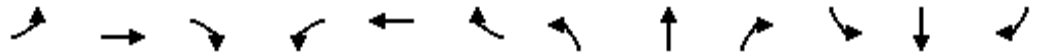
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	90		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.98	
Frt					0.994						0.991	
Flt Protected					0.998							
Satd. Flow (prot)	0	0	0	0	5003	0	0	3135	0	0	2970	0
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	4973	0	0	3135	0	0	2970	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8						1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	38	1083	50	0	1113	0	0	1105	73
Confl. Peds. (#/hr)				187		187	374		374			374
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Parking (#/hr)								6			14	14
Adj. Flow (vph)	0	0	0	41	1177	54	0	1172	0	0	1128	74
Lane Group Flow (vph)	0	0	0	0	1272	0	0	1172	0	0	1202	0
Turn Type				Split								
Protected Phases				4	4			2			6	
Permitted Phases												
Minimum Split (s)				33.0	33.0			48.0			38.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	45.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.76			0.62			0.67	
Control Delay					30.2			4.1			13.4	
Queue Delay					0.0			0.1			0.3	
Total Delay					30.2			4.3			13.7	
LOS					C			A			B	
Approach Delay					30.2			4.3			13.7	
Approach LOS					C			A			B	
Queue Length 50th (ft)					232			42			156	
Queue Length 95th (ft)					286			44			m237	
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)												
Base Capacity (vph)					1673			1881			1782	



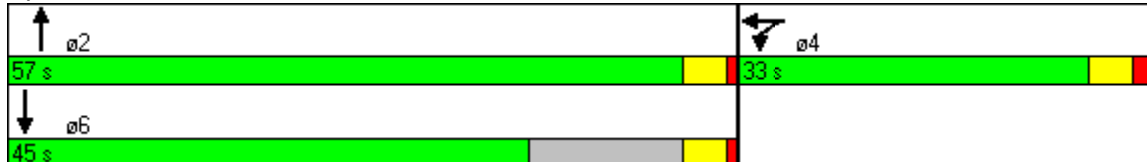
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn					0			101			144	
Spillback Cap Reductn					0			64			2	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.76			0.66			0.73	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	86 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	16.4
Intersection LOS:	B
Intersection Capacity Utilization	65.1%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.991						0.975	
Flt Protected					0.994			0.986				
Satd. Flow (prot)	0	0	0	0	4949	0	0	2082	0	0	2058	0
Flt Permitted					0.994			0.737				
Satd. Flow (perm)	0	0	0	0	4949	0	0	1556	0	0	2058	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22						25	
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	0.85	1.00	1.00	0.85	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	154	1016	79	63	154	0	0	412	92
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Adj. Flow (vph)	0	0	0	162	1069	83	66	162	0	0	434	97
Lane Group Flow (vph)	0	0	0	0	1314	0	0	228	0	0	531	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	28.7	28.7	0.0	31.3	31.3	0.0	0.0	31.3	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.8%	47.8%	0.0%	52.2%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					25.7			28.3			28.3	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.62			0.31			0.54	
Control Delay					7.3			11.1			7.8	
Queue Delay					0.0			0.0			0.5	
Total Delay					7.3			11.1			8.2	
LOS					A			B			A	
Approach Delay					7.3			11.1			8.2	
Approach LOS					A			B			A	
Queue Length 50th (ft)					53			40			65	
Queue Length 95th (ft)					88			82			m107	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2132			734			984	
Starvation Cap Reductn					0			0			145	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.983							
Flt Protected								0.988				
Satd. Flow (prot)	0	0	0	0	4879	0	0	4790	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	4879	0	0	4790	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					39			30				
Headway Factor	1.00	1.00	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	807	104	442	1374	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Adj. Flow (vph)	0	0	0	0	887	114	451	1402	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1001	0	0	1853	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					20.0			34.0				
Actuated g/C Ratio					0.33			0.57				
v/c Ratio					0.61			0.68				
Control Delay					11.5			5.5				
Queue Delay					0.0			0.1				
Total Delay					11.5			5.6				
LOS					B			A				
Approach Delay					11.5			5.6				
Approach LOS					B			A				
Queue Length 50th (ft)					47			65				
Queue Length 95th (ft)					60			80				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1652			2727				
Starvation Cap Reductn					0			179				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.61						0.73					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization	60.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 470: Turk St. & Larkin St.

← ø6	↖ ↗ ø8
23 s	37 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.973
Flt Protected					0.987							
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					55						84	
Headway Factor	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	235	647	0	0	0	0	0	1202	264
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Adj. Flow (vph)	0	0	0	245	674	0	0	0	0	0	1227	269
Lane Group Flow (vph)	0	0	0	0	919	0	0	0	0	0	1496	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.52						0.57	
Control Delay					15.7						13.7	
Queue Delay					0.0						0.4	
Total Delay					15.7						14.1	
LOS					B						B	
Approach Delay					15.7						14.1	
Approach LOS					B						B	
Queue Length 50th (ft)					87						173	
Queue Length 95th (ft)					121						220	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1778						2610	
Starvation Cap Reductn					0						557	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	

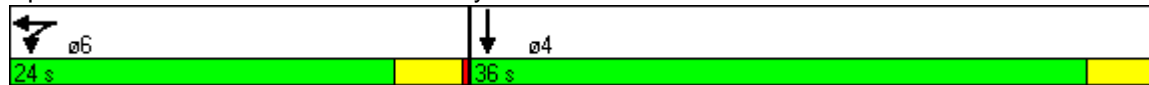


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.52						0.73					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	57 (95%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	14.7
Intersection LOS:	B
Intersection Capacity Utilization	53.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.958									0.994	
Flt Protected					0.987						0.997	
Satd. Flow (prot)	0	1742	0	0	1794	0	0	0	0	0	5040	0
Flt Permitted					0.583						0.997	
Satd. Flow (perm)	0	1742	0	0	1060	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									11	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	246	113	57	161	0	0	0	0	173	2212	91
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	280	128	67	189	0	0	0	0	180	2304	95
Lane Group Flow (vph)	0	408	0	0	256	0	0	0	0	0	2579	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					17.0	17.0	
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0						54.0	
Actuated g/C Ratio		0.33			0.33						0.60	
v/c Ratio		0.70			0.73						0.85	
Control Delay		33.3			23.6						7.0	
Queue Delay		1.1			0.0						1.4	
Total Delay		34.4			23.6						8.4	
LOS		C			C						A	
Approach Delay		34.4			23.6						8.4	
Approach LOS		C			C						A	
Queue Length 50th (ft)		197			33						94	
Queue Length 95th (ft)		294			m61						150	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		584			353						3028	
Starvation Cap Reductn		0			0						256	
Spillback Cap Reductn		52			0						4	
Storage Cap Reductn		0			0						0	

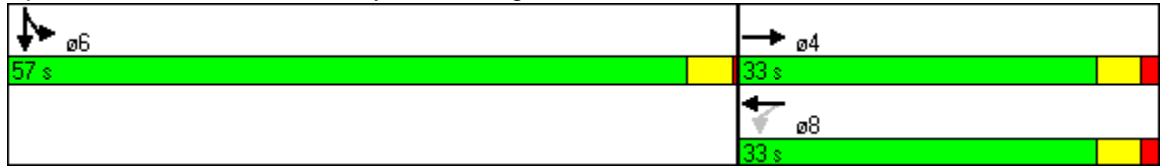


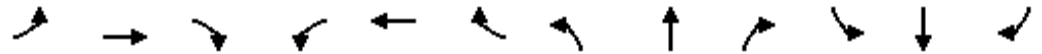
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.77			0.73						0.93		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	23 (26%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	12.9
Intersection LOS:	B
Intersection Capacity Utilization	89.7%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.77	0.86	1.00	1.00	1.00
Frt					0.981			0.992				
Flt Protected		0.993						0.999				
Satd. Flow (prot)	0	1805	0	0	1783	0	0	5686	0	0	0	0
Flt Permitted		0.883						0.999				
Satd. Flow (perm)	0	1605	0	0	1783	0	0	5686	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			17				
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	59	360	0	0	186	31	32	2732	153	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Adj. Flow (vph)	75	456	0	0	235	39	33	2816	158	0	0	0
Lane Group Flow (vph)	0	531	0	0	274	0	0	3007	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		0.88			0.41			0.95				
Control Delay		34.2			14.9			14.5				
Queue Delay		3.9			0.0			6.9				
Total Delay		38.1			14.9			21.3				
LOS		D			B			C				
Approach Delay		38.1			14.9			21.3				
Approach LOS		D			B			C				
Queue Length 50th (ft)		175			65			375				
Queue Length 95th (ft)		#256			m84			#431				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		606			674			3166				
Starvation Cap Reductn		1			0			168				
Spillback Cap Reductn		35			0			75				
Storage Cap Reductn		0			0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.93			0.41			1.00					

**Intersection Summary**

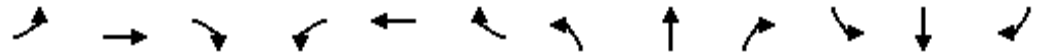
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 23.2      Intersection LOS: C  
 Intersection Capacity Utilization 86.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.97			0.95			0.96	
Frt		0.983			0.984			0.988			0.991	
Flt Protected		0.997			0.997							
Satd. Flow (prot)	0	1783	0	0	1787	0	0	2925	0	0	2913	0
Flt Permitted		0.977			0.953							
Satd. Flow (perm)	0	1737	0	0	1703	0	0	2925	0	0	2913	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			7			14			10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	27	422	64	12	147	21	0	1073	90	0	1102	70
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								8	8		15	15
Adj. Flow (vph)	33	521	79	14	173	25	0	1084	91	0	1102	70
Lane Group Flow (vph)	0	633	0	0	212	0	0	1175	0	0	1172	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.86			0.29			0.78			0.78	
Control Delay		32.2			18.0			7.5			15.8	
Queue Delay		0.9			0.0			0.5			1.5	
Total Delay		33.1			18.0			8.1			17.3	
LOS		C			B			A			B	
Approach Delay		33.1			18.0			8.1			17.3	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		238			75			66			177	
Queue Length 95th (ft)		m294			118			70			169	
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												

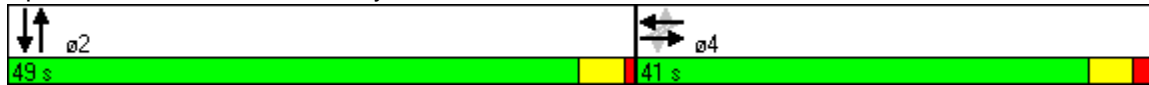


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		737			723			1502			1494	
Starvation Cap Reductn		18			0			82			159	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.88			0.29			0.83			0.88	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 17 (19%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 17.1      Intersection LOS: B  
 Intersection Capacity Utilization 76.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

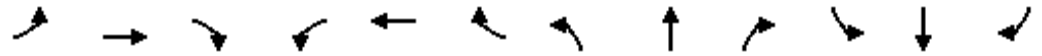
**Splits and Phases: 480: Eddy St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.977			0.969			0.978	
Flt Protected		0.993			0.984			0.996			0.989	
Satd. Flow (prot)	0	1755	0	0	1748	0	0	2005	0	0	2009	0
Flt Permitted		0.945			0.833			0.939			0.875	
Satd. Flow (perm)	0	1670	0	0	1480	0	0	1890	0	0	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			22			34			22	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	70	336	106	39	63	21	21	158	54	138	359	96
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Adj. Flow (vph)	74	354	112	41	66	22	22	166	57	145	378	101
Lane Group Flow (vph)	0	540	0	0	129	0	0	245	0	0	624	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.0			26.0			28.0			28.0	
Actuated g/C Ratio		0.43			0.43			0.47			0.47	
v/c Ratio		0.73			0.20			0.27			0.74	
Control Delay		20.7			0.5			4.6			16.5	
Queue Delay		0.0			0.0			0.0			2.9	
Total Delay		20.7			0.5			4.6			19.3	
LOS		C			A			A			B	
Approach Delay		20.7			0.5			4.6			19.3	
Approach LOS		C			A			A			B	
Queue Length 50th (ft)		146			1			18			184	
Queue Length 95th (ft)		#264			m1			m30			#292	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		740			654			900			841	
Starvation Cap Reductn		0			0			0			124	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	

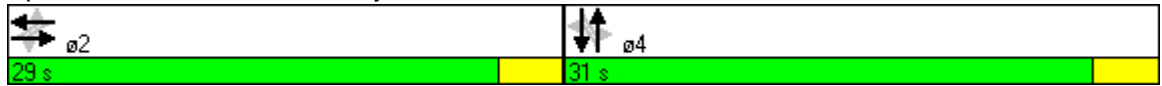


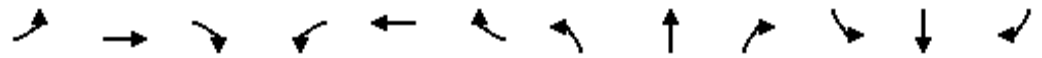
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.73			0.20			0.27			0.87		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 4 (7%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 15.9                      Intersection LOS: B  
 Intersection Capacity Utilization 85.8%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
     Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt								0.983				
Flt Protected		0.992						0.996				
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								45				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		211			283			134			161	
Travel Time (s)		5.8			7.7			3.7			4.4	
Volume (vph)	80	440	0	0	0	0	123	1191	164	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Adj. Flow (vph)	84	463	0	0	0	0	129	1254	173	0	0	0
Lane Group Flow (vph)	0	547	0	0	0	0	0	1556	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2					4	4				
Permitted Phases	2											
Minimum Split (s)	19.0	19.0					19.0	19.0				
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0
Total Split (%)	53.3%	53.3%	0.0%	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5					3.5	3.5				
All-Red Time (s)	0.0	0.0					0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0						25.0				
Actuated g/C Ratio		0.48						0.42				
v/c Ratio		0.61						0.75				
Control Delay		12.0						7.6				
Queue Delay		0.0						0.0				
Total Delay		12.0						7.7				
LOS		B						A				
Approach Delay		12.0						7.7				
Approach LOS		B						A				
Queue Length 50th (ft)		108						111				
Queue Length 95th (ft)		m181						160				
Internal Link Dist (ft)		131			203			54			81	
Turn Bay Length (ft)												
Base Capacity (vph)		893						2087				
Starvation Cap Reductn		0						21				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.61						0.75					

**Intersection Summary**

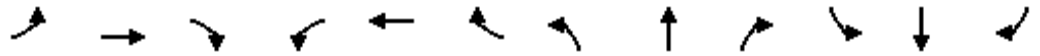
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization:	63.4%
ICU Level of Service:	B
Analysis Period (min):	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.954										
Flt Protected											0.995	
Satd. Flow (prot)	0	4813	0	0	0	0	0	0	0	0	4714	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4813	0	0	0	0	0	0	0	0	4714	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		69										56
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	418	186	0	0	0	0	0	0	127	1280	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Adj. Flow (vph)	0	440	196	0	0	0	0	0	0	134	1347	0
Lane Group Flow (vph)	0	636	0	0	0	0	0	0	0	0	1481	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.51									0.48	
Control Delay		11.1									1.5	
Queue Delay		0.0									0.3	
Total Delay		11.1									1.8	
LOS		B									A	
Approach Delay		11.1									1.8	
Approach LOS		B									A	
Queue Length 50th (ft)		20									9	
Queue Length 95th (ft)		m54									17	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1255									3084	
Starvation Cap Reductn		0									792	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	



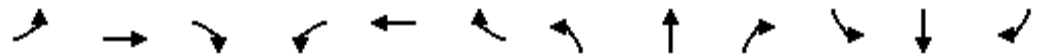
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.51						0.65					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	4.6
Intersection LOS:	A
Intersection Capacity Utilization	46.2%
ICU Level of Service	A
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.



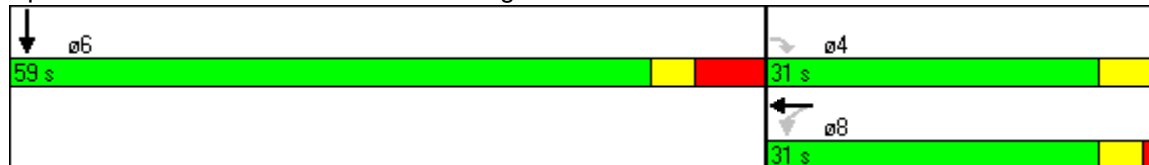


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗↖↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>			0.865								0.998	
Fl <sub>t</sub> Protected				0.950								
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Fl <sub>t</sub> Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			6	6							4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	35	213	316	0	0	0	0	0	2228	31
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)											36	36
Adj. Flow (vph)	0	0	62	266	395	0	0	0	0	0	2345	33
Lane Group Flow (vph)	0	0	62	266	395	0	0	0	0	0	2378	0
Turn Type			custom		Perm							
Protected Phases					8						6	
Permitted Phases			4		8							
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	31.0	31.0	31.0	0.0	0.0	0.0	0.0	0.0	59.0	0.0
Total Split (%)	0.0%	0.0%	34.4%	34.4%	34.4%	0.0%	0.0%	0.0%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			28.0	28.0	28.0						56.0	
Actuated g/C Ratio			0.31	0.31	0.31						0.62	
v/c Ratio			0.12	0.48	0.68						0.83	
Control Delay			21.3	17.2	22.3						5.6	
Queue Delay			0.0	0.0	0.0						0.2	
Total Delay			21.3	17.2	22.3						5.8	
LOS			C	B	C						A	
Approach Delay					20.2						5.8	
Approach LOS					C						A	
Queue Length 50th (ft)			23	52	84						63	
Queue Length 95th (ft)			31	m89	m132						m77	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			505	555	580						2864	
Starvation Cap Reductn			0	0	0						0	
Spillback Cap Reductn			0	0	0						78	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.12	0.48	0.68						0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 21 (23%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 9.2 Intersection LOS: A  
 Intersection Capacity Utilization 68.9% ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 488: Ellis St. & Gough St.





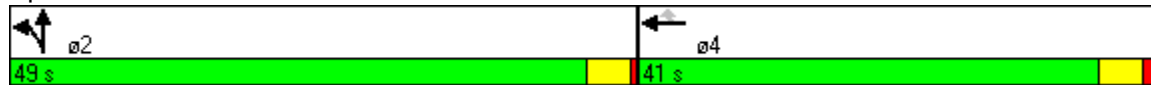


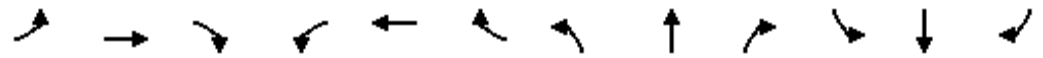
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.81	*0.71	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.998				
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								11				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		478			479			171			185	
Travel Time (s)		13.0			13.1			4.7			5.0	
Volume (vph)	0	0	0	0	433	474	96	2720	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	471	515	102	2894	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	471	515	0	2996	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	41.0	41.0	49.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.6%	45.6%	54.4%	54.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					38.0	38.0		46.0				
Actuated g/C Ratio					0.42	0.42		0.51				
v/c Ratio					0.32	0.77		0.89				
Control Delay					6.0	19.4		6.5				
Queue Delay					0.0	1.9		3.1				
Total Delay					6.0	21.3		9.7				
LOS					A	C		A				
Approach Delay					14.0			9.7				
Approach LOS					B			A				
Queue Length 50th (ft)					28	287		47				
Queue Length 95th (ft)					m38	m#410		m60				
Internal Link Dist (ft)		398			399			91			105	
Turn Bay Length (ft)												
Base Capacity (vph)					1494	668		3379				
Starvation Cap Reductn					0	58		293				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.32	0.84		0.97				

Intersection Summary

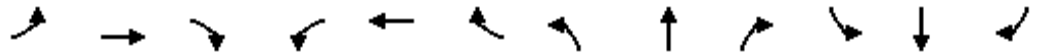
Area Type:	Other		
Cycle Length:	90		
Actuated Cycle Length:	90		
Offset:	33 (37%), Referenced to phase 2:NBTL, Start of Green		
Natural Cycle:	55		
Control Type:	Pretimed		
Maximum v/c Ratio:	0.89		
Intersection Signal Delay:	10.8	Intersection LOS:	B
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		
* User Entered Value			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97						0.94	
Frt					0.984						0.977	
Flt Protected					0.997							
Satd. Flow (prot)	0	0	0	0	4887	0	0	3135	0	0	2824	0
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	4834	0	0	3135	0	0	2824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13						8	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	51	712	90	0	1085	0	0	1096	195
Confl. Peds. (#/hr)				187		187	374		374			374
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Parking (#/hr)								6			14	14
Adj. Flow (vph)	0	0	0	56	782	99	0	1167	0	0	1154	205
Lane Group Flow (vph)	0	0	0	0	937	0	0	1167	0	0	1359	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.57			0.62			0.80	
Control Delay					26.0			4.2			15.8	
Queue Delay					0.1			0.2			1.1	
Total Delay					26.1			4.4			16.9	
LOS					C			A			B	
Approach Delay					26.1			4.4			16.9	
Approach LOS					C			A			B	
Queue Length 50th (ft)					156			36			172	
Queue Length 95th (ft)					199			m76			238	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1638			1881			1698	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn					0			169			0	
Spillback Cap Reductn					70			14			148	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.60			0.68			0.88	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	11 (12%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	15.2
Intersection LOS:	B
Intersection Capacity Utilization:	69.4%
ICU Level of Service:	C
Analysis Period (min):	15

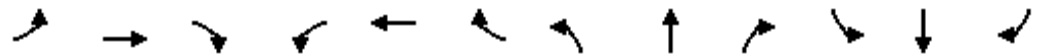
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 490: Ellis St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.979						0.965	
Flt Protected					0.992			0.985				
Satd. Flow (prot)	0	0	0	0	4939	0	0	2046	0	0	2005	0
Flt Permitted					0.992			0.685				
Satd. Flow (perm)	0	0	0	0	4939	0	0	1423	0	0	2005	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					56						47	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	136	621	123	78	171	0	0	447	154
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	143	654	129	82	180	0	0	471	162
Lane Group Flow (vph)	0	0	0	0	926	0	0	262	0	0	633	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	23.2	23.2	0.0	36.8	36.8	0.0	0.0	36.8	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.7%	38.7%	0.0%	61.3%	61.3%	0.0%	0.0%	61.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					20.2			33.8			33.8	
Actuated g/C Ratio					0.34			0.56			0.56	
v/c Ratio					0.54			0.33			0.55	
Control Delay					5.9			9.1			4.2	
Queue Delay					0.0			0.0			0.5	
Total Delay					5.9			9.1			4.6	
LOS					A			A			A	
Approach Delay					5.9			9.1			4.6	
Approach LOS					A			A			A	
Queue Length 50th (ft)					26			54			27	
Queue Length 95th (ft)					32			m94			m74	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1700			802			1150	
Starvation Cap Reductn					0			0			177	
Spillback Cap Reductn					28			0			62	
Storage Cap Reductn					0			0			0	

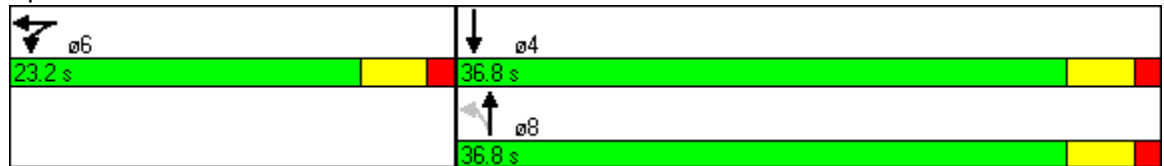


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.55			0.33			0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	41 (68%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization	73.7%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.964							
Flt Protected								0.994				
Satd. Flow (prot)	0	0	0	0	4902	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4902	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					49			58				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	731	232	149	1107	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17	17				
Adj. Flow (vph)	0	0	0	0	769	244	157	1165	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1013	0	0	1322	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.8	0.0	33.2	33.2	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.7%	0.0%	55.3%	55.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					23.8			30.2				
Actuated g/C Ratio					0.40			0.50				
v/c Ratio					0.51			0.55				
Control Delay					8.6			2.4				
Queue Delay					0.0			0.0				
Total Delay					8.6			2.5				
LOS					A			A				
Approach Delay					8.6			2.5				
Approach LOS					A			A				
Queue Length 50th (ft)					36			17				
Queue Length 95th (ft)					54			16				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1974			2416				
Starvation Cap Reductn					0			98				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.51			0.57				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 28 (47%), Referenced to phase 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 5.1

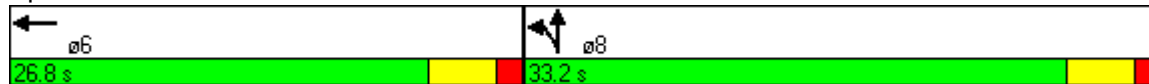
Intersection LOS: A

Intersection Capacity Utilization 50.4%

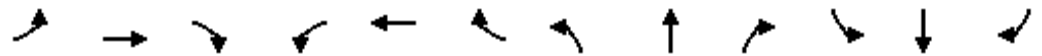
ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 492: Ellis St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.973
Flt Protected					0.989							
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4635	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4635	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					30							108
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	188	692	0	0	0	0	0	1219	271
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)											18	13
Adj. Flow (vph)	0	0	0	198	728	0	0	0	0	0	1283	285
Lane Group Flow (vph)	0	0	0	0	926	0	0	0	0	0	1568	0
Turn Type				Split								
Protected Phases				6	6							4
Permitted Phases												
Minimum Split (s)				28.0	28.0							32.0
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					25.0							29.0
Actuated g/C Ratio					0.42							0.48
v/c Ratio					0.44							0.68
Control Delay					12.9							8.2
Queue Delay					0.0							0.2
Total Delay					12.9							8.4
LOS					B							A
Approach Delay					12.9							8.4
Approach LOS					B							A
Queue Length 50th (ft)					80							95
Queue Length 95th (ft)					110							112
Internal Link Dist (ft)		399			402			259				292
Turn Bay Length (ft)												
Base Capacity (vph)					2113							2296
Starvation Cap Reductn					0							196
Spillback Cap Reductn					0							0
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.44							0.75

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 16 (27%), Referenced to phase 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 10.1

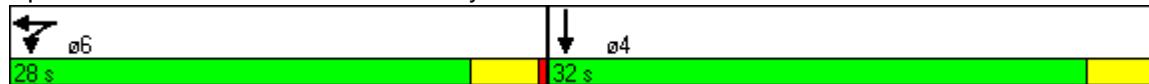
Intersection LOS: B

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑↔				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	*0.71	0.81	1.00	1.00	1.00
Frt								0.986				
Flt Protected		0.987										
Satd. Flow (prot)	0	3305	0	0	0	0	0	6305	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								31				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	357	1043	0	0	0	0	0	2899	295	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	392	1146	0	0	0	0	0	3052	311	0	0	0
Lane Group Flow (vph)	0	1538	0	0	0	0	0	3363	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.07						1.06				
Control Delay		70.2						44.0				
Queue Delay		10.2						0.7				
Total Delay		80.4						44.7				
LOS		F						D				
Approach Delay		80.4						44.7				
Approach LOS		F						D				
Queue Length 50th (ft)		~535						~133				
Queue Length 95th (ft)		#674						#650				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3168				
Starvation Cap Reductn		0						5				
Spillback Cap Reductn		32						0				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	1.10						1.06					

**Intersection Summary**

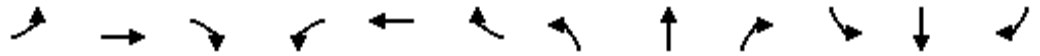
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	42 (47%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	100
Control Type:	Pretimed
Maximum v/c Ratio:	1.07
Intersection Signal Delay:	55.9
Intersection LOS:	E
Intersection Capacity Utilization	83.4%
ICU Level of Service	E
Analysis Period (min)	15
* User Entered Value	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	70		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.99	0.85					0.97				
Frt			0.850					0.988				
Flt Protected		0.997										
Satd. Flow (prot)	0	3529	1583	0	0	0	0	2972	0	0	3135	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3505	1339	0	0	0	0	2972	0	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			29					7				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	85	1140	113	0	0	0	0	1073	92	0	1194	0
Confl. Peds. (#/hr)	101		153						458	458		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Parking (#/hr)								9	9		6	
Adj. Flow (vph)	89	1200	119	0	0	0	0	1084	93	0	1372	0
Lane Group Flow (vph)	0	1289	119	0	0	0	0	1177	0	0	1372	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			6	
Permitted Phases			4									
Minimum Split (s)	34.0	34.0	34.0					42.0			48.0	
Total Split (s)	41.0	41.0	41.0	0.0	0.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	45.6%	0.0%	0.0%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		38.0	38.0					46.0			46.0	
Actuated g/C Ratio		0.42	0.42					0.51			0.51	
v/c Ratio		0.87	0.20					0.77			0.86	
Control Delay		30.8	19.6					7.2			25.0	
Queue Delay		1.5	0.0					0.1			2.2	
Total Delay		32.3	19.6					7.2			27.2	
LOS		C	B					A			C	
Approach Delay		31.2						7.2			27.2	
Approach LOS		C						A			C	
Queue Length 50th (ft)		305	33					70			253	
Queue Length 95th (ft)		m281	m29					113			254	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1490	582					1522			1602	

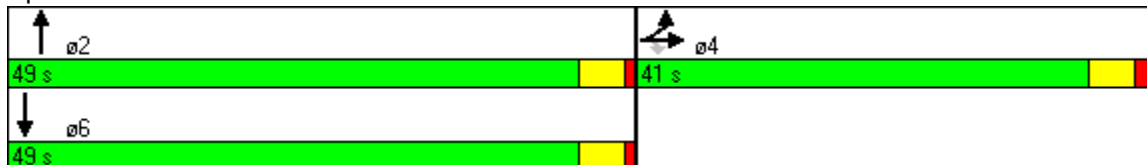


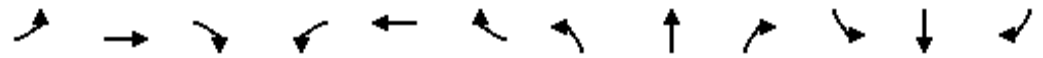
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		80	0					16			123	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.91	0.20					0.78			0.93	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 22.7      Intersection LOS: C  
 Intersection Capacity Utilization 75.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 501: O'Farrell St. & Van Ness Avenue**





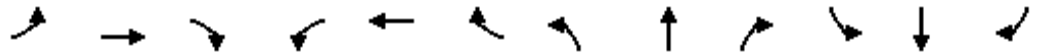
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.932				
Flt Protected		0.994									0.986	
Satd. Flow (prot)	0	3328	1583	0	0	0	0	1936	0	0	2048	0
Flt Permitted		0.994									0.838	
Satd. Flow (perm)	0	3328	1583	0	0	0	0	1936	0	0	1741	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197					45				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	129	974	187	0	0	0	0	108	110	164	414	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	136	1025	197	0	0	0	0	114	116	173	436	0
Lane Group Flow (vph)	0	1161	197	0	0	0	0	230	0	0	609	0
Turn Type	Split		Perm							Perm		
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Minimum Split (s)	21.0	21.0	21.0					19.0		19.0	19.0	
Total Split (s)	29.0	29.0	29.0	0.0	0.0	0.0	0.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.0	26.0					28.0			28.0	
Actuated g/C Ratio		0.43	0.43					0.47			0.47	
v/c Ratio		0.81	0.25					0.25			0.75	
Control Delay		20.4	2.8					5.6			18.9	
Queue Delay		0.0	0.0					0.0			6.1	
Total Delay		20.4	2.8					5.6			25.0	
LOS		C	A					A			C	
Approach Delay		17.9						5.6			25.0	
Approach LOS		B						A			C	
Queue Length 50th (ft)		182	0					33			208	
Queue Length 95th (ft)		258	30					57			m300	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1442	798					927			812	
Starvation Cap Reductn		0	0					0			153	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.967				
Flt Protected		0.994										
Satd. Flow (prot)	0	5055	0	0	0	0	0	4616	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4616	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46						21				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		368			190			196				179
Travel Time (s)		10.0			5.2			5.3				4.9
Volume (vph)	143	1105	0	0	0	0	0	1101	312	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Adj. Flow (vph)	151	1163	0	0	0	0	0	1159	328	0	0	0
Lane Group Flow (vph)	0	1314	0	0	0	0	0	1487	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		24.0						30.0				
Actuated g/C Ratio		0.40						0.50				
v/c Ratio		0.64						0.64				
Control Delay		6.8						7.5				
Queue Delay		0.0						0.2				
Total Delay		6.8						7.8				
LOS		A						A				
Approach Delay		6.8						7.8				
Approach LOS		A						A				
Queue Length 50th (ft)		38						69				
Queue Length 95th (ft)		48						120				
Internal Link Dist (ft)		288			110			116			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2050						2319				
Starvation Cap Reductn		0						237				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				

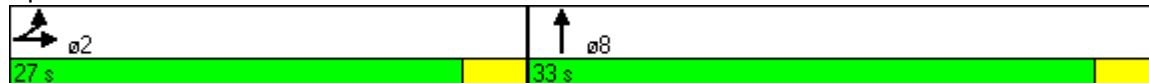


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.64						0.71					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 503: O'Farrell St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Fr <sub>t</sub>			0.850									
Fl <sub>t</sub> Protected											0.991	
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Fl <sub>t</sub> Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			15								46	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1117	300	0	0	0	0	0	0	256	1190	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										13	18	
Adj. Flow (vph)	0	1176	316	0	0	0	0	0	0	269	1253	0
Lane Group Flow (vph)	0	1176	316	0	0	0	0	0	0	0	1522	0
Turn Type			Perm								Split	
Protected Phases		2								4	4	
Permitted Phases			2									
Minimum Split (s)		33.0	33.0							27.0	27.0	
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.66	0.40								0.79	
Control Delay		6.5	5.1								9.6	
Queue Delay		0.0	0.0								0.1	
Total Delay		6.5	5.1								9.7	
LOS		A	A								A	
Approach Delay		6.2									9.7	
Approach LOS		A									A	
Queue Length 50th (ft)		57	26								43	
Queue Length 95th (ft)		71	42								62	
Internal Link Dist (ft)		186			409			292			257	
Turn Bay Length (ft)												
Base Capacity (vph)		1770	799								1916	
Starvation Cap Reductn		0	0								15	
Spillback Cap Reductn		0	0								0	
Storage Cap Reductn		0	0								0	
Reduced v/c Ratio		0.66	0.40								0.80	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 56 (93%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 7.9

Intersection LOS: A

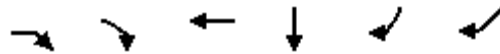
Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 504: O'Farrell St. & Hyde St.





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	9			9	9
Lane Util. Factor	0.64	1.00	0.91	0.91	0.91	1.00
Fr <sub>t</sub>	0.850	0.850		0.978		
Flt Protected						
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		4		12		
Headway Factor	1.00	1.00	1.05	1.00	1.00	1.00
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1093	350	1470	1830	304	0
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Adj. Flow (vph)	1151	368	1547	1906	320	0
Lane Group Flow (vph)	1151	368	1547	2226	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.81	0.50	0.68	0.96		
Control Delay	26.3	19.4	26.4	19.5		
Queue Delay	0.0	0.0	0.4	6.3		
Total Delay	26.3	19.4	26.8	25.9		
LOS	C	B	C	C		
Approach Delay			26.8	25.9		
Approach LOS			C	C		
Queue Length 50th (ft)	281	138	299	359		
Queue Length 95th (ft)	370	219	m350	#545		
Internal Link Dist (ft)			405	265		
Turn Bay Length (ft)						
Base Capacity (vph)	1419	741	2288	2327		
Starvation Cap Reductn	0	0	288	102		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑↑	↑		↑↑↑↑					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	0.81	*0.71	1.00	1.00	1.00	1.00	
Frt	0.850												
Flt Protected	0.992												
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6560	0	0	0	0	
Flt Permitted	0.992												
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6560	0	0	0	0	
Right Turn on Red	Yes							Yes	Yes	Yes			Yes
Satd. Flow (RTOR)							1	21					
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Link Speed (mph)					25				25				
Link Distance (ft)					485				274				
Travel Time (s)					13.2				7.5				
Volume (vph)	0	0	0	0	959	202	511	2821	0	0	0	0	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95	
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0	
Adj. Flow (vph)	0	0	0	0	1031	217	516	2849	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	1031	217	0	3365	0	0	0	0	
Turn Type							Perm	Split					
Protected Phases							4	2	2				
Permitted Phases							4						
Minimum Split (s)					22.0	22.0	22.0	22.0					
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0	
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)					3.5	3.5	3.5	3.5					
All-Red Time (s)					3.0	3.0	3.0	3.0					
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)					32.0	32.0							52.0
Actuated g/C Ratio					0.36	0.36							0.58
v/c Ratio					0.59	0.39							0.89
Control Delay					9.5	9.5							2.9
Queue Delay					0.0	0.0							1.8
Total Delay					9.5	9.5							4.7
LOS					A	A							A
Approach Delay					9.5							4.7	
Approach LOS					A							A	
Queue Length 50th (ft)					51	29							63
Queue Length 95th (ft)					m61	m44							m59
Internal Link Dist (ft)					405				194				90
Turn Bay Length (ft)													
Base Capacity (vph)					1743	563							3799
Starvation Cap Reductn					0	0							278
Spillback Cap Reductn					0	0							39
Storage Cap Reductn					0	0							0
Reduced v/c Ratio					0.59	0.39							0.96

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 64.1%

ICU Level of Service C

Analysis Period (min) 15

\* User Entered Value

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 514: Geary St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	120		0	0		80
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	*0.91	0.95
Ped Bike Factor					0.99	0.78					0.96	
Frt						0.850					0.982	
Flt Protected					0.997							
Satd. Flow (prot)	0	0	0	0	5070	1469	0	3152	0	0	2856	0
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	5021	1152	0	3152	0	0	2856	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						58						5
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.08	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	74	1061	110	0	1158	0	0	1120	156
Confl. Peds. (#/hr)				155		218	329					329
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Adj. Flow (vph)	0	0	0	76	1083	112	0	1170	0	0	1155	161
Lane Group Flow (vph)	0	0	0	0	1159	112	0	1170	0	0	1316	0
Turn Type				Split		Perm						
Protected Phases				4	4			2			6	
Permitted Phases						4						
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					36.0	36.0		48.0			48.0	
Actuated g/C Ratio					0.40	0.40		0.53			0.53	
v/c Ratio					0.57	0.23		0.70			0.86	
Control Delay					22.4	10.7		4.1			16.9	
Queue Delay					0.1	0.0		0.6			1.5	
Total Delay					22.4	10.7		4.6			18.5	
LOS					C	B		A			B	
Approach Delay					21.4			4.6			18.5	
Approach LOS					C			A			B	
Queue Length 50th (ft)					183	19		0			114	
Queue Length 95th (ft)					227	54		m0			#191	
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)												

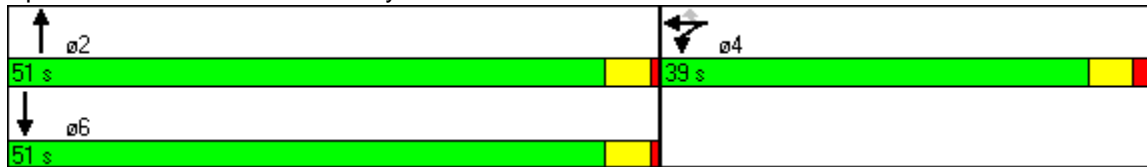


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					2028	496		1681			1526	
Starvation Cap Reductn					0	0		188			0	
Spillback Cap Reductn					95	2		119			88	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.60	0.23		0.78			0.92	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	39 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	15.2
Intersection LOS:	B
Intersection Capacity Utilization	75.8%
ICU Level of Service	D
Analysis Period (min)	15
* User Entered Value	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 515: Geary St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.951	
Flt Protected					0.993			0.989				
Satd. Flow (prot)	0	0	0	0	3325	1583	0	2054	0	0	1976	0
Flt Permitted					0.993			0.548				
Satd. Flow (perm)	0	0	0	0	3325	1583	0	1138	0	0	1976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					50	
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	143	946	104	53	182	0	0	435	246
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	151	996	109	56	192	0	0	458	259
Lane Group Flow (vph)	0	0	0	0	1147	109	0	248	0	0	717	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.80	0.15		0.47			0.76	
Control Delay					14.3	1.9		12.6			12.6	
Queue Delay					0.4	0.0		0.0			1.1	
Total Delay					14.7	1.9		12.6			13.7	
LOS					B	A		B			B	
Approach Delay					13.6			12.6			13.7	
Approach LOS					B			B			B	
Queue Length 50th (ft)					85	0		45			73	
Queue Length 95th (ft)					212	m8		m77			#227	
Internal Link Dist (ft)		394			132			88			90	
Turn Bay Length (ft)												
Base Capacity (vph)					1441	748		531			949	
Starvation Cap Reductn					0	0		0			80	
Spillback Cap Reductn					57	0		0			68	
Storage Cap Reductn					0	0		0			0	

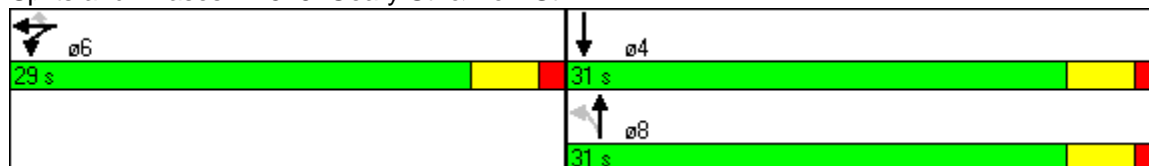


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.83	0.15		0.47			0.83	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	7 (12%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization:	90.7%
ICU Level of Service:	E
Analysis Period (min):	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 516: Geary St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.989				
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						25		117				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		290			195			167			168	
Travel Time (s)		7.9			5.3			4.6			4.6	
Volume (vph)	0	0	0	0	855	282	290	973	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							15	12				
Adj. Flow (vph)	0	0	0	0	900	297	305	1024	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	900	297	0	1329	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.48	0.35		0.73				
Control Delay					4.2	3.6		9.6				
Queue Delay					0.0	0.0		0.0				
Total Delay					4.2	3.6		9.6				
LOS					A	A		A				
Approach Delay					4.0			9.6				
Approach LOS					A			A				
Queue Length 50th (ft)					39	14		123				
Queue Length 95th (ft)					m50	m27		131				
Internal Link Dist (ft)		210			115			87			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1887	856		1820				
Starvation Cap Reductn					0	0		7				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.48	0.35		0.73				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 57 (95%), Referenced to phase 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 7.0

Intersection LOS: A

Intersection Capacity Utilization 55.0%

ICU Level of Service A

Analysis Period (min) 15

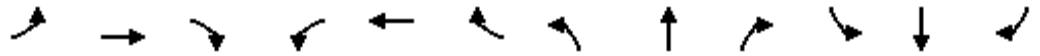
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 517: Geary St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt											0.975	
Flt Protected					0.989							
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4685	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4685	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					25						65	
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		278			479				337		357	
Travel Time (s)		7.6			13.1				9.2		9.7	
Volume (vph)	0	0	0	257	903	0	0	0	0	0	1189	234
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Adj. Flow (vph)	0	0	0	271	951	0	0	0	0	0	1252	246
Lane Group Flow (vph)	0	0	0	0	1222	0	0	0	0	0	1498	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.80						0.70	
Control Delay					18.9						6.6	
Queue Delay					0.0						0.1	
Total Delay					18.9						6.8	
LOS					B						A	
Approach Delay					18.9						6.8	
Approach LOS					B						A	
Queue Length 50th (ft)					184						6	
Queue Length 95th (ft)					261						m20	
Internal Link Dist (ft)		198			399			257			277	
Turn Bay Length (ft)												
Base Capacity (vph)					1532						2144	
Starvation Cap Reductn					0						101	
Spillback Cap Reductn					0						67	
Storage Cap Reductn					0						0	

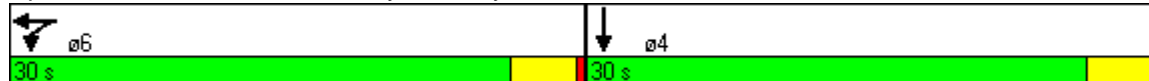


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.80						0.73					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	12.2
Intersection LOS:	B
Intersection Capacity Utilization	67.3%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

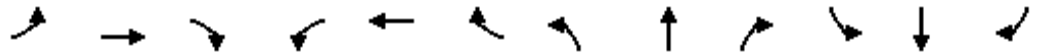
Splits and Phases: 518: Geary St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt		0.969									0.997	
Flt Protected											0.996	
Satd. Flow (prot)	0	3306	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3306	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		9									37	
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	403	104	0	0	0	0	0	0	185	2030	52
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	458	118	0	0	0	0	0	0	193	2115	54
Lane Group Flow (vph)	0	576	0	0	0	0	0	0	0	0	2362	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.54									0.76	
Control Delay		26.8									8.1	
Queue Delay		0.0									1.0	
Total Delay		26.8									9.1	
LOS		C									A	
Approach Delay		26.8									9.1	
Approach LOS		C									A	
Queue Length 50th (ft)		137									106	
Queue Length 95th (ft)		184									163	
Internal Link Dist (ft)		402			412			265			254	
Turn Bay Length (ft)												
Base Capacity (vph)		1071									3101	
Starvation Cap Reductn		0									401	
Spillback Cap Reductn		0									438	
Storage Cap Reductn		0									0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.54						0.89					

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	12.6
Intersection LOS:	B
Intersection Capacity Utilization	65.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	*0.77	1.00	1.00	1.00	1.00
Frt									0.850			
Flt Protected		0.991										
Satd. Flow (prot)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5515	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2							104			
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.05	1.24	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	102	486	0	0	0	0	0	2675	348	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Adj. Flow (vph)	115	546	0	0	0	0	0	2876	374	0	0	0
Lane Group Flow (vph)	0	661	0	0	0	0	0	2876	374	0	0	0
Turn Type	Split								Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	30.7	30.7	0.0	0.0	0.0	0.0	0.0	59.3	59.3	0.0	0.0	0.0
Total Split (%)	34.1%	34.1%	0.0%	0.0%	0.0%	0.0%	0.0%	65.9%	65.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.7						56.3	56.3			
Actuated g/C Ratio		0.31						0.63	0.63			
v/c Ratio		0.63						0.83	0.43			
Control Delay		37.8						4.1	1.2			
Queue Delay		0.0						0.9	0.8			
Total Delay		37.8						4.9	1.9			
LOS		D						A	A			
Approach Delay		37.8						4.6				
Approach LOS		D						A				
Queue Length 50th (ft)		198						51	2			
Queue Length 95th (ft)		247						55	m3			
Internal Link Dist (ft)		412			226			242			97	
Turn Bay Length (ft)												
Base Capacity (vph)		1042						3450	876			
Starvation Cap Reductn		0						286	242			
Spillback Cap Reductn		0						38	0			
Storage Cap Reductn		0						0	0			





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.99	0.85					0.93				
Frt			0.850					0.971				
Flt Protected		0.997										
Satd. Flow (prot)	0	3529	1583	0	0	0	0	2862	0	0	3076	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3494	1345	0	0	0	0	2862	0	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			55					23				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	53	710	71	0	0	0	0	990	236	0	1166	0
Confl. Peds. (#/hr)	149		149						297			
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Parking (#/hr)								3	3		13	
Adj. Flow (vph)	58	780	78	0	0	0	0	1010	241	0	1215	0
Lane Group Flow (vph)	0	838	78	0	0	0	0	1251	0	0	1215	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			2	
Permitted Phases			4									
Minimum Split (s)	34.0	34.0	34.0					48.0			48.0	
Total Split (s)	38.0	38.0	38.0	0.0	0.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	42.2%	0.0%	0.0%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0			1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		35.0	35.0					49.0			49.0	
Actuated g/C Ratio		0.39	0.39					0.54			0.54	
v/c Ratio		0.61	0.14					0.80			0.73	
Control Delay		19.4	8.5					7.7			10.1	
Queue Delay		0.0	0.0					0.2			0.1	
Total Delay		19.4	8.5					7.9			10.1	
LOS		B	A					A			B	
Approach Delay		18.5						7.9			10.1	
Approach LOS		B						A			B	
Queue Length 50th (ft)		133	0					27			93	
Queue Length 95th (ft)		212	m23					38			m155	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1372	557					1569			1675	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0					31			29	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.61	0.14					0.81			0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	48 (53%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	11.6
Intersection LOS:	B
Intersection Capacity Utilization	68.8%
ICU Level of Service	C
Analysis Period (min)	15

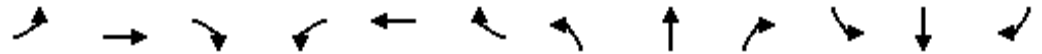
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.955				
Flt Protected		0.993									0.986	
Satd. Flow (prot)	0	3388	1583	0	0	0	0	1984	0	0	1928	0
Flt Permitted		0.993									0.836	
Satd. Flow (perm)	0	3388	1583	0	0	0	0	1984	0	0	1634	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			258					70				
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	95	606	245	0	0	0	0	165	84	161	421	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	100	638	258	0	0	0	0	174	88	169	443	0
Lane Group Flow (vph)	0	738	258	0	0	0	0	262	0	0	612	0
Turn Type	Split		Perm							Perm		
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.65	0.37					0.23			0.66	
Control Delay		20.4	4.1					5.6			11.9	
Queue Delay		0.0	0.0					0.0			2.3	
Total Delay		20.4	4.1					5.6			14.2	
LOS		C	A					A			B	
Approach Delay		16.2						5.6			14.2	
Approach LOS		B						A			B	
Queue Length 50th (ft)		117	0					22			156	
Queue Length 95th (ft)		170	42					47			m260	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1129	700					1155			926	
Starvation Cap Reductn		0	0					0			189	
Spillback Cap Reductn		0	7					0			46	
Storage Cap Reductn		0	0					0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.65	0.37					0.23			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 14.0      Intersection LOS: B  
 Intersection Capacity Utilization 74.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

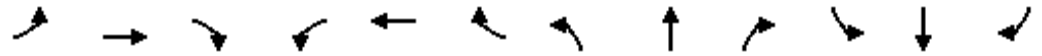
Splits and Phases: 538: Post St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.964				
Flt Protected		0.992										
Satd. Flow (prot)	0	3385	0	0	0	0	0	4633	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4633	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44						112				
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	131	720	0	0	0	0	0	961	303	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Adj. Flow (vph)	138	758	0	0	0	0	0	1012	319	0	0	0
Lane Group Flow (vph)	0	896	0	0	0	0	0	1331	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	29.4	29.4	0.0	0.0	0.0	0.0	0.0	30.6	0.0	0.0	0.0	0.0
Total Split (%)	49.0%	49.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.4						27.6				
Actuated g/C Ratio		0.44						0.46				
v/c Ratio		0.59						0.61				
Control Delay		6.0						5.1				
Queue Delay		0.0						0.1				
Total Delay		6.0						5.2				
LOS		A						A				
Approach Delay		6.0						5.2				
Approach LOS		A						A				
Queue Length 50th (ft)		43						41				
Queue Length 95th (ft)		58						49				
Internal Link Dist (ft)		424			382			103			91	
Turn Bay Length (ft)												
Base Capacity (vph)		1514						2192				
Starvation Cap Reductn		0						151				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				

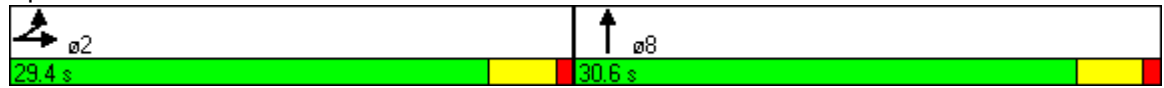


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.59						0.65					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization	55.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									
Flt Protected											0.995	
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			7								37	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	752	271	0	0	0	0	0	0	138	1152	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										18	13	
Adj. Flow (vph)	0	792	285	0	0	0	0	0	0	145	1213	0
Lane Group Flow (vph)	0	792	285	0	0	0	0	0	0	0	1358	0
Turn Type			Perm								Split	
Protected Phases		2								4	4	
Permitted Phases			2									
Minimum Split (s)		37.0	37.0							23.0	23.0	
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		0.5	0.5							0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.40	0.32								0.84	
Control Delay		5.4	5.3								19.9	
Queue Delay		0.0	0.0								0.0	
Total Delay		5.4	5.3								19.9	
LOS		A	A								B	
Approach Delay		5.4									19.9	
Approach LOS		A									B	
Queue Length 50th (ft)		55	34								180	
Queue Length 95th (ft)		77	63								#238	
Internal Link Dist (ft)		382			406			277			272	
Turn Bay Length (ft)												
Base Capacity (vph)		2005	900								1619	
Starvation Cap Reductn		0	0								0	
Spillback Cap Reductn		0	0								0	
Storage Cap Reductn		0	0								0	
Reduced v/c Ratio		0.40	0.32								0.84	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 27 (45%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 52.5%

ICU Level of Service A

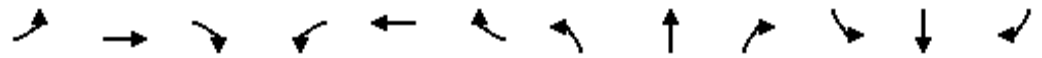
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 540: Post St. & Hyde St.



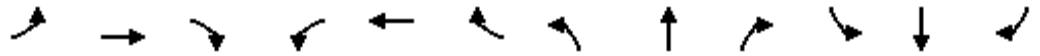


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↘	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>			0.865								0.995	
Fl <sub>t</sub> Protected				0.950								
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Fl <sub>t</sub> Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			9	9							8	
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	126	405	570	0	0	0	0	0	1736	54
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Adj. Flow (vph)	0	0	148	426	600	0	0	0	0	0	1827	57
Lane Group Flow (vph)	0	0	148	426	600	0	0	0	0	0	1884	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	40.2	40.2	40.2	0.0	0.0	0.0	0.0	0.0	49.8	0.0
Total Split (%)	0.0%	0.0%	44.7%	44.7%	44.7%	0.0%	0.0%	0.0%	0.0%	0.0%	55.3%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			37.2	37.2	37.2						46.8	
Actuated g/C Ratio			0.41	0.41	0.41						0.52	
v/c Ratio			0.22	0.58	0.42						0.76	
Control Delay			17.1	5.7	4.5						7.7	
Queue Delay			0.0	0.0	0.0						0.6	
Total Delay			17.1	5.7	4.5						8.3	
LOS			B	A	A						A	
Approach Delay					5.0						8.3	
Approach LOS					A						A	
Queue Length 50th (ft)			50	32	25						81	
Queue Length 95th (ft)			85	m43	m32						90	
Internal Link Dist (ft)		81			419			254			75	
Turn Bay Length (ft)												
Base Capacity (vph)			671	737	1416						2473	
Starvation Cap Reductn			0	0	0						229	
Spillback Cap Reductn			0	0	0						235	
Storage Cap Reductn			0	0	0						0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.86	*0.77	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.997				
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		18				
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		499			297			178				156
Travel Time (s)		13.6			8.1			4.9				4.3
Volume (vph)	0	0	0	0	837	314	138	2546	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Adj. Flow (vph)	0	0	0	0	881	331	141	2598	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	881	331	0	2739	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	34.0	34.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	37.8%	37.8%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					31.0	31.0		53.0				
Actuated g/C Ratio					0.34	0.34		0.59				
v/c Ratio					0.75	0.61		0.84				
Control Delay					8.1	7.5		3.8				
Queue Delay					0.1	0.0		0.5				
Total Delay					8.2	7.5		4.3				
LOS					A	A		A				
Approach Delay					8.0			4.3				
Approach LOS					A			A				
Queue Length 50th (ft)					29	19		20				
Queue Length 95th (ft)					m60	m26		21				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1175	547		3250				
Starvation Cap Reductn					18	0		122				
Spillback Cap Reductn					0	0		165				
Storage Cap Reductn					0	0		0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.76	0.61		0.89				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	63 (70%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	75.0%
ICU Level of Service	D
Analysis Period (min)	15
* User Entered Value	

m Volume for 95th percentile queue is metered by upstream signal.

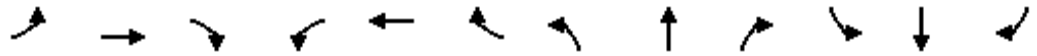
**Splits and Phases: 555: Sutter St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99	0.86					0.97	
Frt						0.850					0.986	
Flt Protected					0.996							
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3179	0
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3179	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						55						8
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.12	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	93	1054	52	0	1010	0	0	970	97
Confl. Peds. (#/hr)				144		144						287
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			3	3
Adj. Flow (vph)	0	0	0	98	1109	55	0	1063	0	0	1021	102
Lane Group Flow (vph)	0	0	0	0	1207	55	0	1063	0	0	1123	0
Turn Type				Split		Perm						
Protected Phases				4	4			2				2
Permitted Phases						4						
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					36.0	36.0		48.0			48.0	
Actuated g/C Ratio					0.40	0.40		0.53			0.53	
v/c Ratio					0.88	0.10		0.62			0.66	
Control Delay					34.5	5.4		4.4			19.2	
Queue Delay					1.3	0.0		0.5			0.4	
Total Delay					35.8	5.4		4.9			19.6	
LOS					D	A		A			B	
Approach Delay					34.5			4.9			19.6	
Approach LOS					C			A			B	
Queue Length 50th (ft)					327	0		31			189	
Queue Length 95th (ft)					#458	22		71			m193	
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					1365	576		1727			1699	
Starvation Cap Reductn					51	0		274			191	
Spillback Cap Reductn					0	2		92			16	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.92	0.10		0.73			0.74	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 20.5      Intersection LOS: C  
 Intersection Capacity Utilization 69.2%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 556: Sutter St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.963	
Flt Protected					0.991			0.990				
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1936	0	0	1883	0
Flt Permitted					0.991			0.700				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1369	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						143					37	
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	237	1014	136	53	205	0	0	345	132
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	249	1067	143	56	216	0	0	363	139
Lane Group Flow (vph)	0	0	0	0	1316	143	0	272	0	0	502	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					31.0	31.0		23.0			23.0	
Actuated g/C Ratio					0.52	0.52		0.38			0.38	
v/c Ratio					0.75	0.16		0.52			0.67	
Control Delay					7.8	0.5		15.8			9.9	
Queue Delay					0.3	0.0		0.1			0.3	
Total Delay					8.2	0.5		15.8			10.3	
LOS					A	A		B			B	
Approach Delay					7.4			15.8			10.3	
Approach LOS					A			B			B	
Queue Length 50th (ft)					70	0		62			41	
Queue Length 95th (ft)					86	m1		m124			m103	
Internal Link Dist (ft)		410			250			97			66	
Turn Bay Length (ft)												
Base Capacity (vph)					1747	887		525			745	
Starvation Cap Reductn					0	0		0			36	
Spillback Cap Reductn					100	0		8			13	
Storage Cap Reductn					0	0		0			0	



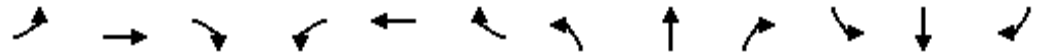


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.987				
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Flt Permitted								0.987				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						65		50				
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		155			270			171				155
Travel Time (s)		4.2			7.4			4.7				4.2
Volume (vph)	0	0	0	0	1091	100	296	802	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Adj. Flow (vph)	0	0	0	0	1148	105	312	844	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1148	105	0	1156	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.67	0.13		0.60				
Control Delay					6.7	0.6		6.5				
Queue Delay					0.0	0.0		0.0				
Total Delay					6.7	0.6		6.5				
LOS					A	A		A				
Approach Delay					6.2			6.5				
Approach LOS					A			A				
Queue Length 50th (ft)					43	0		32				
Queue Length 95th (ft)					63	m0		48				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	824		1927				
Starvation Cap Reductn					0	0		0				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.977
Flt Protected					0.989							
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					18						69	
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		205			492				352		209	
Travel Time (s)		5.6			13.4				9.6		5.7	
Volume (vph)	0	0	0	285	1005	0	0	0	0	0	1005	186
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)												30
Adj. Flow (vph)	0	0	0	300	1058	0	0	0	0	0	1058	196
Lane Group Flow (vph)	0	0	0	0	1358	0	0	0	0	0	1254	0
Turn Type				Split								
Protected Phases				6	6							4
Permitted Phases												
Minimum Split (s)				30.0	30.0							18.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					33.0						21.0	
Actuated g/C Ratio					0.55						0.35	
v/c Ratio					0.73						0.77	
Control Delay					12.9						16.6	
Queue Delay					0.0						0.0	
Total Delay					12.9						16.6	
LOS					B						B	
Approach Delay					12.9						16.6	
Approach LOS					B						B	
Queue Length 50th (ft)					171						162	
Queue Length 95th (ft)					243						207	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1864						1639	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.73						0.77					

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 3 (5%), Referenced to phase 6:WBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

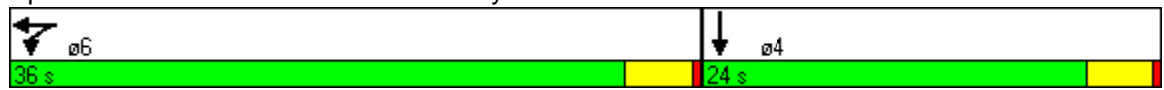
Maximum v/c Ratio: 0.77

Intersection Signal Delay: 14.7                      Intersection LOS: B

Intersection Capacity Utilization 66.3%                      ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 559: Sutter St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.968										
Flt Protected											0.991	
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4746	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4746	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		16										34
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1080	291	0	0	0	0	0	0	304	1420	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Adj. Flow (vph)	0	1137	306	0	0	0	0	0	0	323	1511	0
Lane Group Flow (vph)	0	1443	0	0	0	0	0	0	0	0	1834	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		40.0									44.0	
Actuated g/C Ratio		0.44									0.49	
v/c Ratio		0.69									0.78	
Control Delay		21.8									12.0	
Queue Delay		0.0									0.4	
Total Delay		21.8									12.4	
LOS		C									B	
Approach Delay		21.8									12.4	
Approach LOS		C									B	
Queue Length 50th (ft)		229									129	
Queue Length 95th (ft)		282									205	
Internal Link Dist (ft)		172			417			94			91	
Turn Bay Length (ft)												
Base Capacity (vph)		2106									2338	
Starvation Cap Reductn		0									133	
Spillback Cap Reductn		0									47	
Storage Cap Reductn		0									0	

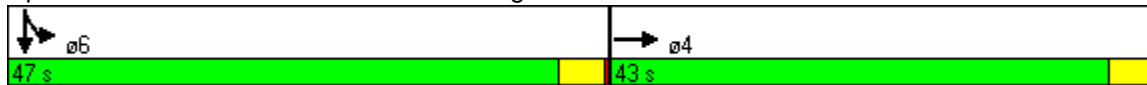


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.69						0.83					

**Intersection Summary**

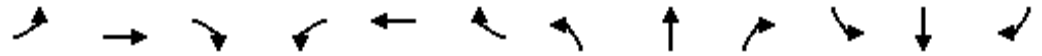
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization	67.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	*0.77	0.86	1.00	1.00	1.00
Frt								0.979				
Flt Protected		0.991										
Satd. Flow (prot)	0	4831	0	0	0	0	0	5617	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	4831	0	0	0	0	0	5617	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						9				
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	264	1120	0	0	0	0	0	2438	390	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Adj. Flow (vph)	275	1167	0	0	0	0	0	2650	424	0	0	0
Lane Group Flow (vph)	0	1442	0	0	0	0	0	3074	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0						54.0				
Actuated g/C Ratio		0.33						0.60				
v/c Ratio		0.89						0.91				
Control Delay		25.8						10.0				
Queue Delay		1.0						12.0				
Total Delay		26.8						22.0				
LOS		C						C				
Approach Delay		26.8						22.0				
Approach LOS		C						C				
Queue Length 50th (ft)		145						126				
Queue Length 95th (ft)		#248						143				
Internal Link Dist (ft)		417			148			104			82	
Turn Bay Length (ft)												
Base Capacity (vph)		1612						3374				
Starvation Cap Reductn		0						92				
Spillback Cap Reductn		48						351				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.92						1.02					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 23.5      Intersection LOS: C  
 Intersection Capacity Utilization 75.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.99						0.97				
Frt		0.992						0.988				
Flt Protected		0.997										
Satd. Flow (prot)	0	4995	0	0	0	0	0	3223	0	0	3362	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	4960	0	0	0	0	0	3223	0	0	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11						1				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.07	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	89	1341	80	0	0	0	0	942	83	0	1008	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)								1	1		0	0
Adj. Flow (vph)	98	1474	88	0	0	0	0	1070	94	0	1145	0
Lane Group Flow (vph)	0	1660	0	0	0	0	0	1164	0	0	1145	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Minimum Split (s)	37.0	37.0						33.0			48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.2	2.2						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0						50.0			50.0	
Actuated g/C Ratio		0.38						0.56			0.56	
v/c Ratio		0.88						0.65			0.61	
Control Delay		20.5						6.5			5.4	
Queue Delay		0.4						1.0			0.1	
Total Delay		20.9						7.5			5.5	
LOS		C						A			A	
Approach Delay		20.9						7.5			5.5	
Approach LOS		C						A			A	
Queue Length 50th (ft)		160						111			42	
Queue Length 95th (ft)		m190						204			m47	
Internal Link Dist (ft)		141			225			106			89	
Turn Bay Length (ft)												
Base Capacity (vph)		1894						1791			1868	



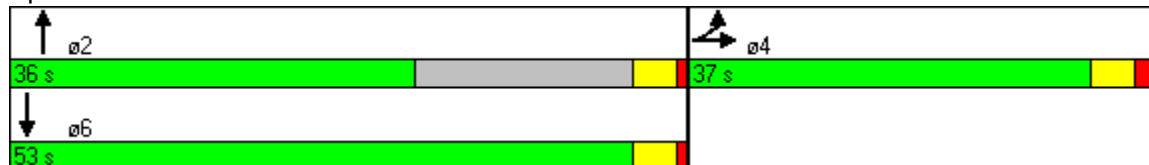
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		42						351			63	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.90						0.81			0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	68.1%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 585: Bush St. & Van Ness Avenue**

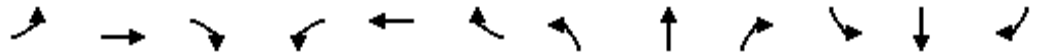




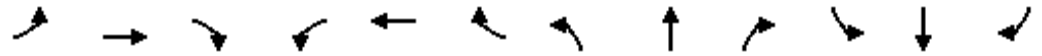
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991						0.974				
Flt Protected		0.998									0.990	
Satd. Flow (prot)	0	4822	0	0	0	0	0	1904	0	0	1936	0
Flt Permitted		0.998									0.862	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1904	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22						15				
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	50	1285	89	0	0	0	0	273	66	99	388	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	53	1353	94	0	0	0	0	287	69	104	408	0
Lane Group Flow (vph)	0	1500	0	0	0	0	0	356	0	0	512	0
Turn Type	Split						Perm					
Protected Phases	2	2						4				4
Permitted Phases										4		
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.8	28.8	0.0	0.0	0.0	0.0	0.0	31.2	0.0	31.2	31.2	0.0
Total Split (%)	48.0%	48.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.0%	0.0%	52.0%	52.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.8						28.2			28.2	
Actuated g/C Ratio		0.43						0.47			0.47	
v/c Ratio		0.72						0.39			0.65	
Control Delay		16.3						8.9			19.2	
Queue Delay		0.0						0.2			4.5	
Total Delay		16.3						9.1			23.6	
LOS		B						A			C	
Approach Delay		16.3						9.1			23.6	
Approach LOS		B						A			C	
Queue Length 50th (ft)		153						48			177	
Queue Length 95th (ft)		202						92			m271	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		2086						903			792	
Starvation Cap Reductn		0						124			205	
Spillback Cap Reductn		0						0			5	
Storage Cap Reductn		0						0			0	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.983	0.850			
Flt Protected		0.996										
Satd. Flow (prot)	0	4856	0	0	0	0	0	3024	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3024	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						25	31			
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.13	1.26	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	118	1332	0	0	0	0	0	573	334	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Adj. Flow (vph)	124	1402	0	0	0	0	0	603	352	0	0	0
Lane Group Flow (vph)	0	1526	0	0	0	0	0	681	274	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.59						0.61	0.59			
Control Delay		2.5						10.6	12.4			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.5						10.6	12.4			
LOS		A						B	B			
Approach Delay		2.5						11.1				
Approach LOS		A						B				
Queue Length 50th (ft)		23						133	96			
Queue Length 95th (ft)		24						184	12			
Internal Link Dist (ft)		216			181			103			10	
Turn Bay Length (ft)												
Base Capacity (vph)		2607						1125	461			
Starvation Cap Reductn		0						0	0			
Spillback Cap Reductn		0						0	0			
Storage Cap Reductn		0						0	0			

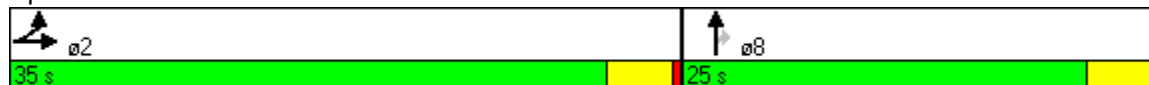


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.59						0.61	0.59			

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.8
Intersection LOS:	A
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.969										
Flt Protected											0.993	
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		35										38
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1302	344	0	0	0	0	0	0	138	847	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Adj. Flow (vph)	0	1371	362	0	0	0	0	0	0	145	892	0
Lane Group Flow (vph)	0	1733	0	0	0	0	0	0	0	0	1037	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.66									0.63	
Control Delay		5.3									10.8	
Queue Delay		0.0									0.0	
Total Delay		5.3									10.8	
LOS		A									B	
Approach Delay		5.3									10.8	
Approach LOS		A									B	
Queue Length 50th (ft)		57									36	
Queue Length 95th (ft)		69									47	
Internal Link Dist (ft)		160			385			52			237	
Turn Bay Length (ft)												
Base Capacity (vph)		2614									1634	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.66						0.63					

**Intersection Summary**

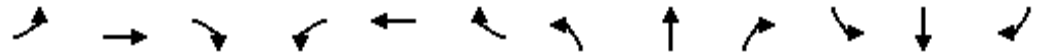
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	58.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↑↑↑					↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.982
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4686	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4686	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				16							14	
Headway Factor	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	376	1487	0	0	0	0	0	1292	172
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Adj. Flow (vph)	0	0	0	396	1565	0	0	0	0	0	1374	183
Lane Group Flow (vph)	0	0	0	396	1565	0	0	0	0	0	1557	0
Turn Type				Split								
Protected Phases				8	8							6
Permitted Phases												
Minimum Split (s)				20.0	20.0							20.0
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.45	0.66						0.74	
Control Delay				3.8	4.3						10.1	
Queue Delay				0.0	0.1						1.2	
Total Delay				3.8	4.4						11.3	
LOS				A	A						B	
Approach Delay					4.3						11.3	
Approach LOS					A						B	
Queue Length 50th (ft)				24	43						64	
Queue Length 95th (ft)				m31	m54						75	
Internal Link Dist (ft)		169			423			88			273	
Turn Bay Length (ft)												
Base Capacity (vph)				874	2383						2090	
Starvation Cap Reductn				0	132						296	
Spillback Cap Reductn				0	0						0	
Storage Cap Reductn				0	0						0	

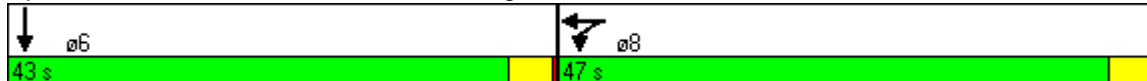


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio				0.45	0.70						0.87	

**Intersection Summary**

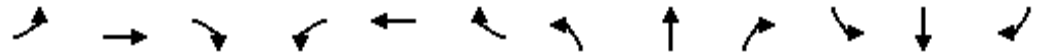
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	82 (91%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization	74.9%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 612: Pine St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.86	0.86	0.86	*0.77	1.00	1.00	1.00	1.00
Frt					0.971							
Flt Protected								0.995				
Satd. Flow (prot)	0	0	0	0	6029	0	0	5452	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5452	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			452			172				192
Travel Time (s)		13.7			12.3			4.7				5.2
Volume (vph)	0	0	0	0	1600	379	263	2397	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Adj. Flow (vph)	0	0	0	0	1928	457	280	2550	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2385	0	0	2830	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					37.0			47.0				
Actuated g/C Ratio					0.41			0.52				
v/c Ratio					0.96			0.99				
Control Delay					17.6			21.6				
Queue Delay					0.1			22.4				
Total Delay					17.7			44.0				
LOS					B			D				
Approach Delay					17.7			44.0				
Approach LOS					B			D				
Queue Length 50th (ft)					84			153				
Queue Length 95th (ft)					109			#617				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2479			2848				
Starvation Cap Reductn					3			179				
Spillback Cap Reductn					0			12				
Storage Cap Reductn					0			0				

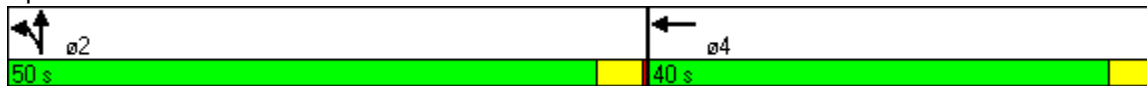


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.96						1.06					

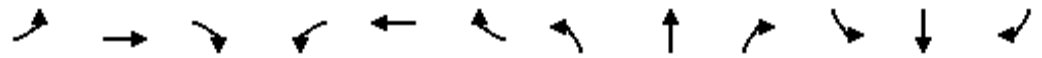
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 32.0      Intersection LOS: C  
 Intersection Capacity Utilization 74.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

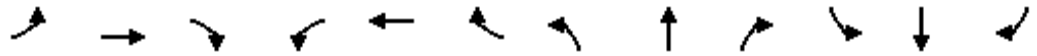
Splits and Phases: 613: Pine St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ↑ ↑ →			↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	115		0	0		70
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor					0.99							0.66
Frt					0.991							0.850
Flt Protected					0.998							
Satd. Flow (prot)	0	0	0	0	6284	0	0	3345	0	0	3193	1280
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	6254	0	0	3345	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.14	1.31
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	75	1768	124	0	998	0	0	964	211
Confl. Peds. (#/hr)				139		139	277					277
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								2			8	8
Adj. Flow (vph)	0	0	0	79	1861	131	0	1051	0	0	1015	222
Lane Group Flow (vph)	0	0	0	0	2071	0	0	1051	0	0	1015	222
Turn Type				Split								Perm
Protected Phases				8	8			2			6	
Permitted Phases												6
Minimum Split (s)				36.0	36.0			48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	54.0	0.0	0.0	44.0	44.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	60.0%	0.0%	0.0%	48.9%	48.9%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.2	2.2			1.0			1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					33.0			51.0			51.0	51.0
Actuated g/C Ratio					0.37			0.57			0.57	0.57
v/c Ratio					0.89			0.55			0.56	0.46
Control Delay					32.9			5.2			11.0	11.9
Queue Delay					0.0			0.2			0.3	0.0
Total Delay					32.9			5.4			11.3	11.9
LOS					C			A			B	B
Approach Delay					32.9			5.4			11.4	
Approach LOS					C			A			B	
Queue Length 50th (ft)					315			41			109	44
Queue Length 95th (ft)					368			m86			143	m68
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)												70



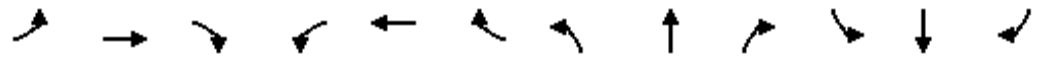
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					2316			1896			1809	482
Starvation Cap Reductn					0			234			292	0
Spillback Cap Reductn					0			0			0	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.89			0.63			0.67	0.46

**Intersection Summary**

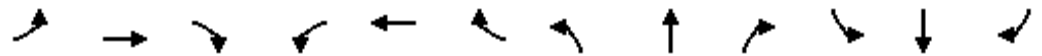
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	61 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	20.2
Intersection LOS:	C
Intersection Capacity Utilization	63.5%
ICU Level of Service	B
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993						0.962	
Flt Protected					0.998			0.992				
Satd. Flow (prot)	0	0	0	0	6153	0	0	1939	0	0	1881	0
Flt Permitted					0.998			0.796				
Satd. Flow (perm)	0	0	0	0	6153	0	0	1556	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						3	
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	82	1739	85	52	271	0	0	376	146
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	86	1831	89	55	285	0	0	396	154
Lane Group Flow (vph)	0	0	0	0	2006	0	0	340	0	0	550	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					26.0			28.0			28.0	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.75			0.47			0.63	
Control Delay					8.4			15.7			10.4	
Queue Delay					0.1			0.8			0.4	
Total Delay					8.5			16.5			10.8	
LOS					A			B			B	
Approach Delay					8.5			16.5			10.8	
Approach LOS					A			B			B	
Queue Length 50th (ft)					93			113			60	
Queue Length 95th (ft)					107			m188			145	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2677			726			879	
Starvation Cap Reductn					0			163			67	
Spillback Cap Reductn					79			0			70	
Storage Cap Reductn					0			0			0	

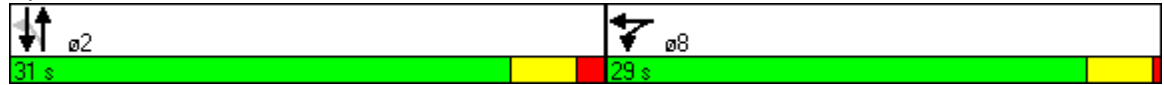


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.77			0.60			0.68	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 8:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization:	83.7%
ICU Level of Service:	E
Analysis Period (min):	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.86	0.86	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.984							
Flt Protected								0.979				
Satd. Flow (prot)	0	0	0	0	6110	0	0	3144	0	0	0	0
Flt Permitted								0.979				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3144	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					78			16				
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.13	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		490			280			167				363
Travel Time (s)		13.4			7.6			4.6				9.9
Volume (vph)	0	0	0	0	1608	193	298	397	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Adj. Flow (vph)	0	0	0	0	1693	203	314	418	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1896	0	0	732	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.56			0.66				
Control Delay					4.2			6.6				
Queue Delay					0.0			0.0				
Total Delay					4.2			6.6				
LOS					A			A				
Approach Delay					4.2			6.6				
Approach LOS					A			A				
Queue Length 50th (ft)					43			28				
Queue Length 95th (ft)					51			39				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3396			1111				
Starvation Cap Reductn					0			3				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				



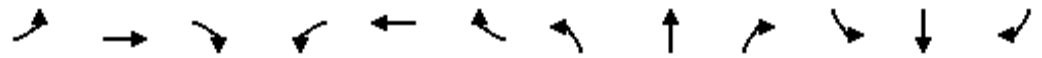
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.56						0.66					

**Intersection Summary**

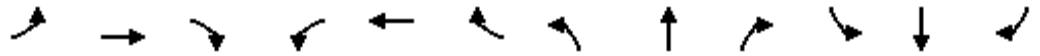
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	39 (65%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	4.9
Intersection LOS:	A
Intersection Capacity Utilization	52.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.967
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4478	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4478	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					84						11	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	252	1592	0	0	0	0	0	733	209
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Adj. Flow (vph)	0	0	0	265	1676	0	0	0	0	0	772	220
Lane Group Flow (vph)	0	0	0	0	1941	0	0	0	0	0	992	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.60						0.55	
Control Delay					11.2						15.1	
Queue Delay					0.0						0.0	
Total Delay					11.2						15.1	
LOS					B						B	
Approach Delay					11.2						15.1	
Approach LOS					B						B	
Queue Length 50th (ft)					127						95	
Queue Length 95th (ft)					161						131	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3224						1798	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	

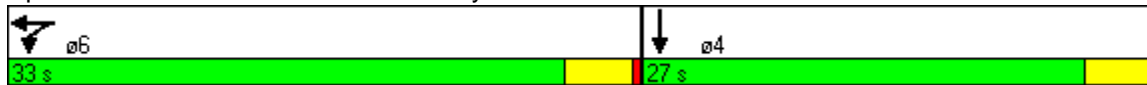


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.60						0.55					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	35 (58%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	52.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.





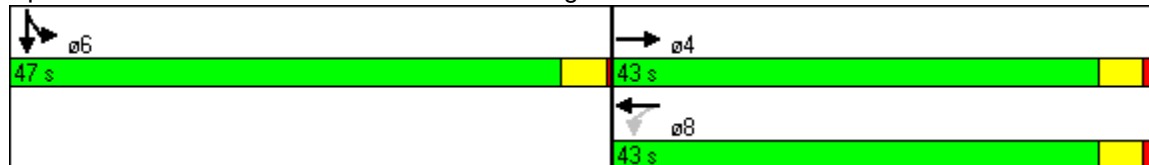


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Fr <sub>t</sub>		0.977									0.994	
Fl <sub>t</sub> Protected					0.989						0.997	
Satd. Flow (prot)	0	3458	0	0	3500	0	0	0	0	0	3507	0
Fl <sub>t</sub> Permitted					0.607						0.997	
Satd. Flow (perm)	0	3458	0	0	2148	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29									6	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	540	97	155	563	0	0	0	0	73	1212	49
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Parking (#/hr)										14		14
Adj. Flow (vph)	0	587	105	180	655	0	0	0	0	78	1303	53
Lane Group Flow (vph)	0	692	0	0	835	0	0	0	0	0	1434	0
Turn Type			Perm								Split	
Protected Phases		4			8					6		6
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					25.0	25.0	
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		40.0			40.0						44.0	
Actuated g/C Ratio		0.44			0.44						0.49	
v/c Ratio		0.45			0.87						0.83	
Control Delay		17.6			36.5						27.4	
Queue Delay		0.0			0.0						28.5	
Total Delay		17.6			36.5						55.9	
LOS		B			D						E	
Approach Delay		17.6			36.5						55.9	
Approach LOS		B			D						E	
Queue Length 50th (ft)		132			168						428	
Queue Length 95th (ft)		180			m184						m455	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1553			955						1718	
Starvation Cap Reductn		0			0						356	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.45			0.87						1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 41.5                      Intersection LOS: D  
 Intersection Capacity Utilization 85.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 639: California St. & Gough St.



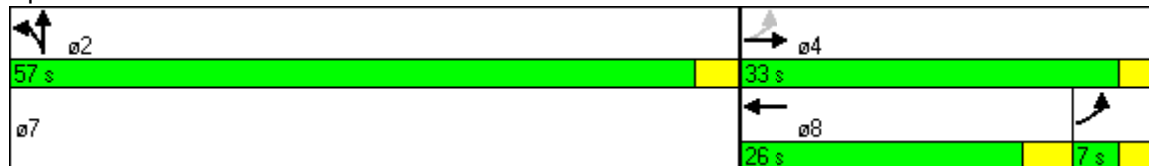


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.86	*0.77	0.86	1.00	1.00	1.00
Flt					0.983			0.993				
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	5691	0	0	0	0
Flt Permitted	0.154							0.999				
Satd. Flow (perm)	287	3539	0	0	3479	0	0	5691	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			18				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		518			441			167				346
Travel Time (s)		14.1			12.0			4.6				9.4
Volume (vph)	92	521	0	0	638	84	80	2562	134	0	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Parking (#/hr)									17			
Adj. Flow (vph)	108	613	0	0	751	99	94	3014	158	0	0	0
Lane Group Flow (vph)	108	613	0	0	850	0	0	3266	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	7.0	33.0	0.0	0.0	26.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	7.8%	36.7%	0.0%	0.0%	28.9%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Act Effct Green (s)	30.0	30.0			23.0		54.0	54.0				
Actuated g/C Ratio	0.33	0.33			0.26		0.60	0.60				
v/c Ratio	0.67	0.52			0.94		0.95	0.95				
Control Delay	39.8	13.5			41.1		9.8	9.8				
Queue Delay	0.0	0.0			0.0		6.5	6.5				
Total Delay	39.8	13.5			41.1		16.3	16.3				
LOS	D	B			D		B	B				
Approach Delay		17.4			41.1		16.3	16.3				
Approach LOS		B			D		B	B				
Queue Length 50th (ft)	19	55			125		126	126				
Queue Length 95th (ft)	m#72	m66			#313		126	126				
Internal Link Dist (ft)		438			361		87	87			266	
Turn Bay Length (ft)												
Base Capacity (vph)	162	1180			900		3422	3422				
Starvation Cap Reductn	0	0			0		166	166				
Spillback Cap Reductn	0	0			0		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.67	0.52			0.94		1.00	1.00				

**Intersection Summary**

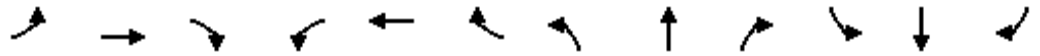
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 72 (80%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 85	
Control Type: Pretimed	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	
* User Entered Value	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 640: California St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		110	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.98			0.96			0.97	
Frt		0.977			0.983			0.985			0.986	
Flt Protected		0.998			0.997							
Satd. Flow (prot)	0	3352	0	0	3358	0	0	3169	0	0	2983	0
Flt Permitted		0.897			0.835							
Satd. Flow (perm)	0	3009	0	0	2805	0	0	3169	0	0	2983	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			14			22			20	
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.08	1.00	1.00	1.18	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	23	534	98	39	612	82	0	1007	115	0	1038	110
Confl. Peds. (#/hr)	157		186	186		157			357			210
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								3	3		28	28
Adj. Flow (vph)	26	614	113	43	673	90	0	1038	119	0	1104	117
Lane Group Flow (vph)	0	753	0	0	806	0	0	1157	0	0	1221	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5			42.5	
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	0.0	53.0	0.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	58.9%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2			1.2	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0			34.0			50.0			50.0	
Actuated g/C Ratio		0.38			0.38			0.56			0.56	
v/c Ratio		0.65			0.75			0.65			0.73	
Control Delay		13.8			29.4			5.4			6.7	
Queue Delay		0.0			0.0			0.0			0.2	
Total Delay		13.8			29.4			5.4			6.9	
LOS		B			C			A			A	
Approach Delay		13.8			29.4			5.4			6.9	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)		64			202			44			60	
Queue Length 95th (ft)		m96			275			m61			93	
Internal Link Dist (ft)		361			163			282			265	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		1153			1068			1770			1666	
Starvation Cap Reductn		0			0			1			69	
Spillback Cap Reductn		0			0			23			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.65			0.75			0.66			0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	12.4
Intersection LOS:	B
Intersection Capacity Utilization	88.6%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**

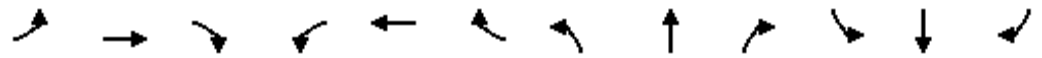




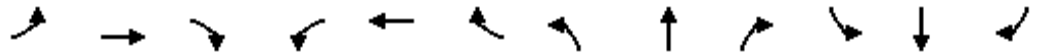
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.983			0.982			0.979	
Flt Protected								0.997			0.994	
Satd. Flow (prot)	0	3364	0	0	3409	0	0	1914	0	0	1903	0
Flt Permitted								0.965			0.921	
Satd. Flow (perm)	0	3364	0	0	3409	0	0	1853	0	0	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			26			20			22	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	519	130	0	672	85	20	288	48	66	392	83
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Adj. Flow (vph)	0	546	137	0	707	89	21	303	51	69	413	87
Lane Group Flow (vph)	0	683	0	0	796	0	0	375	0	0	569	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	26.0	0.0	0.0	26.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		23.0			23.0			31.0			31.0	
Actuated g/C Ratio		0.38			0.38			0.52			0.52	
v/c Ratio		0.51			0.60			0.39			0.62	
Control Delay		14.5			11.7			6.8			9.8	
Queue Delay		0.0			0.0			0.0			0.4	
Total Delay		14.5			11.7			6.8			10.2	
LOS		B			B			A			B	
Approach Delay		14.5			11.7			6.8			10.2	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		86			45			15			92	
Queue Length 95th (ft)		131			105			m97			109	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1327			1323			967			922	
Starvation Cap Reductn		0			0			0			81	
Spillback Cap Reductn		0			0			0			4	
Storage Cap Reductn		0			0			0			0	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996			0.958				0.850
Flt Protected		0.998					0.950			0.950		
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1785	0	1770	0	1290
Flt Permitted		0.908					0.950			0.338		
Satd. Flow (perm)	0	3149	0	0	3455	0	1770	1785	0	630	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			49				58
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.30
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	27	606	0	0	622	16	89	362	139	67	0	46
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Adj. Flow (vph)	29	645	0	0	749	19	95	385	148	84	0	58
Lane Group Flow (vph)	0	674	0	0	768	0	95	533	0	84	0	58
Turn Type	Perm						Perm		custom			custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	0.0	35.0
Total Split (%)	41.7%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	0.0%	58.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		22.0			22.0		32.0	32.0		32.0		32.0
Actuated g/C Ratio		0.37			0.37		0.53	0.53		0.53		0.53
v/c Ratio		0.58			0.60		0.10	0.55		0.25		0.08
Control Delay		15.1			17.8		3.5	5.2		10.0		2.6
Queue Delay		0.0			0.0		0.0	0.1		0.0		0.0
Total Delay		15.1			17.8		3.5	5.2		10.0		2.6
LOS		B			B		A	A		B		A
Approach Delay		15.1			17.8			5.0				
Approach LOS		B			B			A				
Queue Length 50th (ft)		57			114		9	54		15		0
Queue Length 95th (ft)		114			147		m13	0		33		11
Internal Link Dist (ft)		412			61			283				587
Turn Bay Length (ft)												
Base Capacity (vph)		1155			1270		944	975		336		715
Starvation Cap Reductn		0			0		0	37		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.58			0.60		0.10	0.57		0.25		0.08

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization	77.8%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 643: California St. & Larkin St.

← ø2	↖ ø4
25 s	35 s
→ ø6	↗ ø8
25 s	35 s

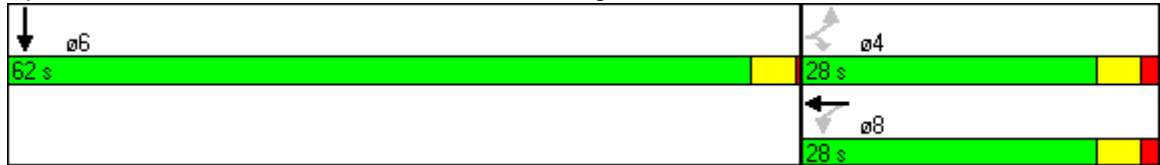


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>			0.850		0.987						0.993	
Fl <sub>t</sub> Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1839	0	0	0	0	0	1535	0
Fl <sub>t</sub> Permitted	0.301			0.950								
Satd. Flow (perm)	561	0	1583	1770	1839	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			163	180	5						6	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.27	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	77	0	114	339	268	26	0	0	0	0	881	49
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Parking (#/hr)											14	14
Adj. Flow (vph)	110	0	163	381	301	29	0	0	0	0	899	50
Lane Group Flow (vph)	110	0	163	381	330	0	0	0	0	0	949	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	28.0	0.0	28.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	62.0	0.0
Total Split (%)	31.1%	0.0%	31.1%	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	25.0		25.0	25.0	25.0						59.0	
Actuated g/C Ratio	0.28		0.28	0.28	0.28						0.66	
v/c Ratio	0.71		0.29	0.61	0.64						0.94	
Control Delay	55.9		5.8	6.0	13.3						25.9	
Queue Delay	0.0		1.1	29.7	0.0						40.5	
Total Delay	55.9		6.9	35.7	13.3						66.3	
LOS	E		A	D	B						E	
Approach Delay					25.3						66.3	
Approach LOS					C						E	
Queue Length 50th (ft)	56		0	0	64						208	
Queue Length 95th (ft)	86		19	m0	m92						#753	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	156		557	622	514						1008	
Starvation Cap Reductn	0		0	0	0						0	
Spillback Cap Reductn	0		223	249	0						138	
Storage Cap Reductn	0		0	0	0						0	
Reduced v/c Ratio	0.71		0.49	1.02	0.64						1.09	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 45.6                      Intersection LOS: D  
 Intersection Capacity Utilization 85.2%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 659: Sacramento St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00	1.00	1.00	1.00
Frt					0.970							
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3433	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3433	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					3		53					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			230			346				331
Travel Time (s)		13.9			6.3			9.4				9.0
Volume (vph)	0	0	0	0	553	137	80	2658	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Parking (#/hr)								15				
Adj. Flow (vph)	0	0	0	0	601	149	86	2858	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	750	0	86	2858	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					24.0		60.0	60.0				
Actuated g/C Ratio					0.27		0.67	0.67				
v/c Ratio					0.82		0.07	0.90				
Control Delay					24.9		0.0	3.5				
Queue Delay					0.0		0.0	1.6				
Total Delay					24.9		0.0	5.1				
LOS					C		A	A				
Approach Delay					24.9			4.9				
Approach LOS					C			A				
Queue Length 50th (ft)					217		0	41				
Queue Length 95th (ft)					#292		m0	m35				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					918		1198	3193				
Starvation Cap Reductn					0		0	182				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					0.82		0.07	0.95				

**Intersection Summary**

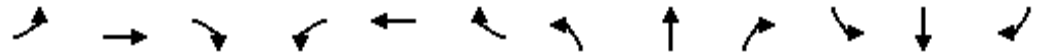
Area Type: Other  
Cycle Length: 90  
Actuated Cycle Length: 90  
Offset: 78 (87%), Referenced to phase 2:NBTL, Start of Green  
Natural Cycle: 70  
Control Type: Pretimed  
Maximum v/c Ratio: 0.90  
Intersection Signal Delay: 9.0 Intersection LOS: A  
Intersection Capacity Utilization 77.7% ICU Level of Service D  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97						0.98	
Frt					0.982						0.983	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	3224	0	0	3150	0	0	3066	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	3166	0	0	3150	0	0	3066	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20						23	
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.16	1.00	1.00	1.14	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	103	557	90	0	1112	0	0	1045	133
Confl. Peds. (#/hr)				143		141	85					85
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Adj. Flow (vph)	0	0	0	107	580	94	0	1146	0	0	1100	140
Lane Group Flow (vph)	0	0	0	0	781	0	0	1146	0	0	1240	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Minimum Split (s)				35.0	35.0			42.5			42.5	
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.7			0.7	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					36.0			48.0			48.0	
Actuated g/C Ratio					0.40			0.53			0.53	
v/c Ratio					0.60			0.68			0.75	
Control Delay					23.1			12.6			14.0	
Queue Delay					0.0			0.2			0.6	
Total Delay					23.1			12.8			14.6	
LOS					C			B			B	
Approach Delay					23.1			12.8			14.6	
Approach LOS					C			B			B	
Queue Length 50th (ft)					175			126			129	
Queue Length 95th (ft)					236			146			210	
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					1302			1680			1646	
Starvation Cap Reductn					0			91			132	
Spillback Cap Reductn					0			98			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.60			0.72			0.82	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	69 (77%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	16.0
Intersection LOS:	B
Intersection Capacity Utilization	64.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 661: Sacramento St. & Van Ness Avenue







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993						0.958	
Flt Protected					0.993			0.996				
Satd. Flow (prot)	0	0	0	0	3490	0	0	1947	0	0	1873	0
Flt Permitted					0.993			0.927				
Satd. Flow (perm)	0	0	0	0	3490	0	0	1812	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						62	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	91	516	30	32	341	0	0	450	202
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	96	543	32	34	359	0	0	474	213
Lane Group Flow (vph)	0	0	0	0	671	0	0	393	0	0	687	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.57			0.38			0.63	
Control Delay					18.6			10.7			7.9	
Queue Delay					0.0			0.2			0.1	
Total Delay					18.6			10.9			8.0	
LOS					B			B			A	
Approach Delay					18.6			10.9			8.0	
Approach LOS					B			B			A	
Queue Length 50th (ft)					101			83			69	
Queue Length 95th (ft)					148			100			135	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1169			1027			1088	
Starvation Cap Reductn					0			152			37	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	

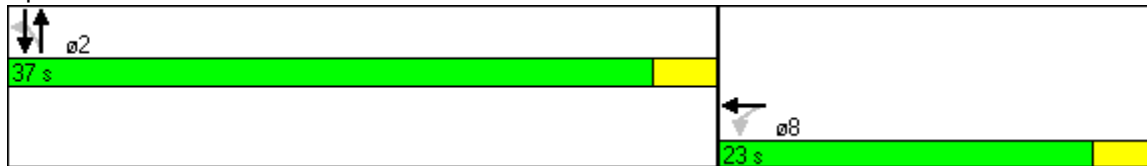


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.57			0.45			0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	13 (22%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization	69.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 662: Sacramento St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.881			0.988				
Flt Protected		0.989						0.999				
Satd. Flow (prot)	0	1695	0	0	1510	0	0	5019	0	0	0	0
Flt Permitted		0.933						0.999				
Satd. Flow (perm)	0	1599	0	0	1510	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			38				
Headway Factor	1.00	1.11	1.00	1.00	1.11	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	14	52	0	0	17	124	34	2539	222	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Adj. Flow (vph)	15	55	0	0	18	131	36	2673	234	0	0	0
Lane Group Flow (vph)	0	70	0	0	149	0	0	2943	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	23.5	23.5	0.0	0.0	23.5	0.0	66.5	66.5	0.0	0.0	0.0	0.0
Total Split (%)	26.1%	26.1%	0.0%	0.0%	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		20.5			20.5			63.5				
Actuated g/C Ratio		0.23			0.23			0.71				
v/c Ratio		0.19			0.43			0.83				
Control Delay		38.3			41.4			1.7				
Queue Delay		0.0			0.0			0.4				
Total Delay		38.3			41.4			2.1				
LOS		D			D			A				
Approach Delay		38.3			41.4			2.1				
Approach LOS		D			D			A				
Queue Length 50th (ft)		37			90			30				
Queue Length 95th (ft)		m53			m121			28				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		364			349			3552				
Starvation Cap Reductn		0			0			182				
Spillback Cap Reductn		0			0			165				
Storage Cap Reductn		0			0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.19			0.43			0.87				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	4.8
Intersection LOS:	A
Intersection Capacity Utilization	76.2%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 671: Clay St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.96						0.96			0.93	
Frt		0.980						0.984			0.983	
Flt Protected		0.999										
Satd. Flow (prot)	0	1575	0	0	0	0	0	3014	0	0	2961	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	1569	0	0	0	0	0	3014	0	0	2961	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11						25			26	
Headway Factor	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	8	225	41	0	0	0	0	1076	126	0	1137	141
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20	20		15	15
Adj. Flow (vph)	10	288	53	0	0	0	0	1145	134	0	1197	148
Lane Group Flow (vph)	0	351	0	0	0	0	0	1279	0	0	1345	0
Turn Type	Split											
Protected Phases	4	4						2			2	
Permitted Phases												
Minimum Split (s)	33.0	33.0						48.5			48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.1	2.1						0.8			0.8	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0						54.0			54.0	
Actuated g/C Ratio		0.33						0.60			0.60	
v/c Ratio		0.66						0.70			0.75	
Control Delay		25.9						5.2			9.2	
Queue Delay		0.0						0.6			0.0	
Total Delay		25.9						5.8			9.2	
LOS		C						A			A	
Approach Delay		25.9						5.8			9.2	
Approach LOS		C						A			A	
Queue Length 50th (ft)		147						26			86	
Queue Length 95th (ft)		m205						32			87	
Internal Link Dist (ft)		370			421			247			76	
Turn Bay Length (ft)												



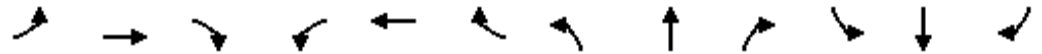
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		532						1818			1787	
Starvation Cap Reductn		0						217			0	
Spillback Cap Reductn		0						0			10	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.66						0.80			0.76	

**Intersection Summary**

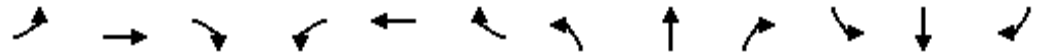
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	79 (88%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization	66.3%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898						0.965				
Flt Protected		0.993									0.996	
Satd. Flow (prot)	0	3030	0	0	0	0	0	1887	0	0	1947	0
Flt Permitted		0.993									0.946	
Satd. Flow (perm)	0	3030	0	0	0	0	0	1887	0	0	1850	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		251						39				
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	49	64	238	0	0	0	0	274	97	41	414	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	52	67	251	0	0	0	0	288	102	43	436	0
Lane Group Flow (vph)	0	370	0	0	0	0	0	390	0	0	479	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases										2		
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.5						27.5			27.5	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.25						0.44			0.56	
Control Delay		4.1						4.6			13.9	
Queue Delay		0.0						0.2			0.2	
Total Delay		4.1						4.8			14.1	
LOS		A						A			B	
Approach Delay		4.1						4.8			14.1	
Approach LOS		A						A			B	
Queue Length 50th (ft)		12						11			98	
Queue Length 95th (ft)		33						32			162	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1478						886			848	
Starvation Cap Reductn		0						109			55	
Spillback Cap Reductn		0						0			4	
Storage Cap Reductn		0						0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.25						0.50			0.60	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	15 (25%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	65.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 673: Clay St. & Polk St.

ø2	ø4
30.5 s	29.5 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.945						0.956			0.998	
Fl <sub>t</sub> Protected		0.999									0.999	
Satd. Flow (prot)	0	1737	0	0	0	0	0	1478	0	0	1857	0
Fl <sub>t</sub> Permitted		0.999									0.994	
Satd. Flow (perm)	0	1737	0	0	0	0	0	1478	0	0	1848	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40						36			1	
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.27	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	7	148	107	0	0	0	0	55	27	19	817	12
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Adj. Flow (vph)	9	190	137	0	0	0	0	74	36	20	842	12
Lane Group Flow (vph)	0	336	0	0	0	0	0	110	0	0	874	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				6
Permitted Phases										6		
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	30.8	30.8	0.0	0.0	0.0	0.0	0.0	59.2	0.0	59.2	59.2	0.0
Total Split (%)	34.2%	34.2%	0.0%	0.0%	0.0%	0.0%	0.0%	65.8%	0.0%	65.8%	65.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.8						56.2			56.2	
Actuated g/C Ratio		0.31						0.62			0.62	
v/c Ratio		0.60						0.12			0.76	
Control Delay		28.2						5.4			14.0	
Queue Delay		0.0						0.0			1.3	
Total Delay		28.2						5.4			15.4	
LOS		C						A			B	
Approach Delay		28.2						5.4			15.4	
Approach LOS		C						A			B	
Queue Length 50th (ft)		141						32			217	
Queue Length 95th (ft)		188						m33			332	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		564						936			1154	
Starvation Cap Reductn		0						0			121	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕						↕↕↕					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	
Fr <sub>t</sub>									0.990				
Flt Protected	0.992												
Satd. Flow (prot)	0	3490	0	0	0	0	0	4741	0	0	0	0	
Flt Permitted	0.992												
Satd. Flow (perm)	0	3490	0	0	0	0	0	4741	0	0	0	0	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)	6								31				
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00	
Link Speed (mph)	25						25			25			
Link Distance (ft)	522						452			296			
Travel Time (s)	14.2						12.3			8.1			
Volume (vph)	30	164	0	0	0	0	0	2502	175	0	0	0	
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)									15	15			
Adj. Flow (vph)	47	256	0	0	0	0	0	2662	186	0	0	0	
Lane Group Flow (vph)	0	303	0	0	0	0	0	2848	0	0	0	0	
Turn Type	Split												
Protected Phases	4	4							2				
Permitted Phases													
Minimum Split (s)	20.5	20.5							17.0				
Total Split (s)	22.5	22.5	0.0	0.0	0.0	0.0	0.0	67.5	0.0	0.0	0.0	0.0	
Total Split (%)	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)	3.5	3.5							3.5				
All-Red Time (s)	1.5	1.5							0.5				
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)	19.5								64.5				
Actuated g/C Ratio	0.22								0.72				
v/c Ratio	0.40								0.84				
Control Delay	35.2								4.3				
Queue Delay	0.0								0.6				
Total Delay	35.2								4.9				
LOS	D								A				
Approach Delay	35.2								4.9				
Approach LOS	D								A				
Queue Length 50th (ft)	63								34				
Queue Length 95th (ft)	74								37				
Internal Link Dist (ft)	442						372			216			289
Turn Bay Length (ft)													
Base Capacity (vph)	761								3407				
Starvation Cap Reductn	0								221				
Spillback Cap Reductn	0								0				
Storage Cap Reductn	0								0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.40						0.89					

**Intersection Summary**

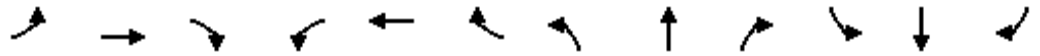
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	4 (4%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	7.8
Intersection LOS:	A
Intersection Capacity Utilization	64.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.

 2	 4
67.5 s	22.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957						0.983				
Flt Protected		0.993									0.996	
Satd. Flow (prot)	0	3330	0	0	0	0	0	1922	0	0	1947	0
Flt Permitted		0.993									0.961	
Satd. Flow (perm)	0	3330	0	0	0	0	0	1922	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101						17				
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	46	193	96	0	0	0	0	281	42	30	359	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	48	203	101	0	0	0	0	296	44	32	378	0
Lane Group Flow (vph)	0	352	0	0	0	0	0	340	0	0	410	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases										2		
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.24						0.36			0.45	
Control Delay		8.5						3.6			12.2	
Queue Delay		0.0						0.2			0.2	
Total Delay		8.5						3.8			12.4	
LOS		A						A			B	
Approach Delay		8.5						3.8			12.4	
Approach LOS		A						A			B	
Queue Length 50th (ft)		28						15			90	
Queue Length 95th (ft)		52						27			129	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1446						938			908	
Starvation Cap Reductn		0						168			93	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	

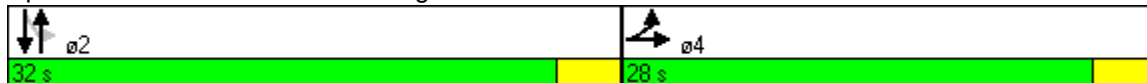


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.24						0.44			0.50	

**Intersection Summary**

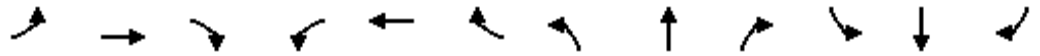
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	24 (40%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization	57.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.917			0.994						0.985	
Fl <sub>t</sub> Protected		0.981		0.950				0.998				
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1859	0	0	1835	0
Fl <sub>t</sub> Permitted		0.696		0.706				0.983				
Satd. Flow (perm)	0	1189	0	1315	1829	0	0	1831	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			2							12
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		537			487			380			309	
Travel Time (s)		14.6			13.3			10.4			8.4	
Volume (vph)	27	0	43	82	287	12	2	60	0	0	723	90
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Adj. Flow (vph)	34	0	54	111	388	16	3	77	0	0	753	94
Lane Group Flow (vph)	0	88	0	111	404	0	0	80	0	0	847	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0			17.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0		30.0	30.0			54.0			54.0	
Actuated g/C Ratio		0.33		0.33	0.33			0.60			0.60	
v/c Ratio		0.20		0.25	0.66			0.07			0.77	
Control Delay		11.5		14.2	19.5			6.0			15.2	
Queue Delay		0.2		0.3	0.0			0.0			0.7	
Total Delay		11.6		14.5	19.5			6.0			16.0	
LOS		B		B	B			A			B	
Approach Delay		11.6			18.4			6.0			16.0	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		13		28	108			9			195	
Queue Length 95th (ft)		38		m38	119			m13			235	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		432		438	611			1099			1106	
Starvation Cap Reductn		0		0	0			0			72	
Spillback Cap Reductn		75		83	0			0			1	
Storage Cap Reductn		0		0	0			0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.25		0.31	0.66			0.07			0.82	

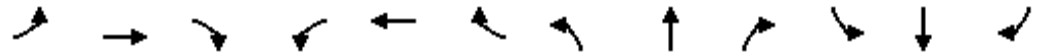
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	24 (27%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	16.0
Intersection LOS:	B
Intersection Capacity Utilization	73.5%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 686: Jackson St. & Gough St.

ø2	ø4
57 s	33 s
ø6	ø8
57 s	33 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.967							
Flt Protected								0.997				
Satd. Flow (prot)	0	0	0	0	3402	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3402	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					8			24				
Headway Factor	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.09	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	246	68	135	2397	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Adj. Flow (vph)	0	0	0	0	259	72	142	2523	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	331	0	0	2665	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	23.0	0.0	67.0	67.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	25.6%	0.0%	74.4%	74.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					20.0			64.0				
Actuated g/C Ratio					0.22			0.71				
v/c Ratio					0.43			0.79				
Control Delay					11.9			1.3				
Queue Delay					0.0			0.3				
Total Delay					11.9			1.6				
LOS					B			A				
Approach Delay					11.9			1.6				
Approach LOS					B			A				
Queue Length 50th (ft)					24			9				
Queue Length 95th (ft)					m35			11				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					762			3390				
Starvation Cap Reductn					0			168				
Spillback Cap Reductn					0			236				
Storage Cap Reductn					0			0				



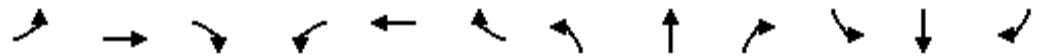
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.43						0.84					

**Intersection Summary**

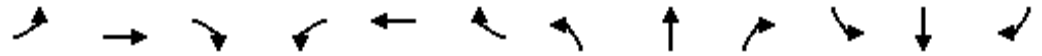
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 2.8                      Intersection LOS: A  
 Intersection Capacity Utilization 64.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.977						0.962	
Flt Protected					0.986			0.986				
Satd. Flow (prot)	0	0	0	0	3375	0	0	1928	0	0	1881	0
Flt Permitted					0.986			0.771				
Satd. Flow (perm)	0	0	0	0	3375	0	0	1507	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					43						45	
Headway Factor	1.00	1.00	1.00	1.00	1.01	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	84	166	46	91	236	0	0	305	119
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	88	175	48	96	248	0	0	321	125
Lane Group Flow (vph)	0	0	0	0	311	0	0	344	0	0	446	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.22			0.47			0.48	
Control Delay					10.1			5.5			9.1	
Queue Delay					0.0			0.0			0.3	
Total Delay					10.1			5.5			9.3	
LOS					B			A			A	
Approach Delay					10.1			5.5			9.3	
Approach LOS					B			A			A	
Queue Length 50th (ft)					31			19			76	
Queue Length 95th (ft)					53			30			132	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1431			728			932	
Starvation Cap Reductn					0			0			123	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	

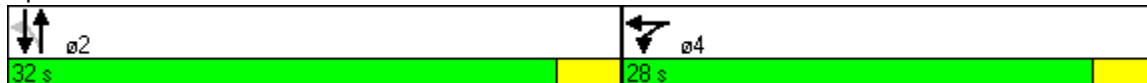


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.22			0.47			0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	32 (53%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	8.3
Intersection LOS:	A
Intersection Capacity Utilization	59.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.976			0.991			0.968			0.998	
Fl <sub>t</sub> Protected		0.999			0.991						0.999	
Satd. Flow (prot)	0	1816	0	0	1829	0	0	1803	0	0	1857	0
Fl <sub>t</sub> Permitted		0.997			0.919						0.992	
Satd. Flow (perm)	0	1813	0	0	1696	0	0	1803	0	0	1844	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			32			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	113	24	38	147	14	0	76	23	21	751	10
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Parking (#/hr)									14			17
Adj. Flow (vph)	2	140	30	42	162	15	0	104	32	22	791	11
Lane Group Flow (vph)	0	172	0	0	219	0	0	136	0	0	824	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.31			0.43			0.12			0.71	
Control Delay		24.5			16.3			6.0			8.9	
Queue Delay		0.2			0.4			0.0			1.7	
Total Delay		24.7			16.7			6.0			10.6	
LOS		C			B			A			B	
Approach Delay		24.7			16.7			6.0			10.6	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		70			58			10			137	
Queue Length 95th (ft)		108			m86			24			271	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		552			512			1154			1168	
Starvation Cap Reductn		0			0			0			187	
Spillback Cap Reductn		78			73			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.36			0.50			0.12			0.84	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 35 (39%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 12.9                      Intersection LOS: B  
 Intersection Capacity Utilization 76.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 693: Pacific Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.941			0.991				
Fl <sub>t</sub> Protected		0.992						0.998				
Satd. Flow (prot)	0	1848	0	0	1753	0	0	5029	0	0	0	0
Fl <sub>t</sub> Permitted		0.927						0.998				
Satd. Flow (perm)	0	1727	0	0	1753	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9			25				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	27	130	0	0	116	89	83	2226	156	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							15		15			
Adj. Flow (vph)	28	137	0	0	122	94	87	2343	164	0	0	0
Lane Group Flow (vph)	0	165	0	0	216	0	0	2594	0	0	0	0
Turn Type		Perm					Split					
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		24.0			24.0			60.0				
Actuated g/C Ratio		0.27			0.27			0.67				
v/c Ratio		0.36			0.46			0.77				
Control Delay		24.2			13.4			5.0				
Queue Delay		0.0			0.0			0.9				
Total Delay		24.2			13.4			5.9				
LOS		C			B			A				
Approach Delay		24.2			13.4			5.9				
Approach LOS		C			B			A				
Queue Length 50th (ft)		42			102			146				
Queue Length 95th (ft)		m94			m107			135				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		461			474			3361				
Starvation Cap Reductn		0			0			446				
Spillback Cap Reductn		0			0			219				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.36			0.46			0.89				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 29 (32%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 78.0%

ICU Level of Service D

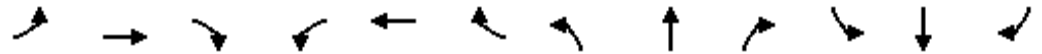
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

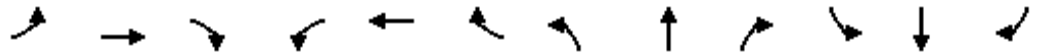
Splits and Phases: 694: Pacific Ave. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.985			0.959			0.976	
Flt Protected		0.995			0.987			0.990			0.997	
Satd. Flow (prot)	0	1708	0	0	1767	0	0	1856	0	0	1902	0
Flt Permitted		0.953			0.865			0.893			0.973	
Satd. Flow (perm)	0	1636	0	0	1549	0	0	1674	0	0	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			14			47			23	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	31	138	120	67	166	29	55	141	86	21	237	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Adj. Flow (vph)	33	145	126	71	175	31	58	148	91	22	249	58
Lane Group Flow (vph)	0	304	0	0	277	0	0	297	0	0	329	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.38			0.38			0.39			0.40	
Control Delay		9.1			11.7			4.4			12.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.1			11.7			4.4			12.6	
LOS		A			B			A			B	
Approach Delay		9.1			11.7			4.4			12.6	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		47			57			12			71	
Queue Length 95th (ft)		95			107			25			127	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		806			730			752			818	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	

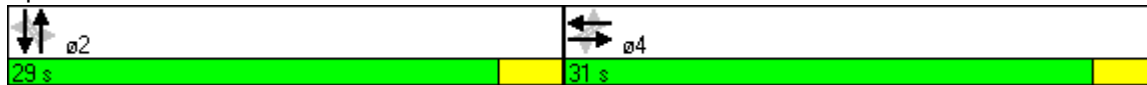


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.38			0.38			0.39			0.40	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	41 (68%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.









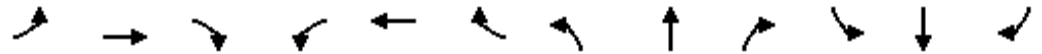
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.983			0.995			0.981			0.997	
Flt Protected		0.999			0.987			0.996			0.996	
Satd. Flow (prot)	0	3476	0	0	3476	0	0	1820	0	0	1850	0
Flt Permitted		0.946			0.699			0.955			0.965	
Satd. Flow (perm)	0	3291	0	0	2462	0	0	1745	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			13			2	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	5	329	43	207	526	25	7	72	13	52	532	14
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Parking (#/hr)									17			17
Adj. Flow (vph)	5	346	45	244	619	29	10	100	18	57	578	15
Lane Group Flow (vph)	0	396	0	0	892	0	0	128	0	0	650	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	44.0	44.0	0.0	44.0	44.0	0.0	46.0	46.0	0.0	46.0	46.0	0.0
Total Split (%)	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%	51.1%	51.1%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		41.0			41.0			43.0			43.0	
Actuated g/C Ratio		0.46			0.46			0.48			0.48	
v/c Ratio		0.26			0.79			0.15			0.76	
Control Delay		14.9			11.2			10.5			26.2	
Queue Delay		0.0			0.6			0.0			0.0	
Total Delay		14.9			11.8			10.5			26.2	
LOS		B			B			B			C	
Approach Delay		14.9			11.8			10.5			26.2	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		66			51			21			289	
Queue Length 95th (ft)		97			m92			26			434	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1510			1124			841			857	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		66			49			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.83			0.15			0.76	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 16.9                      Intersection LOS: B  
 Intersection Capacity Utilization 80.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 698: Broadway & Gough St.

 ø2	 ø4
46 s	44 s
 ø6	 ø8
46 s	44 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.953			0.987				
Flt Protected		0.998						0.998				
Satd. Flow (prot)	0	3532	0	0	3373	0	0	5009	0	0	0	0
Flt Permitted		0.866						0.998				
Satd. Flow (perm)	0	3065	0	0	3373	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			30				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		500			455			330				362
Travel Time (s)		13.6			12.4			9.0				9.9
Volume (vph)	12	382	0	0	662	301	96	2038	208	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	13	415	0	0	697	317	104	2215	226	0	0	0
Lane Group Flow (vph)	0	428	0	0	1014	0	0	2545	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0			32.0			52.0				
Actuated g/C Ratio		0.36			0.36			0.58				
v/c Ratio		0.39			0.84			0.88				
Control Delay		15.1			5.5			8.1				
Queue Delay		0.0			0.0			0.7				
Total Delay		15.1			5.5			8.8				
LOS		B			A			A				
Approach Delay		15.1			5.5			8.8				
Approach LOS		B			A			A				
Queue Length 50th (ft)		54			13			48				
Queue Length 95th (ft)		m68			m12			62				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		1090			1203			2907				
Starvation Cap Reductn		0			0			127				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.39			0.84			0.92				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 8.7

Intersection LOS: A

Intersection Capacity Utilization 80.6%

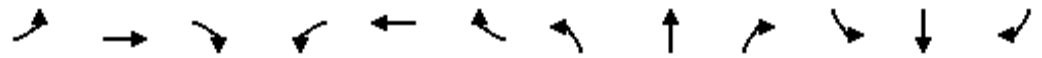
ICU Level of Service D

Analysis Period (min) 15

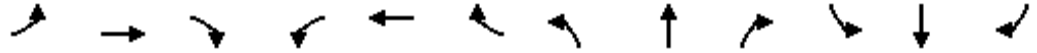
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 699: Broadway & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.98						0.99				
Frt		0.991						0.995				
Flt Protected		0.997										
Satd. Flow (prot)	0	3436	0	0	0	0	0	3147	0	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3399	0	0	0	0	0	3147	0	0	3283	0
Right Turn on Red			Yes				Yes		Yes			Yes
Satd. Flow (RTOR)		8						6				
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.10	1.00
Link Speed (mph)		25						25			25	
Link Distance (ft)		452						145			354	
Travel Time (s)		12.3						4.0			9.7	
Volume (vph)	20	299	20	0	0	0	0	1099	36	0	1258	0
Confl. Peds. (#/hr)	135		135						270	270		
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Adj. Flow (vph)	22	325	22	0	0	0	0	1195	39	0	1310	0
Lane Group Flow (vph)	0	369	0	0	0	0	0	1234	0	0	1310	0
Turn Type	custom											
Protected Phases	4	4						2			6	
Permitted Phases	4											
Minimum Split (s)	25.0	25.0						48.0			24.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	1.0	1.0						0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0						54.0			54.0	
Actuated g/C Ratio		0.33						0.60			0.60	
v/c Ratio		0.32						0.65			0.66	
Control Delay		34.2						2.6			16.3	
Queue Delay		0.0						0.2			1.1	
Total Delay		34.2						2.8			17.4	
LOS		C						A			B	
Approach Delay		34.2						2.8			17.4	
Approach LOS		C						A			B	
Queue Length 50th (ft)		99						21			238	
Queue Length 95th (ft)		m128						23			284	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1151						1891			1970	
Starvation Cap Reductn		0						150			396	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0						10			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.32						0.71			0.83	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	80 (89%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**

ø2 57 s	ø4 33 s
ø6 57 s	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.959			0.994				
Fl <sub>t</sub> Protected		0.971						0.997				
Satd. Flow (prot)	0	1809	0	0	1786	0	0	5040	0	0	0	0
Fl <sub>t</sub> Permitted		0.729						0.997				
Satd. Flow (perm)	0	1358	0	0	1786	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			12				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	115	78	0	0	100	44	142	2051	86	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	121	82	0	0	105	46	149	2159	91	0	0	0
Lane Group Flow (vph)	0	203	0	0	151	0	0	2399	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.46			0.26			0.78				
Control Delay		28.6			25.5			3.4				
Queue Delay		0.0			0.0			0.4				
Total Delay		28.6			25.5			3.8				
LOS		C			C			A				
Approach Delay		28.6			25.5			3.8				
Approach LOS		C			C			A				
Queue Length 50th (ft)		91			83			15				
Queue Length 95th (ft)		157			m138			16				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		438			581			3085				
Starvation Cap Reductn		0			0			103				
Spillback Cap Reductn		0			0			228				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.46			0.26			0.84				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 56 (62%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 6.8

Intersection LOS: A

Intersection Capacity Utilization 72.8%

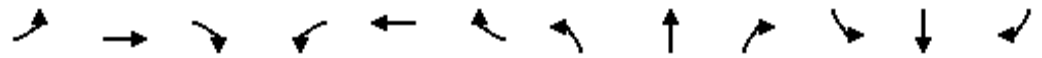
ICU Level of Service C

Analysis Period (min) 15

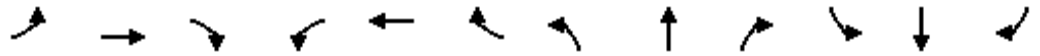
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 701: Green St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.971			0.992			0.984			0.993	
Flt Protected		0.998			0.993			0.993			0.997	
Satd. Flow (prot)	0	1675	0	0	1703	0	0	1820	0	0	1844	0
Flt Permitted		0.979			0.908			0.909			0.976	
Satd. Flow (perm)	0	1643	0	0	1557	0	0	1666	0	0	1805	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			7			15			6	
Headway Factor	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	14	270	78	58	332	25	17	90	15	30	439	27
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Adj. Flow (vph)	17	329	95	68	391	29	29	153	25	34	499	31
Lane Group Flow (vph)	0	441	0	0	488	0	0	207	0	0	564	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.58			0.69			0.27			0.69	
Control Delay		15.3			19.4			10.8			18.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.3			19.4			10.8			18.5	
LOS		B			B			B			B	
Approach Delay		15.3			19.4			10.8			18.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		104			131			41			152	
Queue Length 95th (ft)		158			209			46			246	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		756			705			758			816	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	



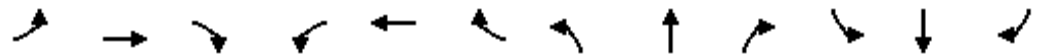
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.58			0.69			0.27			0.69	

**Intersection Summary**

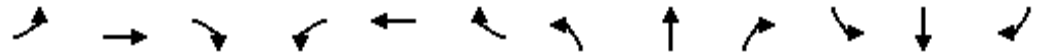
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	17.0
Intersection LOS:	B
Intersection Capacity Utilization	80.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 702: Union St. & Gough St.

ø2	ø4
30 s	30 s
ø6	ø8
30 s	30 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt						0.850		0.994				
Flt Protected		0.995						0.995				
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5030	0	0	0	0
Flt Permitted		0.952						0.995				
Satd. Flow (perm)	0	1646	0	0	1729	1583	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						8		10				
Headway Factor	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			449			345				341
Travel Time (s)		13.7			12.2			9.4				9.3
Volume (vph)	34	281	0	0	195	73	220	1907	83	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Adj. Flow (vph)	36	296	0	0	205	77	232	2007	87	0	0	0
Lane Group Flow (vph)	0	332	0	0	205	77	0	2326	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	36.0	36.0	0.0	0.0	36.0	36.0	54.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	40.0%	40.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		33.0			33.0	33.0		51.0				
Actuated g/C Ratio		0.37			0.37	0.37		0.57				
v/c Ratio		0.55			0.32	0.13		0.81				
Control Delay		26.8			25.7	20.6		6.8				
Queue Delay		0.0			0.0	0.0		0.4				
Total Delay		26.8			25.7	20.6		7.2				
LOS		C			C	C		A				
Approach Delay		26.8			24.3			7.2				
Approach LOS		C			C			A				
Queue Length 50th (ft)		147			107	36		40				
Queue Length 95th (ft)		233			m177	m73		64				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		604			634	586		2855				
Starvation Cap Reductn		0			0	0		160				
Spillback Cap Reductn		0			0	0		26				
Storage Cap Reductn		0			0	0		0				



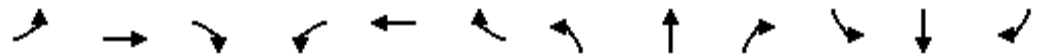
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.55			0.32	0.13		0.86				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	68 (76%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	11.0
Intersection LOS:	B
Intersection Capacity Utilization	80.1%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 703: Union St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.972			0.988				
Flt Protected		0.993						0.997				
Satd. Flow (prot)	0	1850	0	0	1811	0	0	5009	0	0	0	0
Flt Permitted		0.964						0.997				
Satd. Flow (perm)	0	1796	0	0	1811	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			31				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	19	113	0	0	47	12	130	1718	166	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	20	119	0	0	49	13	137	1808	175	0	0	0
Lane Group Flow (vph)	0	139	0	0	62	0	0	2120	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.25			0.11			0.68				
Control Delay		24.7			26.5			1.8				
Queue Delay		0.0			0.0			0.6				
Total Delay		24.7			26.5			2.4				
LOS		C			C			A				
Approach Delay		24.7			26.5			2.4				
Approach LOS		C			C			A				
Queue Length 50th (ft)		59			24			7				
Queue Length 95th (ft)		106			m54			15				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		559			572			3128				
Starvation Cap Reductn		0			0			553				
Spillback Cap Reductn		0			0			33				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.25			0.11			0.82				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 79 (88%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 4.4

Intersection LOS: A

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 705: Filbert St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.961			0.994				
Flt Protected		0.989						0.995				
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.933						0.995				
Satd. Flow (perm)	0	1738	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					25			13				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		247			452			351				315
Travel Time (s)		6.7			12.3			9.6				8.6
Volume (vph)	29	107	0	0	71	29	163	1513	73	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	31	113	0	0	75	31	172	1593	77	0	0	0
Lane Group Flow (vph)	0	144	0	0	106	0	0	1842	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.24			0.17			0.62				
Control Delay		22.5			9.8			3.2				
Queue Delay		0.0			0.0			0.2				
Total Delay		22.5			9.8			3.4				
LOS		C			A			A				
Approach Delay		22.5			9.8			3.4				
Approach LOS		C			A			A				
Queue Length 50th (ft)		58			11			8				
Queue Length 95th (ft)		103			m29			9				
Internal Link Dist (ft)		167			372			271			235	
Turn Bay Length (ft)												
Base Capacity (vph)		599			633			2967				
Starvation Cap Reductn		0			0			325				
Spillback Cap Reductn		0			0			13				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.24			0.17			0.70				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 3 (3%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 5.0

Intersection LOS: A

Intersection Capacity Utilization 54.7%

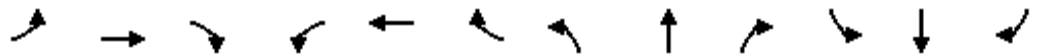
ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 706: Greenwich St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.949			0.994				
Fl <sub>t</sub> Protected		0.992						0.999				
Satd. Flow (prot)	0	1848	0	0	1768	0	0	5050	0	0	0	0
Fl <sub>t</sub> Permitted		0.952						0.999				
Satd. Flow (perm)	0	1773	0	0	1768	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			13				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	14	73	0	0	83	49	47	2216	88	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	15	77	0	0	87	52	49	2333	93	0	0	0
Lane Group Flow (vph)	0	92	0	0	139	0	0	2475	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	28.5	28.5	0.0	0.0	28.5	0.0	61.5	61.5	0.0	0.0	0.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	0.0%	31.7%	0.0%	68.3%	68.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.5			25.5			58.5				
Actuated g/C Ratio		0.28			0.28			0.65				
v/c Ratio		0.18			0.27			0.75				
Control Delay		25.6			16.1			3.4				
Queue Delay		0.0			0.0			0.6				
Total Delay		25.6			16.1			3.9				
LOS		C			B			A				
Approach Delay		25.6			16.1			3.9				
Approach LOS		C			B			A				
Queue Length 50th (ft)		39			71			73				
Queue Length 95th (ft)		78			129			75				
Internal Link Dist (ft)		423			355			282			257	
Turn Bay Length (ft)												
Base Capacity (vph)		502			507			3287				
Starvation Cap Reductn		0			0			388				
Spillback Cap Reductn		0			0			71				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.18			0.27			0.85				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 5.3

Intersection LOS: A

Intersection Capacity Utilization 67.7%

ICU Level of Service C

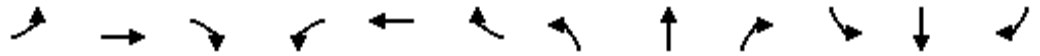
Analysis Period (min) 15

Splits and Phases: 901: Vallejo St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.93						0.99	
Frt					0.988						0.994	
Flt Protected					0.989							
Satd. Flow (prot)	0	0	0	0	3314	0	0	3014	0	0	2935	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3146	0	0	3014	0	0	2935	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10						9	
Headway Factor	1.00	1.00	1.00	1.00	1.03	1.00	1.09	1.23	1.00	1.02	1.25	1.02
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	80	265	31	0	1119	0	0	1178	49
Confl. Peds. (#/hr)				130		130	260					260
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Adj. Flow (vph)	0	0	0	86	285	33	0	1178	0	0	1339	56
Lane Group Flow (vph)	0	0	0	0	404	0	0	1178	0	0	1395	0
Turn Type				Perm								
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				30.0	30.0			50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					27.0			57.0			57.0	
Actuated g/C Ratio					0.30			0.63			0.63	
v/c Ratio					0.42			0.62			0.75	
Control Delay					26.3			2.8			5.5	
Queue Delay					0.2			0.7			0.1	
Total Delay					26.5			3.5			5.6	
LOS					C			A			A	
Approach Delay					26.5			3.5			5.6	
Approach LOS					C			A			A	
Queue Length 50th (ft)					93			25			71	
Queue Length 95th (ft)					136			29			73	
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					951			1909			1862	
Starvation Cap Reductn					0			380			23	
Spillback Cap Reductn					141			0			9	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.50			0.77			0.76	

**Intersection Summary**

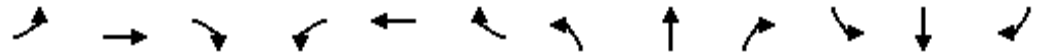
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	8 (9%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 902: Jackson St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.94			0.95			0.98			1.00	
Frt		0.965			0.979			0.989			0.997	
Flt Protected		0.999			0.991							
Satd. Flow (prot)	0	1627	0	0	1683	0	0	2972	0	0	2884	0
Flt Permitted		0.990			0.868							
Satd. Flow (perm)	0	1610	0	0	1450	0	0	2972	0	0	2884	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			12			14			3	
Headway Factor	1.00	1.04	1.00	1.00	1.04	1.00	1.09	1.20	1.00	1.03	1.28	1.03
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	7	205	74	49	185	42	0	1066	84	0	1104	20
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Adj. Flow (vph)	8	244	88	78	294	67	0	1110	88	0	1187	22
Lane Group Flow (vph)	0	340	0	0	439	0	0	1198	0	0	1209	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			48.5	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.52			0.75			0.75			0.79	
Control Delay		25.9			32.0			5.8			21.1	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		25.9			32.0			5.8			21.2	
LOS		C			C			A			C	
Approach Delay		25.9			32.0			5.8			21.2	
Approach LOS		C			C			A			C	
Queue Length 50th (ft)		160			204			32			213	
Queue Length 95th (ft)		m212			187			50			229	
Internal Link Dist (ft)		119			413			253			253	
Turn Bay Length (ft)												

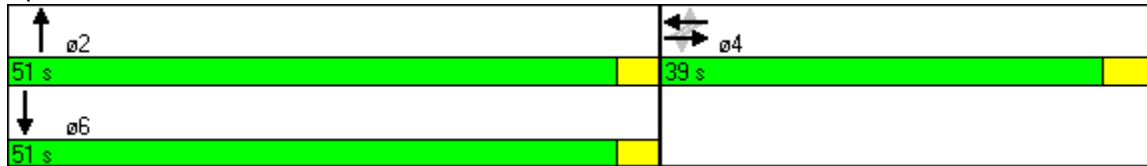


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		652			587			1592			1540	
Starvation Cap Reductn		0			0			0			17	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.52			0.75			0.75			0.79	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	17.4
Intersection LOS:	B
Intersection Capacity Utilization	76.2%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

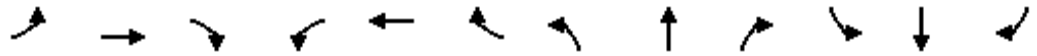
**Splits and Phases: 903: Pacific Ave. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↑	↑		↑↓		↑↓	↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		0.99				0.90		0.99		0.98	1.00	
Frt		0.980				0.850		0.981			0.994	
Flt Protected										0.950		
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	2928	0	3156	2943	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	2928	0	3090	2943	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				280		22			5	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.23	1.00	1.11	1.25	1.02
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	512	78	0	917	249	0	972	143	291	1046	46
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Parking (#/hr)								15	15		15	15
Adj. Flow (vph)	0	569	87	0	1030	280	0	1023	151	313	1125	49
Lane Group Flow (vph)	0	656	0	0	1030	280	0	1174	0	313	1174	0
Turn Type						Perm					Prot	
Protected Phases		4			8			2		1	6	
Permitted Phases						8						
Minimum Split (s)		30.5			31.0	31.0		39.0		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	40.0	0.0	19.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	44.4%	0.0%	21.1%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead			Lag	
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0	28.0		37.0		16.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.41		0.18	0.62	
v/c Ratio		0.60			0.94	0.44		0.96		0.56	0.64	
Control Delay		30.8			46.6	5.4		25.5		26.0	4.9	
Queue Delay		0.0			0.0	0.0		3.4		0.0	0.0	
Total Delay		30.8			46.6	5.4		28.9		26.0	4.9	
LOS		C			D	A		C		C	A	
Approach Delay		30.8			37.8			28.9			9.3	
Approach LOS		C			D			C			A	
Queue Length 50th (ft)		146			297	0		45		68	44	
Queue Length 95th (ft)		m194			#417	53		#174		116	54	
Internal Link Dist (ft)		375			167			253			278	
Turn Bay Length (ft)												
Base Capacity (vph)		1085			1101	638		1217		561	1833	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0	0		27		0	0	
Spillback Cap Reductn		0			0	0		0		0	4	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.60			0.94	0.44		0.99		0.56	0.64	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 25.4      Intersection LOS: C  
 Intersection Capacity Utilization 75.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 904: Broadway & Van Ness Avenue**

ø2	ø1	ø4
40 s	19 s	31 s
ø6	ø8	
59 s	31 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Ped Bike Factor		0.95			0.96			0.99			1.00	
Frt		0.950			0.989			0.994			0.997	
Flt Protected		0.998			0.983							
Satd. Flow (prot)	0	1682	0	0	1793	0	0	3018	0	0	4437	0
Flt Permitted		0.987			0.823							
Satd. Flow (perm)	0	1659	0	0	1459	0	0	3018	0	0	4437	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			8			5	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.20	1.00	1.00	1.18	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	94	60	67	108	15	0	1174	47	0	1256	24
Confl. Peds. (#/hr)	130		130	130		130			260			260
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Parking (#/hr)								9	9		15	15
Adj. Flow (vph)	8	111	71	93	150	21	0	1198	48	0	1322	25
Lane Group Flow (vph)	0	190	0	0	264	0	0	1246	0	0	1347	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0			54.0			54.0	
Actuated g/C Ratio		0.33			0.33			0.60			0.60	
v/c Ratio		0.34			0.54			0.69			0.51	
Control Delay		26.3			28.8			3.3			6.4	
Queue Delay		0.0			0.0			0.2			0.2	
Total Delay		26.3			28.8			3.5			6.6	
LOS		C			C			A			A	
Approach Delay		26.3			28.8			3.5			6.6	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		78			118			33			66	
Queue Length 95th (ft)		m122			146			m51			76	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		564			490			1814			2664	
Starvation Cap Reductn		0			0			116			481	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.34			0.54			0.73			0.62	

**Intersection Summary**

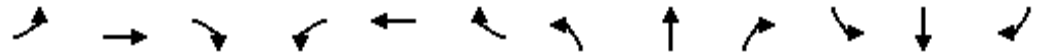
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	17 (19%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	8.5
Intersection LOS:	A
Intersection Capacity Utilization	70.9%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 907: Vallejo St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.95			0.98			0.99			1.00	
Frt		0.938			0.985			0.996			0.997	
Flt Protected					0.994							
Satd. Flow (prot)	0	1655	0	0	1800	0	0	2986	0	0	3008	0
Flt Permitted		0.998			0.951							
Satd. Flow (perm)	0	1651	0	0	1707	0	0	2986	0	0	3008	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			8			5			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.23	1.00	1.00	1.22	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	2	87	75	20	118	18	0	1166	30	0	1185	26
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Parking (#/hr)								15	15		13	13
Adj. Flow (vph)	2	107	93	24	140	21	0	1178	30	0	1197	26
Lane Group Flow (vph)	0	202	0	0	185	0	0	1208	0	0	1223	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0			50.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.35			0.31			0.69			0.69	
Control Delay		21.3			22.5			10.0			11.1	
Queue Delay		0.0			0.0			0.1			0.2	
Total Delay		21.3			22.5			10.1			11.3	
LOS		C			C			B			B	
Approach Delay		21.3			22.5			10.1			11.3	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		73			73			105			114	
Queue Length 95th (ft)		m113			117			126			174	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)												
Base Capacity (vph)		584			593			1760			1773	
Starvation Cap Reductn		0			0			41			101	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.35			0.31			0.70			0.73	

**Intersection Summary**

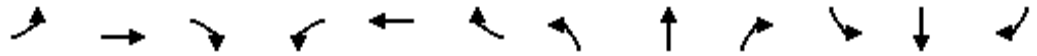
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	16 (18%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	12.2
Intersection LOS:	B
Intersection Capacity Utilization	61.4%
ICU Level of Service	B
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 908: Green St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.98			0.97			1.00			1.00	
Frt		0.983			0.982			0.992			0.990	
Flt Protected		0.999			0.990							
Satd. Flow (prot)	0	1641	0	0	3375	0	0	2929	0	0	2974	0
Flt Permitted		0.989			0.721							
Satd. Flow (perm)	0	1621	0	0	2434	0	0	2929	0	0	2974	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			18			12			14	
Headway Factor	1.04	1.12	1.00	1.00	1.00	1.00	1.09	1.25	1.00	1.00	1.23	1.04
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	9	308	47	56	192	34	0	1122	64	0	1108	76
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Adj. Flow (vph)	10	346	53	69	237	42	0	1133	65	0	1131	78
Lane Group Flow (vph)	0	409	0	0	348	0	0	1198	0	0	1209	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Minimum Split (s)	31.5	31.5		31.5	31.5			54.5			45.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	0.0	58.0	0.0	0.0	47.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	64.4%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0			29.0			55.0			55.0	
Actuated g/C Ratio		0.32			0.32			0.61			0.61	
v/c Ratio		0.77			0.44			0.67			0.66	
Control Delay		41.5			24.8			1.9			4.1	
Queue Delay		0.0			0.0			0.1			0.0	
Total Delay		41.5			24.8			1.9			4.1	
LOS		D			C			A			A	
Approach Delay		41.5			24.8			1.9			4.1	
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		230			76			6			47	
Queue Length 95th (ft)		m#335			102			7			55	
Internal Link Dist (ft)		369			662			242			259	

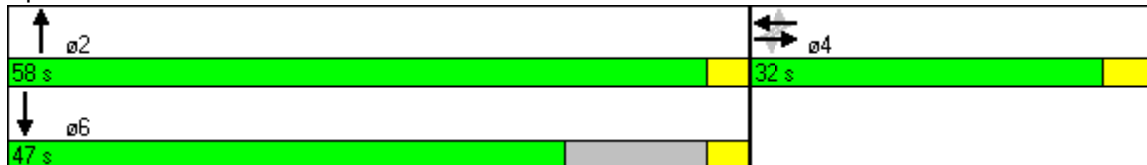


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		528			796			1795			1823	
Starvation Cap Reductn		0			0			14			8	
Spillback Cap Reductn		0			0			51			7	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.77			0.44			0.69			0.67	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 10.4 Intersection LOS: B  
 Intersection Capacity Utilization 75.8% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 909: Union St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.96			1.00			1.00	
Frt		0.965			0.980			0.998			0.998	
Flt Protected		0.999			0.980							
Satd. Flow (prot)	0	1737	0	0	1755	0	0	2997	0	0	3015	0
Flt Permitted		0.995			0.758							
Satd. Flow (perm)	0	1726	0	0	1328	0	0	2997	0	0	3015	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			10			3			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.23	1.00	1.09	1.22	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	199	73	38	43	14	0	1147	18	0	1073	16
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Parking (#/hr)								15	15		13	13
Adj. Flow (vph)	8	240	88	45	51	17	0	1195	19	0	1084	16
Lane Group Flow (vph)	0	336	0	0	113	0	0	1214	0	0	1100	0
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0			18.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	0.0	52.5	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	0.0%	58.3%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag								Lag				
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0			49.5			56.0	
Actuated g/C Ratio		0.31			0.31			0.55			0.62	
v/c Ratio		0.61			0.27			0.74			0.59	
Control Delay		29.2			23.3			11.5			2.3	
Queue Delay		0.0			0.0			0.2			0.1	
Total Delay		29.2			23.3			11.7			2.4	
LOS		C			C			B			A	
Approach Delay		29.2			23.3			11.7			2.4	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		141			43			86			16	
Queue Length 95th (ft)		205			80			101			20	
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)												



Lane Group	ø1
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Turning Speed (mph)	
Lane Util. Factor	
Ped Bike Factor	
Fr <sub>t</sub>	
Fl <sub>t</sub> Protected	
Satd. Flow (prot)	
Fl <sub>t</sub> Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Headway Factor	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Parking (#/hr)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Minimum Split (s)	6.5
Total Split (s)	6.5
Total Split (%)	7%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lead/Lag	Lead
Lead-Lag Optimize?	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		551			420			1650			1877	
Starvation Cap Reductn		0			0			55			143	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.61			0.27			0.76			0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	30 (33%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	10.6
Intersection LOS:	B
Intersection Capacity Utilization	65.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 910: Filbert St. & Van Ness Avenue



Lane Group	ø1
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Ped Bike Factor		0.97			0.99			1.00			1.00	
Frt		0.971			0.989			0.999			0.998	
Flt Protected		0.999			0.996							
Satd. Flow (prot)	0	1764	0	0	1818	0	0	4513	0	0	3038	0
Flt Permitted		0.995			0.979							
Satd. Flow (perm)	0	1753	0	0	1779	0	0	4513	0	0	3038	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			6			2			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.16	1.00	1.00	1.21	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	5	136	39	7	82	8	0	1160	8	0	1043	18
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Parking (#/hr)								8	8		10	10
Adj. Flow (vph)	6	177	51	8	91	9	0	1289	9	0	1122	19
Lane Group Flow (vph)	0	234	0	0	108	0	0	1298	0	0	1141	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	35.5	35.5	0.0	35.5	35.5	0.0	0.0	54.5	0.0	0.0	54.5	0.0
Total Split (%)	39.4%	39.4%	0.0%	39.4%	39.4%	0.0%	0.0%	60.6%	0.0%	0.0%	60.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.5			32.5			51.5			51.5	
Actuated g/C Ratio		0.36			0.36			0.57			0.57	
v/c Ratio		0.36			0.17			0.50			0.66	
Control Delay		18.3			19.3			13.8			16.4	
Queue Delay		0.0			0.0			0.2			0.2	
Total Delay		18.3			19.3			14.0			16.6	
LOS		B			B			B			B	
Approach Delay		18.3			19.3			14.0			16.6	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		59			39			121			211	
Queue Length 95th (ft)		78			75			154			250	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		644			646			2583			1740	
Starvation Cap Reductn		0			0			415			123	
Spillback Cap Reductn		0			0			45			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.36			0.17			0.60			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	16 (18%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	15.6
Intersection LOS:	B
Intersection Capacity Utilization	49.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 911: Greenwich St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.997			0.991			0.984	
Flt Protected								0.987			0.998	
Satd. Flow (prot)	0	4793	0	0	4881	0	0	1761	0	0	1768	0
Flt Permitted								0.792			0.989	
Satd. Flow (perm)	0	4793	0	0	4881	0	0	1413	0	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		63			6			4			8	
Headway Factor	1.04	1.05	1.04	1.04	1.05	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1031	167	0	2003	40	29	75	8	12	292	42
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Adj. Flow (vph)	0	1121	182	0	2065	41	41	106	11	14	340	49
Lane Group Flow (vph)	0	1303	0	0	2106	0	0	158	0	0	403	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.44			0.71			0.34			0.71	
Control Delay		9.4			11.2			25.3			34.2	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		9.4			11.2			25.3			34.2	
LOS		A			B			C			C	
Approach Delay		9.4			11.2			25.3			34.2	
Approach LOS		A			B			C			C	
Queue Length 50th (ft)		124			214			66			195	
Queue Length 95th (ft)		154			297			90			282	



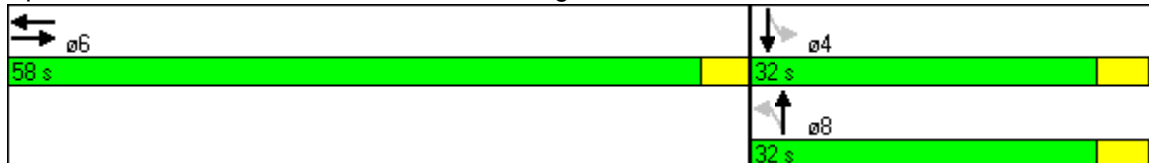


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2954			2985			458			570	
Starvation Cap Reductn		0			76			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.44			0.72			0.34			0.71	

**Intersection Summary**

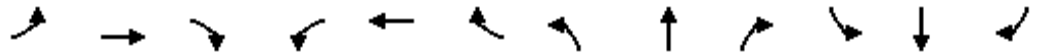
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	48 (53%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization	65.4%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↖	↖				↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	0.91	0.91	0.91	0.91	0.95	1.00	1.00	1.00
Frt					0.995			0.994				0.865
Flt Protected							0.950	0.981				
Satd. Flow (prot)	0	5085	0	0	5060	0	1610	3306	0	0	0	1611
Flt Permitted		0.939					0.950	0.981				
Satd. Flow (perm)	0	4775	0	0	5060	0	1610	3306	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				42
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1049	0	0	1066	34	925	603	43	0	0	52
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Parking (#/hr)									16			
Adj. Flow (vph)	2	1234	0	0	1146	37	1063	693	49	0	0	69
Lane Group Flow (vph)	0	1236	0	0	1183	0	584	1221	0	0	0	69
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	30.0	0.0	48.0	48.0	0.0	0.0	0.0	12.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	33.3%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	13.3%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		41.5			27.0		42.5	42.5				11.5
Actuated g/C Ratio		0.46			0.30		0.47	0.47				0.13
v/c Ratio		0.56			0.78		0.77	0.78				0.28
Control Delay		12.3			11.8		11.8	8.7				22.4
Queue Delay		0.0			0.0		0.3	0.2				0.0
Total Delay		12.3			11.8		12.1	8.8				22.4
LOS		B			B		B	A				C
Approach Delay		12.3			11.8			9.9				
Approach LOS		B			B			A				
Queue Length 50th (ft)		83			49		52	53				14
Queue Length 95th (ft)		91			63		59	55				40
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												

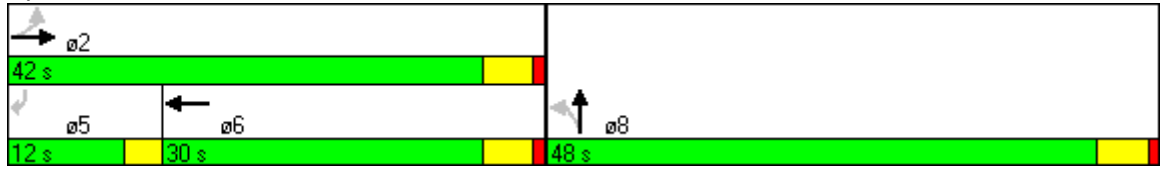


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		2203			1522		805	1656				243
Starvation Cap Reductn		0			0		28	61				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.56			0.78		0.75	0.77				0.28

**Intersection Summary**

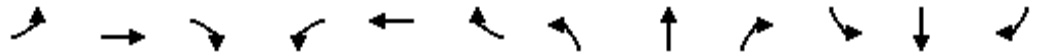
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	56 (62%), Referenced to phase 2:EBTL and 5:SBR, Start of Green
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	11.3
Intersection LOS:	B
Intersection Capacity Utilization	65.5%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 923: Lombard St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.94	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor		0.95			0.97		0.76	0.96				0.72
Frt			0.850		0.984			0.979				0.850
Flt Protected		0.987					0.950					
Satd. Flow (prot)	0	1777	2601	0	1781	0	4658	1437	0	0	3539	1346
Flt Permitted		0.853					0.950					
Satd. Flow (perm)	0	1462	2601	0	1781	0	3555	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17		8			17				107
Headway Factor	1.04	1.04	1.09	1.00	1.00	1.00	1.09	1.28	1.00	1.00	1.00	1.23
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	121	338	633	0	105	14	872	259	42	0	428	123
Confl. Peds. (#/hr)	135		135				135	270		270		270
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Parking (#/hr)								10	10			10
Adj. Flow (vph)	127	356	666	0	121	16	928	276	45	0	476	137
Lane Group Flow (vph)	0	483	666	0	137	0	928	321	0	0	476	137
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.06	0.40		0.24		0.69	0.36			0.45	0.38
Control Delay		79.3	1.1		23.2		18.5	1.7			27.1	11.0
Queue Delay		0.0	0.1		0.0		1.9	0.3			0.0	0.0
Total Delay		79.3	1.1		23.2		20.4	2.0			27.1	11.0
LOS		E	A		C		C	A			C	B
Approach Delay		34.0			23.2			15.7			23.5	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)		~318	5		54		143	0			114	12
Queue Length 95th (ft)		m#515	5		96		219	0			160	60
Internal Link Dist (ft)		390			403			246			91	
Turn Bay Length (ft)							300					



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		455	1654		560		1346	901			1062	365
Starvation Cap Reductn		0	0		0		261	197			0	0
Spillback Cap Reductn		0	156		0		0	0			5	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.06	0.44		0.24		0.86	0.46			0.45	0.38

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 28 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Green
- Natural Cycle: 90
- Control Type: Pretimed
- Maximum v/c Ratio: 1.06
- Intersection Signal Delay: 24.2
- Intersection LOS: C
- Intersection Capacity Utilization 79.8%
- ICU Level of Service D
- Analysis Period (min) 15
- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**



Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↑	↙	↙	↑↑		↙	↙↙		
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900	
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)		9		9	15	15		9	15	9	9	
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	0.91	0.91	0.95	1.00	0.76	1.00	
Ped Bike Factor	0.97			0.68			0.97					
Frt	0.987			0.850			0.987			0.850		
Flt Protected					0.950	0.950	0.991		0.950			
Satd. Flow (prot)	3208	0	3241	1330	1770	1424	2598	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.991		0.950			
Satd. Flow (perm)	3208	0	3241	899	1770	1424	2598	0	1652	3610	0	
Right Turn on Red		Yes		Yes	Yes			Yes			Yes	
Satd. Flow (RTOR)	8			95	419		8			21		
Headway Factor	1.00	1.09	1.04	1.25	1.00	1.09	1.23	1.09	1.09	1.00	1.00	
Link Speed (mph)	25		25				25					
Link Distance (ft)	258		442				1192					
Travel Time (s)	7.0		12.1				32.5					
Volume (vph)	598	55	977	104	592	357	363	44	133	715	124	
Confl. Peds. (#/hr)		327		247				167			140	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Parking (#/hr)				12			16	16				
Adj. Flow (vph)	629	58	1028	109	623	376	382	46	140	753	131	
Lane Group Flow (vph)	687	0	1028	109	623	283	521	0	140	884	0	
Turn Type				Perm	Prot	Prot				Prot	custom	
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6								
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.06	0.32	0.77	0.68	0.68		0.32	0.90		
Control Delay	41.7		86.1	11.1	19.3	47.3	42.4		37.7	55.1		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	41.7		86.1	11.1	19.3	47.3	42.4		37.7	55.1		
LOS	D		F	B	B	D	D		D	E		
Approach Delay	41.7		78.9				33.3					
Approach LOS	D		E				C					
Queue Length 50th (ft)	246		~459	8	146	213	192		87	285		
Queue Length 95th (ft)	316		#592	55	301	326	259		146	#382		
Internal Link Dist (ft)	178		362				1112					
Turn Bay Length (ft)												
Base Capacity (vph)	968		972	336	813	415	763		441	978		
Starvation Cap Reductn	0		0	0	0	0	0		0	0		



Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Spillback Cap Reductn	0		0	0	0	0	0		0	0		
Storage Cap Reductn	0		0	0	0	0	0		0	0		
Reduced v/c Ratio	0.71		1.06	0.32	0.77	0.68	0.68		0.32	0.90		

**Intersection Summary**

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	120
Control Type:	Pretimed
Maximum v/c Ratio:	1.06
Intersection Signal Delay:	51.4
Intersection LOS:	D
Intersection Capacity Utilization	90.9%
ICU Level of Service	E
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

**Splits and Phases:** 1237: Otis St. & Mission St.

ø2	ø1	ø4	ø8
39 s	8 s	38 s	35 s
ø6		ø7	
39 s		38 s	



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor		0.98			0.80		0.95		0.96		
Frt		0.991			0.865		0.988		0.985		
Flt Protected		0.955				0.950					
Satd. Flow (prot)	0	1726	0	0	1611	3433	1747	0	3338	0	0
Flt Permitted		0.955				0.950					
Satd. Flow (perm)	0	1726	0	0	1291	3433	1747	0	3338	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			214		6		7		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					584		250		
Travel Time (s)		13.2					15.9		6.8		
Volume (vph)	38	66	2	6	12	1866	481	44	645	32	39
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	40	69	2	6	13	1964	506	46	679	34	41
Lane Group Flow (vph)	0	117	0	0	13	1964	552	0	754	0	0
Turn Type	Perm			custom		Prot					
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	16.5	16.5	0.0	0.0	40.0	43.0	33.5	0.0	30.5	0.0	0.0
Total Split (%)	18.3%	18.3%	0.0%	0.0%	44.4%	47.8%	37.2%	0.0%	33.9%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Act Effct Green (s)		13.5			37.0	40.0	30.5		27.5		
Actuated g/C Ratio		0.15			0.41	0.44	0.34		0.31		
v/c Ratio		0.45			0.02	1.29	0.93		0.74		
Control Delay		34.3			0.1	149.6	43.9		40.5		
Queue Delay		0.0			0.0	0.0	0.0		0.0		
Total Delay		34.3			0.1	149.6	43.9		40.5		
LOS		C			A	F	D		D		
Approach Delay		34.3					126.5		40.5		
Approach LOS		C					F		D		
Queue Length 50th (ft)		53			0	~752	323		215		
Queue Length 95th (ft)		m93			0	m#852	m#386		263		
Internal Link Dist (ft)		404					504		170		
Turn Bay Length (ft)											
Base Capacity (vph)		261			657	1526	596		1025		
Starvation Cap Reductn		0			0	0	0		0		
Spillback Cap Reductn		0			0	0	0		0		





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Storage Cap Reductn		0			0	0	0		0		
Reduced v/c Ratio		0.45			0.02	1.29	0.93		0.74		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 105  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.29  
 Intersection Signal Delay: 103.7      Intersection LOS: F  
 Intersection Capacity Utilization 114.1%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1350: Page St & Market St.

ø3	ø4	ø10
40 s	33.5 s	16.5 s
ø7	ø8	
43 s	30.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘↙	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Frt												0.991
Flt Protected												0.998
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted												0.998
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												23
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		401			484			341			364	
Travel Time (s)		10.9			13.2			9.3			9.9	
Volume (vph)	0	36	0	0	32	0	0	0	0	76	1832	122
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	38	0	0	34	0	0	0	0	80	1928	128
Lane Group Flow (vph)	0	38	0	0	34	0	0	0	0	0	2136	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Minimum Split (s)		24.0		24.0	24.0					24.5	24.5	
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5					4.0	4.0	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.05			0.05							0.60
Control Delay		18.2			2.1							9.8
Queue Delay		0.0			0.0							2.0
Total Delay		18.2			2.1							11.8
LOS		B			A							B
Approach Delay		18.2			2.1							11.8
Approach LOS		B			A							B
Queue Length 50th (ft)		14			3							230
Queue Length 95th (ft)		34			m3							230
Internal Link Dist (ft)		321			404			261				284
Turn Bay Length (ft)												
Base Capacity (vph)		704			704							3531
Starvation Cap Reductn		0			0							1183
Spillback Cap Reductn		0			0							506
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.05			0.05							0.91

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	37 (41%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	11.7
Intersection LOS:	B
Intersection Capacity Utilization	39.7%
ICU Level of Service	A
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1351: Page St & Gough St.





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	9	9		9		9
Lane Util. Factor	0.95	*0.70	0.88	0.95	1.00	0.91	0.91	0.95	0.95
Ped Bike Factor		0.84			0.78	0.99		0.95	
Frt			0.850		0.865	0.993		0.987	
Flt Protected		0.950							
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3314	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3314	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25	
Link Distance (ft)		341				649		584	
Travel Time (s)		9.3				17.7		15.9	
Volume (vph)	25	804	926	77	532	1834	87	594	57
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	846	975	81	560	1931	92	625	60
Lane Group Flow (vph)	0	872	1056	0	560	2023	0	685	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.87	0.79		0.93	0.89		0.45	
Control Delay		20.3	12.9		28.9	28.6		15.6	
Queue Delay		0.5	0.1		0.0	0.0		0.0	
Total Delay		20.8	13.0		28.9	28.6		15.6	
LOS		C	B		C	C		B	
Approach Delay		16.5				28.6		15.6	
Approach LOS		B				C		B	
Queue Length 50th (ft)		372	352		288	370		222	
Queue Length 95th (ft)		#495	427		m#421	443		281	
Internal Link Dist (ft)		261				569		504	
Turn Bay Length (ft)									
Base Capacity (vph)		1000	1338		601	2273		1510	
Starvation Cap Reductn		16	22		0	0		0	
Spillback Cap Reductn		0	0		0	0		0	

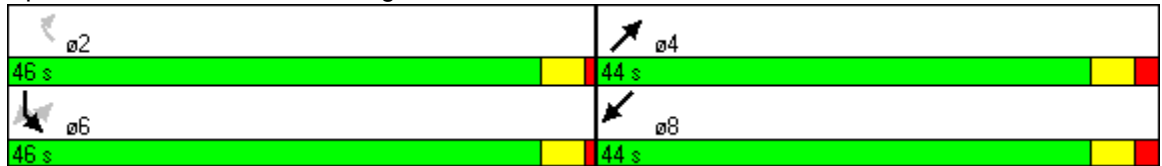


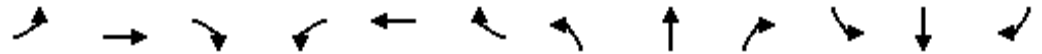
Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Storage Cap Reductn		0	0		0	0		0	
Reduced v/c Ratio		0.89	0.80		0.93	0.89		0.45	

**Intersection Summary**

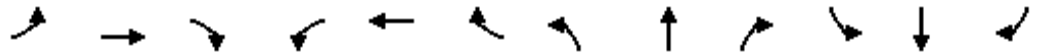
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 54 (60%), Referenced to phase 6:SBL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 22.4 Intersection LOS: C  
 Intersection Capacity Utilization 84.7% ICU Level of Service E  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1390: Haight St & Market St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	58	20	29	85	16	4	90	8	21	549	21
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	5	67	23	31	89	17	5	122	11	23	603	23
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	94	137	138	649								
Volume Left (vph)	5	31	5	23								
Volume Right (vph)	23	17	11	23								
Hadj (s)	-0.10	0.00	-0.01	0.02								
Departure Headway (s)	6.1	6.1	5.5	4.9								
Degree Utilization, x	0.16	0.23	0.21	0.88								
Capacity (veh/h)	549	550	614	729								
Control Delay (s)	10.3	11.0	10.0	32.2								
Approach Delay (s)	10.3	11.0	10.0	32.2								
Approach LOS	B	B	B	D								
Intersection Summary												
Delay			24.3									
HCM Level of Service			C									
Intersection Capacity Utilization			58.4%	ICU Level of Service	B							
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	169	44	35	192	15	11	95	4	20	512	43
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	14	192	50	45	249	19	14	125	5	23	582	49
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	256	314	145	653								
Volume Left (vph)	14	45	14	23								
Volume Right (vph)	50	19	5	49								
Hadj (s)	-0.07	0.03	0.03	0.00								
Departure Headway (s)	7.0	7.0	7.4	6.3								
Degree Utilization, x	0.50	0.61	0.30	1.15								
Capacity (veh/h)	484	502	441	560								
Control Delay (s)	16.9	20.2	13.4	108.1								
Approach Delay (s)	16.9	20.2	13.4	108.1								
Approach LOS	C	C	B	F								
Intersection Summary												
Delay			60.8									
HCM Level of Service			F									
Intersection Capacity Utilization			64.0%	ICU Level of Service	B							
Analysis Period (min)			15									

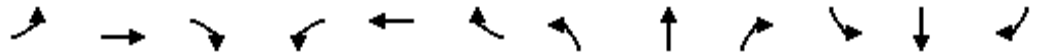


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↷			↶
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	38	13	69	34	32	892
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	45	15	87	43	34	939
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.64	0.98			0.98	
vC, conflicting volume	1115	109			130	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1139	93			115	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	68	98			98	
cM capacity (veh/h)	139	947			1448	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	45	15	130	973
Volume Left	45	0	0	34
Volume Right	0	15	43	0
cSH	139	947	1700	1448
Volume to Capacity	0.32	0.02	0.08	0.02
Queue Length 95th (ft)	33	1	0	2
Control Delay (s)	42.8	8.9	0.0	0.6
Lane LOS	E	A		A
Approach Delay (s)	34.2		0.0	0.6
Approach LOS	D			

Intersection Summary			
Average Delay		2.3	
Intersection Capacity Utilization		65.4%	ICU Level of Service C
Analysis Period (min)		15	

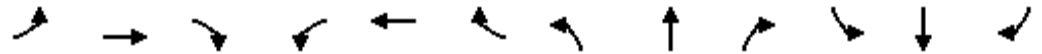




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	107	48	16	210	8	17	92	7	22	413	24
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	14	124	56	17	228	9	22	118	9	27	504	29

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	194	254	149	560
Volume Left (vph)	14	17	22	27
Volume Right (vph)	56	9	9	29
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.6	6.6	6.6	5.7
Degree Utilization, x	0.36	0.46	0.27	0.89
Capacity (veh/h)	511	517	494	617
Control Delay (s)	13.2	15.1	12.0	38.5
Approach Delay (s)	13.2	15.1	12.0	38.5
Approach LOS	B	C	B	E

Intersection Summary			
Delay	25.7		
HCM Level of Service	D		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	93	60	30	133	14	17	95	17	22	406	49
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	9	118	76	43	190	20	22	125	22	24	451	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	203	253	170	530
Volume Left (vph)	9	43	22	24
Volume Right (vph)	76	20	22	54
Hadj (s)	-0.18	0.02	-0.02	-0.02
Departure Headway (s)	6.5	6.6	6.5	5.8
Degree Utilization, x	0.37	0.46	0.31	0.85
Capacity (veh/h)	508	508	495	610
Control Delay (s)	13.2	15.0	12.4	32.8
Approach Delay (s)	13.2	15.0	12.4	32.8
Approach LOS	B	C	B	D

Intersection Summary			
Delay		22.5	
HCM Level of Service		C	
Intersection Capacity Utilization	54.9%		ICU Level of Service A
Analysis Period (min)		15	

# 2035 ALTERNATIVE 1 NO BUILD





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.411								0.950		
Satd. Flow (perm)	766	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			115				13		324	38	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	9	0	107	0	0	0	782	70	726	230	121
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	9	0	113	0	0	0	897	0	764	369	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	29.0		29.0				28.6		29.0	29.0	
Total Split (s)	43.5	0.0	43.5	0.0	0.0	0.0	46.5	0.0	43.5	43.5	0.0
Total Split (%)	48.3%	0.0%	48.3%	0.0%	0.0%	0.0%	51.7%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	1.8		1.8				1.4		1.8	1.8	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	40.5		40.5				43.5		40.5	40.5	
Actuated g/C Ratio	0.45		0.45				0.48		0.45	0.45	
v/c Ratio	0.03		0.15				0.66		0.32	0.58	
Control Delay	14.2		3.4				4.7		9.1	20.9	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	14.2		3.4				4.7		9.1	20.9	
LOS	B		A				A		A	C	
Approach Delay									13.0		



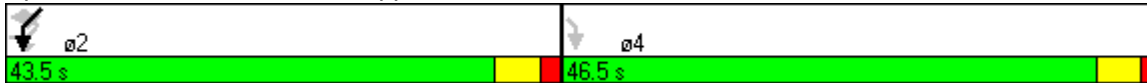
Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Approach LOS										B	
Queue Length 50th (ft)	3		0				31		51	135	
Queue Length 95th (ft)	11		28				m37		76	227	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	345		776				1354		2424	634	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	
Storage Cap Reductn	0		0				0		0	0	
Reduced v/c Ratio	0.03		0.15				0.66		0.32	0.58	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	13 (14%), Referenced to phase 2:EBSWL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization:	58.2%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 12: McCoppin St. & Otis St.





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%						0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4994	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.929					0.950		
Satd. Flow (perm)	4994	0	0	4724	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				374		22		12		1
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	629	43	13	1413	1092	723	235	90	900	445	180
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	707	0	0	1501	1149	761	247	0	1042	468	189
Turn Type			Perm		Perm	custom	custom	custom	custom		Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.0	29.0	30.0	30.0	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	32.2%	32.2%	33.3%	33.3%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.0	26.0		27.0	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.29	0.29		0.30	0.62	0.62
v/c Ratio	0.45			1.02	1.91	0.73	0.70		1.00	0.23	0.32
Control Delay	25.5			60.8	431.9	33.7	37.9		52.9	3.9	5.1
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	25.5			60.8	431.9	33.7	37.9		52.9	3.9	5.1
LOS	C			E	F	C	D		D	A	A
Approach Delay	25.5			221.7						34.1	

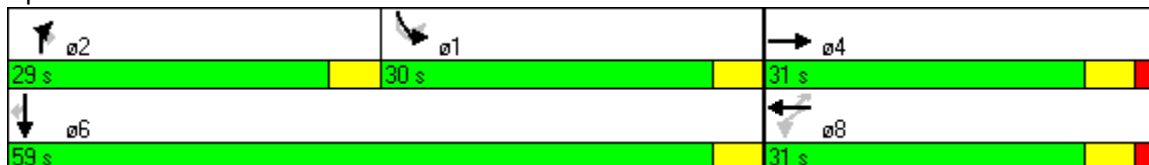


Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR	
Approach LOS	C			F						C		
Queue Length 50th (ft)	115			~323	~867	170	114		~267	26	21	
Queue Length 95th (ft)	150			#428	#1115	225	#221		#421	36	m34	
Internal Link Dist (ft)	246			307						534		
Turn Bay Length (ft)											50	
Base Capacity (vph)	1562			1470	603	1043	355		1038	2026	590	
Starvation Cap Reductn	0			0	0	0	0		0	0	0	
Spillback Cap Reductn	0			0	0	0	0		0	0	0	
Storage Cap Reductn	0			0	0	0	0		0	0	0	
Reduced v/c Ratio	0.45			1.02	1.91	0.73	0.70		1.00	0.23	0.32	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.91  
 Intersection Signal Delay: 115.2                      Intersection LOS: F  
 Intersection Capacity Utilization 130.3%                      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

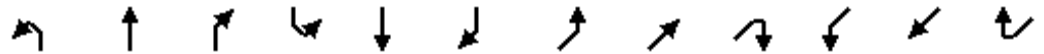
**Splits and Phases: 18: Duboce St. &**





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑	↑		↑↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4818	1425	0	4818	1583	0	1594	0	0	1614	0
Flt Permitted												
Satd. Flow (perm)	0	4818	927	0	4818	734	0	1594	0	0	1614	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			5					1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	2251	174	0	1482	254	0	485	48	0	581	40
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			0									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2274	176	0	1629	279	0	599	0	0	682	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		48.0	48.0		48.0	48.0		42.0			42.0	
Total Split (s)	0.0	48.0	48.0	0.0	48.0	48.0	0.0	42.0	0.0	0.0	42.0	0.0
Total Split (%)	0.0%	53.3%	53.3%	0.0%	53.3%	53.3%	0.0%	46.7%	0.0%	0.0%	46.7%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.9	2.9		2.9	2.9		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		45.0	45.0		45.0	45.0		39.0			39.0	
Actuated g/C Ratio		0.50	0.50		0.50	0.50		0.43			0.43	
v/c Ratio		0.94	0.38		0.68	0.76		0.87			0.98	
Control Delay		31.3	16.4		31.4	44.6		20.9			37.1	
Queue Delay		0.0	0.0		0.1	0.0		0.0			0.0	
Total Delay		31.3	16.4		31.5	44.6		20.9			37.1	
LOS		C	B		C	D		C			D	
Approach Delay		30.2			33.4			20.9			37.1	



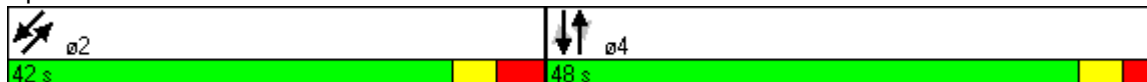

















Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		C			C			C			D	
Queue Length 50th (ft)		427	57		292	137		325			369	
Queue Length 95th (ft)		#564	108		319	m#257		m#439			#593	
Internal Link Dist (ft)		306			37			263			106	
Turn Bay Length (ft)												
Base Capacity (vph)		2409	466		2409	367		691			699	
Starvation Cap Reductn		0	0		139	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.94	0.38		0.72	0.76		0.87			0.98	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 83 (92%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 31.1                      Intersection LOS: C  
 Intersection Capacity Utilization 86.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.



						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations	  		 			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					2	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	845	0	876	631	122	621
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	889	0	922	664	128	654
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	39.0	39.0	39.0	51.0	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	56.7%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	36.0		36.0	48.0	48.0	48.0
Actuated g/C Ratio	0.40		0.40	0.53	0.53	0.53
v/c Ratio	0.47		0.65	0.67	0.15	0.68
Control Delay	7.3		24.6	24.5	16.4	19.9
Queue Delay	0.0		1.9	0.0	0.0	1.4
Total Delay	7.3		26.5	24.5	16.4	21.3
LOS	A		C	C	B	C
Approach Delay			26.5	23.2		21.3

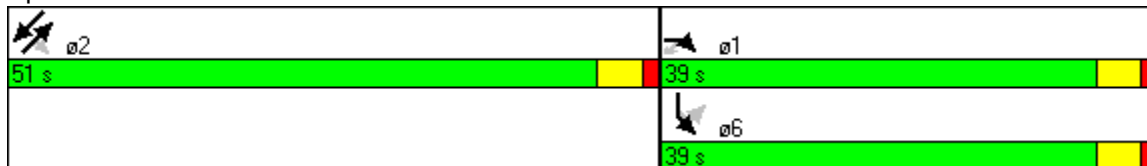


Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Approach LOS			C	C		C
Queue Length 50th (ft)	48		208	279	47	257
Queue Length 95th (ft)	m56		271	m363	m66	384
Internal Link Dist (ft)			300	390		455
Turn Bay Length (ft)						
Base Capacity (vph)	1900		1416	994	845	961
Starvation Cap Reductn	0		326	0	0	143
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.47		0.85	0.67	0.15	0.80

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 19.4 Intersection LOS: B  
 Intersection Capacity Utilization 64.9% ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 102: Fell St. & Market St.





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>577</del>	<del>778</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1540	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1540	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			34			3		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	107	1182	2004	178	631	514	87	108
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1357	2296	0	664	747	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.56	0.94		1.02	1.21		
Control Delay		11.6	24.5		61.0	123.5		
Queue Delay		0.0	0.0		0.0	0.9		
Total Delay		11.6	24.5		61.0	124.3		
LOS		B	C		E	F		
Approach Delay		19.7			61.0	124.3		



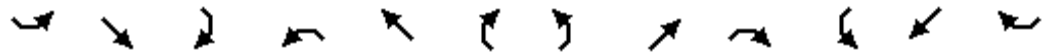
Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	B				E	F		
Queue Length 50th (ft)	115	262			~239	~356		
Queue Length 95th (ft)	152	#398			#441	m#494		
Internal Link Dist (ft)	272					455	524	
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2433			654	618		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	5	0			0	1		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.56	0.94			1.02	1.21		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 43 (72%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 40.5 Intersection LOS: D  
 Intersection Capacity Utilization 96.5% ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29							1			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	46	2118	179	0	0	0	0	477	332	0	530	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2465	0	0	0	0	0	502	349	0	558	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.06						0.72	0.50		0.68	
Control Delay		50.2						17.9	14.0		18.5	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		50.2						17.9	14.0		18.5	
LOS		D						B	B		B	
Approach Delay		50.2						16.3			18.5	

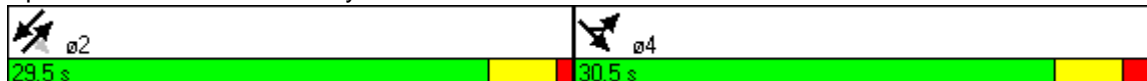


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		D						B			B	
Queue Length 50th (ft)		~354						184	124		153	
Queue Length 95th (ft)		#455						m186	m126		253	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2318						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.06						0.72	0.50		0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 18 (30%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 38.2                      Intersection LOS: D  
 Intersection Capacity Utilization 80.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4904	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4904	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		10										5
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			355			200	
Travel Time (s)		10.3			6.7			9.7			5.5	
Volume (vph)	0	1368	266	0	0	0	0	0	0	63	1827	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1757	0	0	0	0	0	0	0	0	1969	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		34.0									50.0	
Actuated g/C Ratio		0.38									0.56	
v/c Ratio		0.95									0.94	
Control Delay		39.1									23.5	
Queue Delay		0.0									0.0	
Total Delay		39.1									23.5	
LOS		D									C	
Approach Delay		39.1									23.5	





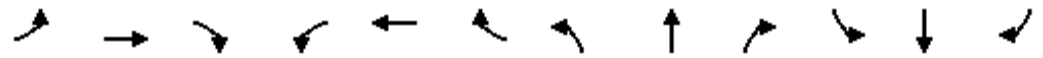
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									C	
Queue Length 50th (ft)		346									556	
Queue Length 95th (ft)		#457									#663	
Internal Link Dist (ft)		296			165			275			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1859									2093	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.95									0.94	

**Intersection Summary**

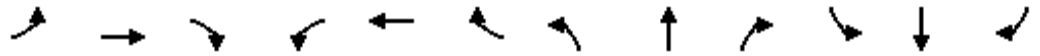
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	11 (12%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	70
Control Type:	Pretimed
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	30.9
Intersection LOS:	C
Intersection Capacity Utilization:	66.5%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗↘					↖		↖↗↘				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	33					12						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			404			169	
Travel Time (s)		6.2			6.0			11.0			4.6	
Volume (vph)	1431	0	0	0	0	46	0	1498	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1522	0	0	0	0	54	0	1544	0	0	0	0
Turn Type	custom			custom								
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	45.0	0.0	0.0	0.0	0.0	45.0	0.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	42.0					42.0		42.0				
Actuated g/C Ratio	0.47					0.47		0.47				
v/c Ratio	0.72					0.08		0.72				
Control Delay	2.0					11.4		2.3				
Queue Delay	0.8					0.0		0.4				
Total Delay	2.8					11.4		2.7				
LOS	A					B		A				
Approach Delay								2.7				

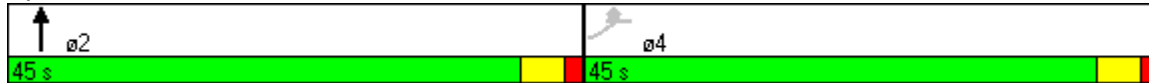


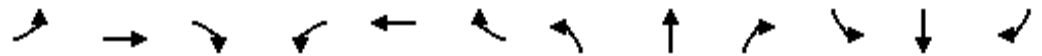
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									A				
Queue Length 50th (ft)	11						13	19					
Queue Length 95th (ft)	m11						31	m20					
Internal Link Dist (ft)	146			141			324			89			
Turn Bay Length (ft)													
Base Capacity (vph)	2113					683		2136					
Starvation Cap Reductn	287					0		185					
Spillback Cap Reductn	37					12		0					
Storage Cap Reductn	0					0		0					
Reduced v/c Ratio	0.83					0.08		0.79					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 31 (34%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 2.9                      Intersection LOS: A  
 Intersection Capacity Utilization 73.1%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 405: Oak St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3441	0	0	0	0	0	4053	1117
Flt Permitted					0.990						0.998	
Satd. Flow (perm)	0	0	0	0	3441	0	0	0	0	0	4053	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											49	49
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	95	401	0	0	0	0	107	1830	1163
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	636	0	0	0	0	0	2515	681
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	0.0	0.0	0.0	67.0	67.0	67.0
Total Split (%)	0.0%	0.0%	0.0%	25.6%	25.6%	0.0%	0.0%	0.0%	0.0%	74.4%	74.4%	74.4%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					20.0						64.0	64.0
Actuated g/C Ratio					0.22						0.71	0.71
v/c Ratio					0.83						0.87	0.84
Control Delay					43.7						5.2	7.4
Queue Delay					0.0						4.2	3.7
Total Delay					43.7						9.3	11.1
LOS					D						A	B
Approach Delay					43.7						9.7	

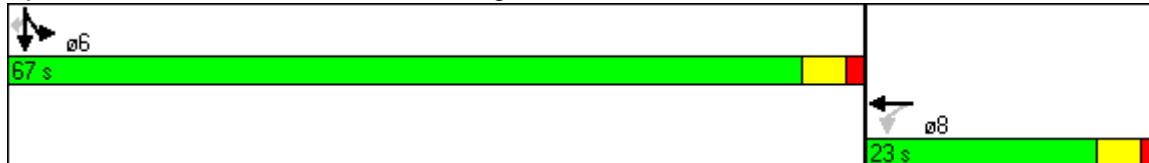


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						A					
Queue Length 50th (ft)	187						127 80					
Queue Length 95th (ft)	208						m102 m65					
Internal Link Dist (ft)	289			371			112			228		
Turn Bay Length (ft)												
Base Capacity (vph)	765						2896 808					
Starvation Cap Reductn	0						314 69					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.83						0.97 0.92					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 15.3      Intersection LOS: B  
 Intersection Capacity Utilization 68.5%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 406: Fell St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3479	0	0	1863	0	0	4748	1137	0	0	0
Flt Permitted		0.861						0.990				
Satd. Flow (perm)	0	3047	0	0	1863	0	0	4748	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								6	671			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	38	69	0	0	49	0	447	1670	678	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	119	0	0	52	0	0	2241	671	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	24.0	24.0	0.0	0.0	24.0	0.0	66.0	66.0	66.0	0.0	0.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	0.0%	26.7%	0.0%	73.3%	73.3%	73.3%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		21.0			21.0			63.0	63.0			
Actuated g/C Ratio		0.23			0.23			0.70	0.70			
v/c Ratio		0.17			0.12			0.67	0.67			
Control Delay		24.9			37.3			8.6	3.9			
Queue Delay		0.0			0.0			0.6	0.3			
Total Delay		24.9			37.3			9.2	4.1			
LOS		C			D			A	A			
Approach Delay		24.9			37.3			8.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3446	0	0	0	0	0	4515	0	1770	4478	0
Flt Permitted		0.994								0.083		
Satd. Flow (perm)	0	3446	0	0	0	0	0	4515	0	155	4478	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						7			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	95	611	41	0	0	0	0	2221	70	164	1598	49
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		20	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	820	0	0	0	0	0	2362	0	171	1716	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	33.0	33.0						42.0		8.1	21.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	48.3	0.0	8.7	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.7%	0.0%	9.7%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.9	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		30.0						45.3		54.0	54.0	
Actuated g/C Ratio		0.33						0.50		0.60	0.60	
v/c Ratio		0.71						1.04		0.88	0.64	
Control Delay		27.0						29.9		28.9	1.4	
Queue Delay		0.0						0.0		0.0	0.1	
Total Delay		27.0						29.9		28.9	1.5	
LOS		C						C		C	A	
Approach Delay		27.0						29.9			4.0	



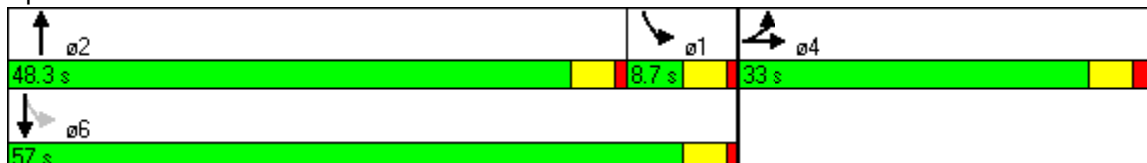


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						C			A	
Queue Length 50th (ft)		198						~531		48	7	
Queue Length 95th (ft)		271						m#576		m48	m8	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)										110		
Base Capacity (vph)		1153						2276		195	2690	
Starvation Cap Reductn		0						0		0	213	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.71						1.04		0.88	0.69	

**Intersection Summary**

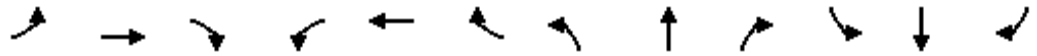
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 45 (50%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.04  
 Intersection Signal Delay: 19.8      Intersection LOS: B  
 Intersection Capacity Utilization 91.0%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21									4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	85	150	631	462	0	0	0	0	166	2319	42
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	305	0	657	481	0	0	0	0	0	2605	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	26.0	45.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	28.9%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		42.0	42.0						42.0	
Actuated g/C Ratio		0.18		0.47	0.47						0.47	
v/c Ratio		0.99		1.23	0.57						1.17	
Control Delay		84.8		134.3	6.4						97.1	
Queue Delay		0.0		0.0	0.4						10.3	
Total Delay		84.8		134.3	6.8						107.4	
LOS		F		F	A						F	
Approach Delay		84.8			80.4						107.4	

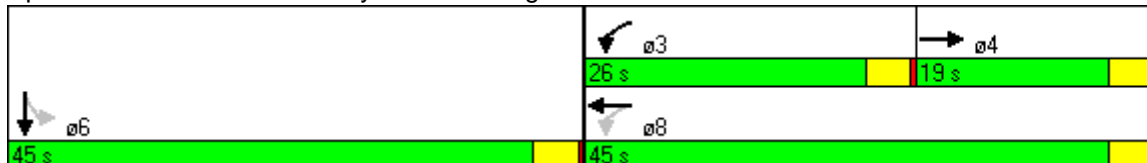


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			F						F	
Queue Length 50th (ft)		164		~404	46						~638	
Queue Length 95th (ft)		#255		m#557	m57						#739	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)		309		535	838						2222	
Starvation Cap Reductn		0		0	88						43	
Spillback Cap Reductn		0		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		0.99		1.23	0.64						1.20	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.23  
 Intersection Signal Delay: 98.1                      Intersection LOS: F  
 Intersection Capacity Utilization 107.7%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3243	1441	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	1796	0	0	3243	1441	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5	5						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	251	0	0	981	721	112	1596	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	264	0	0	1290	560	0	1897	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	46.0	0.0	0.0	46.0	46.0	44.0	44.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	51.1%	0.0%	0.0%	51.1%	51.1%	48.9%	48.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		43.0			43.0	43.0		41.0				
Actuated g/C Ratio		0.48			0.48	0.48		0.46				
v/c Ratio		0.31			0.83	0.81		0.87				
Control Delay		20.4			5.9	7.2		20.0				
Queue Delay		0.0			0.7	0.4		4.4				
Total Delay		20.4			6.6	7.5		24.4				
LOS		C			A	A		C				
Approach Delay		20.4			6.9			24.4				

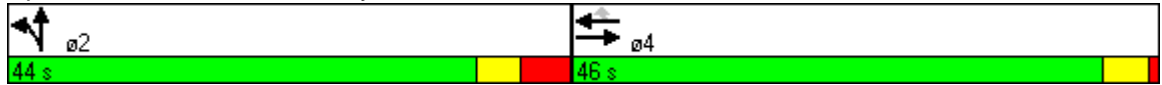


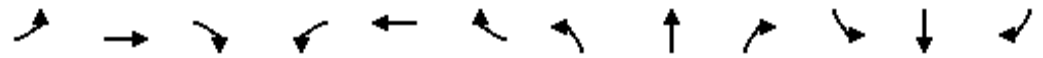
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C				A				C		
Queue Length 50th (ft)		123			102	83		147				
Queue Length 95th (ft)		m111			m84	m70		234				
Internal Link Dist (ft)		378			401			243			95	
Turn Bay Length (ft)												
Base Capacity (vph)		858			1552	691		2175				
Starvation Cap Reductn		0			73	12		217				
Spillback Cap Reductn		0			0	0		169				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.31			0.87	0.82		0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 16.0      Intersection LOS: B  
 Intersection Capacity Utilization 107.7%      ICU Level of Service G  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 413: Hayes St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50		50	50			50	
Trailing Detector (ft)		0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1803	0	0	4500	0	1770	4906	0	0	4449	0
Flt Permitted					0.928		0.100					
Satd. Flow (perm)	0	1803	0	0	4180	0	186	4906	0	0	4449	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			7			4			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	191	60	32	1225	294	386	1968	31	0	1719	91
Confl. Peds. (#/hr)							224					449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	264	0	0	1632	0	402	2082	0	0	1886	0
Turn Type				Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases				4			2					
Detector Phases		4		4	4		5	2			6	
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)		37.0		37.0	37.0		8.4	51.0			39.0	
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	13.0	53.0	0.0	0.0	40.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	14.4%	58.9%	0.0%	0.0%	44.4%	0.0%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)		2.2		2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		34.0			34.0		50.0	50.0			37.0	
Actuated g/C Ratio		0.38			0.38		0.56	0.56			0.41	
v/c Ratio		0.38			1.03		1.44	0.76			1.03	
Control Delay		4.9			59.7		225.3	2.0			42.2	
Queue Delay		0.0			4.7		0.0	2.5			6.7	
Total Delay		4.9			64.5		225.3	4.5			48.8	
LOS		A			E		F	A			D	
Approach Delay		4.9			64.5			40.2			48.8	

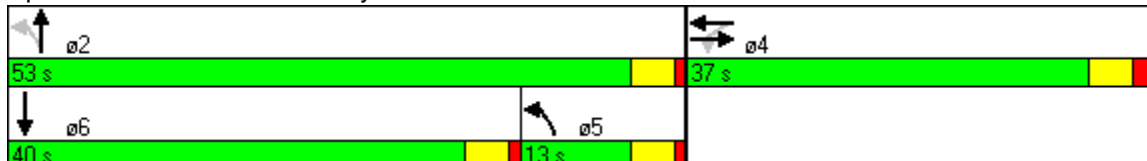


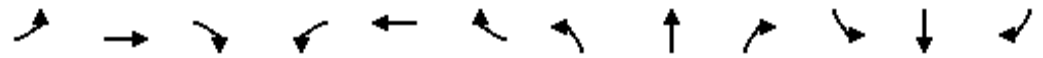
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			E			D			D	
Queue Length 50th (ft)		0			~367		~273	28			~198	
Queue Length 95th (ft)		0			#463		m#273	m27			m#211	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)							172					
Base Capacity (vph)		694			1583		279	2727			1834	
Starvation Cap Reductn		0			0		0	498			32	
Spillback Cap Reductn		0			20		0	5			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.38			1.04		1.44	0.93			1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 53 (59%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.44  
 Intersection Signal Delay: 47.7      Intersection LOS: D  
 Intersection Capacity Utilization 120.2%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			116		33							20
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	192	93	1480	0	0	0	0	0	591	71
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	202	0	1656	0	0	0	0	0	622	75
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.22		0.56						0.48	0.14
Control Delay			4.1		3.3						10.4	6.7
Queue Delay			0.0		0.0						0.1	0.0
Total Delay			4.1		3.3						10.4	6.7
LOS			A		A						B	A
Approach Delay					3.3						10.0	



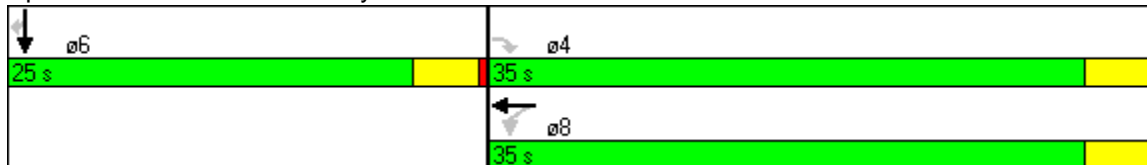


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)			14		26					44	5	
Queue Length 95th (ft)			41		m32					71	m20	
Internal Link Dist (ft)		153			70			300			82	
Turn Bay Length (ft)												
Base Capacity (vph)			913		2979					1298	535	
Starvation Cap Reductn			0		0					0	0	
Spillback Cap Reductn			12		9					53	0	
Storage Cap Reductn			0		0					0	0	
Reduced v/c Ratio			0.22		0.56					0.50	0.14	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 56 (93%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.56  
 Intersection Signal Delay: 5.2                      Intersection LOS: A  
 Intersection Capacity Utilization 61.1%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3382	0	0	0	0	0	5050	0
Flt Permitted					0.551						0.997	
Satd. Flow (perm)	0	1749	0	0	1915	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	299	70	259	210	0	0	0	0	147	2198	67
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	397	0	0	521	0	0	0	0	0	2487	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.64			1.47dl							0.85
Control Delay		29.4			19.6							5.1
Queue Delay		0.0			0.0							39.8
Total Delay		29.4			19.6							44.9
LOS		C			B							D
Approach Delay		29.4			19.6							44.9

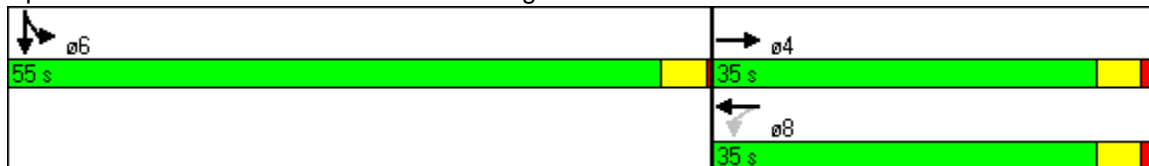


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B						D	
Queue Length 50th (ft)		183			41						47	
Queue Length 95th (ft)		282			m78						51	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		625			681						2921	
Starvation Cap Reductn		0			0						211	
Spillback Cap Reductn		0			0						628	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.64			0.77						1.08	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	69 (77%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	39.2
Intersection LOS:	D
Intersection Capacity Utilization:	91.3%
ICU Level of Service:	F
Analysis Period (min):	15
m	Volume for 95th percentile queue is metered by upstream signal.
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3260	0	0	5055	0	0	0	0
Flt Permitted		0.658						0.999				
Satd. Flow (perm)	0	2287	0	0	3260	0	0	5055	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			10				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	67	379	0	0	434	302	35	2265	81	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	501	0	0	767	0	0	2455	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.66			0.70			0.81				
Control Delay		22.6			20.9			9.3				
Queue Delay		0.0			0.0			2.7				
Total Delay		22.6			20.9			12.0				
LOS		C			C			B				
Approach Delay		22.6			20.9			12.0				



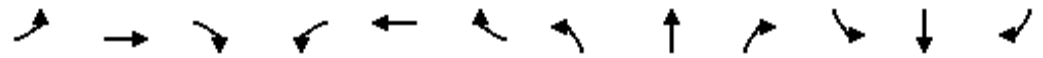
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B				
Queue Length 50th (ft)		74			195			171				
Queue Length 95th (ft)		m128			m243			187				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		762			1090			3037				
Starvation Cap Reductn		0			0			451				
Spillback Cap Reductn		0			0			305				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.66			0.70			0.95				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 15.2      Intersection LOS: B  
 Intersection Capacity Utilization 90.4%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	1		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3265	0	0	3424	0	1770	4521	0	1770	4349	0
Flt Permitted		0.942			0.847		0.098			0.105		
Satd. Flow (perm)	0	3078	0	0	2914	0	183	4521	0	196	4349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			1			1			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	9	397	54	48	439	31	257	1934	95	46	1708	40
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	535	0	0	575	0	273	2158	0	48	1821	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Detector Phases	4	4		4	4		5	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		9.3	55.0		41.0	41.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	14.0	55.0	0.0	41.0	41.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	15.6%	61.1%	0.0%	45.6%	45.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2		1.8	1.8		1.8	1.8	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		32.0			32.0		52.0	52.0		38.0	38.0	
Actuated g/C Ratio		0.36			0.36		0.58	0.58		0.42	0.42	
v/c Ratio		0.48			0.55		0.91	0.83		0.58	0.99	
Control Delay		40.7			25.7		57.4	11.8		51.6	47.8	
Queue Delay		0.0			0.0		0.0	0.1		0.0	8.5	
Total Delay		40.7			25.7		57.4	12.0		51.6	56.2	
LOS		D			C		E	B		D	E	
Approach Delay		40.7			25.7			17.1			56.1	

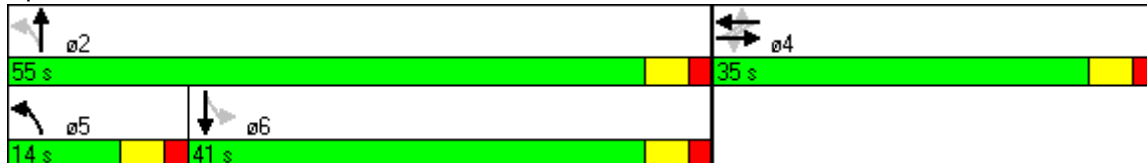


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			E		
Queue Length 50th (ft)	160			135			119	169	24		331	
Queue Length 95th (ft)	m200			188			m#191	m187	m36		#472	
Internal Link Dist (ft)	397			406			90			592		
Turn Bay Length (ft)							130			125		
Base Capacity (vph)	1106			1037			300	2613	83		1839	
Starvation Cap Reductn	0			0			0	52	0		0	
Spillback Cap Reductn	0			0			0	0	0		58	
Storage Cap Reductn	0			0			0	0	0		0	
Reduced v/c Ratio	0.48			0.55			0.91	0.84	0.58		1.02	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 33.8                      Intersection LOS: C  
 Intersection Capacity Utilization 111.5%                      ICU Level of Service H  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 418: Grove St. & Van Ness Avenue**

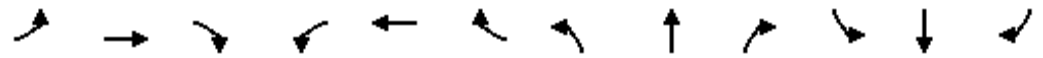




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3128	0
Flt Permitted		0.915			0.904						0.995	
Satd. Flow (perm)	0	2920	1377	0	2856	0	0	0	0	0	3128	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			141		15							25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	24	380	134	40	455	34	0	0	0	62	508	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	425	141	0	557	0	0	0	0	0	666	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4						2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0							27.0
Actuated g/C Ratio		0.45	0.45		0.45							0.45
v/c Ratio		0.32	0.20		0.43							0.47
Control Delay		11.5	3.0		10.6							8.7
Queue Delay		0.0	0.0		0.0							0.0
Total Delay		11.5	3.0		10.6							8.7
LOS		B	A		B							A
Approach Delay		9.4			10.6						8.7	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1770	0	0	4837	0	1770	0	1267
Flt Permitted	0.572							0.992		0.133		
Satd. Flow (perm)	994	1863	0	0	1770	0	0	4837	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			20				91
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			198			210			358	
Travel Time (s)		13.1			5.4			5.7			9.8	
Volume (vph)	174	268	0	0	129	77	314	1634	107	15	0	86
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	183	282	0	0	217	0	0	2164	0	16	0	91
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.46	0.38			0.30			0.89		0.13		0.13
Control Delay	17.1	13.5			10.6			4.5		6.4		2.5
Queue Delay	0.0	0.0			0.0			0.2		0.0		0.0
Total Delay	17.1	13.5			10.6			4.7		6.4		2.5
LOS	B	B			B			A		A		A
Approach Delay		14.9			10.6			4.7				

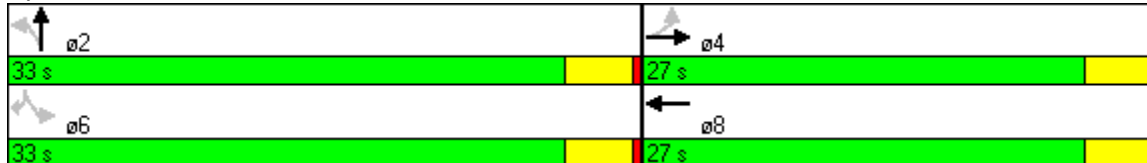


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			B			A					
Queue Length 50th (ft)	59	88			14			19		2		0
Queue Length 95th (ft)	123	157			m16			m24		8		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	398	745			714			2429		124		679
Starvation Cap Reductn	0	0			0			27		0		0
Spillback Cap Reductn	0	0			0			0		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.46	0.38			0.30			0.90		0.13		0.13

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 6.7                      Intersection LOS: A  
 Intersection Capacity Utilization 73.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1792	0	0	1835	0	0	0	0	0	5050	0
Flt Permitted					0.537						0.999	
Satd. Flow (perm)	0	1792	0	0	1000	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3									11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	297	114	73	167	0	0	0	0	39	2225	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	457	0	0	276	0	0	0	0	0	2484	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.67			0.73							0.88
Control Delay		29.2			23.7							7.7
Queue Delay		0.0			0.0							1.3
Total Delay		29.2			23.7							9.0
LOS		C			C							A
Approach Delay		29.2			23.7							9.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C						A	
Queue Length 50th (ft)		212			141						43	
Queue Length 95th (ft)		320			m153						85	
Internal Link Dist (ft)		407			140			272			253	
Turn Bay Length (ft)												
Base Capacity (vph)		679			378						2810	
Starvation Cap Reductn		0			0						157	
Spillback Cap Reductn		0			0						106	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.67			0.73						0.94	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	60 (67%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	13.1
Intersection LOS:	B
Intersection Capacity Utilization:	91.3%
ICU Level of Service:	F
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 428: Fulton St. & Gough St.





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4798	0	0
Flt Permitted	0.950			0.995		
Satd. Flow (perm)	1770	0	0	4798	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	336	0	240	2394	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	442	0	0	2715	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	31.0	0.0	59.0	59.0	0.0	0.0
Total Split (%)	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	28.0			56.0		
Actuated g/C Ratio	0.31			0.62		
v/c Ratio	0.80			0.91		
Control Delay	25.1			10.8		
Queue Delay	0.0			0.8		
Total Delay	25.1			11.6		
LOS	C			B		
Approach Delay	25.1			11.6		



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	C			B		
Queue Length 50th (ft)	236			91		
Queue Length 95th (ft)	m191			98		
Internal Link Dist (ft)	163			265		254
Turn Bay Length (ft)						
Base Capacity (vph)	551			2985		
Starvation Cap Reductn	0			6		
Spillback Cap Reductn	0			85		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.80			0.94		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 73 (81%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 13.5      Intersection LOS: B  
 Intersection Capacity Utilization 86.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑			↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1897	0	4891	0	0	1749
Flt Permitted	0.981					0.626
Satd. Flow (perm)	1897	0	4891	0	0	1109
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	6		12			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	35	57	1824	61	23	66
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	97	0	1984	0	0	93
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.13		0.78			0.16
Control Delay	12.1		8.7			7.8
Queue Delay	0.0		0.2			0.0
Total Delay	12.1		8.9			7.8
LOS	B		A			A
Approach Delay	12.1		8.9			7.8







Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		16			24	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	32	0	0	1862	92
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	34	0	0	2057	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.08			0.73	
Control Delay		12.1			3.9	
Queue Delay		0.0			0.0	
Total Delay		12.1			3.9	
LOS		B			A	
Approach Delay					3.9	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		5			50	
Queue Length 95th (ft)		23			66	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		441			2814	
Starvation Cap Reductn		0			13	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.08			0.73	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	4.1
Intersection LOS:	A
Intersection Capacity Utilization	48.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1718	0	0	3490	0	0	0	0	0	5040	0
Flt Permitted					0.611						0.998	
Satd. Flow (perm)	0	1718	0	0	2162	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	277	45	120	313	0	0	0	0	98	2195	106
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	384	0	0	455	0	0	0	0	0	2552	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					18.0	18.0	
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		30.0			30.0						54.0	
Actuated g/C Ratio		0.33			0.33						0.60	
v/c Ratio		0.67			0.63						0.84	
Control Delay		32.1			39.1						7.3	
Queue Delay		0.0			0.0						1.8	
Total Delay		32.1			39.1						9.0	
LOS		C			D						A	
Approach Delay		32.1			39.1						9.0	

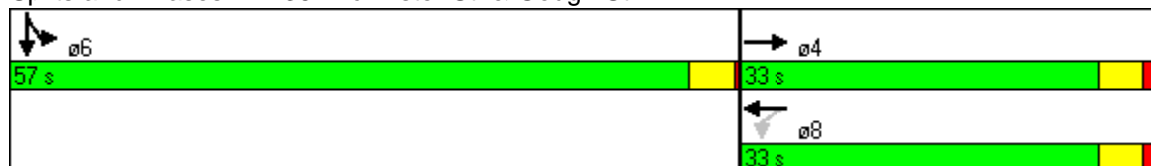


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D						A	
Queue Length 50th (ft)		183				144						141
Queue Length 95th (ft)		257			m180							183
Internal Link Dist (ft)		361				207		253				268
Turn Bay Length (ft)												
Base Capacity (vph)		576				721						3030
Starvation Cap Reductn		0				0						308
Spillback Cap Reductn		0				0						214
Storage Cap Reductn		0				0						0
Reduced v/c Ratio		0.67				0.63						0.94

**Intersection Summary**

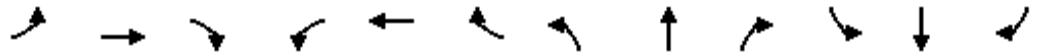
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	49 (54%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization:	86.2%
ICU Level of Service:	E
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 435: McAllister St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3186	0	0	5029	0	0	0	0
Flt Permitted		0.758						0.999				
Satd. Flow (perm)	0	1327	0	0	3186	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			23				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	25	350	0	0	386	360	47	2493	190	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	407	0	0	848	0	0	2873	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.92			0.80			0.95				
Control Delay		49.7			10.1			13.6				
Queue Delay		0.0			0.0			19.1				
Total Delay		49.7			10.1			32.7				
LOS		D			B			C				
Approach Delay		49.7			10.1			32.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			C				
Queue Length 50th (ft)		241			25			98				
Queue Length 95th (ft)		m#390			30			#147				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		442			1063			3027				
Starvation Cap Reductn		0			0			264				
Spillback Cap Reductn		0			0			28				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.92			0.80			1.04				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 29.7      Intersection LOS: C  
 Intersection Capacity Utilization 99.0%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕↕		↗	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50		50	50	
Trailing Detector (ft)	0	0		0	0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3362	0	0	3529	1425	0	4330	0	1770	4511	0
Flt Permitted		0.911			0.838					0.084		
Satd. Flow (perm)	0	3065	0	0	2953	1151	0	4330	0	156	4511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				49		8			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	17	446	77	49	700	180	0	1908	66	41	1668	46
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		32			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	607	0	0	806	194	0	2057	0	43	1804	0
Turn Type	Perm			Perm		Perm				pm+pt		
Protected Phases		4			4			2		1	6	
Permitted Phases	4			4		4				6		
Detector Phases	4	4		4	4	4		2		1	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0		2.0	3.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0		31.0		7.3	30.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	0.0	47.7	0.0	7.3	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	38.9%	0.0%	53.0%	0.0%	8.1%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2	2.2		1.8		1.8	1.8	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max		Max	Max	
Act Effct Green (s)		32.0			32.0	32.0		44.7		52.0	52.0	
Actuated g/C Ratio		0.36			0.36	0.36		0.50		0.58	0.58	
v/c Ratio		0.56			0.77	0.44		0.95		0.26	0.69	
Control Delay		36.5			31.6	20.0		13.8		10.6	8.4	
Queue Delay		0.0			0.0	0.0		1.3		0.0	0.0	
Total Delay		36.5			31.6	20.0		15.1		10.6	8.4	
LOS		D			C	C		B		B	A	
Approach Delay		36.5			29.3			15.1			8.4	



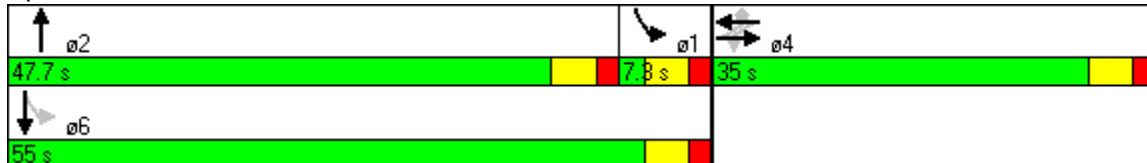


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			A		
Queue Length 50th (ft)	166			211			61	180			6	86
Queue Length 95th (ft)	m181			283			123	#516			m9	100
Internal Link Dist (ft)	417			381			592			104		
Turn Bay Length (ft)										125		
Base Capacity (vph)	1092			1050			441	2155			167	2609
Starvation Cap Reductn	0			0			0	0			0	24
Spillback Cap Reductn	0			0			0	32			0	0
Storage Cap Reductn	0			0			0	0			0	0
Reduced v/c Ratio	0.56			0.77			0.44	0.97			0.26	0.70

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 17.8  
 Intersection LOS: B  
 Intersection Capacity Utilization 99.6%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3030	0	1652	3001	0	0	1591	0	0	3165	0
Flt Permitted		0.906		0.375				0.979			0.937	
Satd. Flow (perm)	0	2751	0	652	3001	0	0	1561	0	0	2974	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		100			24			22			102	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	23	392	138	104	777	79	3	34	21	37	391	149
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	582	0	109	901	0	0	61	0	0	608	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	30.5	30.5	0.0	30.5	30.5	0.0	29.5	29.5	0.0	29.5	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.5		27.5	27.5			26.5			26.5	
Actuated g/C Ratio		0.46		0.46	0.46			0.44			0.44	
v/c Ratio		0.44		0.36	0.65			0.09			0.44	
Control Delay		10.3		6.2	5.3			0.6			8.3	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		10.3		6.2	5.3			0.6			8.3	
LOS		B		A	A			A			A	
Approach Delay		10.3			5.4			0.6			8.3	

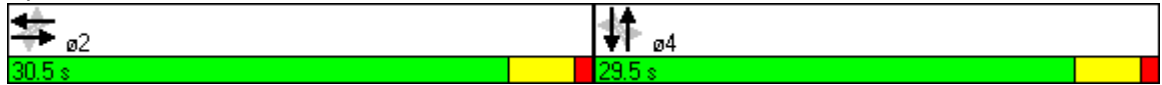


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		56		9	36			1			67	
Queue Length 95th (ft)		92		m10	m43			m0			102	
Internal Link Dist (ft)		381			175			592			104	
Turn Bay Length (ft)												
Base Capacity (vph)		1315		299	1388			702			1370	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.44		0.36	0.65			0.09			0.44	

**Intersection Summary**

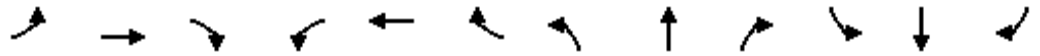
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 11 (18%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 7.3                      Intersection LOS: A  
 Intersection Capacity Utilization 69.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 438: McAllister St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1801	0	0	3423	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.949			0.996				
Satd. Flow (perm)	287	1801	0	0	3251	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			5			7				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	107	262	74	15	817	228	150	1693	38	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	113	354	0	0	1116	0	0	1980	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.91	0.44			0.79			0.84				
Control Delay	92.1	23.3			16.1			7.8				
Queue Delay	0.0	0.0			0.0			0.1				
Total Delay	92.1	23.3			16.1			7.9				
LOS	F	C			B			A				
Approach Delay		40.0			16.1			7.9				

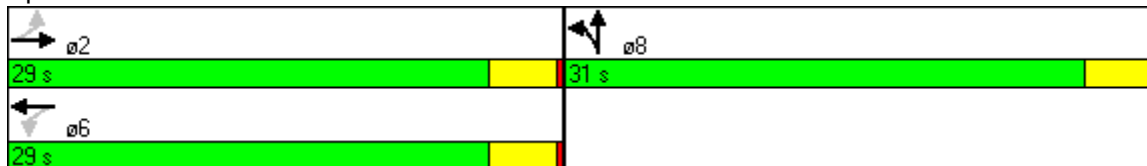


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			B			A					
Queue Length 50th (ft)	43	114			86			43				
Queue Length 95th (ft)	#127	189			152			50				
Internal Link Dist (ft)		169			411			255			118	
Turn Bay Length (ft)												
Base Capacity (vph)	124	797			1412			2345				
Starvation Cap Reductn	0	0			0			30				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.91	0.44			0.79			0.86				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 14.7      Intersection LOS: B  
 Intersection Capacity Utilization 95.2%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 439: McAllister St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4743	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			14	14							34	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	300	95	928	0	0	0	0	0	1559	132
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	316	100	977	0	0	0	0	0	1780	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.50	0.15	0.72						0.72	
Control Delay			10.5	11.4	19.5						7.3	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			10.5	11.4	19.5						7.3	
LOS			B	B	B						A	
Approach Delay					18.7						7.3	





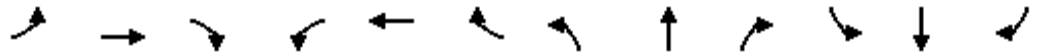
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4882	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4882	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		11										38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	593	218	0	0	0	0	0	0	321	2181	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	872	0	0	0	0	0	0	0	0	2606	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.0	64.0	0.0
Total Split (%)	0.0%	28.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.1%	71.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		23.0									61.0	
Actuated g/C Ratio		0.26									0.68	
v/c Ratio		0.69									0.81	
Control Delay		33.4									2.8	
Queue Delay		0.0									1.1	
Total Delay		33.4									3.8	
LOS		C									A	
Approach Delay		33.4									3.8	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5919	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5919	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	113	801	0	0	0	0	0	2842	143	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	932	0	0	0	0	0	3077	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.0						58.0				
Actuated g/C Ratio		0.29						0.64				
v/c Ratio		0.65						0.81				
Control Delay		33.5						4.5				
Queue Delay		0.0						1.6				
Total Delay		33.5						6.1				
LOS		C						A				
Approach Delay		33.5						6.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		189							90				
Queue Length 95th (ft)		236							m95				
Internal Link Dist (ft)		216				162			71			240	
Turn Bay Length (ft)													
Base Capacity (vph)		1444							3822				
Starvation Cap Reductn		0							532				
Spillback Cap Reductn		0							260				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.65							0.94				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 12.5      Intersection LOS: B  
 Intersection Capacity Utilization 68.0%      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 451: Golden Gate Ave. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	150		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4760	0	0	0	0	0	4377	0	1770	4545	0
Flt Permitted		0.996								0.083		
Satd. Flow (perm)	0	4695	0	0	0	0	0	4377	0	155	4545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	67	711	166	0	0	0	0	2013	92	125	1589	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					22	22		14	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	994	0	0	0	0	0	2216	0	132	1673	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		2.0	4.0	
Minimum Split (s)	35.0	35.0						38.0		6.0	48.0	
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	7.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	7.8%	61.1%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.0	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.0						45.0		52.0	52.0	
Actuated g/C Ratio		0.36						0.50		0.58	0.58	
v/c Ratio		0.59						1.01		0.82	0.64	
Control Delay		42.5						30.9		37.7	3.2	
Queue Delay		0.0						4.2		0.0	0.1	
Total Delay		42.5						35.1		37.7	3.3	
LOS		D						D		D	A	
Approach Delay		42.5						35.1			5.8	

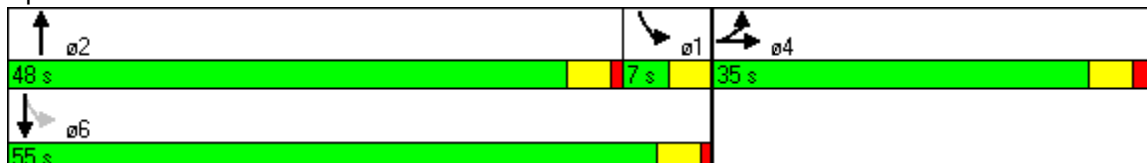


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						D			A	
Queue Length 50th (ft)		214						~173		21	30	
Queue Length 95th (ft)		260						m#522		m37	50	
Internal Link Dist (ft)		159			387			98			78	
Turn Bay Length (ft)										150		
Base Capacity (vph)		1694						2194		161	2626	
Starvation Cap Reductn		0						29		0	156	
Spillback Cap Reductn		0						0		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.59						1.02		0.82	0.68	

**Intersection Summary**

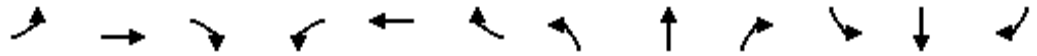
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 26.0      Intersection LOS: C  
 Intersection Capacity Utilization 83.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4726	0	0	0	0	0	1596	0	0	3319	0
Flt Permitted		0.997									0.830	
Satd. Flow (perm)	0	4726	0	0	0	0	0	1596	0	0	2791	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		83						51				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	62	715	151	0	0	0	0	88	48	153	426	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	977	0	0	0	0	0	144	0	0	609	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.3	28.3	0.0	0.0	0.0	0.0	0.0	31.7	0.0	31.7	31.7	0.0
Total Split (%)	47.2%	47.2%	0.0%	0.0%	0.0%	0.0%	0.0%	52.8%	0.0%	52.8%	52.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.3						28.7			28.7	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.48						0.18			0.46	
Control Delay		12.3						4.2			11.4	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.3						4.2			11.4	
LOS		B						A			B	
Approach Delay		12.3						4.2			11.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		80						5			60	
Queue Length 95th (ft)		112						m14			101	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		2041						790			1335	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.48						0.18			0.46	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.48  
 Intersection Signal Delay: 11.3                      Intersection LOS: B  
 Intersection Capacity Utilization 52.2%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**

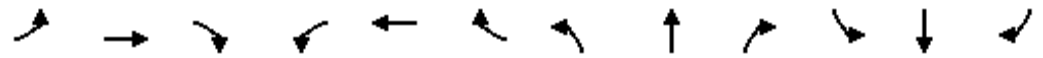
 28.3 s	 31.7 s
 31.7 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	4761	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	5034	0	0	0	0	0	4761	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11						52				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	179	737	0	0	0	0	0	1780	248	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	964	0	0	0	0	0	2135	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.56						0.80				
Control Delay		9.9						5.1				
Queue Delay		0.0						0.1				
Total Delay		9.9						5.1				
LOS		A						A				
Approach Delay		9.9						5.1				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4841	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4841	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		43										47
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	668	317	0	0	0	0	0	0	149	1374	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1037	0	0	0	0	0	0	0	0	1603	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.70									0.56	
Control Delay		13.3									6.2	
Queue Delay		0.0									0.3	
Total Delay		13.3									6.4	
LOS		B									A	
Approach Delay		13.3									6.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		57									54	
Queue Length 95th (ft)		91									89	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1482									2888	
Starvation Cap Reductn		0									566	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.70									0.69	

**Intersection Summary**

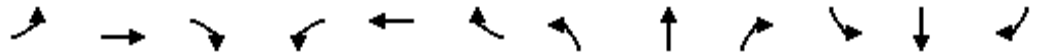
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	9.1
Intersection LOS:	A
Intersection Capacity Utilization	56.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				3							16	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	212	1029	0	0	0	0	0	2290	150
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	233	1131	0	0	0	0	0	2516	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				33.0	33.0						51.0	
Actuated g/C Ratio				0.37	0.37						0.57	
v/c Ratio				0.39	0.93						0.94	
Control Delay				9.4	26.3						10.9	
Queue Delay				0.0	1.0						1.7	
Total Delay				9.4	27.2						12.6	
LOS				A	C						B	
Approach Delay					24.2						12.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				32	376							67
Queue Length 95th (ft)				m47	#487							#177
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				592	1221							2687
Starvation Cap Reductn				0	18							79
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.39	0.94							0.96

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 16.7      Intersection LOS: B  
 Intersection Capacity Utilization 77.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5709	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5709	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						3		7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	967	253	274	2681	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1007	264	0	3078	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	28.0	28.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	31.1%	31.1%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					25.0	25.0		59.0				
Actuated g/C Ratio					0.28	0.28		0.66				
v/c Ratio					0.72	0.60		0.82				
Control Delay					25.2	25.6		4.7				
Queue Delay					0.3	0.0		1.4				
Total Delay					25.5	25.6		6.1				
LOS					C	C		A				
Approach Delay					25.5			6.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)					223	157			24			
Queue Length 95th (ft)					m269	m228			26			
Internal Link Dist (ft)	101				153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1396	442			3745			
Starvation Cap Reductn					0	0			219			
Spillback Cap Reductn					74	0			440			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.76	0.60			0.93			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 11.8      Intersection LOS: B  
 Intersection Capacity Utilization 68.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	110		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4973	0	1770	4496	0	0	4476	0
Flt Permitted				0.998		0.091						
Satd. Flow (perm)	0	0	0	0	4932	0	170	4496	0	0	4476	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	55	1019	71	151	1929	0	0	1659	50
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1245	0	159	2031	0	0	1744	0
Turn Type				Split			pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases							2					
Detector Phases				4	4		5	2			6	
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	
Minimum Split (s)				35.0	35.0		7.0	48.0			38.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	11.0	55.0	0.0	0.0	44.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.9%	38.9%	0.0%	12.2%	61.1%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					32.0		52.0	52.0			41.0	
Actuated g/C Ratio					0.36		0.58	0.58			0.46	
v/c Ratio					0.70		0.66	0.78			0.85	
Control Delay					27.5		15.7	1.5			18.4	
Queue Delay					0.0		0.0	1.9			0.4	
Total Delay					27.5		15.7	3.5			18.8	
LOS					C		B	A			B	
Approach Delay					27.5			4.3			18.8	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4934	0	0	2077	0	0	2063	0
Flt Permitted					0.994			0.790				
Satd. Flow (perm)	0	0	0	0	4934	0	0	1668	0	0	2063	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					28						23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	164	1012	99	48	102	0	0	415	85
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1342	0	0	158	0	0	526	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	28.5	28.5	0.0	31.5	31.5	0.0	0.0	31.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.5%	47.5%	0.0%	52.5%	52.5%	0.0%	0.0%	52.5%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.5			28.5			28.5	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.64			0.20			0.53	
Control Delay					7.0			13.2			6.3	
Queue Delay					0.0			0.0			0.5	
Total Delay					7.0			13.2			6.8	
LOS					A			B			A	
Approach Delay					7.0			13.2			6.8	

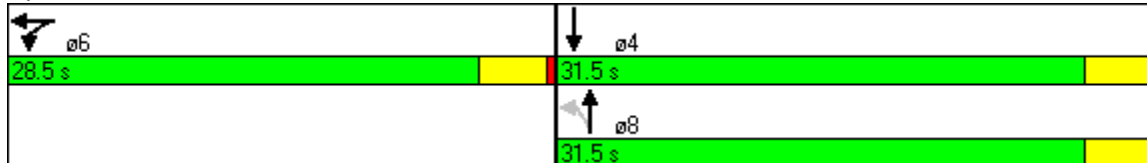


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B			A	
Queue Length 50th (ft)					32			32			55	
Queue Length 95th (ft)					89			78			m70	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2113			792			992	
Starvation Cap Reductn					0			0			154	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.64			0.20			0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 8 (13%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 7.4      Intersection LOS: A  
 Intersection Capacity Utilization 70.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 469: Turk St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4879	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4879	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					28			19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		222			273			313			233	
Travel Time (s)		6.1			7.4			8.5			6.4	
Volume (vph)	0	0	0	0	857	110	418	1541	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1063	0	0	1999	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	22.0	0.0	38.0	38.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					19.0			35.0				
Actuated g/C Ratio					0.32			0.58				
v/c Ratio					0.68			0.71				
Control Delay					12.4			8.0				
Queue Delay					0.0			0.2				
Total Delay					12.4			8.2				
LOS					B			A				
Approach Delay					12.4			8.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					56			95				
Queue Length 95th (ft)					71			121				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1564			2805				
Starvation Cap Reductn					0			180				
Spillback Cap Reductn					0			18				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.68			0.76				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	6 (10%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization:	63.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 470: Turk St. & Larkin St.

← 06	↖ 08
22 s	38 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4676	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4676	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					46						71	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	250	687	0	0	0	0	0	1273	280
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	976	0	0	0	0	0	1585	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.55						0.61	
Control Delay					16.3						14.3	
Queue Delay					0.0						0.6	
Total Delay					16.3						14.9	
LOS					B						B	
Approach Delay					16.3						14.9	

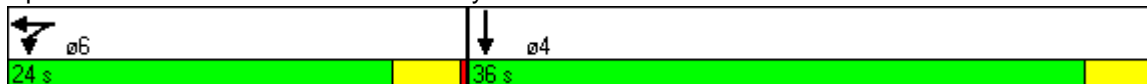


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					96						189	
Queue Length 95th (ft)					132						239	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1773						2604	
Starvation Cap Reductn					0						574	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.55						0.78	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	55 (92%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	15.5
Intersection LOS:	B
Intersection Capacity Utilization:	55.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1745	0	0	1803	0	0	0	0	0	5040	0
Flt Permitted					0.636						0.996	
Satd. Flow (perm)	0	1745	0	0	1156	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5									11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	266	111	39	192	0	0	0	0	184	2290	94
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	428	0	0	272	0	0	0	0	0	2675	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	32.0	0.0	32.0	32.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		29.0			29.0							55.0
Actuated g/C Ratio		0.32			0.32							0.61
v/c Ratio		0.76			0.73							0.87
Control Delay		37.1			26.4							7.5
Queue Delay		3.2			0.0							2.0
Total Delay		40.3			26.4							9.6
LOS		D			C							A
Approach Delay		40.3			26.4							9.6



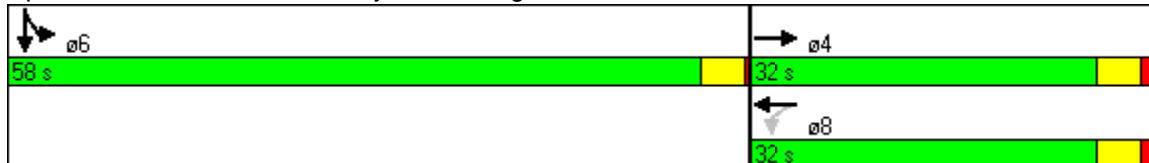


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C						A	
Queue Length 50th (ft)		214			41						107	
Queue Length 95th (ft)		#317			m90						164	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		566			372						3084	
Starvation Cap Reductn		0			0						266	
Spillback Cap Reductn		68			0						22	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.86			0.73						0.95	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 14.8      Intersection LOS: B  
 Intersection Capacity Utilization 93.1%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1782	0	0	5919	0	0	0	0
Flt Permitted		0.854						0.999				
Satd. Flow (perm)	0	1553	0	0	1782	0	0	5919	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		476			482			188			156	
Travel Time (s)		13.0			13.1			5.1			4.3	
Volume (vph)	65	385	0	0	195	35	36	2792	125	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	569	0	0	291	0	0	3044	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	38.0	38.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		35.0			35.0			49.0				
Actuated g/C Ratio		0.39			0.39			0.54				
v/c Ratio		0.94			0.42			0.94				
Control Delay		40.1			26.7			13.8				
Queue Delay		7.1			0.0			5.6				
Total Delay		47.3			26.7			19.5				
LOS		D			C			B				
Approach Delay		47.3			26.7			19.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B					
Queue Length 50th (ft)	172			141			430					
Queue Length 95th (ft)	#398			190			#359					
Internal Link Dist (ft)	396			402			108			76		
Turn Bay Length (ft)												
Base Capacity (vph)	604			694			3229					
Starvation Cap Reductn	0			0			174					
Spillback Cap Reductn	27			0			164					
Storage Cap Reductn	0			0			0					
Reduced v/c Ratio	0.99			0.42			1.00					

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	28 (31%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	24.1
Intersection LOS:	C
Intersection Capacity Utilization:	89.3%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 479: Eddy St. & Franklin St.





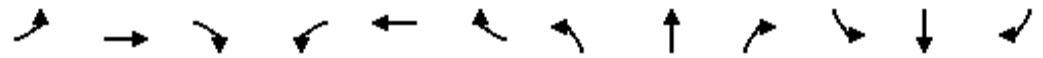
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50		50	50	
Trailing Detector (ft)	0	0		0	0			0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1726	0	0	1763	0	0	4323	0	1770	4353	0
Flt Permitted		0.956			0.928					0.082		
Satd. Flow (perm)	0	1642	0	0	1635	0	0	4323	0	153	4353	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			17			13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	42	358	110	18	151	31	0	1879	121	75	1581	79
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								15	15		17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	630	0	0	235	0	0	2020	0	75	1660	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			48.0		48.0	48.0	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	52.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	57.8%	57.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9		0.9	0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		35.0			35.0			49.0		49.0	49.0	
Actuated g/C Ratio		0.39			0.39			0.54		0.54	0.54	
v/c Ratio		0.98			0.37			0.86		0.90	0.70	
Control Delay		49.7			21.7			11.4		84.8	12.3	
Queue Delay		0.0			0.0			0.0		0.0	0.2	
Total Delay		49.7			21.7			11.4		84.8	12.5	
LOS		D			C			B		F	B	
Approach Delay		49.7			21.7			11.4			15.6	





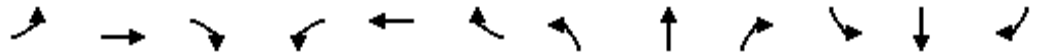
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1766	0	0	1741	0	0	1968	0	0	2005	0
Flt Permitted		0.934			0.820			0.907			0.879	
Satd. Flow (perm)	0	1661	0	0	1451	0	0	1797	0	0	1784	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			27			56			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	84	380	90	44	67	28	28	105	68	147	366	105
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	583	0	0	146	0	0	212	0	0	651	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.77			0.22			0.25			0.80	
Control Delay		22.2			1.0			2.4			18.8	
Queue Delay		0.0			0.0			0.0			5.3	
Total Delay		22.2			1.0			2.4			24.2	
LOS		C			A			A			C	
Approach Delay		22.2			1.0			2.4			24.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	0	0	0	4951	0	0	0	0
Flt Permitted		0.993						0.996				
Satd. Flow (perm)	0	1850	0	0	0	0	0	4951	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								45				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		211			283			134			161	
Travel Time (s)		5.8			7.7			3.7			4.4	
Volume (vph)	88	498	0	0	0	0	139	1331	181	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	617	0	0	0	0	0	1738	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		28.0							26.0			
Actuated g/C Ratio		0.47							0.43			
v/c Ratio		0.71							0.80			
Control Delay		15.2							8.0			
Queue Delay		0.0							0.1			
Total Delay		15.2							8.1			
LOS		B							A			
Approach Delay		15.2							8.1			



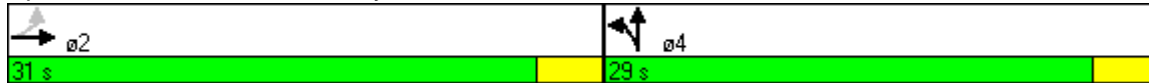


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B							A			
Queue Length 50th (ft)		175							95			
Queue Length 95th (ft)		m238							162			
Internal Link Dist (ft)		131			203				54		81	
Turn Bay Length (ft)												
Base Capacity (vph)		863							2171			
Starvation Cap Reductn		0							37			
Spillback Cap Reductn		0							0			
Storage Cap Reductn		0							0			
Reduced v/c Ratio		0.71							0.81			

**Intersection Summary**

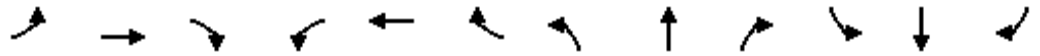
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 16 (27%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 9.9                      Intersection LOS: A  
 Intersection Capacity Utilization 70.3%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↓↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4833	0	0	0	0	0	0	0	0	4714	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4833	0	0	0	0	0	0	0	0	4714	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		57									56	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	489	190	0	0	0	0	0	0	136	1363	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	715	0	0	0	0	0	0	0	0	1578	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.57									0.51	
Control Delay		12.6									1.9	
Queue Delay		0.0									0.4	
Total Delay		12.6									2.3	
LOS		B									A	
Approach Delay		12.6									2.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B											A
Queue Length 50th (ft)	27											9
Queue Length 95th (ft)	m82											18
Internal Link Dist (ft)	112			399			255			259		
Turn Bay Length (ft)												
Base Capacity (vph)	1251						3084					
Starvation Cap Reductn	0						834					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.57						0.70					

**Intersection Summary**

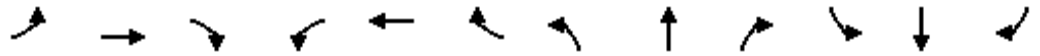
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 34 (57%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.57  
 Intersection Signal Delay: 5.5      Intersection LOS: A  
 Intersection Capacity Utilization 49.5%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			5	5							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	38	233	303	0	0	0	0	0	2297	32
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	68	291	379	0	0	0	0	0	2452	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			27.0	27.0	27.0						57.0	
Actuated g/C Ratio			0.30	0.30	0.30						0.63	
v/c Ratio			0.14	0.54	0.68						0.84	
Control Delay			22.6	15.8	21.8						5.8	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			22.6	15.8	21.8						5.8	
LOS			C	B	C						A	
Approach Delay					19.2						5.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS							B			A		
Queue Length 50th (ft)			26	47	68							
Queue Length 95th (ft)			34	m96	m125							
Internal Link Dist (ft)	79					398	249			162		
Turn Bay Length (ft)												
Base Capacity (vph)			487	535	559							
Starvation Cap Reductn			0	0	0							
Spillback Cap Reductn			0	0	0							
Storage Cap Reductn			0	0	0							
Reduced v/c Ratio			0.14	0.54	0.68							

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 21 (23%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 9.0                      Intersection LOS: A  
 Intersection Capacity Utilization 71.3%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 488: Ellis St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		478			479			171			185	
Travel Time (s)		13.0			13.1			4.7			5.0	
Volume (vph)	0	0	0	0	429	359	107	2786	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	466	390	0	3078	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	37.8	37.8	52.2	52.2	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	42.0%	42.0%	58.0%	58.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					34.8	34.8		49.2				
Actuated g/C Ratio					0.39	0.39		0.55				
v/c Ratio					0.34	0.64		0.83				
Control Delay					18.9	27.3		5.3				
Queue Delay					0.0	0.0		0.8				
Total Delay					18.9	27.3		6.1				
LOS					B	C		A				
Approach Delay					22.7			6.1				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4745	0	1770	4561	0	0	4428	0
Flt Permitted				0.996			0.078					
Satd. Flow (perm)	0	0	0	0	4671	0	145	4561	0	0	4428	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2						11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	75	645	166	58	1830	0	0	1634	85
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								12			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	973	0	62	1968	0	0	1809	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				33.0	33.0		48.0	48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	57.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					30.0		54.0	54.0			54.0	
Actuated g/C Ratio					0.33		0.60	0.60			0.60	
v/c Ratio					0.61		0.71	0.72			0.68	
Control Delay					27.1		35.7	2.7			16.3	
Queue Delay					0.0		0.0	0.9			0.1	
Total Delay					27.1		35.7	3.6			16.3	
LOS					C		D	A			B	
Approach Delay					27.1			4.6			16.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				B
Queue Length 50th (ft)					167		2	26				210
Queue Length 95th (ft)					212		m3	m30				209
Internal Link Dist (ft)		399			399			88				99
Turn Bay Length (ft)							120					
Base Capacity (vph)					1583		87	2737				2661
Starvation Cap Reductn					0		0	436				113
Spillback Cap Reductn					0		0	22				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.61		0.71	0.86				0.71

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	81 (90%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	13.6
Intersection LOS:	B
Intersection Capacity Utilization:	71.9%
ICU Level of Service:	C
Analysis Period (min):	15

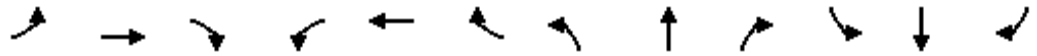
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4934	0	0	2057	0	0	2013	0
Flt Permitted					0.993			0.848				
Satd. Flow (perm)	0	0	0	0	4934	0	0	1762	0	0	2013	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					68						38	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	149	709	157	43	174	0	0	458	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1068	0	0	228	0	0	623	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.6	24.6	0.0	35.4	35.4	0.0	0.0	35.4	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.0%	41.0%	0.0%	59.0%	59.0%	0.0%	0.0%	59.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.6			32.4			32.4	
Actuated g/C Ratio					0.36			0.54			0.54	
v/c Ratio					0.59			0.24			0.56	
Control Delay					5.0			7.1			5.3	
Queue Delay					0.0			0.0			0.6	
Total Delay					5.0			7.1			5.9	
LOS					A			A			A	
Approach Delay					5.0			7.1			5.9	

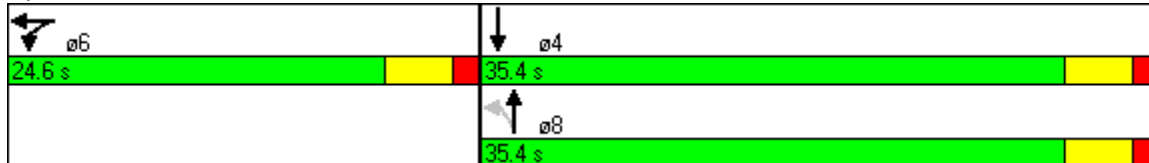


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					25			38			27	
Queue Length 95th (ft)					30			m57			m81	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1820			951			1105	
Starvation Cap Reductn					0			0			186	
Spillback Cap Reductn					10			0			100	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.59			0.24			0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 38 (63%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 5.6      Intersection LOS: A  
 Intersection Capacity Utilization 73.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4907	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4907	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					34			52				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	846	262	169	1239	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1167	0	0	1482	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.5	0.0	33.5	33.5	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.2%	0.0%	55.8%	55.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.5			30.5				
Actuated g/C Ratio					0.39			0.51				
v/c Ratio					0.60			0.61				
Control Delay					9.3			1.8				
Queue Delay					0.0			0.1				
Total Delay					9.3			1.8				
LOS					A			A				
Approach Delay					9.3			1.8				

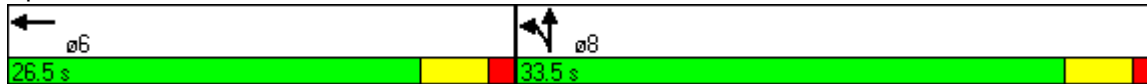


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					47			13				
Queue Length 95th (ft)					64			13				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1943			2437				
Starvation Cap Reductn					0			98				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.60			0.63				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	25 (42%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	56.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5034	0	0	0	0	0	4625	0
Flt Permitted					0.990							
Satd. Flow (perm)	0	0	0	0	5034	0	0	0	0	0	4625	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					24						73	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	209	805	0	0	0	0	0	1290	303
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1067	0	0	0	0	0	1677	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.51						0.74	
Control Delay					13.6						8.1	
Queue Delay					0.0						0.4	
Total Delay					13.6						8.5	
LOS					B						A	
Approach Delay					13.6						8.5	

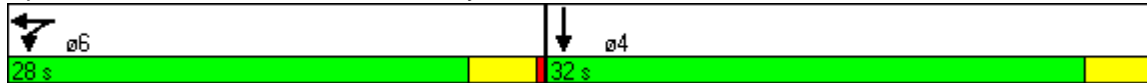


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A					
Queue Length 50th (ft)	97						35					
Queue Length 95th (ft)	131						m40					
Internal Link Dist (ft)	399			402			259			292		
Turn Bay Length (ft)												
Base Capacity (vph)	2112						2273					
Starvation Cap Reductn	0						185					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.51						0.80					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 13 (22%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 10.5      Intersection LOS: B  
 Intersection Capacity Utilization 58.1%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6522	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6522	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		297			483			190			163	
Travel Time (s)		8.1			13.2			5.2			4.4	
Volume (vph)	391	1124	0	0	0	0	0	2976	169	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1665	0	0	0	0	0	3311	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	44.8	44.8	0.0	0.0	0.0	0.0	0.0	45.2	0.0	0.0	0.0	0.0
Total Split (%)	49.8%	49.8%	0.0%	0.0%	0.0%	0.0%	0.0%	50.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		41.8						42.2				
Actuated g/C Ratio		0.46						0.47				
v/c Ratio		1.08						1.08				
Control Delay		73.1						52.9				
Queue Delay		4.2						24.7				
Total Delay		77.2						77.7				
LOS		E						E				
Approach Delay		77.2						77.7				



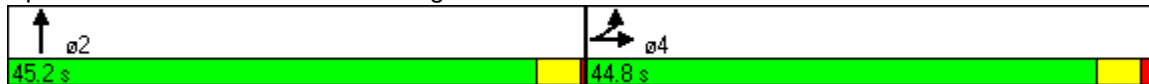


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E							E				
Queue Length 50th (ft)	~586							~109				
Queue Length 95th (ft)	m#647							#487				
Internal Link Dist (ft)	217			403			110			83		
Turn Bay Length (ft)												
Base Capacity (vph)	1535							3068				
Starvation Cap Reductn	0							11				
Spillback Cap Reductn	14							153				
Storage Cap Reductn	0							0				
Reduced v/c Ratio	1.09							1.14				

**Intersection Summary**

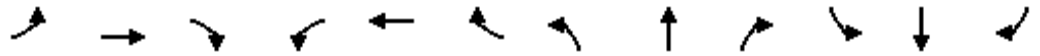
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 77.5      Intersection LOS: E  
 Intersection Capacity Utilization 87.0%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕↕		↗	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		1	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3518	1583	0	0	0	0	4399	0	1770	4601	0
Flt Permitted		0.994								0.089		
Satd. Flow (perm)	0	3479	1338	0	0	0	0	4399	0	166	4601	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			14					14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	129	996	168	0	0	0	0	1872	111	183	1637	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		7	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1184	177	0	0	0	0	2003	0	210	1882	0
Turn Type	Split		Perm							pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases			4							6		
Detector Phases	4	4	4					2		1	6	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	34.0	34.0	34.0					20.0		8.1	30.0	
Total Split (s)	34.0	34.0	34.0	0.0	0.0	0.0	0.0	45.0	0.0	11.0	56.0	0.0
Total Split (%)	37.8%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	12.2%	62.2%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2	2.2					0.9		0.0	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		31.0	31.0					42.0		53.0	53.0	
Actuated g/C Ratio		0.34	0.34					0.47		0.59	0.59	
v/c Ratio		0.98	0.38					0.97		0.88	0.69	
Control Delay		40.6	26.1					22.7		38.1	3.9	
Queue Delay		0.0	0.0					1.8		0.0	0.4	
Total Delay		40.6	26.1					24.5		38.1	4.2	
LOS		D	C					C		D	A	
Approach Delay		38.7						24.5			7.6	

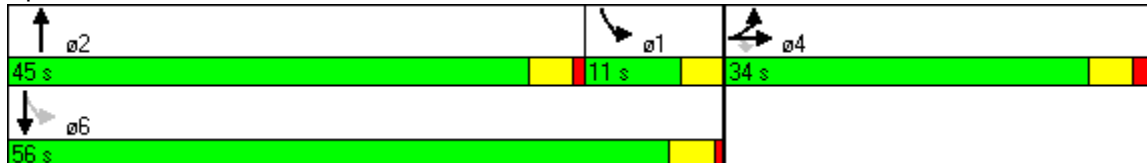


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						C			A		
Queue Length 50th (ft)	381		96				72		54	54		
Queue Length 95th (ft)	m348		m88				#272		m73	m74		
Internal Link Dist (ft)	403		242			105			274			
Turn Bay Length (ft)										140		
Base Capacity (vph)	1212		470				2060		240	2709		
Starvation Cap Reductn	0		0				26		0	315		
Spillback Cap Reductn	0		0				0		0	0		
Storage Cap Reductn	0		0				0		0	0		
Reduced v/c Ratio	0.98		0.38				0.98		0.88	0.79		

**Intersection Summary**

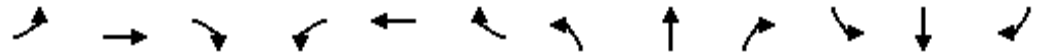
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 21.6      Intersection LOS: C  
 Intersection Capacity Utilization 92.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 501: O'Farrell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3325	1583	0	0	0	0	1913	0	0	2048	0
Flt Permitted		0.993									0.794	
Satd. Flow (perm)	0	3325	1583	0	0	0	0	1913	0	0	1649	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180					48				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	177	1030	171	0	0	0	0	99	139	173	421	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1270	180	0	0	0	0	250	0	0	625	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	31.0	31.0	31.0	0.0	0.0	0.0	0.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		28.0	28.0					26.0			26.0	
Actuated g/C Ratio		0.47	0.47					0.43			0.43	
v/c Ratio		0.82	0.22					0.29			0.87	
Control Delay		19.6	2.5					7.9			17.9	
Queue Delay		0.0	0.0					0.0			1.6	
Total Delay		19.6	2.5					7.9			19.5	
LOS		B	A					A			B	
Approach Delay		17.4						7.9			19.5	

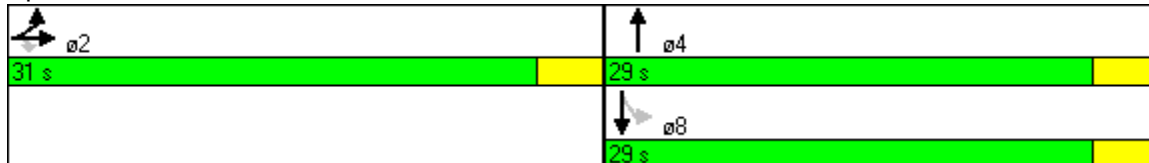


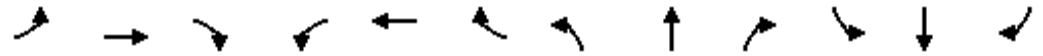
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		195	0					47			55	
Queue Length 95th (ft)		#277	27					87			m#196	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1552	835					856			715	
Starvation Cap Reductn		0	0					0			24	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.82	0.22					0.29			0.90	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 32 (53%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 17.0 Intersection LOS: B  
 Intersection Capacity Utilization 89.1% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 502: O'Farrell St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4621	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4621	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33						15				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	155	1187	0	0	0	0	0	1233	340	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1412	0	0	0	0	0	1656	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		24.0						30.0				
Actuated g/C Ratio		0.40						0.50				
v/c Ratio		0.69						0.71				
Control Delay		8.7						11.0				
Queue Delay		0.0						0.4				
Total Delay		8.7						11.4				
LOS		A						B				
Approach Delay		8.7						11.4				

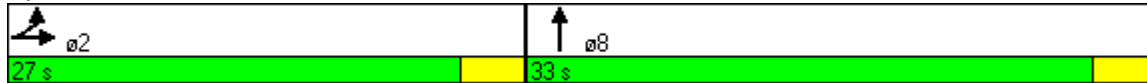


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	45						187					
Queue Length 95th (ft)	m92						262					
Internal Link Dist (ft)	288				110		116		99			
Turn Bay Length (ft)												
Base Capacity (vph)	2042						2318					
Starvation Cap Reductn	0						240					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.69						0.80					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 49 (82%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 10.2      Intersection LOS: B  
 Intersection Capacity Utilization 64.2%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 503: O'Farrell St. & Larkin St.**

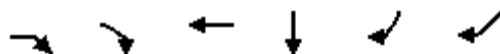




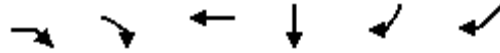
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			11									36
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1205	322	0	0	0	0	0	0	274	1271	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1268	339	0	0	0	0	0	0	0	1626	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0									24.0
Actuated g/C Ratio		0.50	0.50									0.40
v/c Ratio		0.72	0.43									0.85
Control Delay		6.1	4.9									9.9
Queue Delay		0.0	0.0									0.1
Total Delay		6.1	4.9									10.0
LOS		A	A									B
Approach Delay		5.8										10.0







Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4973	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4973	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		3		6		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1296	372	1689	1872	313	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1364	392	1778	2279	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.96	0.53	0.78	0.98		
Control Delay	40.7	20.1	27.2	27.3		
Queue Delay	0.0	0.0	1.2	12.0		
Total Delay	40.7	20.1	28.5	39.2		
LOS	D	C	C	D		
Approach Delay			28.5	39.2		

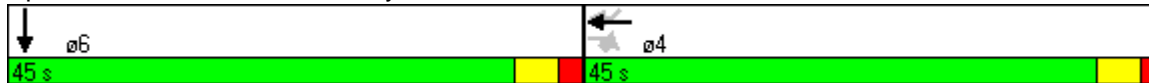


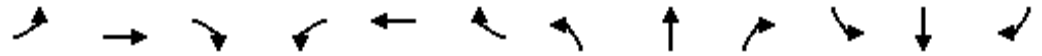
Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Approach LOS			C	D		
Queue Length 50th (ft)	376	151	358	448		
Queue Length 95th (ft)	#537	236	m418	#580		
Internal Link Dist (ft)			405	265		
Turn Bay Length (ft)						
Base Capacity (vph)	1419	740	2288	2324		
Starvation Cap Reductn	0	0	286	107		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.96	0.53	0.89	1.03		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 6 (7%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 35.0 Intersection LOS: C  
 Intersection Capacity Utilization 82.9% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 513: Geary St. & Peter Yorke





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6745	0	0	0	0
Flt Permitted								0.992				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6745	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		9				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	1158	200	531	2920	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1245	215	0	3485	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.71	0.38		0.89				
Control Delay					28.3	23.8		3.7				
Queue Delay					0.0	0.0		1.9				
Total Delay					28.3	23.8		5.6				
LOS					C	C		A				
Approach Delay					27.6			5.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)					256	115			65			
Queue Length 95th (ft)					m304	m162			m60			
Internal Link Dist (ft)	405				194				90	242		
Turn Bay Length (ft)												
Base Capacity (vph)					1743	563			3901			
Starvation Cap Reductn					0	0			269			
Spillback Cap Reductn					0	0			47			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.71	0.38			0.96			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 12.1                      Intersection LOS: B  
 Intersection Capacity Utilization 69.4%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 514: Geary St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑	↓	↑↑↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		1	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5050	1469	1770	4625	0	0	4356	0
Flt Permitted				0.993		0.089						
Satd. Flow (perm)	0	0	0	0	4941	1152	166	4625	0	0	4356	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						16						34
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	169	990	186	190	1811	0	0	1651	236
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1182	190	192	1829	0	0	1945	0
Turn Type				Split		Perm	pm+pt					
Protected Phases				4	4		5	2			6	
Permitted Phases						4	2					
Detector Phases				4	4	4	5	2			6	
Minimum Initial (s)				4.0	4.0	4.0	2.0	4.0			4.0	
Minimum Split (s)				34.0	34.0	34.0	7.0	48.0			42.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	11.0	56.0	0.0	0.0	45.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	37.8%	12.2%	62.2%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2	0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0	53.0	53.0			42.0	
Actuated g/C Ratio					0.34	0.34	0.59	0.59			0.47	
v/c Ratio					0.68	0.47	0.80	0.67			0.95	
Control Delay					27.7	25.6	24.3	1.4			37.9	
Queue Delay					0.0	0.0	0.0	0.7			0.0	
Total Delay					27.7	25.6	24.3	2.2			37.9	
LOS					C	C	C	A			D	
Approach Delay					27.4			4.3			37.9	

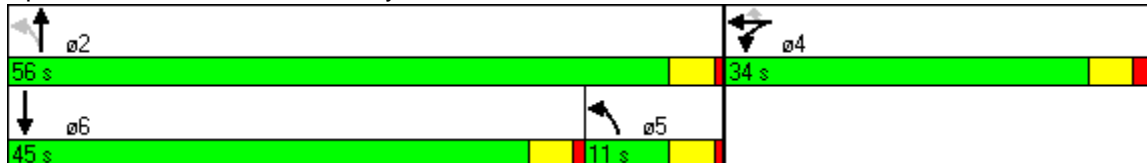


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			D	
Queue Length 50th (ft)					208	76	63	23			433	
Queue Length 95th (ft)					257	140	m62	m23			#511	
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)							120					
Base Capacity (vph)					1739	407	240	2724			2051	
Starvation Cap Reductn					0	0	0	506			0	
Spillback Cap Reductn					0	0	0	34			0	
Storage Cap Reductn					0	0	0	0			0	
Reduced v/c Ratio					0.68	0.47	0.80	0.82			0.95	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 22.4 Intersection LOS: C  
 Intersection Capacity Utilization 92.7% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 515: Geary St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50				50
Trailing Detector (ft)				0	0	0	0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3331	1583	0	2048	0	0	1988	0
Flt Permitted					0.995			0.351				
Satd. Flow (perm)	0	0	0	0	3331	1583	0	729	0	0	1988	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						108						38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	112	1026	103	79	194	0	0	509	240
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1198	108	0	287	0	0	789	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	29.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	48.3%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					26.0	26.0		28.0			28.0	
Actuated g/C Ratio					0.43	0.43		0.47			0.47	
v/c Ratio					0.83	0.14		0.84			0.83	
Control Delay					20.0	2.3		33.5			26.2	
Queue Delay					0.0	0.0		0.0			14.5	
Total Delay					20.0	2.3		33.5			40.7	
LOS					C	A		C			D	
Approach Delay					18.6			33.5			40.7	



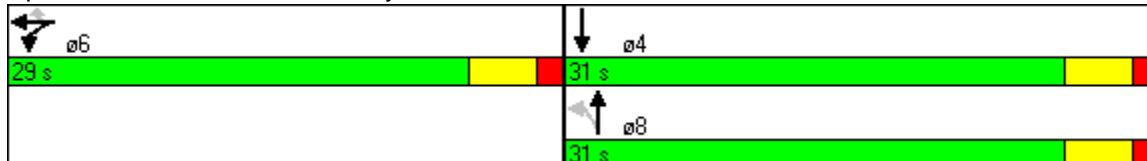


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			C			D	
Queue Length 50th (ft)					230	2		92			290	
Queue Length 95th (ft)					m#312		m7	m#169			#444	
Internal Link Dist (ft)		394			132			88			90	
Turn Bay Length (ft)												
Base Capacity (vph)					1443	747		340			948	
Starvation Cap Reductn					0	0		0			158	
Spillback Cap Reductn					0	0		0			85	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.83	0.14		0.84			1.00	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 24 (40%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 27.7      Intersection LOS: C  
 Intersection Capacity Utilization 97.6%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 516: Geary St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						15		106				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		290			195			167			168	
Travel Time (s)		7.9			5.3			4.6			4.6	
Volume (vph)	0	0	0	0	891	303	312	1099	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	938	319	0	1485	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.50	0.37		0.82				
Control Delay					3.9	3.6		10.6				
Queue Delay					0.0	0.0		0.0				
Total Delay					3.9	3.6		10.7				
LOS					A	A		B				
Approach Delay					3.8			10.7				



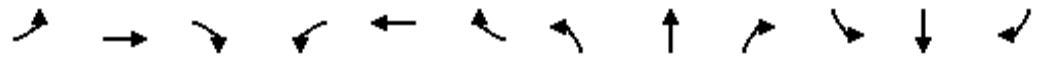
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)				41			24			113		
Queue Length 95th (ft)				m46			m27			120		
Internal Link Dist (ft)	210			115			87			88		
Turn Bay Length (ft)												
Base Capacity (vph)				1887			851			1813		
Starvation Cap Reductn				0			0			6		
Spillback Cap Reductn				0			0			0		
Storage Cap Reductn				0			0			0		
Reduced v/c Ratio				0.50			0.37			0.82		

**Intersection Summary**

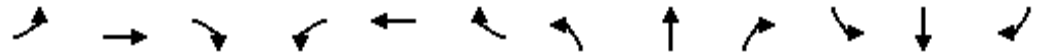
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 7.5                      Intersection LOS: A  
 Intersection Capacity Utilization 58.9%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 517: Geary St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4690	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4690	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					19						56	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	272	947	0	0	0	0	0	1273	247
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1283	0	0	0	0	0	1600	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.84						0.75	
Control Delay					21.0						9.4	
Queue Delay					0.0						0.2	
Total Delay					21.0						9.6	
LOS					C						A	
Approach Delay					21.0						9.6	

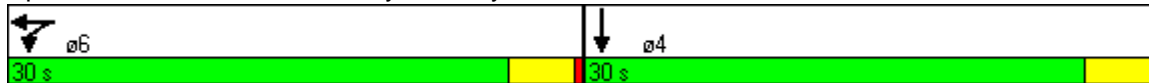


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					201							198
Queue Length 95th (ft)					#299							m235
Internal Link Dist (ft)		198			399			257				277
Turn Bay Length (ft)												
Base Capacity (vph)					1529							2141
Starvation Cap Reductn					0							104
Spillback Cap Reductn					0							52
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.84							0.79

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 49 (82%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 14.7      Intersection LOS: B  
 Intersection Capacity Utilization 70.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 518: Geary St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3316	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3316	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		8										38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	458	106	0	0	0	0	0	0	199	2079	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	640	0	0	0	0	0	0	0	0	2429	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.60									0.78	
Control Delay		28.0									7.2	
Queue Delay		0.0									5.4	
Total Delay		28.0									12.6	
LOS		C									B	
Approach Delay		28.0									12.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		157										131
Queue Length 95th (ft)		207										144
Internal Link Dist (ft)		402				412		265		254		
Turn Bay Length (ft)												
Base Capacity (vph)		1074										3101
Starvation Cap Reductn		0										207
Spillback Cap Reductn		0										617
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.60										0.98

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	82 (91%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	15.8
Intersection LOS:	B
Intersection Capacity Utilization:	68.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	5730	1338	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	5730	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1							77			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	112	545	0	0	0	0	0	2740	380	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	738	0	0	0	0	0	2946	409	0	0	0
Turn Type	Split								Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	30.7	30.7	0.0	0.0	0.0	0.0	0.0	59.3	59.3	0.0	0.0	0.0
Total Split (%)	34.1%	34.1%	0.0%	0.0%	0.0%	0.0%	0.0%	65.9%	65.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		27.7						56.3	56.3			
Actuated g/C Ratio		0.31						0.63	0.63			
v/c Ratio		0.71						0.82	0.47			
Control Delay		44.9						4.1	1.9			
Queue Delay		0.0						1.2	0.9			
Total Delay		44.9						5.2	2.8			
LOS		D						A	A			
Approach Delay		44.9						4.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D							A					
Queue Length 50th (ft)	230							47	5				
Queue Length 95th (ft)	284							51	m8				
Internal Link Dist (ft)	412				226		242			97			
Turn Bay Length (ft)													
Base Capacity (vph)	1043							3584	866				
Starvation Cap Reductn	0							386	229				
Spillback Cap Reductn	0							65	0				
Storage Cap Reductn	0							0	0				
Reduced v/c Ratio	0.71							0.92	0.64				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 56 (62%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 12.1      Intersection LOS: B  
 Intersection Capacity Utilization 64.7%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50			50	
Trailing Detector (ft)	0	0	0					0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3522	1583	0	0	0	0	4418	0	0	4553	0
Flt Permitted		0.995										
Satd. Flow (perm)	0	3472	1351	0	0	0	0	4418	0	0	4553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			14					16				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	84	729	112	0	0	0	0	1754	179	0	1725	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	893	123	0	0	0	0	1973	0	0	1797	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			2	
Permitted Phases			4									
Detector Phases	4	4	4					2			2	
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	
Minimum Split (s)	35.0	35.0	35.0					22.0			22.0	
Total Split (s)	36.0	36.0	36.0	0.0	0.0	0.0	0.0	54.0	0.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.2	2.2	2.2					0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max			Max	
Act Effct Green (s)		33.0	33.0					51.0			51.0	
Actuated g/C Ratio		0.37	0.37					0.57			0.57	
v/c Ratio		0.69	0.24					0.79			0.70	
Control Delay		31.2	21.9					5.5			11.7	
Queue Delay		0.2	94.5					0.8			0.3	
Total Delay		31.5	116.3					6.3			12.0	
LOS		C	F					A			B	
Approach Delay		41.7						6.3			12.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						A			B		
Queue Length 50th (ft)		249	52					44			131	
Queue Length 95th (ft)		320	m89					50			198	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1291	504					2510			2580	
Starvation Cap Reductn		62	0					0			231	
Spillback Cap Reductn		0	397					247			229	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.73	1.15					0.87			0.77	

**Intersection Summary**

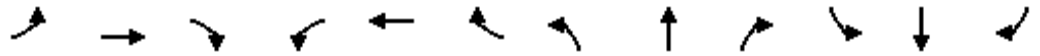
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 18 (20%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 15.9      Intersection LOS: B  
 Intersection Capacity Utilization 71.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	1583	0	0	0	0	1967	0	0	1928	0
Flt Permitted		0.992									0.818	
Satd. Flow (perm)	0	3385	1583	0	0	0	0	1967	0	0	1599	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			129					76				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	121	664	123	0	0	0	0	167	106	174	428	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	826	129	0	0	0	0	288	0	0	634	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	24.0	24.0	24.0	0.0	0.0	0.0	0.0	36.0	0.0	36.0	36.0	0.0
Total Split (%)	40.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		21.0	21.0					33.0			33.0	
Actuated g/C Ratio		0.35	0.35					0.55			0.55	
v/c Ratio		0.70	0.20					0.26			0.72	
Control Delay		20.6	4.0					5.9			13.0	
Queue Delay		0.0	0.3					0.0			3.5	
Total Delay		20.6	4.4					5.9			16.5	
LOS		C	A					A			B	
Approach Delay		18.4						5.9			16.5	

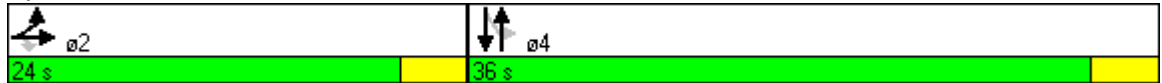


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		131	0					47			147	
Queue Length 95th (ft)		189	29					m58			m285	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1185	638					1116			879	
Starvation Cap Reductn		0	0					0			159	
Spillback Cap Reductn		0	205					0			79	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.70	0.30					0.26			0.88	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 56 (93%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 15.8      Intersection LOS: B  
 Intersection Capacity Utilization 79.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 538: Post St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4633	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4633	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36						92				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	146	798	0	0	0	0	0	1077	336	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	994	0	0	0	0	0	1488	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	30.1	30.1	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0	0.0	0.0
Total Split (%)	50.2%	50.2%	0.0%	0.0%	0.0%	0.0%	0.0%	49.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		27.1						26.9				
Actuated g/C Ratio		0.45						0.45				
v/c Ratio		0.64						0.70				
Control Delay		8.1						5.6				
Queue Delay		0.0						0.2				
Total Delay		8.1						5.8				
LOS		A						A				
Approach Delay		8.1						5.8				

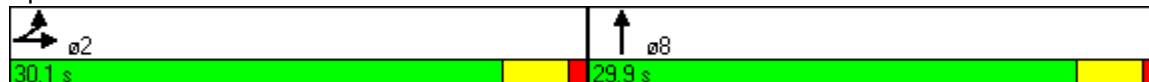


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							A				
Queue Length 50th (ft)		50							46				
Queue Length 95th (ft)		69							54				
Internal Link Dist (ft)		424				382			103			91	
Turn Bay Length (ft)													
Base Capacity (vph)		1549							2128				
Starvation Cap Reductn		0							139				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.64							0.75				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	6.8
Intersection LOS:	A
Intersection Capacity Utilization:	61.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			5									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	837	297	0	0	0	0	0	0	147	1223	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	881	313	0	0	0	0	0	0	0	1442	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.44	0.35								0.89	
Control Delay		6.3	5.8								21.6	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.3	5.8								21.6	
LOS		A	A								C	
Approach Delay		6.2									21.6	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			8	8							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	135	423	566	0	0	0	0	0	1774	56
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	159	445	596	0	0	0	0	0	1926	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	40.2	40.2	40.2	0.0	0.0	0.0	0.0	0.0	49.8	0.0
Total Split (%)	0.0%	0.0%	44.7%	44.7%	44.7%	0.0%	0.0%	0.0%	0.0%	0.0%	55.3%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			37.2	37.2	37.2						46.8	
Actuated g/C Ratio			0.41	0.41	0.41						0.52	
v/c Ratio			0.24	0.60	0.42						0.78	
Control Delay			17.5	6.1	4.6						9.3	
Queue Delay			0.0	0.1	0.0						0.2	
Total Delay			17.5	6.2	4.6						9.5	
LOS			B	A	A						A	
Approach Delay					5.3						9.5	

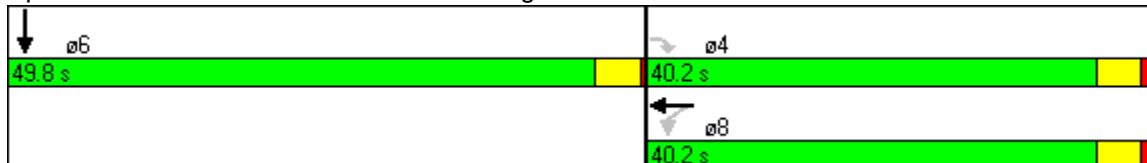


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS							A			A		
Queue Length 50th (ft)			54	36	27							103
Queue Length 95th (ft)			91	m49	m34							121
Internal Link Dist (ft)	81					419	254			75		
Turn Bay Length (ft)												
Base Capacity (vph)			671	736	1416							2473
Starvation Cap Reductn			0	13	0							102
Spillback Cap Reductn			0	0	0							78
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.24	0.62	0.42							0.81

**Intersection Summary**

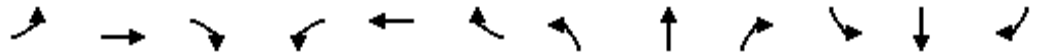
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 8.5                      Intersection LOS: A  
 Intersection Capacity Utilization 77.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 554: Sutter St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5720	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5720	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	842	281	147	2610	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	886	296	0	2813	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	34.0	34.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	37.8%	37.8%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					31.0	31.0		53.0				
Actuated g/C Ratio					0.34	0.34		0.59				
v/c Ratio					0.75	0.54		0.83				
Control Delay					27.4	23.9		4.2				
Queue Delay					0.4	0.0		0.3				
Total Delay					27.8	23.9		4.5				
LOS					C	C		A				
Approach Delay					26.8			4.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					277	173		21				
Queue Length 95th (ft)					345	m224		21				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1175	547		3377				
Starvation Cap Reductn					53	0		132				
Spillback Cap Reductn					0	0		102				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.79	0.54		0.87				

**Intersection Summary**

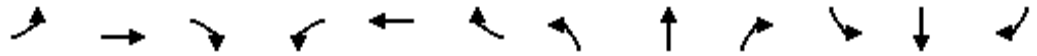
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 11.1                      Intersection LOS: B  
 Intersection Capacity Utilization 77.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	
Trailing Detector (ft)				0	0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3405	1583	0	4789	0	0	4618	0
Flt Permitted					0.994							
Satd. Flow (perm)	0	0	0	0	3350	1343	0	4789	0	0	4618	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						5						16
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	130	1007	123	0	1778	0	0	1488	116
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1197	129	0	1872	0	0	1688	0
Turn Type				Split		Perm						
Protected Phases				4	4			2			2	
Permitted Phases						4						
Detector Phases				4	4	4		2			2	
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	
Minimum Split (s)				33.0	33.0	33.0		20.0			20.0	
Total Split (s)	0.0	0.0	0.0	43.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	47.8%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	
Act Effct Green (s)				40.0	40.0	40.0		44.0			44.0	
Actuated g/C Ratio				0.44	0.44	0.44		0.49			0.49	
v/c Ratio				0.79	0.21	0.79		0.80			0.74	
Control Delay				26.2	16.0	26.3		9.5			26.3	
Queue Delay				1.3	0.0	1.3		1.4			0.1	
Total Delay				27.5	16.0	27.6		10.9			26.4	
LOS				C	B	C		B			C	
Approach Delay				26.4		26.4		10.9			26.4	

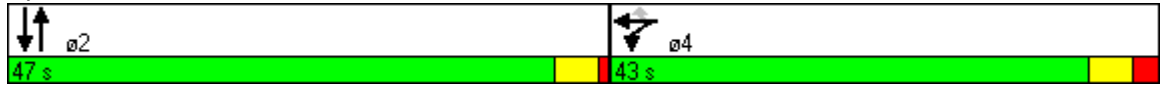


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			C	
Queue Length 50th (ft)					297	42		227			238	
Queue Length 95th (ft)					382	79		244			m251	
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1513	600		2341			2266	
Starvation Cap Reductn					146	0		271			66	
Spillback Cap Reductn					0	0		0			4	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.88	0.21		0.90			0.77	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 36 (40%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 20.5                      Intersection LOS: C  
 Intersection Capacity Utilization 72.6%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 556: Sutter St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50				50
Trailing Detector (ft)				0	0	0	0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1934	0	0	1881	0
Flt Permitted					0.991			0.636				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1243	0	0	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						178						38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	248	1059	169	62	223	0	0	354	139
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1376	178	0	300	0	0	519	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0		23.0			23.0	
Actuated g/C Ratio					0.52	0.52		0.38			0.38	
v/c Ratio					0.79	0.20		0.63			0.70	
Control Delay					9.0	0.6		22.5			11.6	
Queue Delay					0.3	0.0		0.1			0.4	
Total Delay					9.3	0.6		22.5			12.0	
LOS					A	A		C			B	
Approach Delay					8.3			22.5			12.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A					C				B			
Queue Length 50th (ft)	78					0	69				41		
Queue Length 95th (ft)	108					m0	m127				m130		
Internal Link Dist (ft)	410					250		97				66	
Turn Bay Length (ft)													
Base Capacity (vph)	1747					904	476				744		
Starvation Cap Reductn	0					0	0				33		
Spillback Cap Reductn	66					0	4				34		
Storage Cap Reductn	0					0	0				0		
Reduced v/c Ratio	0.82					0.20	0.64				0.73		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 26 (43%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 10.9      Intersection LOS: B  
 Intersection Capacity Utilization 88.7%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 557: Sutter St. & Polk St.



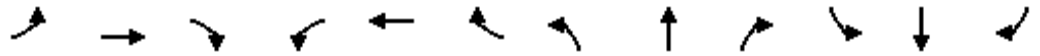


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Flt Permitted								0.987				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						38		46				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1156	95	320	910	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1217	100	0	1295	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	34.0	34.0	26.0	26.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					31.0	31.0		23.0				
Actuated g/C Ratio					0.52	0.52		0.38				
v/c Ratio					0.69	0.12		0.70				
Control Delay					5.4	1.1		7.0				
Queue Delay					0.0	0.0		0.0				
Total Delay					5.4	1.1		7.0				
LOS					A	A		A				
Approach Delay					5.1			7.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					17						68	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	304	1054	0	0	0	0	0	1066	197
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1429	0	0	0	0	0	1329	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					32.0						22.0	
Actuated g/C Ratio					0.53						0.37	
v/c Ratio					0.79						0.78	
Control Delay					15.2						14.5	
Queue Delay					0.0						0.0	
Total Delay					15.2						14.5	
LOS					B						B	
Approach Delay					15.2						14.5	

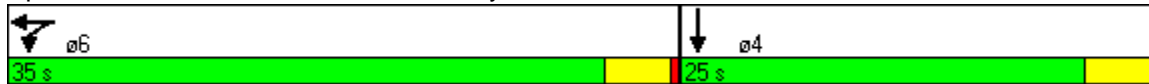


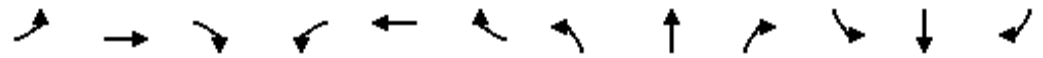
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					196						47	
Queue Length 95th (ft)					278						60	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1807						1713	
Starvation Cap Reductn					0						2	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.79						0.78	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	3 (5%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	69.6%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4769	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4769	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		14										24
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1164	305	0	0	0	0	0	0	138	1440	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1546	0	0	0	0	0	0	0	0	1679	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0
Total Split (%)	0.0%	48.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		41.0									43.0	
Actuated g/C Ratio		0.46									0.48	
v/c Ratio		0.72									0.73	
Control Delay		21.9									17.6	
Queue Delay		0.0									0.3	
Total Delay		21.9									17.9	
LOS		C									B	
Approach Delay		21.9									17.9	

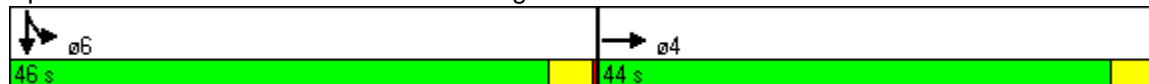


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												B
Queue Length 50th (ft)		249										176
Queue Length 95th (ft)		303										215
Internal Link Dist (ft)		172			417			94				91
Turn Bay Length (ft)												
Base Capacity (vph)		2160										2291
Starvation Cap Reductn		0										174
Spillback Cap Reductn		0										85
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.72										0.79

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	79 (88%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	19.8
Intersection LOS:	B
Intersection Capacity Utilization:	66.6%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4821	0	0	0	0	0	5842	0	0	0	0
Flt Permitted		0.989										
Satd. Flow (perm)	0	4821	0	0	0	0	0	5842	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	283	1019	0	0	0	0	0	2462	373	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1356	0	0	0	0	0	3081	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		30.0						54.0				
Actuated g/C Ratio		0.33						0.60				
v/c Ratio		0.84						0.88				
Control Delay		19.7						6.2				
Queue Delay		0.0						3.9				
Total Delay		19.7						10.1				
LOS		B						B				
Approach Delay		19.7						10.1				





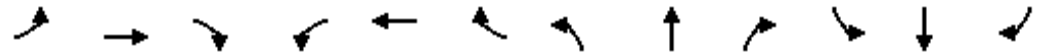
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B				
Queue Length 50th (ft)		88						72				
Queue Length 95th (ft)		146						77				
Internal Link Dist (ft)		417			148			104			82	
Turn Bay Length (ft)												
Base Capacity (vph)		1608						3511				
Starvation Cap Reductn		0						115				
Spillback Cap Reductn		0						359				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.84						0.98				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	75 (83%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	13.1
Intersection LOS:	B
Intersection Capacity Utilization	74.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 584: Bush St. & Franklin St.



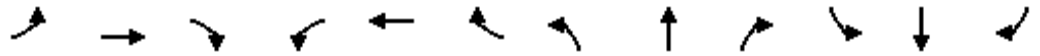


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑		↘	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	130		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4933	0	0	0	0	0	4684	0	1770	4662	0
Flt Permitted		0.993								0.098		
Satd. Flow (perm)	0	4846	0	0	0	0	0	4684	0	183	4662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	195	1140	114	0	0	0	0	1715	136	298	1490	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								7	7		30	30
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1592	0	0	0	0	0	2104	0	339	1693	0
Turn Type	Split									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases										6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	34.0	34.0						33.0		7.0	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	41.0	0.0	15.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	45.6%	0.0%	16.7%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.5	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		31.0						38.0		53.0	53.0	
Actuated g/C Ratio		0.34						0.42		0.59	0.59	
v/c Ratio		0.93						1.06		1.06	0.62	
Control Delay		43.6						45.8		66.7	2.7	
Queue Delay		0.4						0.0		0.0	0.3	
Total Delay		44.0						45.8		66.7	3.0	
LOS		D						D		E	A	
Approach Delay		44.0						45.8			13.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1898	0	0	1939	0
Flt Permitted		0.998									0.867	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1898	0	0	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20						10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	62	1419	93	0	0	0	0	306	83	83	400	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1657	0	0	0	0	0	409	0	0	508	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	31.0	31.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%	0.0%	51.7%	0.0%	51.7%	51.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.0						28.0			28.0	
Actuated g/C Ratio		0.43						0.47			0.47	
v/c Ratio		0.79						0.46			0.64	
Control Delay		17.9						8.5			22.3	
Queue Delay		0.2						0.3			4.2	
Total Delay		18.0						8.8			26.6	
LOS		B						A			C	
Approach Delay		18.0						8.8			26.6	

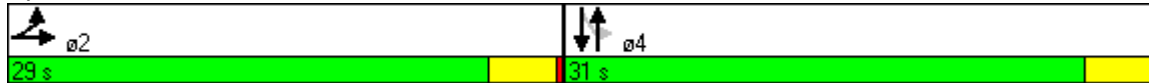


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			C		
Queue Length 50th (ft)	177						54			182		
Queue Length 95th (ft)	232						114			m271		
Internal Link Dist (ft)	112						117			106		
Turn Bay Length (ft)												
Base Capacity (vph)	2101						891			791		
Starvation Cap Reductn	0						133			204		
Spillback Cap Reductn	53						0			0		
Storage Cap Reductn	0						0			0		
Reduced v/c Ratio	0.81						0.54			0.87		

**Intersection Summary**

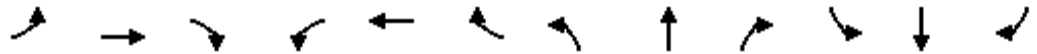
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 18.2      Intersection LOS: B  
 Intersection Capacity Utilization 87.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3030	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3030	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						21	22			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	129	1456	0	0	0	0	0	658	364	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1669	0	0	0	0	0	769	307	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.64						0.68	0.67			
Control Delay		2.3						13.5	17.2			
Queue Delay		0.0						0.0	0.0			
Total Delay		2.3						13.5	17.2			
LOS		A						B	B			
Approach Delay		2.3						14.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	22						160 124					
Queue Length 95th (ft)	24						220 m190					
Internal Link Dist (ft)	216						181 103 10					
Turn Bay Length (ft)												
Base Capacity (vph)	2607						1124 455					
Starvation Cap Reductn	0						0 0					
Spillback Cap Reductn	0						10 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.64						0.69 0.67					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	11 (18%), Referenced to phase 8:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	7.1
Intersection LOS:	A
Intersection Capacity Utilization:	59.5%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↓↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		29										27
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1430	369	0	0	0	0	0	0	147	894	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1893	0	0	0	0	0	0	0	0	1096	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.73									0.67	
Control Delay		5.1									15.0	
Queue Delay		0.0									0.0	
Total Delay		5.1									15.0	
LOS		A									B	
Approach Delay		5.1									15.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A										B	
Queue Length 50th (ft)	56										138	
Queue Length 95th (ft)	65										185	
Internal Link Dist (ft)	160				385			52		237		
Turn Bay Length (ft)												
Base Capacity (vph)	2611						1627					
Starvation Cap Reductn	0						0					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.73						0.67					

**Intersection Summary**

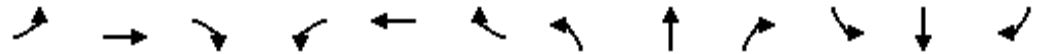
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	24 (40%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization	62.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				22							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	320	1662	0	0	0	0	0	1194	176
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	337	1749	0	0	0	0	0	1457	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.38	0.73						0.70	
Control Delay				2.0	3.0						10.4	
Queue Delay				0.0	0.2						0.7	
Total Delay				2.0	3.2						11.1	
LOS				A	A						B	
Approach Delay					3.0						11.1	

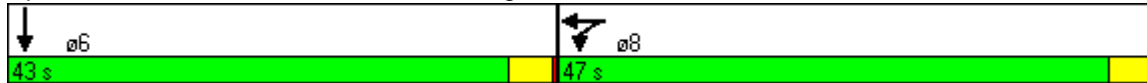


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											A	B
Queue Length 50th (ft)				14	42							83
Queue Length 95th (ft)				m14	m40							111
Internal Link Dist (ft)		169			423			88				273
Turn Bay Length (ft)												
Base Capacity (vph)				877	2383							2085
Starvation Cap Reductn				0	117							298
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.38	0.77							0.82

**Intersection Summary**

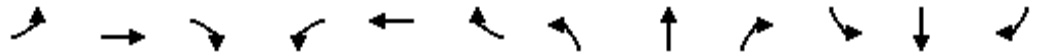
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	3 (3%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	6.3
Intersection LOS:	A
Intersection Capacity Utilization:	78.4%
ICU Level of Service:	D
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 612: Pine St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6029	0	0	5670	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5670	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			452			172			192	
Travel Time (s)		13.7			12.3			4.7			5.2	
Volume (vph)	0	0	0	0	1753	420	229	2475	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2618	0	0	2877	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	41.0	0.0	49.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	45.6%	0.0%	54.4%	54.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					38.0			46.0				
Actuated g/C Ratio					0.42			0.51				
v/c Ratio					1.03			0.99				
Control Delay					43.3			22.1				
Queue Delay					48.6			21.7				
Total Delay					91.8			43.8				
LOS					F			D				
Approach Delay					91.8			43.8				

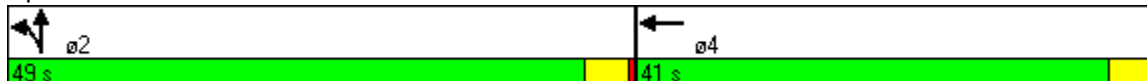


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			D				
Queue Length 50th (ft)					~480			118				
Queue Length 95th (ft)					m#479			#602				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2546			2898				
Starvation Cap Reductn					258			179				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					1.14			1.06				

**Intersection Summary**

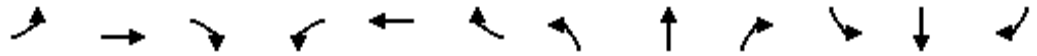
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 80 (89%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 66.7      Intersection LOS: E  
 Intersection Capacity Utilization 78.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 613: Pine St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑↑↑			↑↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6212	0	1770	4746	0	0	4514	0
Flt Permitted				0.997		0.093						
Satd. Flow (perm)	0	0	0	0	6173	0	173	4746	0	0	4514	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15						18	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	107	1769	207	200	1665	0	0	1728	204
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								20			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2193	0	211	1753	0	0	2034	0
Turn Type				Split			pm+pt					
Protected Phases				8	8		5	2			6	
Permitted Phases							2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	
Minimum Split (s)				37.0	37.0		7.0	21.0			33.0	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	10.0	53.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	11.1%	58.9%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					34.0		50.0	50.0			40.0	
Actuated g/C Ratio					0.38		0.56	0.56			0.44	
v/c Ratio					0.93		0.96	0.66			1.01	
Control Delay					35.4		34.1	2.1			39.0	
Queue Delay					69.2		23.9	3.0			35.3	
Total Delay					104.5		58.0	5.2			74.3	
LOS					F		E	A			E	
Approach Delay					104.5			10.8			74.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			B			E	
Queue Length 50th (ft)					339		83	40			~218	
Queue Length 95th (ft)					#427		m77	m35			#528	
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)							115					
Base Capacity (vph)					2356		220	2637			2016	
Starvation Cap Reductn					0		0	753			39	
Spillback Cap Reductn					458		19	0			169	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					1.16		1.05	0.93			1.10	

**Intersection Summary**

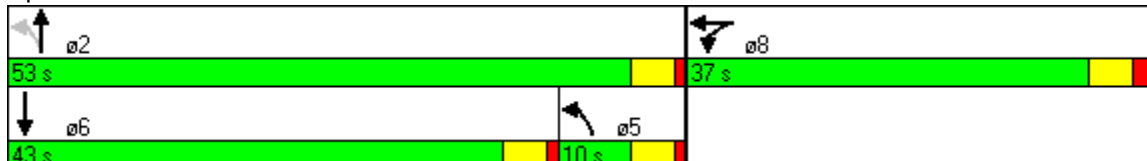
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 50 (56%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 64.9      Intersection LOS: E  
 Intersection Capacity Utilization 91.3%      ICU Level of Service F  
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6147	0	0	1938	0	0	1885	0
Flt Permitted					0.998			0.742				
Satd. Flow (perm)	0	0	0	0	6147	0	0	1451	0	0	1885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24						3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	85	1813	105	65	303	0	0	368	133
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2108	0	0	387	0	0	527	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					27.0			27.0			27.0	
Actuated g/C Ratio					0.45			0.45			0.45	
v/c Ratio					0.76			0.59			0.62	
Control Delay					8.2			16.0			12.6	
Queue Delay					0.2			1.0			0.3	
Total Delay					8.4			17.0			13.0	
LOS					A			B			B	
Approach Delay					8.4			17.0			13.0	



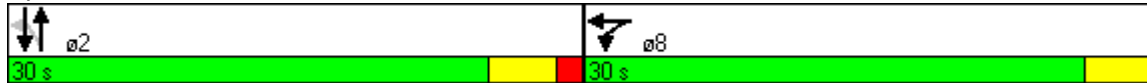


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B			B	
Queue Length 50th (ft)					75			128			85	
Queue Length 95th (ft)					85			m215			127	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2779			653			850	
Starvation Cap Reductn					0			98			63	
Spillback Cap Reductn					129			0			45	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.80			0.70			0.67	

**Intersection Summary**

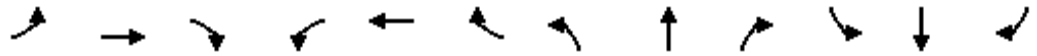
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 52 (87%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 10.3      Intersection LOS: B  
 Intersection Capacity Utilization 86.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6110	0	0	3148	0	0	0	0
Flt Permitted								0.980				
Satd. Flow (perm)	0	0	0	0	6110	0	0	3148	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					81			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1683	208	320	482	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1991	0	0	844	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.59			0.76				
Control Delay					2.7			8.8				
Queue Delay					0.0			0.0				
Total Delay					2.7			8.8				
LOS					A			A				
Approach Delay					2.7			8.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					27			33				
Queue Length 95th (ft)					31			44				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3397			1110				
Starvation Cap Reductn					0			2				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.59			0.76				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	43 (72%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	4.5
Intersection LOS:	A
Intersection Capacity Utilization	57.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4478	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4478	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					72						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	267	1670	0	0	0	0	0	774	221
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2039	0	0	0	0	0	1048	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.63						0.58	
Control Delay					11.6						15.6	
Queue Delay					0.0						0.0	
Total Delay					11.6						15.6	
LOS					B						B	
Approach Delay					11.6						15.6	

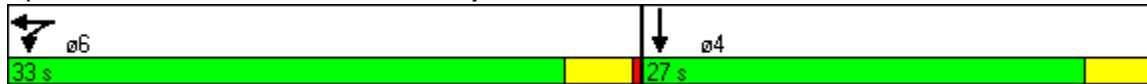


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3218						1797	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.63						0.58	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	33 (55%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization:	54.8%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3507	0	0	0	0	0	3507	0
Flt Permitted					0.638						0.997	
Satd. Flow (perm)	0	3458	0	0	2258	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29									7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	574	102	117	558	0	0	0	0	77	1151	53
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	735	0	0	785	0	0	0	0	0	1378	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						25.0	25.0
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0							44.0
Actuated g/C Ratio		0.44			0.44							0.49
v/c Ratio		0.47			0.78							0.80
Control Delay		18.1			17.9							22.1
Queue Delay		0.0			0.0							37.7
Total Delay		18.1			17.9							59.8
LOS		B			B							E
Approach Delay		18.1			17.9							59.8

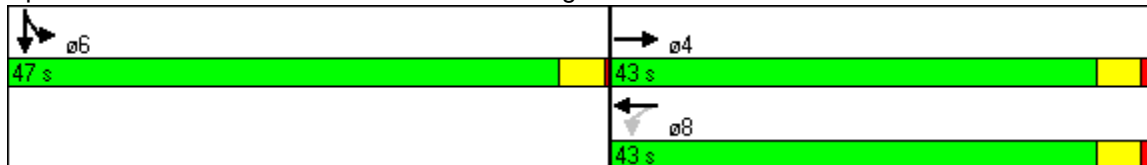


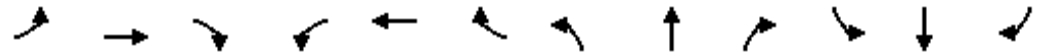
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B						E	
Queue Length 50th (ft)		143			69						303	
Queue Length 95th (ft)		193			m89						m348	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1553			1004						1718	
Starvation Cap Reductn		0			0						436	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.47			0.78						1.07	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 87 (97%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 37.8                      Intersection LOS: D  
 Intersection Capacity Utilization 83.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3468	0	0	5907	0	0	0	0
Flt Permitted	0.160							0.999				
Satd. Flow (perm)	298	3539	0	0	3468	0	0	5907	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	99	552	0	0	590	89	85	2663	147	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	116	649	0	0	799	0	0	3406	0	0	0	0
Turn Type	pm+pt							Split				
Protected Phases	7	4			8			2	2			
Permitted Phases	4											
Detector Phases	7	4			8			2	2			
Minimum Initial (s)	3.0	4.0			4.0			1.5	1.5			
Minimum Split (s)	6.5	30.5			24.0			52.0	52.0			
Total Split (s)	7.0	32.0	0.0	0.0	25.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	7.8%	35.6%	0.0%	0.0%	27.8%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0			3.5	3.5			
All-Red Time (s)	0.0	0.0			0.0			0.0	0.0			
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	29.0	29.0			22.0			55.0				
Actuated g/C Ratio	0.32	0.32			0.24			0.61				
v/c Ratio	0.72	0.57			0.93			0.94				
Control Delay	44.2	16.5			36.8			8.0				
Queue Delay	0.0	0.0			0.0			3.4				
Total Delay	44.2	16.5			36.8			11.4				
LOS	D	B			D			B				
Approach Delay		20.7			36.8			11.4				



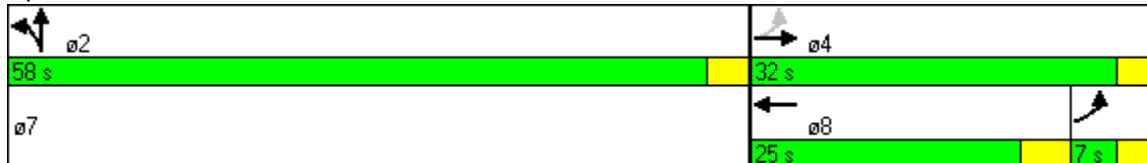


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			D			B					
Queue Length 50th (ft)	25	75			250			123				
Queue Length 95th (ft)	m#69	89			#321			m125				
Internal Link Dist (ft)		438			361			87			266	
Turn Bay Length (ft)												
Base Capacity (vph)	161	1140			858			3618				
Starvation Cap Reductn	0	0			0			160				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.72	0.57			0.93			0.98				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 80 (89%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 16.9                      Intersection LOS: B  
 Intersection Capacity Utilization 77.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 640: California St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3271	0	0	3304	0	0	4647	0	0	4577	0
Flt Permitted		0.836			0.783							
Satd. Flow (perm)	0	2738	0	0	2589	0	0	4647	0	0	4577	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			1			25			14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	37	506	156	55	584	125	0	1710	162	0	1721	95
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								8	8		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	804	0	0	839	0	0	1930	0	0	1932	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			27.0			27.0	
Total Split (s)	41.0	41.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	0.0
Total Split (%)	45.6%	45.6%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			1.3			1.3	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		38.0			38.0			46.0			46.0	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
v/c Ratio		0.69			0.77			0.81			0.82	
Control Delay		37.7			27.9			4.1			18.8	
Queue Delay		0.0			0.0			0.0			0.1	
Total Delay		37.7			27.9			4.1			18.9	
LOS		D			C			A			B	
Approach Delay		37.7			27.9			4.1			18.9	

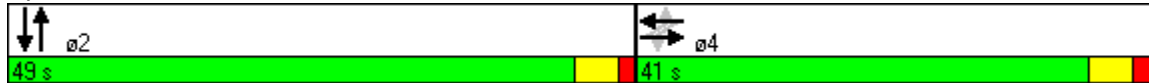


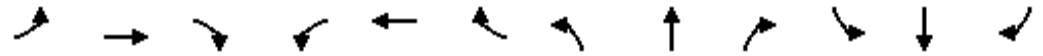
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			A			B		
Queue Length 50th (ft)	216			208			43			180		
Queue Length 95th (ft)	m254			285			m45			239		
Internal Link Dist (ft)	361			163			282			265		
Turn Bay Length (ft)												
Base Capacity (vph)	1157			1094			2387			2346		
Starvation Cap Reductn	0			0			3			30		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.69			0.77			0.81			0.83		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 55 (61%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 17.8      Intersection LOS: B  
 Intersection Capacity Utilization 94.6%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3389	0	0	3406	0	0	1910	0	0	1903	0
Flt Permitted								0.960			0.907	
Satd. Flow (perm)	0	3389	0	0	3406	0	0	1839	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			29			23			24	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	566	102	0	698	97	24	322	62	71	399	87
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	703	0	0	837	0	0	429	0	0	587	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	0.0%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	58.3%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0			22.0			32.0			32.0	
Actuated g/C Ratio		0.37			0.37			0.53			0.53	
v/c Ratio		0.55			0.66			0.43			0.63	
Control Delay		16.2			16.5			5.5			7.3	
Queue Delay		0.0			0.0			0.2			0.3	
Total Delay		16.2			16.5			5.7			7.6	
LOS		B			B			A			A	
Approach Delay		16.2			16.5			5.7			7.6	

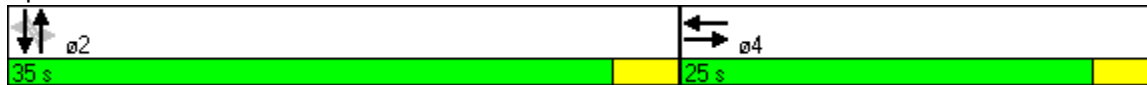


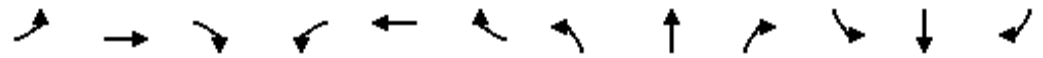
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		96			76			32			54	
Queue Length 95th (ft)		144			136			m92			98	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1267			1267			992			937	
Starvation Cap Reductn		0			0			115			59	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.55			0.66			0.49			0.67	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 17 (28%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 12.6      Intersection LOS: B  
 Intersection Capacity Utilization 79.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 642: California St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3455	0	1770	1790	0	1770	0	1290
Flt Permitted		0.903					0.950			0.264		
Satd. Flow (perm)	0	3132	0	0	3455	0	1770	1790	0	492	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			45				48
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	30	669	0	0	661	17	96	440	154	62	0	38
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	744	0	0	816	0	102	632	0	78	0	48
Turn Type	Perm						Perm			custom		custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	0.0	35.0
Total Split (%)	41.7%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	0.0%	58.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		22.0			22.0		32.0	32.0		32.0		32.0
Actuated g/C Ratio		0.37			0.37		0.53	0.53		0.53		0.53
v/c Ratio		0.65			0.64		0.11	0.65		0.30		0.07
Control Delay		14.8			18.5		4.2	6.5		11.7		2.7
Queue Delay		0.0			0.0		0.0	0.1		0.0		0.0
Total Delay		14.8			18.5		4.2	6.6		11.7		2.7
LOS		B			B		A	A		B		A
Approach Delay		14.8			18.5			6.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		58			124		10	61		14		0
Queue Length 95th (ft)		120			158		m16	m97		34		10
Internal Link Dist (ft)		412			61			283			587	
Turn Bay Length (ft)												
Base Capacity (vph)		1148			1270		944	976		262		710
Starvation Cap Reductn		0			0		0	21		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0
Reduced v/c Ratio		0.65			0.64		0.11	0.66		0.30		0.07

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 52 (87%), Referenced to phase 2:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 13.1                      Intersection LOS: B  
 Intersection Capacity Utilization 86.5%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 643: California St. & Larkin St.**

← ø2	↖ ø4
25 s	35 s
→ ø6	↗ ø8
25 s	35 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1839	0	0	0	0	0	1535	0
Flt Permitted	0.254			0.950								
Satd. Flow (perm)	473	0	1583	1770	1839	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			159	179	5						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	71	0	111	313	313	29	0	0	0	0	857	50
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	101	0	159	352	385	0	0	0	0	0	925	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	30.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	27.0		27.0	27.0	27.0						57.0	
Actuated g/C Ratio	0.30		0.30	0.30	0.30						0.63	
v/c Ratio	0.71		0.27	0.54	0.69						0.95	
Control Delay	57.8		5.4	2.5	10.9						31.5	
Queue Delay	0.0		0.4	1.8	0.0						7.4	
Total Delay	57.8		5.7	4.2	10.9						38.9	
LOS	E		A	A	B						D	
Approach Delay					7.7						38.9	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3454	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3454	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					2		43					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	566	110	89	2762	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	735	0	96	2970	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	26.0	0.0	64.0	64.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	28.9%	0.0%	71.1%	71.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.0		61.0	61.0				
Actuated g/C Ratio					0.26		0.68	0.68				
v/c Ratio					0.83		0.08	0.91				
Control Delay					32.6		0.0	4.0				
Queue Delay					0.0		0.0	0.7				
Total Delay					32.6		0.0	4.8				
LOS					C		A	A				
Approach Delay					32.6			4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					227		0	38				
Queue Length 95th (ft)					m276		m0	m36				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					884		1214	3246				
Starvation Cap Reductn					0		0	85				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					0.83		0.08	0.94				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 10.0      Intersection LOS: B  
 Intersection Capacity Utilization 79.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3166	0	1770	4712	0	0	4653	0
Flt Permitted				0.991		0.080						
Satd. Flow (perm)	0	0	0	0	3092	0	149	4712	0	0	4653	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12						13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	151	502	141	92	1780	0	0	1665	82
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	827	0	95	1835	0	0	1839	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				37.0	37.0		42.5	42.5			42.5	
Total Split (s)	0.0	0.0	0.0	37.0	37.0	0.0	53.0	53.0	0.0	0.0	53.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.1%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.8	0.8			0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					34.0		50.0	50.0			50.0	
Actuated g/C Ratio					0.38		0.56	0.56			0.56	
v/c Ratio					0.69		1.14	0.70			0.71	
Control Delay					26.8		136.9	3.2			7.9	
Queue Delay					0.0		0.0	0.3			0.1	
Total Delay					26.8		136.9	3.5			8.0	
LOS					C		F	A			A	
Approach Delay					26.8			10.1			8.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						B			A		
Queue Length 50th (ft)	201						~63	39	101			
Queue Length 95th (ft)	268						m#92	43	111			
Internal Link Dist (ft)	144			160			265			247		
Turn Bay Length (ft)							120					
Base Capacity (vph)	1204						83	2618	2591			
Starvation Cap Reductn	0						0	236	64			
Spillback Cap Reductn	0						0	31	110			
Storage Cap Reductn	0						0	0	0			
Reduced v/c Ratio	0.69						1.14	0.77	0.74			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 61 (68%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 12.3      Intersection LOS: B  
 Intersection Capacity Utilization 75.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3486	0	0	1945	0	0	1889	0
Flt Permitted					0.993			0.919				
Satd. Flow (perm)	0	0	0	0	3486	0	0	1797	0	0	1889	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10						43	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	100	600	38	40	379	0	0	457	154
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	777	0	0	441	0	0	643	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	0.0	35.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	58.3%	58.3%	0.0%	0.0%	58.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					22.0			32.0			32.0	
Actuated g/C Ratio					0.37			0.53			0.53	
v/c Ratio					0.60			0.46			0.63	
Control Delay					17.7			11.7			6.5	
Queue Delay					0.0			0.2			0.2	
Total Delay					17.7			11.9			6.7	
LOS					B			B			A	
Approach Delay					17.7			11.9			6.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B			A	
Queue Length 50th (ft)					115			88			45	
Queue Length 95th (ft)					166			129			86	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1285			958			1028	
Starvation Cap Reductn					0			107			45	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.60			0.52			0.65	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	14 (23%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization	80.6%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 662: Sacramento St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1693	0	0	1556	0	0	5029	0	0	0	0
Flt Permitted		0.938						0.999				
Satd. Flow (perm)	0	1607	0	0	1556	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			33				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		516			450			331			296	
Travel Time (s)		14.1			12.3			9.0			8.1	
Volume (vph)	14	46	0	0	21	45	38	2640	194	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	63	0	0	69	0	0	3023	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	21.5	21.5	0.0	0.0	21.5	0.0	68.5	68.5	0.0	0.0	0.0	0.0
Total Split (%)	23.9%	23.9%	0.0%	0.0%	23.9%	0.0%	76.1%	76.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		18.5			18.5			65.5				
Actuated g/C Ratio		0.21			0.21			0.73				
v/c Ratio		0.19			0.21			0.82				
Control Delay		47.1			44.6			1.4				
Queue Delay		0.0			0.0			0.3				
Total Delay		47.1			44.6			1.7				
LOS		D			D			A				
Approach Delay		47.1			44.6			1.7				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A				
Queue Length 50th (ft)		34			26			23				
Queue Length 95th (ft)		m50			m46			20				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		330			324			3669				
Starvation Cap Reductn		0			0			196				
Spillback Cap Reductn		0			0			33				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.19			0.21			0.87				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	3.6
Intersection LOS:	A
Intersection Capacity Utilization:	72.6%
ICU Level of Service:	C
Analysis Period (min):	15

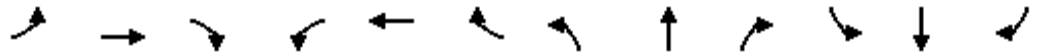
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 671: Clay St. & Franklin St.**

<p>ø2</p>	<p>ø4</p>
68.5 s	21.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑↑		↕	↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1518	0	0	0	0	0	4551	0	1770	4656	0
Flt Permitted		0.998								0.074		
Satd. Flow (perm)	0	1509	0	0	0	0	0	4551	0	138	4656	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						18			11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	12	172	56	0	0	0	0	1815	106	51	1691	66
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								28	28		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	308	0	0	0	0	0	2044	0	54	1849	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	33.0	33.0						48.5		48.5	48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	57.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9		0.9	0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		30.0						54.0		54.0	54.0	
Actuated g/C Ratio		0.33						0.60		0.60	0.60	
v/c Ratio		0.61						0.75		0.65	0.66	
Control Delay		27.1						4.0		52.7	17.8	
Queue Delay		0.0						0.6		0.0	0.1	
Total Delay		27.1						4.6		52.7	17.9	
LOS		C						A		D	B	
Approach Delay		27.1						4.6			18.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		134						36		19	239	
Queue Length 95th (ft)		m178						41		m#67	272	
Internal Link Dist (ft)		370			421			247			76	
Turn Bay Length (ft)										110		
Base Capacity (vph)		509						2738		83	2798	
Starvation Cap Reductn		0						154		0	189	
Spillback Cap Reductn		0						319		0	0	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.61						0.84		0.65	0.71	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 12.6                      Intersection LOS: B  
 Intersection Capacity Utilization 71.8%                      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 672: Clay St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3101	0	0	0	0	0	1869	0	0	1947	0
Flt Permitted		0.991									0.942	
Satd. Flow (perm)	0	3101	0	0	0	0	0	1869	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		182						53				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	61	95	173	0	0	0	0	282	135	42	438	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	346	0	0	0	0	0	439	0	0	505	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	30.5	30.5	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	50.8%	50.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		26.5						27.5			27.5	
Actuated g/C Ratio		0.44						0.46			0.46	
v/c Ratio		0.24						0.50			0.60	
Control Delay		5.4						7.0			8.7	
Queue Delay		0.0						0.2			0.1	
Total Delay		5.4						7.2			8.8	
LOS		A						A			A	
Approach Delay		5.4						7.2			8.8	



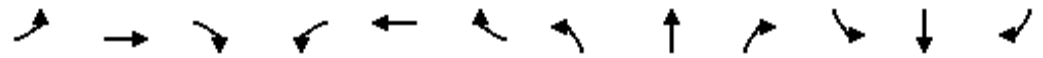
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			A	
Queue Length 50th (ft)		17						20			46	
Queue Length 95th (ft)		38						79			87	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1471						885			844	
Starvation Cap Reductn		0						65			32	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.24						0.54			0.62	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization:	68.4%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 673: Clay St. & Polk St.

 2	 4
30.5 s	29.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↗			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1736	0	0	0	0	0	1469	0	0	1857	0
Flt Permitted		0.999									0.993	
Satd. Flow (perm)	0	1736	0	0	0	0	0	1469	0	0	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41						39				2
Link Speed (mph)		25			25			25				25
Link Distance (ft)		240			522			291				380
Travel Time (s)		6.5			14.2			7.9				10.4
Volume (vph)	7	157	115	0	0	0	0	49	29	21	771	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	357	0	0	0	0	0	105	0	0	829	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				6
Permitted Phases											6	
Detector Phases	4	4						2			6	6
Minimum Initial (s)	4.0	4.0						4.0			4.0	4.0
Minimum Split (s)	15.5	15.5						17.0			17.0	17.0
Total Split (s)	30.9	30.9	0.0	0.0	0.0	0.0	0.0	59.1	0.0	59.1	59.1	0.0
Total Split (%)	34.3%	34.3%	0.0%	0.0%	0.0%	0.0%	0.0%	65.7%	0.0%	65.7%	65.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	3.5
All-Red Time (s)	1.5	1.5						0.5			0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		27.9						56.1			56.1	
Actuated g/C Ratio		0.31						0.62			0.62	
v/c Ratio		0.63						0.11			0.72	
Control Delay		29.3						7.3			10.0	
Queue Delay		0.0						0.0			0.8	
Total Delay		29.3						7.3			10.9	
LOS		C						A			B	
Approach Delay		29.3						7.3			10.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A			B	
Queue Length 50th (ft)		153							37			107	
Queue Length 95th (ft)		201							m43			264	
Internal Link Dist (ft)		160						442				300	
Turn Bay Length (ft)													
Base Capacity (vph)		566							930			1151	
Starvation Cap Reductn		0							0			114	
Spillback Cap Reductn		0							0			0	
Storage Cap Reductn		0							0			0	
Reduced v/c Ratio		0.63							0.11			0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 15.7                      Intersection LOS: B  
 Intersection Capacity Utilization 71.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 679: Washington St. & Gough St.

↑ ø2	↗ ø4
59.1 s	30.9 s
↓ ø6	
59.1 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3490	0	0	0	0	0	4760	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3490	0	0	0	0	0	4760	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6						17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	33	174	0	0	0	0	0	2599	100	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	324	0	0	0	0	0	2871	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	20.5	20.5	0.0	0.0	0.0	0.0	0.0	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		17.5						66.5				
Actuated g/C Ratio		0.19						0.74				
v/c Ratio		0.47						0.82				
Control Delay		30.3						2.1				
Queue Delay		0.0						0.5				
Total Delay		30.3						2.6				
LOS		C						A				
Approach Delay		30.3						2.6				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		53							12				
Queue Length 95th (ft)		68							15				
Internal Link Dist (ft)		442				372			216			289	
Turn Bay Length (ft)													
Base Capacity (vph)		683							3522				
Starvation Cap Reductn		0							247				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.47							0.88				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	11 (12%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	64.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3340	0	0	0	0	0	1910	0	0	1947	0
Flt Permitted		0.993									0.960	
Satd. Flow (perm)	0	3340	0	0	0	0	0	1910	0	0	1877	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		106						24				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	58	223	103	0	0	0	0	285	58	31	377	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	404	0	0	0	0	0	361	0	0	430	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.28						0.39			0.47	
Control Delay		9.0						11.6			7.4	
Queue Delay		0.0						0.2			0.2	
Total Delay		9.0						11.8			7.6	
LOS		A						B			A	
Approach Delay		9.0						11.8			7.6	

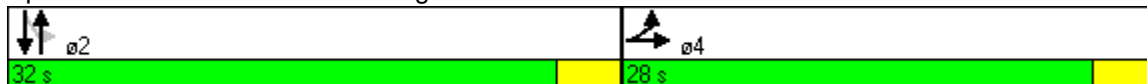


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A							B			A	
Queue Length 50th (ft)		34							64			49	
Queue Length 95th (ft)		60							106			72	
Internal Link Dist (ft)		413				165			241			262	
Turn Bay Length (ft)													
Base Capacity (vph)		1454							936			907	
Starvation Cap Reductn		0							125			92	
Spillback Cap Reductn		0							0			7	
Storage Cap Reductn		0							0			0	
Reduced v/c Ratio		0.28							0.45			0.53	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization:	61.2%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1678	0	1770	1829	0	0	1859	0	0	1831	0
Flt Permitted		0.645		0.702				0.982				
Satd. Flow (perm)	0	1103	0	1308	1829	0	0	1829	0	0	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58			3							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	29	0	46	90	335	14	2	54	0	0	668	93
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	95	0	122	472	0	0	72	0	0	793	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	54.0	54.0	0.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		33.0		33.0	33.0			51.0				51.0
Actuated g/C Ratio		0.37		0.37	0.37			0.57				0.57
v/c Ratio		0.22		0.25	0.70			0.07				0.76
Control Delay		10.5		13.2	22.1			4.7				12.4
Queue Delay		0.0		0.0	0.0			0.0				0.4
Total Delay		10.5		13.2	22.1			4.7				12.7
LOS		B		B	C			A				B
Approach Delay		10.5			20.3			4.7				12.7

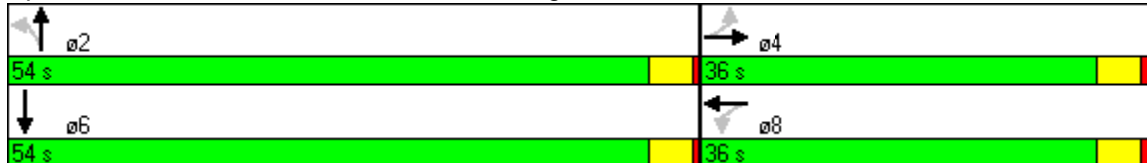


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		14		27	118			9			44	
Queue Length 95th (ft)		38		m43	145			m14			56	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		441		480	673			1036			1043	
Starvation Cap Reductn		0		0	0			0			38	
Spillback Cap Reductn		0		0	0			0			8	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.22		0.25	0.70			0.07			0.79	

**Intersection Summary**

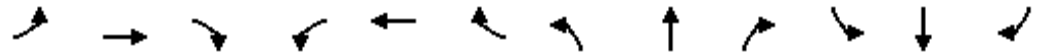
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 15.1                      Intersection LOS: B  
 Intersection Capacity Utilization 73.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3416	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3416	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					7			27				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			475			369			314	
Travel Time (s)		13.3			13.0			10.1			8.6	
Volume (vph)	0	0	0	0	289	70	150	2482	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	378	0	0	2771	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	22.0	0.0	68.0	68.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	24.4%	0.0%	75.6%	75.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					19.0			65.0				
Actuated g/C Ratio					0.21			0.72				
v/c Ratio					0.52			0.80				
Control Delay					23.9			1.7				
Queue Delay					0.0			0.1				
Total Delay					23.9			1.8				
LOS					C			A				
Approach Delay					23.9			1.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					108			15				
Queue Length 95th (ft)					m140			25				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					727			3443				
Starvation Cap Reductn					0			108				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.52			0.83				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 17 (19%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 4.5                      Intersection LOS: A  
 Intersection Capacity Utilization 67.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3368	0	0	1922	0	0	1898	0
Flt Permitted				0.987			0.725					
Satd. Flow (perm)	0	0	0	0	3368	0	0	1417	0	0	1898	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					48							33
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	92	190	58	117	226	0	0	316	87
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	358	0	0	361	0	0	425	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	27.0	27.0	0.0	33.0	33.0	0.0	0.0	33.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%	55.0%	55.0%	0.0%	0.0%	55.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					24.0			30.0			30.0	
Actuated g/C Ratio					0.40			0.50			0.50	
v/c Ratio					0.26			0.51			0.44	
Control Delay					11.0			13.4			8.2	
Queue Delay					0.0			0.0			0.2	
Total Delay					11.0			13.4			8.5	
LOS					B			B			A	
Approach Delay					11.0			13.4			8.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			B			A	
Queue Length 50th (ft)					37			67			60	
Queue Length 95th (ft)					63			115			96	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1376			709			966	
Starvation Cap Reductn					0			14			130	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.26			0.52			0.51	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	10.8
Intersection LOS:	B
Intersection Capacity Utilization:	60.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 688: Jackson St. & Polk St.

 ø2	 ø4
33 s	27 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	1828	0	0	1798	0	0	1857	0
Flt Permitted		0.997			0.922						0.991	
Satd. Flow (perm)	0	1814	0	0	1700	0	0	1798	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			34			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	119	25	41	168	16	0	72	25	22	695	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	180	0	0	248	0	0	133	0	0	766	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	59.0	59.0	0.0	59.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	65.6%	65.6%	0.0%	65.6%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			56.0			56.0	
Actuated g/C Ratio		0.31			0.31			0.62			0.62	
v/c Ratio		0.31			0.47			0.12			0.67	
Control Delay		23.9			36.5			2.5			10.6	
Queue Delay		0.0			0.0			0.0			2.7	
Total Delay		23.9			36.5			2.5			13.4	
LOS		C			D			A			B	
Approach Delay		23.9			36.5			2.5			13.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			D			A			B		
Queue Length 50th (ft)	72			130			13			127		
Queue Length 95th (ft)	112			m187			22			m277		
Internal Link Dist (ft)	132			418			229			258		
Turn Bay Length (ft)												
Base Capacity (vph)	573			532			1132			1147		
Starvation Cap Reductn	0			0			0			261		
Spillback Cap Reductn	0			0			0			6		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.31			0.47			0.12			0.86		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 18.0      Intersection LOS: B  
 Intersection Capacity Utilization 75.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1846	0	0	1760	0	0	5024	0	0	0	0
Flt Permitted		0.918						0.998				
Satd. Flow (perm)	0	1710	0	0	1760	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			26				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		498			264			314			330	
Travel Time (s)		13.6			7.2			8.6			9.0	
Volume (vph)	29	137	0	0	133	92	92	2295	165	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	175	0	0	237	0	0	2687	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.0			24.0			60.0				
Actuated g/C Ratio		0.27			0.27			0.67				
v/c Ratio		0.38			0.50			0.80				
Control Delay		21.9			18.1			3.6				
Queue Delay		0.0			0.0			0.7				
Total Delay		21.9			18.1			4.3				
LOS		C			B			A				
Approach Delay		21.9			18.1			4.3				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1729	0	0	1767	0	0	1824	0	0	1928	0
Flt Permitted		0.941			0.874			0.862			0.969	
Satd. Flow (perm)	0	1637	0	0	1564	0	0	1591	0	0	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			15			76			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	32	141	82	73	190	34	71	94	119	22	248	22
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	268	0	0	313	0	0	299	0	0	307	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.34			0.42			0.41			0.38	
Control Delay		9.5			12.3			10.0			12.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.5			12.3			10.0			12.8	
LOS		A			B			B			B	
Approach Delay		9.5			12.3			10.0			12.8	

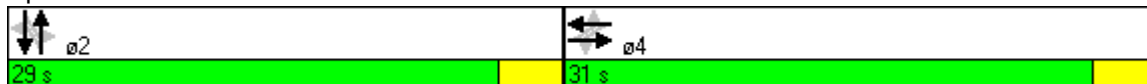


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		45			67			0			69	
Queue Length 95th (ft)		89			122			84			122	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		792			738			733			818	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.34			0.42			0.41			0.38	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	11.2
Intersection LOS:	B
Intersection Capacity Utilization	70.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3476	0	0	1813	0	0	1848	0
Flt Permitted		0.943			0.693			0.953			0.958	
Satd. Flow (perm)	0	3281	0	0	2440	0	0	1734	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			5			15			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	6	355	45	214	566	28	8	67	15	55	468	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	427	0	0	951	0	0	125	0	0	584	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	46.0	46.0	0.0	46.0	46.0	0.0	44.0	44.0	0.0	44.0	44.0	0.0
Total Split (%)	51.1%	51.1%	0.0%	51.1%	51.1%	0.0%	48.9%	48.9%	0.0%	48.9%	48.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		43.0			43.0			41.0			41.0	
Actuated g/C Ratio		0.48			0.48			0.46			0.46	
v/c Ratio		0.27			0.81			0.16			0.72	
Control Delay		14.0			34.4			6.7			26.0	
Queue Delay		0.0			0.0			0.0			1.5	
Total Delay		14.0			34.4			6.7			27.4	
LOS		B			C			A			C	
Approach Delay		14.0			34.4			6.7			27.4	



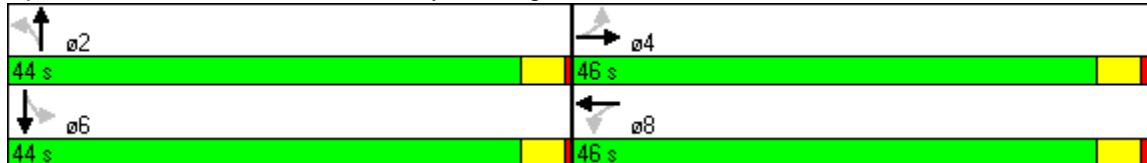


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			C	
Queue Length 50th (ft)		69			293			19			259	
Queue Length 95th (ft)		101			m341			30			388	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1578			1168			798			812	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			94	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.81			0.16			0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 5 (6%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 26.6                      Intersection LOS: C  
 Intersection Capacity Utilization 79.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3408	0	0	5004	0	0	0	0
Flt Permitted		0.857						0.998				
Satd. Flow (perm)	0	3033	0	0	3408	0	0	5004	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			33				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	13	412	0	0	706	230	102	2091	223	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	462	0	0	985	0	0	2626	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.44			0.84			0.89				
Control Delay		26.3			7.5			9.6				
Queue Delay		0.0			0.0			1.0				
Total Delay		26.3			7.5			10.6				
LOS		C			A			B				
Approach Delay		26.3			7.5			10.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			B				
Queue Length 50th (ft)		126			21			90				
Queue Length 95th (ft)		182			m35			134				
Internal Link Dist (ft)		420			375			250		282		
Turn Bay Length (ft)												
Base Capacity (vph)		1045			1177			2960				
Starvation Cap Reductn		0			0			137				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.44			0.84			0.93				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 37 (41%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 11.6      Intersection LOS: B  
 Intersection Capacity Utilization 81.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 699: Broadway & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	130		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3365	0	0	0	0	0	4684	0	1770	4840	0
Flt Permitted		0.994								0.077		
Satd. Flow (perm)	0	3293	0	0	0	0	0	4684	0	143	4840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14						8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	32	212	30	0	0	0	0	1860	58	114	1778	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	298	0	0	0	0	0	2085	0	119	1852	0
Turn Type	custom									pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases	4									6		
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.0	4.0	
Minimum Split (s)	25.0	25.0						48.0		6.5	24.0	
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	52.2	0.0	12.8	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	58.0%	0.0%	14.2%	72.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0						0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		22.0						49.2		62.0	62.0	
Actuated g/C Ratio		0.24						0.55		0.69	0.69	
v/c Ratio		0.36						0.81		0.43	0.56	
Control Delay		42.4						8.4		13.2	4.6	
Queue Delay		2.2						0.4		0.0	0.2	
Total Delay		44.6						8.8		13.2	4.8	
LOS		D						A		B	A	
Approach Delay		44.6						8.8			5.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A			A	
Queue Length 50th (ft)		85						273		12	79	
Queue Length 95th (ft)		m120						158		m18	95	
Internal Link Dist (ft)		372				413		65			274	
Turn Bay Length (ft)										130		
Base Capacity (vph)		833						2564		276	3334	
Starvation Cap Reductn		0						133		0	540	
Spillback Cap Reductn		395						50		0	168	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.68						0.86		0.43	0.66	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	83 (92%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization	70.5%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**

φ2 52.2 s	φ1 12.8 s	φ4 25 s
φ6 65 s		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1809	0	0	1809	0	0	5040	0	0	0	0
Flt Permitted		0.650						0.997				
Satd. Flow (perm)	0	1211	0	0	1809	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			461			337			345	
Travel Time (s)		13.8			12.6			9.2			9.4	
Volume (vph)	121	83	0	0	153	43	158	2011	90	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	214	0	0	206	0	0	2378	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		30.0			30.0			54.0				
Actuated g/C Ratio		0.33			0.33			0.60				
v/c Ratio		0.53			0.34			0.79				
Control Delay		30.1			24.4			5.6				
Queue Delay		0.0			0.0			0.3				
Total Delay		30.1			24.4			5.9				
LOS		C			C			A				
Approach Delay		30.1			24.4			5.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		97			103			138				
Queue Length 95th (ft)		169			m147			157				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		404			608			3029				
Starvation Cap Reductn		0			0			175				
Spillback Cap Reductn		0			0			29				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.53			0.34			0.83				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	58 (64%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	9.1
Intersection LOS:	A
Intersection Capacity Utilization	75.8%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 701: Green St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1682	0	0	1705	0	0	1811	0	0	1839	0
Flt Permitted		0.974			0.899			0.907			0.971	
Satd. Flow (perm)	0	1642	0	0	1542	0	0	1656	0	0	1792	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			8			17			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	16	306	73	63	397	30	21	86	18	31	374	28
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	482	0	0	576	0	0	213	0	0	492	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	26.0	26.0	0.0	26.0	26.0	0.0
Total Split (%)	56.7%	56.7%	0.0%	56.7%	56.7%	0.0%	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		31.0			31.0			23.0			23.0	
Actuated g/C Ratio		0.52			0.52			0.38			0.38	
v/c Ratio		0.56			0.72			0.33			0.71	
Control Delay		12.3			17.5			13.8			22.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.3			17.5			13.8			22.6	
LOS		B			B			B			C	
Approach Delay		12.3			17.5			13.8			22.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		101			145			48			144	
Queue Length 95th (ft)		152			230			54			234	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		862			801			645			691	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.56			0.72			0.33			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	17.1
Intersection LOS:	B
Intersection Capacity Utilization:	81.2%
ICU Level of Service:	D
Analysis Period (min):	15

**Splits and Phases: 702: Union St. & Gough St.**

 ø2 26 s	 ø4 34 s
 ø6 26 s	 ø8 34 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.939						0.996				
Satd. Flow (perm)	0	1623	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						8		12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	37	318	0	0	312	75	178	1907	90	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	374	0	0	328	79	0	2289	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	36.0	36.0	0.0	0.0	36.0	36.0	54.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	40.0%	40.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		33.0			33.0	33.0		51.0				
Actuated g/C Ratio		0.37			0.37	0.37		0.57				
v/c Ratio		0.63			0.52	0.13		0.80				
Control Delay		29.2			26.1	17.1		4.5				
Queue Delay		0.0			0.0	0.0		0.4				
Total Delay		29.2			26.1	17.1		4.9				
LOS		C			C	B		A				
Approach Delay		29.2			24.3			4.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		172			179	37		45				
Queue Length 95th (ft)		270			m250	m52		54				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		595			634	586		2858				
Starvation Cap Reductn		0			0	0		178				
Spillback Cap Reductn		0			0	0		0				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.63			0.52	0.13		0.85				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 10.5      Intersection LOS: B  
 Intersection Capacity Utilization 87.7%      ICU Level of Service E  
 Analysis Period (min) 15

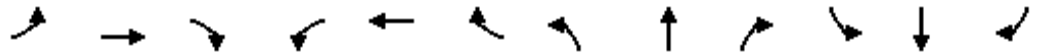
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 703: Union St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1812	0	0	5019	0	0	0	0
Flt Permitted		0.964						0.996				
Satd. Flow (perm)	0	1796	0	0	1812	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					15			22				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			460			341			351	
Travel Time (s)		13.8			12.5			9.3			9.6	
Volume (vph)	20	130	0	0	57	14	144	1749	126	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	158	0	0	75	0	0	2126	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.28			0.13			0.68				
Control Delay		25.1			12.6			1.8				
Queue Delay		0.0			0.0			0.4				
Total Delay		25.1			12.6			2.2				
LOS		C			B			A				
Approach Delay		25.1			12.6			2.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C				B				A		
Queue Length 50th (ft)		67				30				16		
Queue Length 95th (ft)		118				m49				23		
Internal Link Dist (ft)		425				380				261		
Turn Bay Length (ft)										271		
Base Capacity (vph)		559				574				3131		
Starvation Cap Reductn		0				0				447		
Spillback Cap Reductn		0				0				0		
Storage Cap Reductn		0				0				0		
Reduced v/c Ratio		0.28				0.13				0.79		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 75 (83%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 4.1                      Intersection LOS: A  
 Intersection Capacity Utilization 60.8%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 705: Filbert St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1796	0	0	5030	0	0	0	0
Flt Permitted		0.926						0.995				
Satd. Flow (perm)	0	1725	0	0	1796	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	31	112	0	0	88	32	180	1526	77	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	151	0	0	127	0	0	1876	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		31.0			31.0			53.0				
Actuated g/C Ratio		0.34			0.34			0.59				
v/c Ratio		0.25			0.20			0.63				
Control Delay		22.7			33.0			1.7				
Queue Delay		0.0			0.0			0.1				
Total Delay		22.7			33.0			1.9				
LOS		C			C			A				
Approach Delay		22.7			33.0			1.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1775	0	0	5050	0	0	0	0
Flt Permitted		0.948						0.999				
Satd. Flow (perm)	0	1766	0	0	1775	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9			14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			435			362			337	
Travel Time (s)		13.7			11.9			9.9			9.2	
Volume (vph)	15	78	0	0	103	54	52	2190	92	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	98	0	0	165	0	0	2457	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	27.5	27.5	0.0	0.0	27.5	0.0	62.5	62.5	0.0	0.0	0.0	0.0
Total Split (%)	30.6%	30.6%	0.0%	0.0%	30.6%	0.0%	69.4%	69.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		24.5			24.5			59.5				
Actuated g/C Ratio		0.27			0.27			0.66				
v/c Ratio		0.20			0.34			0.73				
Control Delay		26.7			11.6			2.4				
Queue Delay		0.0			0.0			0.5				
Total Delay		26.7			11.6			2.9				
LOS		C			B			A				
Approach Delay		26.7			11.6			2.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		43			56			54				
Queue Length 95th (ft)		83			m69			56				
Internal Link Dist (ft)		423			355			282		257		
Turn Bay Length (ft)												
Base Capacity (vph)		481			490			3343				
Starvation Cap Reductn		0			0			408				
Spillback Cap Reductn		0			0			201				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.20			0.34			0.84				

**Intersection Summary**

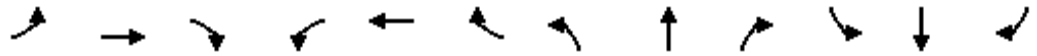
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 42 (47%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 4.3      Intersection LOS: A  
 Intersection Capacity Utilization 69.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 901: Vallejo St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	130		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3222	0	1652	4469	0	0	4348	0
Flt Permitted				0.985			0.075					
Satd. Flow (perm)	0	0	0	0	2993	0	130	4469	0	0	4348	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17						12	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	117	221	56	60	1832	0	0	1775	78
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	424	0	63	1928	0	0	2106	0
Turn Type				Perm			pm+pt					
Protected Phases					8		5	2			6	
Permitted Phases				8			2					
Detector Phases				8	8		5	2			6	
Minimum Initial (s)				4.0	4.0		1.0	4.0			4.0	
Minimum Split (s)				30.0	30.0		4.5	50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	7.0	60.0	0.0	0.0	53.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	7.8%	66.7%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					27.0		57.0	57.0			50.0	
Actuated g/C Ratio					0.30		0.63	0.63			0.56	
v/c Ratio					0.47		0.42	0.68			0.87	
Control Delay					26.6		15.0	2.2			11.6	
Queue Delay					0.0		0.0	0.7			0.1	
Total Delay					26.6		15.0	2.9			11.7	
LOS					C		B	A			B	
Approach Delay					26.6			3.3			11.7	

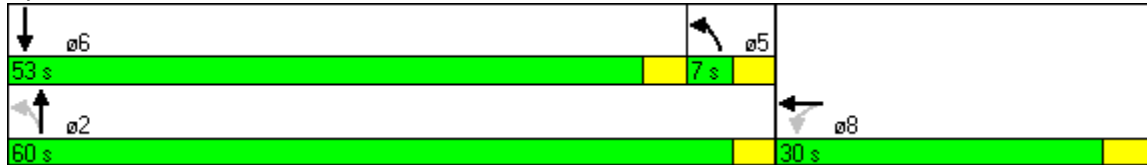


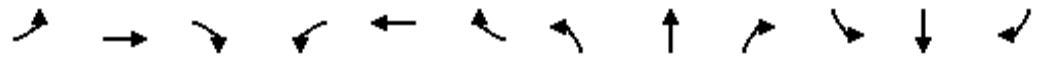
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)	98						4	7	122			
Queue Length 95th (ft)	143						m7	8	m173			
Internal Link Dist (ft)	395			148			274			253		
Turn Bay Length (ft)							130					
Base Capacity (vph)	910						150	2830	2421			
Starvation Cap Reductn	0						0	504	13			
Spillback Cap Reductn	0						0	0	0			
Storage Cap Reductn	0						0	0	0			
Reduced v/c Ratio	0.47						0.42	0.83	0.87			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 9.4                      Intersection LOS: A  
 Intersection Capacity Utilization 70.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

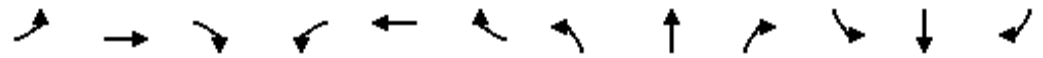
**Splits and Phases: 902: Jackson St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1575	0	0	1624	0	1652	4455	0	0	4304	0
Flt Permitted		0.981			0.727		0.082					
Satd. Flow (perm)	0	1548	0	0	1172	0	141	4455	0	0	4304	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			4			10			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	11	189	102	69	147	67	50	1772	66	0	1682	28
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	359	0	0	449	0	52	1915	0	0	1839	0
Turn Type	Perm			Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0		3.0	13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5		6.5	50.0			48.5	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	6.5	55.0	0.0	0.0	48.5	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	7.2%	61.1%	0.0%	0.0%	53.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		32.0			32.0		52.0	52.0			45.5	
Actuated g/C Ratio		0.36			0.36		0.58	0.58			0.51	
v/c Ratio		0.63			1.07		0.37	0.74			0.84	
Control Delay		32.5			94.7		9.9	2.0			24.8	
Queue Delay		0.0			0.0		0.0	0.6			33.8	
Total Delay		32.5			94.7		9.9	2.7			58.6	
LOS		C			F		A	A			E	
Approach Delay		32.5			94.7			2.8			58.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↑	↑		↑↑↓		↑	↑↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3416	0	0	3539	1583	0	4380	0	1399	4106	0
Flt Permitted										0.093	0.654	
Satd. Flow (perm)	0	3416	0	0	3539	1431	0	4380	0	137	2701	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22				264		24			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	526	109	0	875	375	0	1678	172	468	1601	61
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	705	0	0	983	421	0	1947	0	252	2039	0
Turn Type						Perm					pm+pt	
Protected Phases		4			8			2		1	6	
Permitted Phases						8				6		
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		42.5		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	43.0	0.0	16.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	47.8%	0.0%	17.8%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		40.0		56.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.44		0.62	0.62	
v/c Ratio		0.65			0.89	0.67		0.99		0.94	1.08	
Control Delay		26.2			41.5	15.8		25.7		52.6	54.6	
Queue Delay		27.3			0.0	0.0		2.6		0.0	19.2	
Total Delay		53.5			41.5	15.8		28.3		52.6	73.8	
LOS		D			D	B		C		D	E	
Approach Delay		53.5			33.8			28.3			71.5	

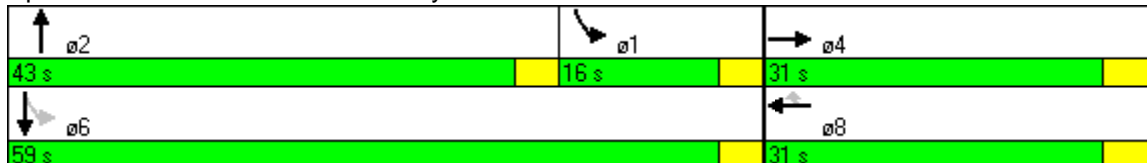


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			C			E		
Queue Length 50th (ft)	132			278			71	396			97	~178
Queue Length 95th (ft)	m187			#386			175	m#91			m#159	#395
Internal Link Dist (ft)	375			167				253				278
Turn Bay Length (ft)											250	
Base Capacity (vph)	1078			1101			627	1960			268	1886
Starvation Cap Reductn	0			0			0	22			0	28
Spillback Cap Reductn	396			0			0	0			0	75
Storage Cap Reductn	0			0			0	0			0	0
Reduced v/c Ratio	1.03			0.89			0.67	1.00			0.94	1.13

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 105  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 47.9 Intersection LOS: D  
 Intersection Capacity Utilization 103.4% ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 904: Broadway & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1643	0	0	1787	0	0	4455	0	0	4438	0
Flt Permitted		0.978			0.774							
Satd. Flow (perm)	0	1607	0	0	1370	0	0	4455	0	0	4438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			2			10			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	9	82	79	91	124	20	0	1979	74	0	1960	33
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	200	0	0	326	0	0	2095	0	0	2098	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	0.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		32.0			32.0			52.0			52.0	
Actuated g/C Ratio		0.36			0.36			0.58			0.58	
v/c Ratio		0.35			0.67			0.81			0.82	
Control Delay		30.2			32.4			3.5			13.0	
Queue Delay		0.0			0.0			0.6			0.1	
Total Delay		30.2			32.4			4.1			13.0	
LOS		C			C			A			B	
Approach Delay		30.2			32.4			4.1			13.0	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1594	0	0	1748	0	1652	4429	0	0	4454	0
Flt Permitted		0.994			0.923		0.071					
Satd. Flow (perm)	0	1583	0	0	1606	0	122	4429	0	0	4454	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			5			8			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	4	70	99	28	94	32	66	1894	48	0	1866	36
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	213	0	0	183	0	67	1961	0	0	1921	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			4			2				2
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		2	2				2
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				4.0
Minimum Split (s)	31.0	31.0		31.0	31.0		50.0	50.0				50.0
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	59.0	59.0	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0				0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		28.0			28.0		56.0	56.0				56.0
Actuated g/C Ratio		0.31			0.31		0.62	0.62				0.62
v/c Ratio		0.43			0.36		0.88	0.71				0.69
Control Delay		27.4			26.0		69.8	4.0				3.7
Queue Delay		0.0			0.0		0.0	0.1				0.1
Total Delay		27.4			26.0		69.8	4.1				3.8
LOS		C			C		E	A				A
Approach Delay		27.4			26.0			6.2				3.8





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	125		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1610	0	0	3349	0	1652	4391	0	0	4450	0
Flt Permitted		0.979			0.635		0.078					
Satd. Flow (perm)	0	1575	0	0	2129	0	135	4391	0	0	4450	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			14			9			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	14	315	79	79	222	50	124	1756	50	0	1744	41
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	459	0	0	434	0	125	1825	0	0	1822	0
Turn Type	Perm			Perm			pm+pt					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2					
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	54.5			50.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	7.0	58.0	0.0	0.0	51.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	7.8%	64.4%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		29.0			29.0		55.0	55.0			48.0	
Actuated g/C Ratio		0.32			0.32		0.61	0.61			0.53	
v/c Ratio		0.89			0.62		0.83	0.68			0.77	
Control Delay		53.9			29.7		49.2	5.8			9.3	
Queue Delay		0.0			0.0		0.0	0.1			0.0	
Total Delay		53.9			29.7		49.2	5.9			9.3	
LOS		D			C		D	A			A	
Approach Delay		53.9			29.7			8.7			9.3	

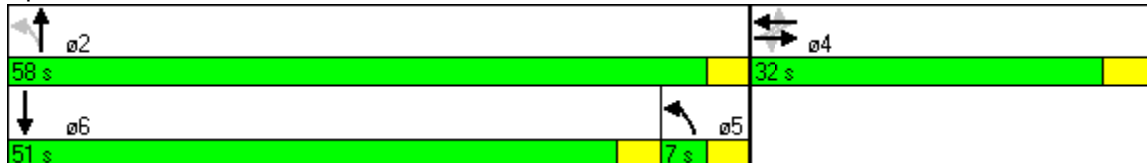


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		266			105			19	67		90	
Queue Length 95th (ft)		m#414			136			m#71	71		145	
Internal Link Dist (ft)		369			662			242			259	
Turn Bay Length (ft)								125				
Base Capacity (vph)		517			696			150	2687		2376	
Starvation Cap Reductn		0			0			0	129		19	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.89			0.62			0.83	0.71		0.77	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 28 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 15.3                      Intersection LOS: B  
 Intersection Capacity Utilization 101.3%                      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 909: Union St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕		↕	↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50		50	50	
Trailing Detector (ft)	0	0		0	0			0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1626	0	0	1735	0	0	4448	0	1652	4465	0
Flt Permitted		0.989			0.529					0.084		
Satd. Flow (perm)	0	1605	0	0	910	0	0	4448	0	144	4465	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			10			6			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	9	138	109	53	49	19	0	1792	28	69	1623	22
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	308	0	0	144	0	0	1896	0	70	1661	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4						2		
Detector Phases	4	4		4	4			2		2	2	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0		6.0	6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0		18.0	18.0	
Total Split (s)	23.0	23.0	0.0	23.0	23.0	0.0	0.0	67.0	0.0	67.0	67.0	0.0
Total Split (%)	25.6%	25.6%	0.0%	25.6%	25.6%	0.0%	0.0%	74.4%	0.0%	74.4%	74.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max		Max	Max	
Act Effct Green (s)		20.0			20.0			64.0		64.0	64.0	
Actuated g/C Ratio		0.22			0.22			0.71		0.71	0.71	
v/c Ratio		0.83			0.69			0.60		0.69	0.52	
Control Delay		50.9			48.6			1.3		35.8	0.7	
Queue Delay		0.0			0.0			0.1		0.0	0.2	
Total Delay		50.9			48.6			1.4		35.8	1.0	
LOS		D			D			A		D	A	
Approach Delay		50.9			48.6			1.4			2.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1738	0	0	1809	0	0	4512	0	0	4485	0
Flt Permitted		0.990			0.972							
Satd. Flow (perm)	0	1718	0	0	1756	0	0	4512	0	0	4485	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3			2			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	8	130	51	10	95	12	0	1806	14	0	1653	25
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	245	0	0	130	0	0	2023	0	0	1804	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	34.5	34.5	0.0	34.5	34.5	0.0	0.0	55.5	0.0	0.0	55.5	0.0
Total Split (%)	38.3%	38.3%	0.0%	38.3%	38.3%	0.0%	0.0%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.5			31.5			52.5			52.5	
Actuated g/C Ratio		0.35			0.35			0.58			0.58	
v/c Ratio		0.40			0.21			0.77			0.69	
Control Delay		23.6			21.2			18.0			13.5	
Queue Delay		0.0			0.0			0.8			1.3	
Total Delay		23.6			21.2			18.8			14.8	
LOS		C			C			B			B	
Approach Delay		23.6			21.2			18.8			14.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		114			50			223			188	
Queue Length 95th (ft)		155			92			242			219	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		605			617			2633			2618	
Starvation Cap Reductn		0			0			2			555	
Spillback Cap Reductn		0			0			306			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			0.21			0.87			0.87	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	17.5
Intersection LOS:	B
Intersection Capacity Utilization	55.6%
ICU Level of Service	B
Analysis Period (min)	15

**Splits and Phases: 911: Greenwich St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4788	0	0	4886	0	0	1752	0	0	1756	0
Flt Permitted								0.829			0.985	
Satd. Flow (perm)	0	4788	0	0	4886	0	0	1476	0	0	1733	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67			5			5			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1244	209	0	2545	42	35	66	9	12	193	43
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1579	0	0	2667	0	0	155	0	0	288	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.53			0.89			0.32			0.51	
Control Delay		10.4			12.5			24.7			28.5	
Queue Delay		0.0			0.4			0.0			0.0	
Total Delay		10.4			12.9			24.7			28.5	
LOS		B			B			C			C	
Approach Delay		10.4			12.9			24.7			28.5	

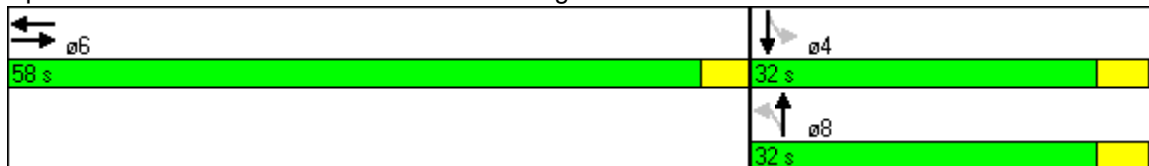


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		164			251			64			130	
Queue Length 95th (ft)		202			272			87			197	
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2952			2988			479			560	
Starvation Cap Reductn		0			66			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.53			0.91			0.32			0.51	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	54 (60%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization	75.7%
ICU Level of Service	D
Analysis Period (min)	15

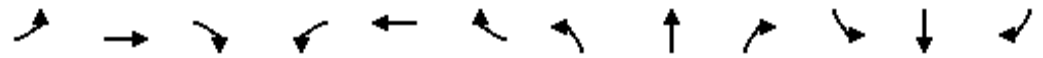
Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5070	0	1610	3299	0	0	0	1611
Flt Permitted		0.911					0.950	0.979				
Satd. Flow (perm)	0	4633	0	0	5070	0	1610	3299	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			6				19
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1263	0	0	1556	36	977	566	46	0	0	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1488	0	0	1712	0	592	1235	0	0	0	72
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	48.0	48.0	0.0	0.0	36.0	0.0	42.0	42.0	0.0	0.0	0.0	12.0
Total Split (%)	53.3%	53.3%	0.0%	0.0%	40.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	13.3%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		45.7			33.0		38.3	38.3				9.7
Actuated g/C Ratio		0.51			0.37		0.43	0.43				0.11
v/c Ratio		0.63			0.92		0.86	0.88				0.38
Control Delay		12.5			17.0		24.1	18.6				35.8
Queue Delay		0.0			0.1		1.1	0.8				0.0
Total Delay		12.5			17.1		25.2	19.4				35.8
LOS		B			B		C	B				D
Approach Delay		12.5			17.1			21.3				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1766	2601	0	1780	0	4658	1445	0	0	3539	1346
Flt Permitted		0.781					0.950					
Satd. Flow (perm)	0	1308	2601	0	1780	0	3939	1445	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			4		8			16				99
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	131	206	972	0	110	15	1308	451	67	0	706	174
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	355	1023	0	143	0	1391	551	0	0	784	193
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		0.87	0.62		0.26		1.03	0.61			0.74	0.54
Control Delay		39.3	2.7		23.4		45.1	2.2			33.3	19.3
Queue Delay		0.0	0.5		0.0		28.6	0.3			1.1	0.0
Total Delay		39.3	3.2		23.4		73.7	2.5			34.4	19.3
LOS		D	A		C		E	A			C	B
Approach Delay		12.5			23.4			53.5			31.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			D			C		
Queue Length 50th (ft)		219	10		57		~248	4		210	41	
Queue Length 95th (ft)		m#361	m13		100		#384	5		277	112	
Internal Link Dist (ft)		390			403			246		91		
Turn Bay Length (ft)							300					
Base Capacity (vph)		407	1649		559		1346	905		1062	359	
Starvation Cap Reductn		0	259		0		88	66		0	0	
Spillback Cap Reductn		0	0		0		0	0		107	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.87	0.74		0.26		1.11	0.66		0.82	0.54	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 30 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 34.9                      Intersection LOS: C  
 Intersection Capacity Utilization 104.5%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**



	↑	↗	↓	↙	↘	↗	↘	↙	↘	↙	↗
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Lane Configurations	↑↑↑	↗	↑↑↑			↘	↙		↘	↙	↗
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12
Grade (%)	0%		0%				0%				
Storage Length (ft)		0				0		0	0	0	
Storage Lanes		1				3		0	1	3	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50	50		50	50	
Trailing Detector (ft)	0	0	0		0	0	0		0	0	
Turning Speed (mph)		9		9	15	15		9	15	9	9
Satd. Flow (prot)	4818	1478	4460	0	1610	2535	2298	0	1652	3610	0
Flt Permitted					0.950	0.950	0.979		0.950		
Satd. Flow (perm)	4818	943	4460	0	1610	2535	2298	0	1652	3610	0
Right Turn on Red		Yes		Yes	No			Yes			Yes
Satd. Flow (RTOR)		96	15				6			3	
Link Speed (mph)	25		25				25				
Link Distance (ft)	258		442				1192				
Travel Time (s)	7.0		12.1				32.5				
Volume (vph)	999	91	1419	140	237	1222	386	60	181	700	207
Confl. Peds. (#/hr)		327		247				167			140
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)				16			16	16			
Mid-Block Traffic (%)	0%		0%				0%				
Lane Group Flow (vph)	1052	96	1641	0	249	921	834	0	191	955	0
Turn Type		Perm			Prot	Prot			Prot	custom	
Protected Phases	2		6		7	7	4		8	8	
Permitted Phases		2									
Detector Phases	2	2	6		7	7	4		8	8	
Minimum Initial (s)	1.0	1.0	2.0		4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	42.0	42.0	42.0		31.0	31.0	38.0		26.0	26.0	
Total Split (s)	45.0	45.0	45.0	0.0	43.0	43.0	43.0	0.0	32.0	32.0	0.0
Total Split (%)	37.5%	37.5%	37.5%	0.0%	35.8%	35.8%	35.8%	0.0%	26.7%	26.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8		3.3	3.3	3.3		3.3	3.3	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max	Max		Max	Max	Max		Max	Max	
Act Effct Green (s)	42.0	42.0	42.0		40.0	40.0	40.0		29.0	29.0	
Actuated g/C Ratio	0.35	0.35	0.35		0.33	0.33	0.33		0.24	0.24	
v/c Ratio	0.62	0.24	1.04		0.46	1.09	1.08		0.48	1.09	
Control Delay	34.4	7.0	73.3		35.0	96.7	95.5		43.8	101.2	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay	34.4	7.0	73.3		35.0	96.7	95.5		43.8	101.2	
LOS	C	A	E		D	F	F		D	F	
Approach Delay	32.1		73.3				88.6				



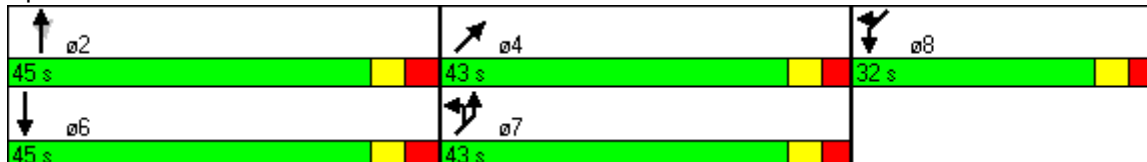


Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Approach LOS	C		E				F				
Queue Length 50th (ft)	246	0	~502		165	~496	~445		127	~366	
Queue Length 95th (ft)	295	38	#601		254	#649	#598		202	#477	
Internal Link Dist (ft)	178		362				1112				
Turn Bay Length (ft)											
Base Capacity (vph)	1686	392	1571		537	845	770		399	875	
Starvation Cap Reductn	0	0	0		0	0	0		0	0	
Spillback Cap Reductn	0	0	0		0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	0		0	0	
Reduced v/c Ratio	0.62	0.24	1.04		0.46	1.09	1.08		0.48	1.09	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 74.0                      Intersection LOS: E  
 Intersection Capacity Utilization 88.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 1237: Otis St. & Mission St.**





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1726	0	0	1611	3433	1745	0	3351	0	0
Flt Permitted		0.956				0.950					
Satd. Flow (perm)	0	1726	0	0	1275	3433	1745	0	3351	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			158		6		6		
Link Speed (mph)		25					25		25		
Link Distance (ft)		490					592		242		
Travel Time (s)		13.4					16.1		6.6		
Volume (vph)	40	74	2	7	13	1415	499	47	757	35	43
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	129	0	0	14	1489	574	0	879	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	38.0	45.0	37.5	0.0	30.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	42.2%	50.0%	41.7%	0.0%	33.9%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			35.0	42.0	34.5		27.5		
Actuated g/C Ratio		0.13			0.39	0.47	0.38		0.31		
v/c Ratio		0.58			0.02	0.93	0.85		0.86		
Control Delay		44.9			0.1	20.0	49.7		43.1		
Queue Delay		0.0			0.0	0.1	0.0		0.0		
Total Delay		44.9			0.1	20.1	49.7		43.1		
LOS		D			A	C	D		D		
Approach Delay		44.9					28.3		43.1		



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS	D			C			D				
Queue Length 50th (ft)	76			0			458	350	233		
Queue Length 95th (ft)	m128			0			m#569	m403	m247		
Internal Link Dist (ft)	410						512		162		
Turn Bay Length (ft)											
Base Capacity (vph)	223			592			1602	673	1028		
Starvation Cap Reductn	0			0			3	0	0		
Spillback Cap Reductn	0			0			0	0	0		
Storage Cap Reductn	0			0			0	0	0		
Reduced v/c Ratio	0.58			0.02			0.93	0.85	0.86		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 58 (64%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 33.1      Intersection LOS: C  
 Intersection Capacity Utilization 104.5%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**

ø3	ø4	ø10
38 s	37.5 s	14.5 s
ø7	ø8	
45 s	30.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			490			350			355	
Travel Time (s)		13.0			13.4			9.5			9.7	
Volume (vph)	0	39	0	0	35	0	0	0	0	84	1879	130
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	41	0	0	37	0	0	0	0	0	2203	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	37.0	0.0	37.0	37.0	0.0	0.0	0.0	0.0	53.0	53.0	0.0
Total Split (%)	0.0%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	58.9%	58.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		34.0			34.0							50.0
Actuated g/C Ratio		0.38			0.38							0.56
v/c Ratio		0.06			0.05							0.62
Control Delay		18.2			0.1							4.1
Queue Delay		0.0			0.0							0.6
Total Delay		18.2			0.1							4.7
LOS		B			A							A
Approach Delay		18.2			0.1							4.7

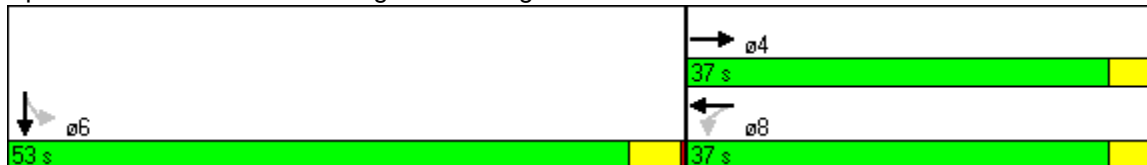


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A						A	
Queue Length 50th (ft)		15			0						50	
Queue Length 95th (ft)		36			m0						m51	
Internal Link Dist (ft)		395			410			270			275	
Turn Bay Length (ft)												
Base Capacity (vph)		704			704						3532	
Starvation Cap Reductn		0			0						800	
Spillback Cap Reductn		0			0						136	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.06			0.05						0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 22 (24%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 4.8                      Intersection LOS: A  
 Intersection Capacity Utilization 40.7%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1351: Page St & Gough St.**





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4971	0	3294	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4971	0	3294	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			11			
Link Speed (mph)		25				25		25	
Link Distance (ft)		350				649		592	
Travel Time (s)		9.5				17.7		16.1	
Volume (vph)	27	758	1012	82	130	1804	94	691	73
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	826	1151	0	137	1998	0	804	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.83	0.86		0.23	0.88		0.54	
Control Delay		11.3	11.2		3.2	27.9		2.1	
Queue Delay		0.7	0.0		0.0	0.3		0.0	
Total Delay		11.9	11.2		3.2	28.2		2.1	
LOS		B	B		A	C		A	
Approach Delay		11.5				28.2		2.1	





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	62	21	31	105	19	5	87	9	22	485	22
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	6	71	24	33	111	20	7	118	12	24	533	24

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	101	163	136	581
Volume Left (vph)	6	33	7	24
Volume Right (vph)	24	20	12	24
Hadj (s)	-0.10	0.00	-0.01	0.02
Departure Headway (s)	6.0	6.0	5.6	5.0
Degree Utilization, x	0.17	0.27	0.21	0.80
Capacity (veh/h)	536	549	583	581
Control Delay (s)	10.2	11.2	10.0	24.7
Approach Delay (s)	10.2	11.2	10.0	24.7
Approach LOS	B	B	B	C

Intersection Summary			
Delay		18.9	
HCM Level of Service		C	
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)		15	





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	178	46	38	255	18	13	93	5	21	445	44
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	16	202	52	49	331	23	17	122	7	24	506	50

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	270	404	146	580
Volume Left (vph)	16	49	17	24
Volume Right (vph)	52	23	7	50
Hadj (s)	-0.07	0.02	0.03	-0.01
Departure Headway (s)	7.4	7.1	8.0	6.8
Degree Utilization, x	0.56	0.80	0.32	1.10
Capacity (veh/h)	460	488	403	517
Control Delay (s)	19.3	32.5	14.7	93.6
Approach Delay (s)	19.3	32.5	14.7	93.6
Approach LOS	C	D	B	F

Intersection Summary			
Delay		53.4	
HCM Level of Service		F	
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↷			↶
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	44	15	63	37	23	863
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	52	18	80	47	24	908
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.68	0.99			0.99	
vC, conflicting volume	1060	103			127	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1066	94			118	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	68	98			98	
cM capacity (veh/h)	164	953			1456	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	52	18	127	933
Volume Left	52	0	0	24
Volume Right	0	18	47	0
cSH	164	953	1700	1456
Volume to Capacity	0.32	0.02	0.07	0.02
Queue Length 95th (ft)	32	1	0	1
Control Delay (s)	37.0	8.8	0.0	0.5
Lane LOS	E	A		A
Approach Delay (s)	29.9		0.0	0.5
Approach LOS	D			

Intersection Summary			
Average Delay		2.2	
Intersection Capacity Utilization		63.4%	ICU Level of Service B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	112	50	17	242	9	21	87	8	23	355	24
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	16	130	58	18	263	10	27	112	10	28	433	29

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	205	291	149	490
Volume Left (vph)	16	18	27	28
Volume Right (vph)	58	10	10	29
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.5	6.4	6.6	5.9
Degree Utilization, x	0.37	0.52	0.27	0.80
Capacity (veh/h)	497	517	474	596
Control Delay (s)	13.2	16.1	12.1	28.2
Approach Delay (s)	13.2	16.1	12.1	28.2
Approach LOS	B	C	B	D

Intersection Summary			
Delay		20.3	
HCM Level of Service		C	
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	108	53	32	153	16	21	92	19	23	348	51
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	10	137	67	46	219	23	28	121	25	26	387	57

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	214	287	174	469
Volume Left (vph)	10	46	28	26
Volume Right (vph)	67	23	25	57
Hadj (s)	-0.14	0.02	-0.02	-0.03
Departure Headway (s)	6.5	6.4	6.6	5.9
Degree Utilization, x	0.38	0.51	0.32	0.77
Capacity (veh/h)	482	502	474	469
Control Delay (s)	13.5	16.0	12.6	25.9
Approach Delay (s)	13.5	16.0	12.6	25.9
Approach LOS	B	C	B	D

Intersection Summary			
Delay		19.1	
HCM Level of Service		C	
Intersection Capacity Utilization	53.0%		ICU Level of Service A
Analysis Period (min)		15	

# 2035 BUILD ALTERNATIVE 2 SIDE LANE BRT





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.389								0.950		
Satd. Flow (perm)	725	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			88				11		249	37	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	9	0	109	0	0	0	902	67	733	237	124
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	9	0	115	0	0	0	1020	0	772	380	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	41.9	0.0	41.9	0.0	0.0	0.0	48.1	0.0	41.9	41.9	0.0
Total Split (%)	46.6%	0.0%	46.6%	0.0%	0.0%	0.0%	53.4%	0.0%	46.6%	46.6%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	38.9		38.9				45.1		38.9	38.9	
Actuated g/C Ratio	0.43		0.43				0.50		0.43	0.43	
v/c Ratio	0.03		0.16				0.73		0.34	0.62	
Control Delay	15.2		5.9				5.1		11.6	23.2	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	15.2		5.9				5.1		11.6	23.2	
LOS	B		A				A		B	C	
Approach Delay									15.4		





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↑↑	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.929					0.950		
Satd. Flow (perm)	4995	0	0	4724	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				356		20		12		1
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	630	43	13	1426	947	660	243	94	936	527	187
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	708	0	0	1515	997	695	256	0	1084	555	197
Turn Type			Perm		Perm		custom	custom	custom	custom	Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.45			1.03	1.69	0.65	0.71		1.07	0.27	0.33
Control Delay	25.5			63.4	336.5	31.0	38.2		71.8	3.8	5.0
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	25.5			63.4	336.5	31.0	38.2		71.8	3.8	5.0
LOS	C			E	F	C	D		E	A	A
Approach Delay	25.5			171.8						44.1	



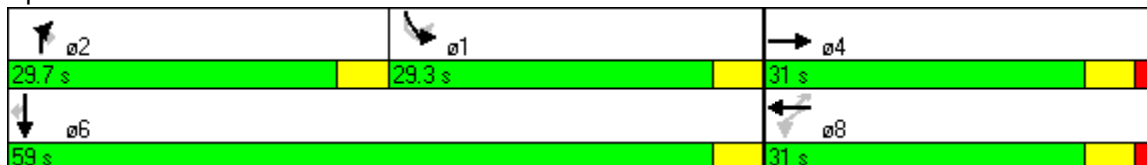














Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Approach LOS	C			F				D			
Queue Length 50th (ft)	115			~341	~697	150	119		~356	29	20
Queue Length 95th (ft)	151			#434	#936	200	#229		#459	38	m30
Internal Link Dist (ft)	246			307						534	
Turn Bay Length (ft)											50
Base Capacity (vph)	1562			1470	590	1071	363		1012	2026	590
Starvation Cap Reductn	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0			0	0	0	0		0	0	0
Storage Cap Reductn	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.45			1.03	1.69	0.65	0.71		1.07	0.27	0.33

**Intersection Summary**













Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.69  
 Intersection Signal Delay: 93.5      Intersection LOS: F  
 Intersection Capacity Utilization 121.0%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 18: Duboce St. &**



												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↗		↑↑	↗		↘			↘	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		80	0		50	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3353	1203	0	3353	1583	0	1610	0	0	1628	0
Flt Permitted												
Satd. Flow (perm)	0	3353	791	0	3353	748	0	1610	0	0	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			10			1		1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1600	132	0	1159	193	0	518	39	0	594	31
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			28									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1616	133	0	1274	212	0	626	0	0	687	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	47.8%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		1.08	0.37		0.86	0.64		0.79			0.86	
Control Delay		75.9	19.1		38.8	38.4		12.9			16.2	
Queue Delay		0.0	0.0		0.9	0.0		0.0			0.0	
Total Delay		75.9	19.1		39.7	38.4		12.9			16.2	
LOS		E	B		D	D		B			B	
Approach Delay		71.6			39.6			12.9			16.2	



						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					2	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	856	0	912	624	123	625
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	901	0	960	657	129	658
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	39.0	39.0	39.0	51.0	51.0	51.0
Total Split (%)	43.3%	43.3%	43.3%	56.7%	56.7%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	36.0		36.0	48.0	48.0	48.0
Actuated g/C Ratio	0.40		0.40	0.53	0.53	0.53
v/c Ratio	0.47		0.68	0.66	0.15	0.68
Control Delay	5.7		25.2	24.7	16.5	20.1
Queue Delay	0.0		2.5	0.0	0.0	1.4
Total Delay	5.7		27.7	24.7	16.5	21.5
LOS	A		C	C	B	C
Approach Delay			27.7	23.4		21.5

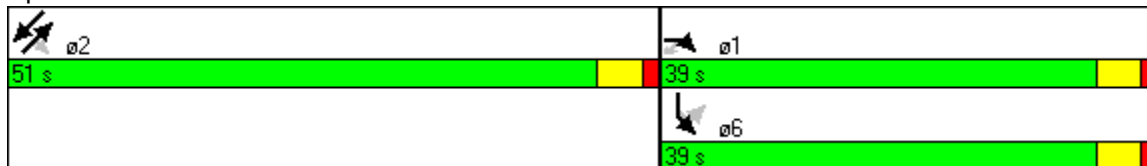


Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Approach LOS			C	C		C
Queue Length 50th (ft)	39		220	275	45	259
Queue Length 95th (ft)	48		285	m390	m70	388
Internal Link Dist (ft)			300	390		455
Turn Bay Length (ft)						
Base Capacity (vph)	1900		1416	994	845	961
Starvation Cap Reductn	0		321	0	0	143
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.47		0.88	0.66	0.15	0.80

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2: NESW, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 19.4 Intersection LOS: B  
 Intersection Capacity Utilization 65.6% ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 102: Fell St. & Market St.





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>SWT</del>	<del>SWR</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1540	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1540	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			33			2		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	109	1199	2172	184	624	516	88	109
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1377	2480	0	657	751	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.57	1.02		1.00	1.22		
Control Delay		11.7	40.4		58.2	126.6		
Queue Delay		0.0	0.0		0.0	4.4		
Total Delay		11.7	40.4		58.2	130.9		
LOS		B	D		E	F		
Approach Delay		30.1			58.2	130.9		



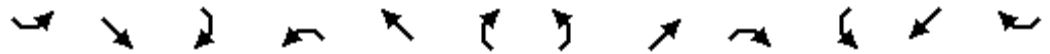
Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	C				E	F		
Queue Length 50th (ft)	117	~321			~231	~362		
Queue Length 95th (ft)	155	#454			#435	m#493		
Internal Link Dist (ft)	272					455	524	
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2432			654	617		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	5	0			0	5		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.57	1.02			1.00	1.23		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 47 (78%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 48.0 Intersection LOS: D  
 Intersection Capacity Utilization 100.8% ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28							1			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	48	2224	183	0	0	0	0	475	333	0	530	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2585	0	0	0	0	0	500	351	0	558	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.12						0.72	0.50		0.68	
Control Delay		71.1						17.6	14.3		18.5	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		71.1						17.6	14.3		18.5	
LOS		E						B	B		B	
Approach Delay		71.1						16.3			18.5	



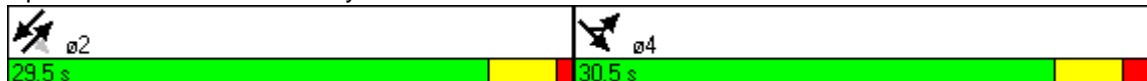


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		E						B			B	
Queue Length 50th (ft)		~394						184	125		153	
Queue Length 95th (ft)		#493						m182	m124		253	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2318						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.12						0.72	0.50		0.68	

**Intersection Summary**

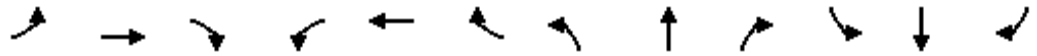
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 23 (38%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.12  
 Intersection Signal Delay: 52.1                      Intersection LOS: D  
 Intersection Capacity Utilization 82.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		9										4
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			353			200	
Travel Time (s)		10.3			6.7			9.6			5.5	
Volume (vph)	0	1382	272	0	0	0	0	0	0	64	1904	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1778	0	0	0	0	0	0	0	0	2050	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									51.0	
Actuated g/C Ratio		0.37									0.57	
v/c Ratio		0.99									0.96	
Control Delay		47.4									21.8	
Queue Delay		1.2									0.0	
Total Delay		48.5									21.8	
LOS		D									C	
Approach Delay		48.5									21.8	



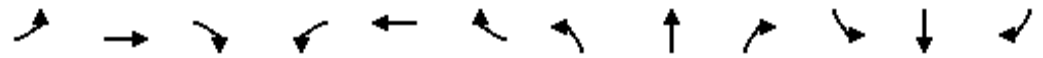
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									C	
Queue Length 50th (ft)		360									555	
Queue Length 95th (ft)		#479									#699	
Internal Link Dist (ft)		296			165			273			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1802									2135	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		11									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.99									0.96	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	13 (14%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	34.2
Intersection LOS:	C
Intersection Capacity Utilization:	68.0%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗↘					↖		↖↗↘				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	24					8						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		226			221			405			169	
Travel Time (s)		6.2			6.0			11.0			4.6	
Volume (vph)	1446	0	0	0	0	46	0	1638	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	1538	0	0	0	0	54	0	1689	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4						
Detector Phases	4					4		2				
Minimum Initial (s)	4.0					4.0		4.0				
Minimum Split (s)	21.0					21.0		20.0				
Total Split (s)	44.0	0.0	0.0	0.0	0.0	44.0	0.0	46.0	0.0	0.0	0.0	0.0
Total Split (%)	48.9%	0.0%	0.0%	0.0%	0.0%	48.9%	0.0%	51.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5		3.5				
All-Red Time (s)	1.5					1.5		1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max		Max				
Act Effct Green (s)	41.0					41.0		43.0				
Actuated g/C Ratio	0.46					0.46		0.48				
v/c Ratio	0.75					0.08		0.77				
Control Delay	2.2					12.7		2.4				
Queue Delay	0.8					0.0		0.7				
Total Delay	3.0					12.7		3.1				
LOS	A					B		A				
Approach Delay								3.1				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3441	0	0	0	0	0	4057	1117
Flt Permitted					0.990						0.998	
Satd. Flow (perm)	0	0	0	0	3441	0	0	0	0	0	4057	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											44	44
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	96	393	0	0	0	0	121	1908	1203
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	627	0	0	0	0	0	2623	709
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	22.0	22.0	0.0	0.0	0.0	0.0	68.0	68.0	68.0
Total Split (%)	0.0%	0.0%	0.0%	24.4%	24.4%	0.0%	0.0%	0.0%	0.0%	75.6%	75.6%	75.6%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					19.0						65.0	65.0
Actuated g/C Ratio					0.21						0.72	0.72
v/c Ratio					0.86						0.89	0.87
Control Delay					51.6						8.9	10.9
Queue Delay					0.0						25.3	12.9
Total Delay					51.6						34.2	23.7
LOS					D						C	C
Approach Delay					51.6						32.0	

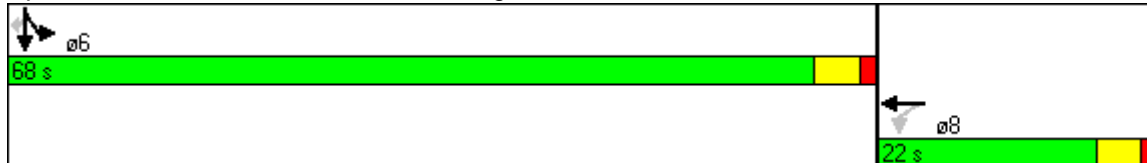


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D						C	
Queue Length 50th (ft)					202						176	108
Queue Length 95th (ft)					224						m98	m62
Internal Link Dist (ft)		289			371			112			228	
Turn Bay Length (ft)												
Base Capacity (vph)					726						2942	819
Starvation Cap Reductn					0						446	105
Spillback Cap Reductn					0						0	0
Storage Cap Reductn					0						0	0
Reduced v/c Ratio					0.86						1.05	0.99

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 35.1      Intersection LOS: D  
 Intersection Capacity Utilization 70.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

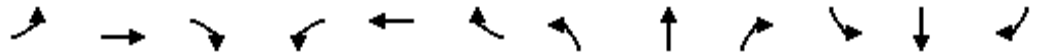
Splits and Phases: 406: Fell St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3483	0	0	1863	0	0	4748	1137	0	0	0
Flt Permitted		0.868						0.990				
Satd. Flow (perm)	0	3072	0	0	1863	0	0	4748	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								6	609			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	39	82	0	0	39	0	450	1807	689	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	134	0	0	41	0	0	2388	681	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	21.0	21.0	0.0	0.0	21.0	0.0	69.0	69.0	69.0	0.0	0.0	0.0
Total Split (%)	23.3%	23.3%	0.0%	0.0%	23.3%	0.0%	76.7%	76.7%	76.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		18.0			18.0			66.0	66.0			
Actuated g/C Ratio		0.20			0.20			0.73	0.73			
v/c Ratio		0.22			0.11			0.69	0.68			
Control Delay		21.7			43.6			8.1	4.4			
Queue Delay		0.0			0.0			0.6	0.4			
Total Delay		21.7			43.6			8.7	4.8			
LOS		C			D			A	A			
Approach Delay		21.7			43.6			7.8				





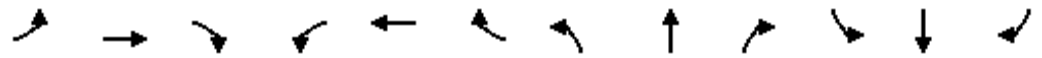
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			A				
Queue Length 50th (ft)		31			25			255	33			
Queue Length 95th (ft)		m37			59			305	122			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		614			373			3483	996			
Starvation Cap Reductn		0			0			630	68			
Spillback Cap Reductn		0			0			383	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.22			0.11			0.84	0.73			

**Intersection Summary**

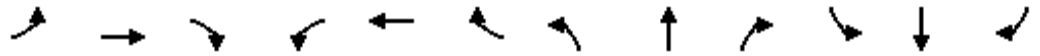
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 8.9                      Intersection LOS: A  
 Intersection Capacity Utilization 64.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 407: Fell St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕	↗	↘	↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	110		75
Storage Lanes	0		0	0		0	0		1	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	50
Trailing Detector (ft)	0	0						0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3470	0	0	0	0	0	3127	1370	1770	3034	1583
Flt Permitted		0.995								0.085		
Satd. Flow (perm)	0	3470	0	0	0	0	0	3127	846	158	3034	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5							20			23
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	72	668	31	0	0	0	0	1578	53	135	1222	39
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								7	7		18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	847	0	0	0	0	0	1627	55	141	1273	41
Turn Type	Split								Perm pm+pt			Perm
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		6
Detector Phases	4	4						2	2	1	6	6
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.6	4.0	4.0
Minimum Split (s)	35.0	35.0						42.0	42.0	8.1	50.0	50.0
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	46.9	46.9	8.1	55.0	55.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	52.1%	52.1%	9.0%	61.1%	61.1%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.1	2.1						0.9	0.9	0.9	0.9	0.9
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	Max
Act Effct Green (s)		32.0						43.9	43.9	52.0	52.0	52.0
Actuated g/C Ratio		0.36						0.49	0.49	0.58	0.58	0.58
v/c Ratio		0.68						1.07	0.13	0.77	0.73	0.04
Control Delay		25.3						40.0	0.1	17.2	2.3	0.0
Queue Delay		0.0						0.0	0.0	0.0	0.4	0.0
Total Delay		25.3						40.0	0.1	17.2	2.8	0.0
LOS		C						D	A	B	A	A
Approach Delay		25.3						38.7			4.1	

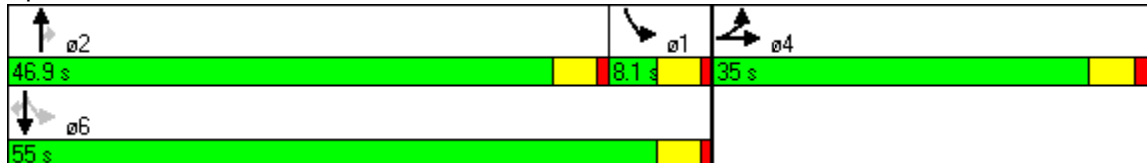


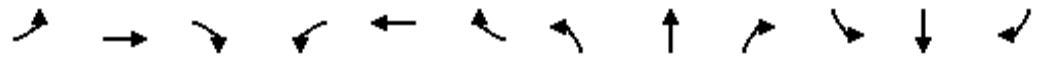
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	C						D			A			
Queue Length 50th (ft)	202						~518			0	34	12	0
Queue Length 95th (ft)	276						m40			m0	m33	m14	m0
Internal Link Dist (ft)	406						445			94	69		
Turn Bay Length (ft)										75	110	75	
Base Capacity (vph)	1237						1525			423	183	1753	924
Starvation Cap Reductn	0						0			0	0	144	0
Spillback Cap Reductn	0						0			0	0	109	0
Storage Cap Reductn	0						0			0	0	0	0
Reduced v/c Ratio	0.68						1.07			0.13	0.77	0.79	0.04

**Intersection Summary**

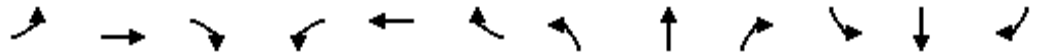
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.07  
 Intersection Signal Delay: 23.2      Intersection LOS: C  
 Intersection Capacity Utilization 88.7%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.000							0.997	
Satd. Flow (perm)	0	1641	0	0	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20									3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	86	153	639	423	0	0	0	0	170	2440	43
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	311	0	666	441	0	0	0	0	0	2734	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	21.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0	40.0	40.0	0.0
Total Split (%)	0.0%	23.3%	0.0%	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	44.4%	44.4%	0.0%
Yellow Time (s)		7.0		3.5	3.5						3.5	3.5
All-Red Time (s)		0.0		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		18.0		26.0	26.0							37.0
Actuated g/C Ratio		0.20		0.29	0.29							0.41
v/c Ratio		0.90		1.30	0.85							1.40
Control Delay		64.2		168.6	34.1							200.8
Queue Delay		17.1		13.9	0.0							9.4
Total Delay		81.3		182.6	34.1							210.2
LOS		F		F	C							F
Approach Delay		81.3			123.4							210.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			F							F
Queue Length 50th (ft)		164		~472	126							~761
Queue Length 95th (ft)		#239		m#590	m211							m#850
Internal Link Dist (ft)		335			378			228				265
Turn Bay Length (ft)												
Base Capacity (vph)		344		511	519							1957
Starvation Cap Reductn		0		0	0							29
Spillback Cap Reductn		34		12	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		1.00		1.33	0.85							1.42

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 130  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.40  
 Intersection Signal Delay: 177.4      Intersection LOS: F  
 Intersection Capacity Utilization 110.9%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**

Ø6 40 s	Ø3 29 s	Ø4 21 s
	Ø8 29 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3229	1441	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	1796	0	0	3229	1441	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4	4						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	256	0	0	949	750	113	1733	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	269	0	0	1288	559	0	2052	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	44.0	0.0	0.0	44.0	44.0	46.0	46.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	48.9%	0.0%	0.0%	48.9%	48.9%	51.1%	51.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		41.0			41.0	41.0		43.0				
Actuated g/C Ratio		0.46			0.46	0.46		0.48				
v/c Ratio		0.33			0.87	0.85		0.90				
Control Delay		19.6			11.3	13.5		20.0				
Queue Delay		0.0			8.1	0.7		8.0				
Total Delay		19.6			19.4	14.1		28.0				
LOS		B			B	B		C				
Approach Delay		19.6			17.8			28.0				

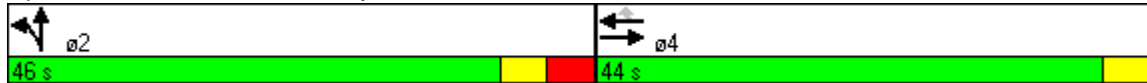


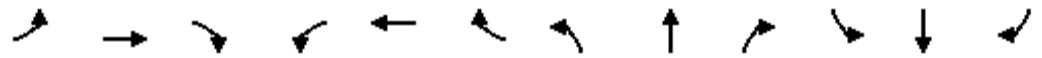
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C				
Queue Length 50th (ft)		127			146	108		263				
Queue Length 95th (ft)		m106			m119			m95				
Internal Link Dist (ft)		378			401			243			95	
Turn Bay Length (ft)												
Base Capacity (vph)		818			1473			659			2281	
Starvation Cap Reductn		0			165			13			221	
Spillback Cap Reductn		0			0			0			109	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.98			0.87			1.00	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 22.9      Intersection LOS: C  
 Intersection Capacity Utilization 110.9%      ICU Level of Service H  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 413: Hayes St. & Franklin St.**

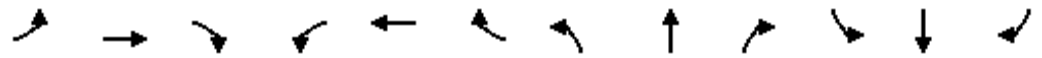




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕↕		↕	↕↕	↕		↕↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	110		75	0		75
Storage Lanes	0		0	0		0	1		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50		50	50	50		50	50
Trailing Detector (ft)		0		0	0		0	0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1816	0	0	4569	0	1770	3362	1583	0	3101	1346
Flt Permitted					0.932		0.097					
Satd. Flow (perm)	0	1816	0	0	4263	0	181	3362	1583	0	3101	794
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			37				12			25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	209	47	24	1321	220	286	1388	24	0	1325	92
Confl. Peds. (#/hr)							224					449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	269	0	0	1648	0	298	1446	25	0	1380	96
Turn Type				Perm			pm+pt		Perm			Perm
Protected Phases		4			4		5	2			6	
Permitted Phases				4			2		2			6
Detector Phases		4		4	4		5	2	2		6	6
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0	51.0		39.0	39.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	13.7	55.0	55.0	0.0	41.3	41.3
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	15.2%	61.1%	61.1%	0.0%	45.9%	45.9%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9	0.9		0.9	0.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		32.0			32.0		52.0	52.0	52.0		38.3	38.3
Actuated g/C Ratio		0.36			0.36		0.58	0.58	0.58		0.43	0.43
v/c Ratio		0.41			1.07		1.02	0.74	0.03		1.05	0.27
Control Delay		29.8			73.2		39.3	1.4	0.0		52.9	13.8
Queue Delay		0.0			0.0		0.0	1.6	0.0		18.4	0.0
Total Delay		29.8			73.2		39.3	3.0	0.0		71.3	13.8
LOS		C			E		D	A	A		E	B
Approach Delay		29.8			73.2			9.1			67.6	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			105		33							20
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	203	95	1493	0	0	0	0	0	615	72
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	214	0	1672	0	0	0	0	0	647	76
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.24		0.56						0.50	0.14
Control Delay			4.7		3.8						8.5	5.8
Queue Delay			0.0		0.0						0.1	0.0
Total Delay			4.7		3.8						8.6	5.8
LOS			A		A						A	A
Approach Delay					3.8						8.3	

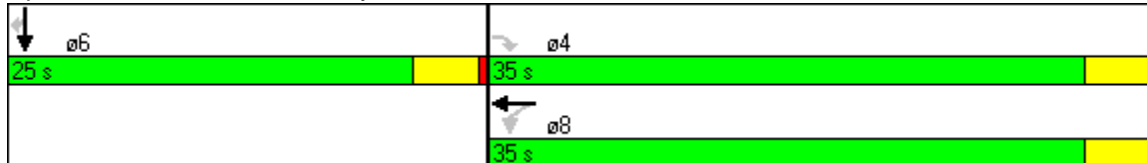


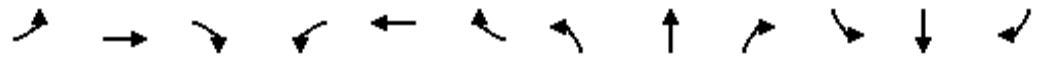
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						A			A			
Queue Length 50th (ft)			18			27				32	2	
Queue Length 95th (ft)			46			m32				72	m19	
Internal Link Dist (ft)	153				70	300					82	
Turn Bay Length (ft)												
Base Capacity (vph)			908			2979				1298	535	
Starvation Cap Reductn			0			0				0	0	
Spillback Cap Reductn			18			14				66	0	
Storage Cap Reductn			0			0				0	0	
Reduced v/c Ratio			0.24			0.56				0.53	0.14	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 1 (2%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.56  
 Intersection Signal Delay: 5.1      Intersection LOS: A  
 Intersection Capacity Utilization 62.7%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1751	0	0	3375	0	0	0	0	0	5050	0
Flt Permitted					0.631						0.997	
Satd. Flow (perm)	0	1751	0	0	2193	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10									11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	313	71	265	183	0	0	0	0	150	2317	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	413	0	0	497	0	0	0	0	0	2615	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	24.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	66.0	66.0	0.0
Total Split (%)	0.0%	26.7%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		21.0			21.0							63.0
Actuated g/C Ratio		0.23			0.23							0.70
v/c Ratio		0.99			3.67dl							0.74
Control Delay		78.1			56.1							1.6
Queue Delay		1.1			0.0							44.0
Total Delay		79.2			56.1							45.6
LOS		E			E							D
Approach Delay		79.2			56.1							45.6

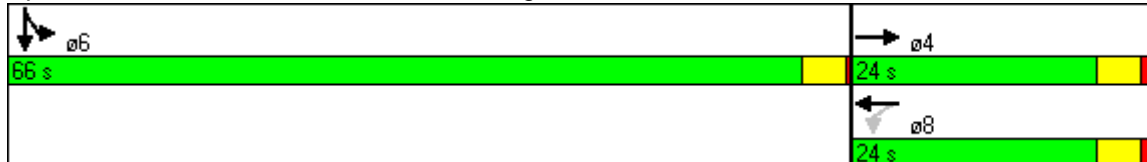


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			E							D
Queue Length 50th (ft)		230			73							35
Queue Length 95th (ft)		#422			m#233							m34
Internal Link Dist (ft)		292			129			265				272
Turn Bay Length (ft)												
Base Capacity (vph)		416			512							3538
Starvation Cap Reductn		0			0							670
Spillback Cap Reductn		2			0							1146
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		1.00			0.97							1.09

**Intersection Summary**

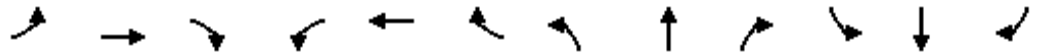
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 51.0      Intersection LOS: D  
 Intersection Capacity Utilization 94.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3239	0	0	5050	0	0	0	0
Flt Permitted		0.643						0.999				
Satd. Flow (perm)	0	2235	0	0	3239	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	68	395	0	0	412	338	36	2406	106	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	520	0	0	781	0	0	2626	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.72			0.75			0.85				
Control Delay		29.0			21.8			8.6				
Queue Delay		0.0			0.0			3.9				
Total Delay		29.0			21.8			12.5				
LOS		C			C			B				
Approach Delay		29.0			21.8			12.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B				
Queue Length 50th (ft)		107			229			179				
Queue Length 95th (ft)		m120			m246			195				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		720			1046			3091				
Starvation Cap Reductn		0			0			323				
Spillback Cap Reductn		0			0			387				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.72			0.75			0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 16.5      Intersection LOS: B  
 Intersection Capacity Utilization 94.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↗	↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		75	0		75
Storage Lanes	0		0	0		0	1		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50	50		50	50
Trailing Detector (ft)	0	0		0	0		0	0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3327	0	0	3454	0	1770	3160	1401	0	2976	1227
Flt Permitted		0.946			0.879		0.111					
Satd. Flow (perm)	0	3151	0	0	3046	0	207	3160	936	0	2976	820
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			5							3
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	7	453	41	36	496	24	193	1367	72	0	1341	61
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		25	25
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	583	0	0	618	0	205	1454	77	0	1397	64
Turn Type	Perm			Perm			Perm		Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2		2			2
Detector Phases	4	4		4	4		2	2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	34.0	34.0		34.0	34.0		31.0	31.0	31.0		31.0	31.0
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	56.0	56.0	56.0	0.0	56.0	56.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	62.2%	62.2%	62.2%	0.0%	62.2%	62.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1		1.7	1.7	1.7		1.7	1.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		31.0			31.0		53.0	53.0	53.0		53.0	53.0
Actuated g/C Ratio		0.34			0.34		0.59	0.59	0.59		0.59	0.59
v/c Ratio		0.54			0.59		1.68	0.78	0.14		0.80	0.13
Control Delay		44.8			26.8		345.1	7.7	5.2		23.7	13.2
Queue Delay		0.2			0.4		0.0	0.4	0.0		2.2	0.0
Total Delay		45.1			27.2		345.1	8.1	5.2		26.0	13.2
LOS		D			C		F	A	A		C	B
Approach Delay		45.1			27.2			47.8			25.4	





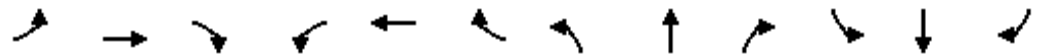
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			D			C	
Queue Length 50th (ft)		178			148		~171	106	9		320	23
Queue Length 95th (ft)		m218			204		m#245	m121	m12		383	m34
Internal Link Dist (ft)		397			406			90			592	
Turn Bay Length (ft)							120		75			75
Base Capacity (vph)		1089			1052		122	1861	551		1753	484
Starvation Cap Reductn		0			0		0	96	0		0	0
Spillback Cap Reductn		112			109		0	0	0		223	0
Storage Cap Reductn		0			0		0	0	0		0	0
Reduced v/c Ratio		0.60			0.66		1.68	0.82	0.14		0.91	0.13

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.68  
 Intersection Signal Delay: 37.1                      Intersection LOS: D  
 Intersection Capacity Utilization 102.1%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

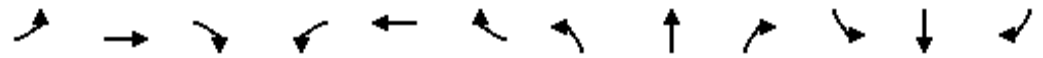
**Splits and Phases: 418: Grove St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3179	1377	0	3144	0	0	0	0	0	3128	0
Flt Permitted		0.897			0.907						0.995	
Satd. Flow (perm)	0	2863	1377	0	2863	0	0	0	0	0	3128	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			144		17							25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	29	360	137	41	491	41	0	0	0	63	530	65
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	410	144	0	603	0	0	0	0	0	692	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.32	0.21		0.46						0.49	
Control Delay		11.5	3.0		10.9						10.2	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.5	3.0		10.9						10.2	
LOS		B	A		B						B	
Approach Delay		9.3			10.9						10.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1781	0	0	4847	0	1770	0	1267
Flt Permitted	0.526							0.993		0.133		
Satd. Flow (perm)	914	1863	0	0	1781	0	0	4847	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			19				93
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			198			210			358	
Travel Time (s)		13.1			5.4			5.7			9.8	
Volume (vph)	177	246	0	0	164	79	321	1794	109	15	0	88
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	186	259	0	0	256	0	0	2341	0	16	0	93
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.51	0.35			0.36			0.96		0.13		0.14
Control Delay	18.5	12.8			11.5			5.8		7.2		2.8
Queue Delay	0.0	0.0			0.0			1.9		0.0		0.0
Total Delay	18.5	12.8			11.5			7.7		7.2		2.8
LOS	B	B			B			A		A		A
Approach Delay		15.2			11.5			7.7				

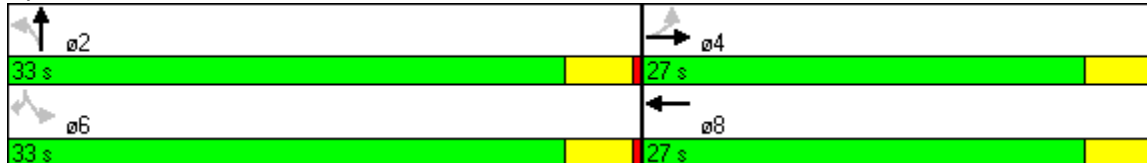


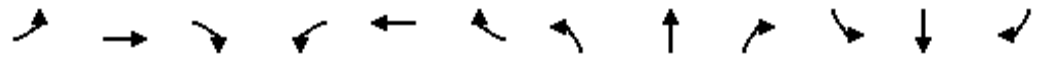
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B				B		A					
Queue Length 50th (ft)	60	78			36			24	2	0		
Queue Length 95th (ft)	126	143			m48			m23	8	0		
Internal Link Dist (ft)	401				118			130	278			
Turn Bay Length (ft)												
Base Capacity (vph)	366	745			716			2433	124	680		
Starvation Cap Reductn	0	0			0			27	0	0		
Spillback Cap Reductn	0	0			0			43	0	0		
Storage Cap Reductn	0	0			0			0	0	0		
Reduced v/c Ratio	0.51	0.35			0.36			0.98	0.13	0.14		

**Intersection Summary**

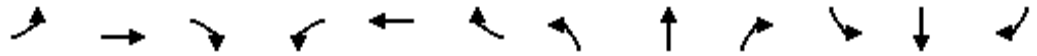
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 24 (40%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 8.9                      Intersection LOS: A  
 Intersection Capacity Utilization 79.1%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1798	0	0	1835	0	0	0	0	0	5050	0
Flt Permitted					0.461						0.999	
Satd. Flow (perm)	0	1798	0	0	859	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2									10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	357	127	76	171	0	0	0	0	44	2333	99
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	538	0	0	284	0	0	0	0	0	2606	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		36.0			36.0							48.0
Actuated g/C Ratio		0.40			0.40							0.53
v/c Ratio		0.75			0.83							0.97
Control Delay		30.8			25.1							15.1
Queue Delay		0.0			0.0							11.8
Total Delay		30.8			25.1							26.9
LOS		C			C							C
Approach Delay		30.8			25.1							26.9

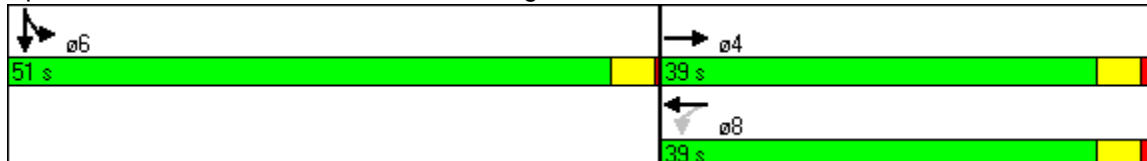


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C						C	
Queue Length 50th (ft)		255			122						76	
Queue Length 95th (ft)		382			m133						#629	
Internal Link Dist (ft)		407			140			272			253	
Turn Bay Length (ft)												
Base Capacity (vph)		720			344						2698	
Starvation Cap Reductn		0			0						150	
Spillback Cap Reductn		0			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.75			0.83						1.02	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 60 (67%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 27.4      Intersection LOS: C  
 Intersection Capacity Utilization 97.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 428: Fulton St. & Gough St.





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	401	0	247	2565	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	528	0	0	2899	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	31.0	0.0	59.0	59.0	0.0	0.0
Total Split (%)	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	28.0			56.0		
Actuated g/C Ratio	0.31			0.62		
v/c Ratio	0.96			0.97		
Control Delay	45.8			15.6		
Queue Delay	0.0			1.2		
Total Delay	45.8			16.9		
LOS	D			B		
Approach Delay	45.8			16.9		





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS	D			B		
Queue Length 50th (ft)	309			455		
Queue Length 95th (ft) m#373				#702		
Internal Link Dist (ft)	163			265	254	
Turn Bay Length (ft)						
Base Capacity (vph)	551			2989		
Starvation Cap Reductn	0			21		
Spillback Cap Reductn	0			33		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.96			0.98		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 21.3                      Intersection LOS: C  
 Intersection Capacity Utilization 93.3%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑↑↑			↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1897	0	4891	0	0	1749
Flt Permitted	0.982					0.577
Satd. Flow (perm)	1897	0	4891	0	0	1022
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	4		11			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	36	61	1987	63	24	67
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	102	0	2158	0	0	96
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.14		0.85			0.18
Control Delay	12.3		12.2			4.1
Queue Delay	0.0		0.5			0.0
Total Delay	12.3		12.7			4.1
LOS	B		B			A
Approach Delay	12.3		12.7			4.1



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach LOS	B		B		A	
Queue Length 50th (ft)	22		136		9	
Queue Length 95th (ft)	49		m150		m13	
Internal Link Dist (ft)	152		278		255	
Turn Bay Length (ft)						
Base Capacity (vph)	730		2532		528	
Starvation Cap Reductn	0		108		0	
Spillback Cap Reductn	0		92		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.14		0.89		0.18	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 22 (37%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 12.3      Intersection LOS: B  
 Intersection Capacity Utilization 52.2%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 430: Fulton St. & Larkin St.**





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↑			↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		11			23	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	33	0	0	2017	97
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	35	0	0	2225	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.08			0.79	
Control Delay		13.4			4.3	
Queue Delay		0.0			0.0	
Total Delay		13.4			4.3	
LOS		B			A	
Approach Delay					4.3	



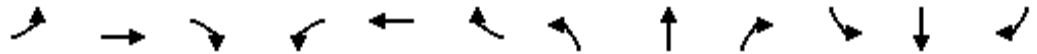
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS						A
Queue Length 50th (ft)		6				54
Queue Length 95th (ft)		25				75
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		438			2814	
Starvation Cap Reductn		0			14	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.08			0.79	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	4.4
Intersection LOS:	A
Intersection Capacity Utilization	51.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1714	0	0	3490	0	0	0	0	0	5040	0
Flt Permitted					0.551						0.998	
Satd. Flow (perm)	0	1714	0	0	1950	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	333	60	134	346	0	0	0	0	110	2282	110
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	467	0	0	505	0	0	0	0	0	2662	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					18.0	18.0	
Total Split (s)	0.0	34.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	56.0	56.0	0.0
Total Split (%)	0.0%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	62.2%	62.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		31.0			31.0						53.0	
Actuated g/C Ratio		0.34			0.34						0.59	
v/c Ratio		0.79			1.03dl						0.90	
Control Delay		37.8			44.6						9.4	
Queue Delay		0.0			0.0						7.5	
Total Delay		37.8			44.6						16.9	
LOS		D			D						B	
Approach Delay		37.8			44.6						16.9	

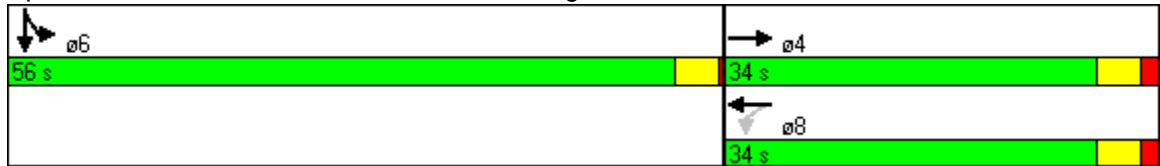


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D							B
Queue Length 50th (ft)		235			161							175
Queue Length 95th (ft)		322			m208							305
Internal Link Dist (ft)		361			207			253				268
Turn Bay Length (ft)												
Base Capacity (vph)		592			672							2973
Starvation Cap Reductn		0			0							292
Spillback Cap Reductn		0			0							304
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.79			0.75							1.00

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 23.4                      Intersection LOS: C  
 Intersection Capacity Utilization 93.4%                      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

**Splits and Phases:** 435: McAllister St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3196	0	0	5019	0	0	0	0
Flt Permitted		0.816						0.999				
Satd. Flow (perm)	0	1429	0	0	3196	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			25				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	415	0	0	432	371	48	2676	242	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	481	0	0	913	0	0	3123	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	38.0	38.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		35.0			35.0			49.0				
Actuated g/C Ratio		0.39			0.39			0.54				
v/c Ratio		0.87			0.73			1.14				
Control Delay		35.4			5.6			79.4				
Queue Delay		0.0			0.0			43.9				
Total Delay		35.4			5.6			123.3				
LOS		D			A			F				
Approach Delay		35.4			5.6			123.3				





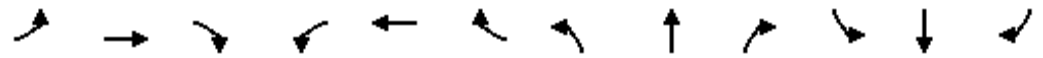
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			A			F				
Queue Length 50th (ft)		282			19			~756				
Queue Length 95th (ft)		m#390			24			m#803				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		556			1244			2744				
Starvation Cap Reductn		0			0			219				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.87			0.73			1.24				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 88 (98%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 90.2      Intersection LOS: F  
 Intersection Capacity Utilization 109.6%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		70
Storage Lanes	0		0	0		1	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50	50		50	50
Trailing Detector (ft)	0	0		0	0	0		0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3422	0	0	3532	1425	0	2992	1482	0	3127	1370
Flt Permitted		0.926			0.848							
Satd. Flow (perm)	0	3169	0	0	2994	1142	0	2992	1000	0	3127	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				5			19			10
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	14	582	61	37	768	136	0	1348	50	0	1304	35
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	739	0	0	866	146	0	1404	52	0	1373	37
Turn Type	Perm			Perm		Perm			Perm			Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4			2			6
Detector Phases	4	4		4	4	4		2	2		6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0	3.0		3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0	32.0		30.0	30.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	36.0	0.0	54.0	54.0	0.0	54.0	54.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5	1.5		1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max	Max		Max	Max
Act Effct Green (s)		33.0			33.0	33.0		51.0	51.0		51.0	51.0
Actuated g/C Ratio		0.37			0.37	0.37		0.57	0.57		0.57	0.57
v/c Ratio		0.63			0.79	0.35		0.83	0.09		0.77	0.07
Control Delay		32.2			31.7	22.8		5.3	0.3		11.0	5.8
Queue Delay		0.0			0.0	0.0		2.0	0.0		0.1	0.0
Total Delay		32.2			31.7	22.8		7.3	0.3		11.2	5.8
LOS		C			C	C		A	A		B	A
Approach Delay		32.2			30.4			7.0			11.0	

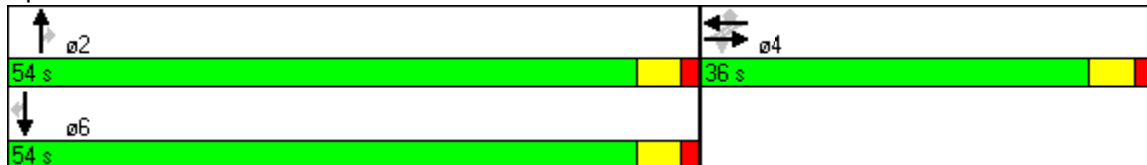


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		188			227	57		11	0		118	3
Queue Length 95th (ft)		m207			304	108		12	m0		136	m5
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)									75			70
Base Capacity (vph)		1165			1098	422		1695	575		1772	506
Starvation Cap Reductn		0			0	0		0	0		36	0
Spillback Cap Reductn		0			0	0		163	0		0	0
Storage Cap Reductn		0			0	0		0	0		0	0
Reduced v/c Ratio		0.63			0.79	0.35		0.92	0.09		0.79	0.07

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 17.4      Intersection LOS: B  
 Intersection Capacity Utilization 96.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

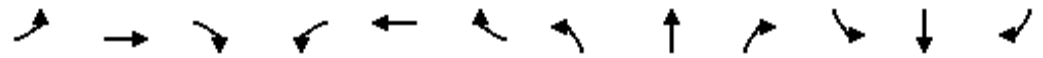
**Splits and Phases: 437: McAllister St. & Van Ness Avenue**



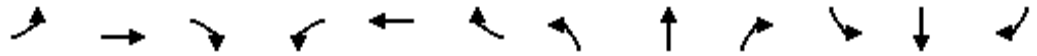


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3043	0	1652	3001	0	0	1601	0	0	3165	0
Flt Permitted		0.908		0.329				0.981			0.937	
Satd. Flow (perm)	0	2768	0	572	3001	0	0	1574	0	0	2974	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81			25			23			101	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	24	467	141	107	783	84	3	45	22	38	410	155
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	665	0	113	912	0	0	73	0	0	635	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	30.5	30.5	0.0	30.5	30.5	0.0	29.5	29.5	0.0	29.5	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.5		27.5	27.5			26.5			26.5	
Actuated g/C Ratio		0.46		0.46	0.46			0.44			0.44	
v/c Ratio		0.51		0.43	0.66			0.10			0.46	
Control Delay		11.6		7.0	5.5			0.5			9.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		11.6		7.0	5.5			0.5			9.4	
LOS		B		A	A			A			A	
Approach Delay		11.6			5.7			0.5			9.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1811	0	0	3423	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.948			0.996				
Satd. Flow (perm)	287	1811	0	0	3248	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			3			6				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	109	335	76	15	828	233	153	1856	39	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	115	433	0	0	1133	0	0	2156	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.93	0.54			0.80			0.92				
Control Delay	95.1	26.6			19.6			8.1				
Queue Delay	0.0	0.0			0.0			0.4				
Total Delay	95.1	26.6			19.6			8.6				
LOS	F	C			B			A				
Approach Delay		41.0			19.6			8.6				

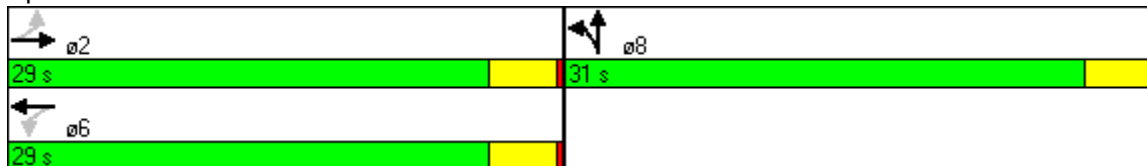


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			B			A					
Queue Length 50th (ft)	44	151			125			10				
Queue Length 95th (ft)	#131	233			190			#31				
Internal Link Dist (ft)		169			411			255			118	
Turn Bay Length (ft)												
Base Capacity (vph)	124	798			1409			2344				
Starvation Cap Reductn	0	0			0			30				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.93	0.54			0.80			0.93				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 5 (8%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 16.4 Intersection LOS: B  
 Intersection Capacity Utilization 102.8% ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 439: McAllister St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			11	11							33	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	374	98	940	0	0	0	0	0	1646	136
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	394	103	989	0	0	0	0	0	1876	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.63	0.15	0.73						0.76	
Control Delay			12.1	11.8	19.7						6.7	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			12.1	11.8	19.7						6.8	
LOS			B	B	B						A	
Approach Delay					18.9						6.8	



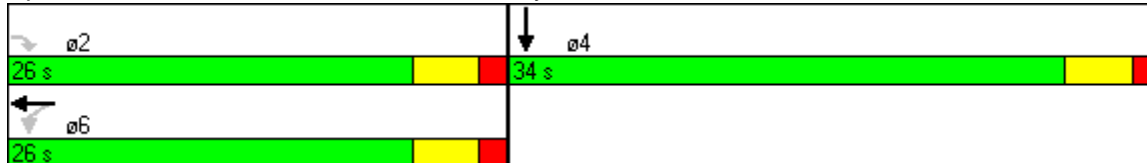


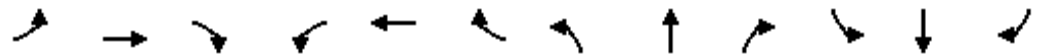
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS								B				A
Queue Length 50th (ft)			28	21	155							53
Queue Length 95th (ft)			m102	48	219							119
Internal Link Dist (ft)		411			257			253				266
Turn Bay Length (ft)												
Base Capacity (vph)			624	685	1357							2469
Starvation Cap Reductn			0	0	0							60
Spillback Cap Reductn			0	0	0							10
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.63	0.15	0.73							0.78

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 8 (13%), Referenced to phase 2:EBR, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 11.4      Intersection LOS: B  
 Intersection Capacity Utilization 73.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 440: McAllister St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4862	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4862	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		10									35	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	581	238	0	0	0	0	0	0	321	2264	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	881	0	0	0	0	0	0	0	0	2692	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0	65.0	0.0
Total Split (%)	0.0%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%	72.2%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		22.0									62.0	
Actuated g/C Ratio		0.24									0.69	
v/c Ratio		0.74									0.82	
Control Delay		35.3									3.1	
Queue Delay		0.0									0.9	
Total Delay		35.3									3.9	
LOS		D									A	
Approach Delay		35.3									3.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5691	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5691	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	112	790	0	0	0	0	0	3012	172	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	920	0	0	0	0	0	3282	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		22.0						62.0				
Actuated g/C Ratio		0.24						0.69				
v/c Ratio		0.75						0.84				
Control Delay		36.7						2.8				
Queue Delay		0.0						3.7				
Total Delay		36.7						6.5				
LOS		D						A				
Approach Delay		36.7						6.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A				
Queue Length 50th (ft)		192						92				
Queue Length 95th (ft)		240						m71				
Internal Link Dist (ft)		216			162			71			240	
Turn Bay Length (ft)												
Base Capacity (vph)		1222						3924				
Starvation Cap Reductn		0						556				
Spillback Cap Reductn		0						286				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.75						0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 86 (96%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 13.1                      Intersection LOS: B  
 Intersection Capacity Utilization 70.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	120		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4852	0	0	0	0	0	3101	1346	1770	3085	0
Flt Permitted		0.997								0.082		
Satd. Flow (perm)	0	4805	0	0	0	0	0	3101	847	153	3085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8							23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	50	789	123	0	0	0	0	1434	64	115	1216	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					10	10		12	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1013	0	0	0	0	0	1509	67	121	1280	0
Turn Type	Split								Perm	pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0	6.4	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	49.0	49.0	7.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	54.4%	54.4%	7.8%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		31.0						46.0	46.0	53.0	53.0	
Actuated g/C Ratio		0.34						0.51	0.51	0.59	0.59	
v/c Ratio		0.60						0.95	0.15	0.75	0.70	
Control Delay		44.8						26.9	9.5	29.6	3.9	
Queue Delay		0.0						4.0	0.0	0.0	0.2	
Total Delay		44.8						30.9	9.5	29.6	4.1	
LOS		D						C	A	C	A	
Approach Delay		44.8						30.0			6.3	

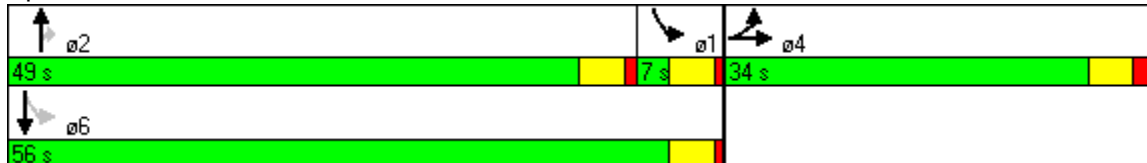


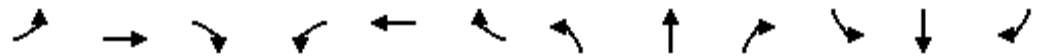
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		D							C			A	
Queue Length 50th (ft)		215							187	6	25	25	
Queue Length 95th (ft)		261							#572	m12	m27	74	
Internal Link Dist (ft)		159							387			98	
Turn Bay Length (ft)										70	120		
Base Capacity (vph)		1676							1585	444	162	1817	
Starvation Cap Reductn		0							52	0	0	85	
Spillback Cap Reductn		0							0	0	0	0	
Storage Cap Reductn		0							0	0	0	0	
Reduced v/c Ratio		0.60							0.98	0.15	0.75	0.74	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 25.4                      Intersection LOS: C  
 Intersection Capacity Utilization 81.8%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4726	0	0	0	0	0	1601	0	0	3319	0
Flt Permitted		0.997									0.827	
Satd. Flow (perm)	0	4726	0	0	0	0	0	1601	0	0	2781	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80						54				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	66	748	154	0	0	0	0	102	51	156	449	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1018	0	0	0	0	0	161	0	0	637	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.4	28.4	0.0	0.0	0.0	0.0	0.0	31.6	0.0	31.6	31.6	0.0
Total Split (%)	47.3%	47.3%	0.0%	0.0%	0.0%	0.0%	0.0%	52.7%	0.0%	52.7%	52.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.4						28.6			28.6	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.50						0.20			0.48	
Control Delay		12.6						4.4			16.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		12.6						4.4			16.6	
LOS		B						A			B	
Approach Delay		12.6						4.4			16.6	



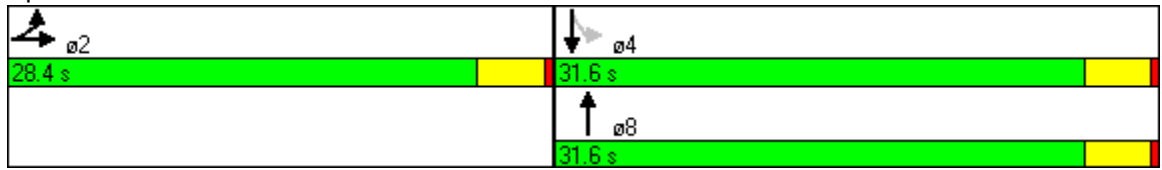


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		85						10			100	
Queue Length 95th (ft)		118						m22			144	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		2047						791			1326	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.50						0.20			0.48	

**Intersection Summary**

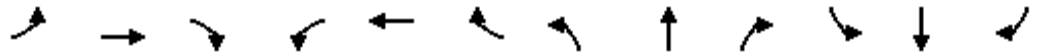
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 13.3                      Intersection LOS: B  
 Intersection Capacity Utilization 54.6%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5040	0	0	0	0	0	4766	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	5040	0	0	0	0	0	4766	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						44				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	182	773	0	0	0	0	0	1945	253	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1006	0	0	0	0	0	2313	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.58						0.86				
Control Delay		10.6						8.8				
Queue Delay		0.0						0.1				
Total Delay		10.6						8.9				
LOS		B						A				
Approach Delay		10.6						8.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A				
Queue Length 50th (ft)		53						91				
Queue Length 95th (ft)		66						m123				
Internal Link Dist (ft)		419			404			78			233	
Turn Bay Length (ft)												
Base Capacity (vph)		1727						2680				
Starvation Cap Reductn		0						35				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.58						0.87				

**Intersection Summary**

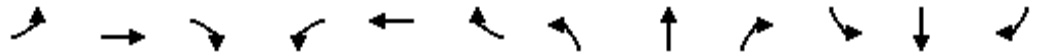
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 8 (13%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 9.4                      Intersection LOS: A  
 Intersection Capacity Utilization 68.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4846	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4846	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		35									40	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	701	325	0	0	0	0	0	0	156	1457	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1080	0	0	0	0	0	0	0	0	1698	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.73									0.59	
Control Delay		11.7									3.9	
Queue Delay		0.0									0.1	
Total Delay		11.7									4.1	
LOS		B									A	
Approach Delay		11.7									4.1	



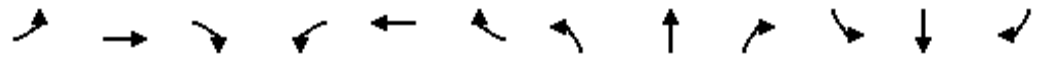
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		44									42	
Queue Length 95th (ft)		m83									50	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1478									2885	
Starvation Cap Reductn		0									275	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.73									0.65	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 15 (25%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 7.0                      Intersection LOS: A  
 Intersection Capacity Utilization 58.8%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 455: Golden Gate Ave. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4724	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4724	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				3							13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	215	1043	0	0	0	0	0	2370	167
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	236	1146	0	0	0	0	0	2615	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				32.0	32.0						52.0	
Actuated g/C Ratio				0.36	0.36						0.58	
v/c Ratio				0.41	0.97						0.96	
Control Delay				9.6	32.0						8.8	
Queue Delay				0.0	0.0						3.6	
Total Delay				9.6	32.0						12.3	
LOS				A	C						B	
Approach Delay					28.2						12.3	



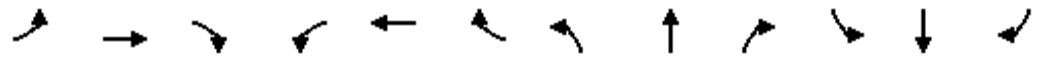
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)				34	382							50
Queue Length 95th (ft)				m43	m#503							m#55
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				574	1184							2735
Starvation Cap Reductn				0	0							88
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.41	0.97							0.99

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 34 (38%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 17.8      Intersection LOS: B  
 Intersection Capacity Utilization 79.6%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5500	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5500	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		5				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		181			233			320				205
Travel Time (s)		4.9			6.4			8.7				5.6
Volume (vph)	0	0	0	0	982	300	276	2848	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1023	312	0	3255	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	27.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	30.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					24.0	24.0		60.0				
Actuated g/C Ratio					0.27	0.27		0.67				
v/c Ratio					0.76	0.74		0.89				
Control Delay					24.5	29.6		6.8				
Queue Delay					0.4	0.0		35.1				
Total Delay					24.9	29.6		41.9				
LOS					C	C		D				
Approach Delay					26.0			41.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						D					
Queue Length 50th (ft)					226	188		117				
Queue Length 95th (ft)					274	m255		125				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1340	424		3668				
Starvation Cap Reductn					0	0		332				
Spillback Cap Reductn					60	0		641				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.80	0.74		1.08				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 37.3                      Intersection LOS: D  
 Intersection Capacity Utilization 71.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4995	0	1770	3034	0	0	3068	1314
Flt Permitted				0.998			0.099					
Satd. Flow (perm)	0	0	0	0	4962	0	184	3034	0	0	3068	823
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							39
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	41	1073	53	127	1357	0	0	1290	82
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								18			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1269	0	134	1428	0	0	1316	84
Turn Type				Split			pm+pt					Perm
Protected Phases				4	4		5	2			6	
Permitted Phases							2					6
Detector Phases				4	4		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	4.0
Minimum Split (s)				33.0	33.0		7.0	48.0			38.0	38.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	9.0	57.0	0.0	0.0	48.0	48.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	10.0%	63.3%	0.0%	0.0%	53.3%	53.3%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	0.9
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					30.0		54.0	54.0			45.0	45.0
Actuated g/C Ratio					0.33		0.60	0.60			0.50	0.50
v/c Ratio					0.76		0.62	0.78			0.86	0.19
Control Delay					30.2		14.4	2.4			9.5	0.6
Queue Delay					0.0		0.0	1.4			0.6	0.0
Total Delay					30.2		14.4	3.8			10.1	0.6
LOS					C		B	A			B	A
Approach Delay					30.2			4.7			9.5	

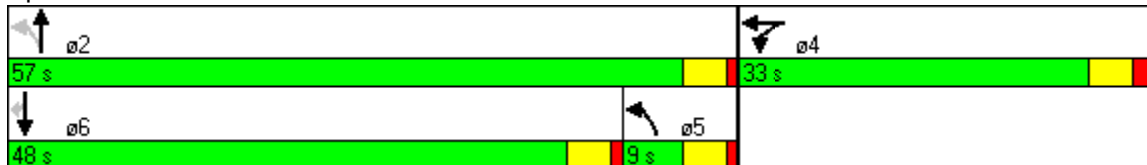


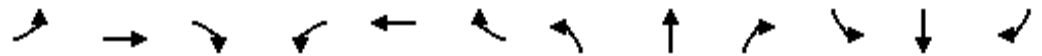
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			A	
Queue Length 50th (ft)					232		20	15			48	0
Queue Length 95th (ft)					286		m25	m16			m56	m0
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)							100					
Base Capacity (vph)					1670		216	1820			1534	431
Starvation Cap Reductn					0		0	209			44	0
Spillback Cap Reductn					0		0	0			0	0
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					0.76		0.62	0.89			0.88	0.19

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 74 (82%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 13.9      Intersection LOS: B  
 Intersection Capacity Utilization 77.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4939	0	0	2079	0	0	2065	0
Flt Permitted					0.994			0.774				
Satd. Flow (perm)	0	0	0	0	4939	0	0	1634	0	0	2065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24						23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	168	1030	91	51	117	0	0	437	86
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1357	0	0	177	0	0	551	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	27.8	27.8	0.0	32.2	32.2	0.0	0.0	32.2	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.3%	46.3%	0.0%	53.7%	53.7%	0.0%	0.0%	53.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					24.8			29.2			29.2	
Actuated g/C Ratio					0.41			0.49			0.49	
v/c Ratio					0.66			0.22			0.54	
Control Delay					6.4			9.0			6.5	
Queue Delay					0.0			0.0			0.6	
Total Delay					6.4			9.0			7.1	
LOS					A			A			A	
Approach Delay					6.4			9.0			7.1	

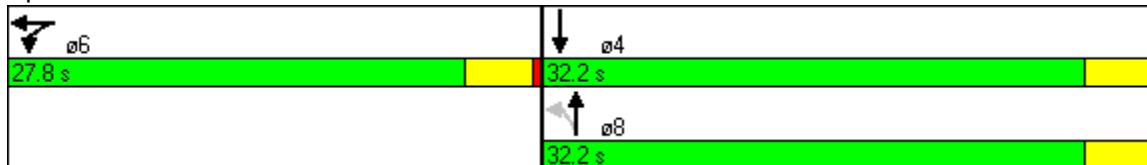


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					50			37			60	
Queue Length 95th (ft)					68			69			m71	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2056			795			1017	
Starvation Cap Reductn					0			0			182	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.66			0.22			0.66	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 23 (38%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 6.8                      Intersection LOS: A  
 Intersection Capacity Utilization 72.5%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 469: Turk St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4874	0	0	4800	0	0	0	0
Flt Permitted								0.990				
Satd. Flow (perm)	0	0	0	0	4874	0	0	4800	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					19			15				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	897	124	427	1700	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1122	0	0	2171	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	22.0	0.0	38.0	38.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					19.0			35.0				
Actuated g/C Ratio					0.32			0.58				
v/c Ratio					0.72			0.77				
Control Delay					13.0			3.0				
Queue Delay					0.0			0.3				
Total Delay					13.0			3.3				
LOS					B			A				
Approach Delay					13.0			3.3				



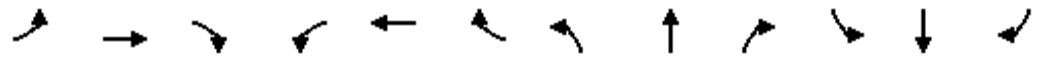
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					57			32				
Queue Length 95th (ft)					71			38				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1556			2806				
Starvation Cap Reductn					0			173				
Spillback Cap Reductn					0			104				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.72			0.82				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	16 (27%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization:	68.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 470: Turk St. & Larkin St.

← 06	↖ 08
22 s	38 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4681	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					37						59	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	257	733	0	0	0	0	0	1356	288
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1032	0	0	0	0	0	1678	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.58						0.65	
Control Delay					16.9						13.8	
Queue Delay					0.0						1.0	
Total Delay					16.9						14.8	
LOS					B						B	
Approach Delay					16.9						14.8	



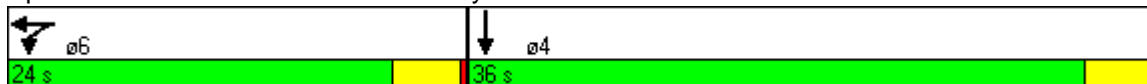


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					104						208	
Queue Length 95th (ft)					142						260	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1767						2601	
Starvation Cap Reductn					0						597	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.58						0.84	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	15.6
Intersection LOS:	B
Intersection Capacity Utilization	58.7%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘↙	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	1803	0	0	0	0	0	5040	0
Flt Permitted					0.589						0.996	
Satd. Flow (perm)	0	1749	0	0	1071	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3									10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	320	124	40	215	0	0	0	0	205	2373	97
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	505	0	0	300	0	0	0	0	0	2787	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.81			0.79							0.96
Control Delay		38.2			29.7							15.0
Queue Delay		38.8			0.0							20.0
Total Delay		77.0			29.7							35.0
LOS		E			C							C
Approach Delay		77.0			29.7							35.0

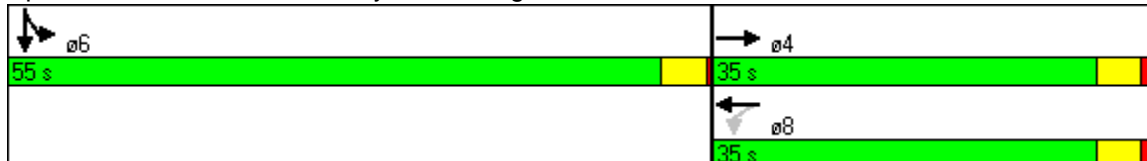


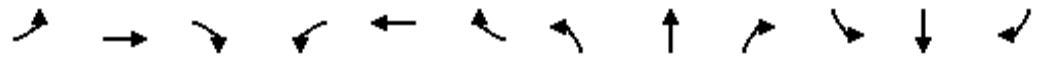
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			C						C	
Queue Length 50th (ft)		255			41						146	
Queue Length 95th (ft)		#404			m#110						#539	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		624			381						2916	
Starvation Cap Reductn		0			0						244	
Spillback Cap Reductn		150			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		1.07			0.79						1.04	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 40.5      Intersection LOS: D  
 Intersection Capacity Utilization 100.1%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1783	0	0	5680	0	0	0	0
Flt Permitted		0.825						0.999				
Satd. Flow (perm)	0	1500	0	0	1783	0	0	5680	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	72	453	0	0	218	36	37	2946	184	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	664	0	0	322	0	0	3265	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			47.0				
Actuated g/C Ratio		0.41			0.41			0.52				
v/c Ratio		1.08			0.44			1.10				
Control Delay		72.7			35.2			60.5				
Queue Delay		106.7			0.0			37.4				
Total Delay		179.4			35.2			97.9				
LOS		F			D			F				
Approach Delay		179.4			35.2			97.9				

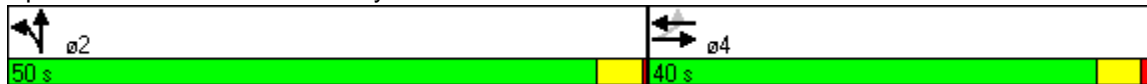


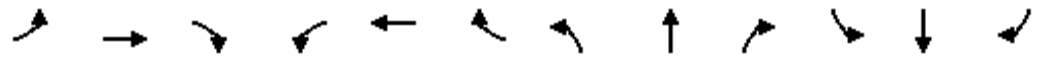
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			D			F				
Queue Length 50th (ft)		~411			175			~679				
Queue Length 95th (ft)		m#483			219			#762				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		617			733			2975				
Starvation Cap Reductn		2			0			131				
Spillback Cap Reductn		116			0			213				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		1.33			0.44			1.18				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 105.9      Intersection LOS: F  
 Intersection Capacity Utilization 97.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1773	0	0	1796	0	0	3060	1306	0	3060	1306
Flt Permitted		0.970			0.952							
Satd. Flow (perm)	0	1716	0	0	1711	0	0	3060	451	0	3060	451
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			3				44			62
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	35	511	91	14	192	24	0	1310	100	0	1268	62
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	786	0	0	270	0	0	1323	101	0	1268	62
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0	48.0		48.0	48.0
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	0.0	48.0	48.0	0.0	48.0	48.0
Total Split (%)	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	53.3%	53.3%	0.0%	53.3%	53.3%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9	0.9		0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		39.0			39.0			45.0	45.0		45.0	45.0
Actuated g/C Ratio		0.43			0.43			0.50	0.50		0.50	0.50
v/c Ratio		1.05			0.36			0.86	0.41		0.83	0.24
Control Delay		53.3			18.7			27.3	16.9		26.7	8.4
Queue Delay		52.7			0.0			1.0	0.0		0.5	0.0
Total Delay		106.0			18.7			28.3	16.9		27.2	8.4
LOS		F			B			C	B		C	A
Approach Delay		106.0			18.7			27.5			26.3	



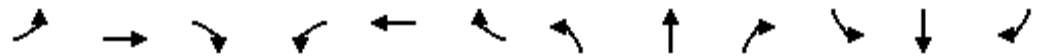
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			B			C			C	
Queue Length 50th (ft)		~504			99			231	24		204	6
Queue Length 95th (ft)		m434			149			#291	m35		305	m13
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												
Base Capacity (vph)		746			743			1530	248		1530	257
Starvation Cap Reductn		81			0			65	0		57	0
Spillback Cap Reductn		0			0			0	0		55	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		1.18			0.36			0.90	0.41		0.86	0.24

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 42.7      Intersection LOS: D  
 Intersection Capacity Utilization 89.1%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1751	0	0	1958	0	0	2005	0
Flt Permitted		0.925			0.824			0.904			0.867	
Satd. Flow (perm)	0	1645	0	0	1462	0	0	1782	0	0	1760	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			24			64			21	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	95	416	101	46	93	29	29	98	77	163	376	108
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	644	0	0	177	0	0	215	0	0	682	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.83			0.25			0.27			0.88	
Control Delay		25.2			0.4			4.6			27.0	
Queue Delay		0.0			0.0			0.0			13.5	
Total Delay		25.2			0.4			4.6			40.5	
LOS		C			A			A			D	
Approach Delay		25.2			0.4			4.6			40.5	



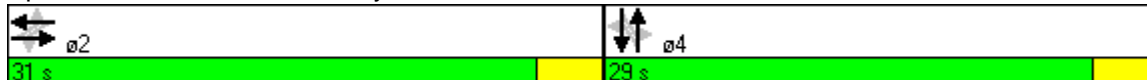


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A			D	
Queue Length 50th (ft)		183			0			11			222	
Queue Length 95th (ft)		#372			m0			m14			#413	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		779			695			808			775	
Starvation Cap Reductn		0			0			0			91	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.83			0.25			0.27			1.00	

**Intersection Summary**

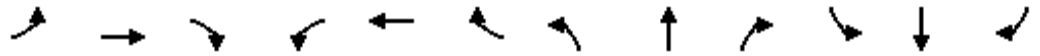
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 12 (20%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 26.1                      Intersection LOS: C  
 Intersection Capacity Utilization 95.2%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4931	0	0	0	0
Flt Permitted		0.992						0.995				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4931	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								55				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		211			283			134			161	
Travel Time (s)		5.8			7.7			3.7			4.4	
Volume (vph)	98	547	0	0	0	0	168	1429	227	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	679	0	0	0	0	0	1920	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		28.0							26.0			
Actuated g/C Ratio		0.47							0.43			
v/c Ratio		0.79							0.89			
Control Delay		16.1							10.8			
Queue Delay		0.0							0.3			
Total Delay		16.1							11.1			
LOS		B							B			
Approach Delay		16.1							11.1			

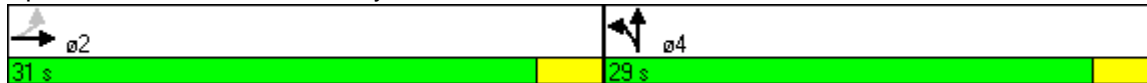


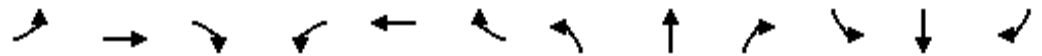
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B				
Queue Length 50th (ft)		148						120				
Queue Length 95th (ft)		m205						#227				
Internal Link Dist (ft)		131			203			54			81	
Turn Bay Length (ft)												
Base Capacity (vph)		862						2168				
Starvation Cap Reductn		0						32				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.79						0.90				

**Intersection Summary**

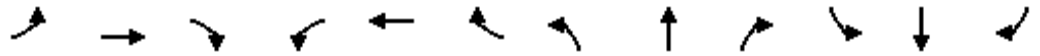
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 26 (43%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 12.4                      Intersection LOS: B  
 Intersection Capacity Utilization 77.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4833	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4833	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		49										47
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	558	216	0	0	0	0	0	0	141	1428	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	814	0	0	0	0	0	0	0	0	1651	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.65									0.54	
Control Delay		14.6									1.6	
Queue Delay		0.0									0.4	
Total Delay		14.6									2.0	
LOS		B									A	
Approach Delay		14.6									2.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		36									16	
Queue Length 95th (ft)		m95									24	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1245									3084	
Starvation Cap Reductn		0									750	
Spillback Cap Reductn		0									157	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.65									0.71	

**Intersection Summary**

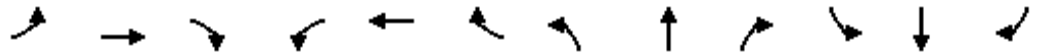
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 44 (73%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 6.1                      Intersection LOS: A  
 Intersection Capacity Utilization 52.7%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			4	4							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	42	241	333	0	0	0	0	0	2392	33
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	75	301	416	0	0	0	0	0	2553	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			27.0	27.0	27.0						57.0	
Actuated g/C Ratio			0.30	0.30	0.30						0.63	
v/c Ratio			0.15	0.56	0.74						0.88	
Control Delay			23.0	20.7	30.0						6.3	
Queue Delay			0.0	0.0	0.0						0.4	
Total Delay			23.0	20.7	30.0						6.7	
LOS			C	C	C						A	
Approach Delay					26.1						6.7	



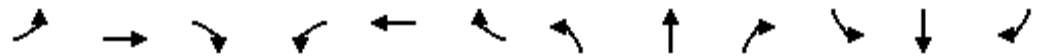
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)			29	66	115						53	
Queue Length 95th (ft)			37	m121	m166						m63	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			486	534	559						2915	
Starvation Cap Reductn			0	0	0						23	
Spillback Cap Reductn			0	0	0						78	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.15	0.56	0.74						0.90	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 11.2      Intersection LOS: B  
 Intersection Capacity Utilization 76.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 488: Ellis St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6600	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		478			479			171				185
Travel Time (s)		13.0			13.1			4.7				5.0
Volume (vph)	0	0	0	0	462	549	110	2944	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	502	597	0	3249	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	40.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	44.4%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					37.0	37.0		47.0				
Actuated g/C Ratio					0.41	0.41		0.52				
v/c Ratio					0.35	0.92		0.94				
Control Delay					30.2	56.5		4.5				
Queue Delay					0.0	7.0		17.5				
Total Delay					30.2	63.5		22.0				
LOS					C	E		C				
Approach Delay					48.3			22.0				



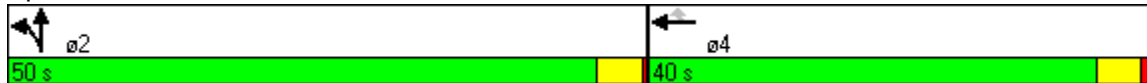


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						C					
Queue Length 50th (ft)					155	357			42			
Queue Length 95th (ft)					201	#543			m39			
Internal Link Dist (ft)	398				399				91		105	
Turn Bay Length (ft)												
Base Capacity (vph)					1455	651			3452			
Starvation Cap Reductn					0	38			313			
Spillback Cap Reductn					0	0			63			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.35	0.97			1.04			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 37 (41%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 28.7                      Intersection LOS: C  
 Intersection Capacity Utilization 76.1%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4851	0	0	3101	0	0	3110	1354
Flt Permitted				0.997								
Satd. Flow (perm)	0	0	0	0	4799	0	0	3101	0	0	3110	836
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							5
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	57	800	126	0	1323	0	0	1246	210
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10			9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1080	0	0	1423	0	0	1312	221
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				33.0	33.0			48.0			48.0	48.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	57.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	63.3%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					30.0			54.0			54.0	54.0
Actuated g/C Ratio					0.33			0.60			0.60	0.60
v/c Ratio					0.67			0.76			0.70	0.44
Control Delay					28.0			3.2			17.6	15.8
Queue Delay					0.2			0.8			1.2	0.2
Total Delay					28.1			4.1			18.8	16.0
LOS					C			A			B	B
Approach Delay					28.1			4.1			18.4	



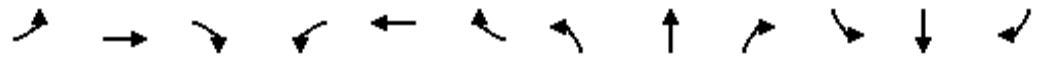
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					189			27			219	69
Queue Length 95th (ft)					237			m32			m222	m72
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1622			1861			1866	504
Starvation Cap Reductn					0			183			317	0
Spillback Cap Reductn					83			0			116	40
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.70			0.85			0.85	0.48

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 15.9      Intersection LOS: B  
 Intersection Capacity Utilization 68.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4934	0	0	2057	0	0	2005	0
Flt Permitted					0.993			0.782				
Satd. Flow (perm)	0	0	0	0	4934	0	0	1624	0	0	2005	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					66						46	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	153	770	164	45	177	0	0	483	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1145	0	0	233	0	0	685	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.4	24.4	0.0	35.6	35.6	0.0	0.0	35.6	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.7%	40.7%	0.0%	59.3%	59.3%	0.0%	0.0%	59.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.4			32.6			32.6	
Actuated g/C Ratio					0.36			0.54			0.54	
v/c Ratio					0.64			0.26			0.62	
Control Delay					5.3			6.9			4.5	
Queue Delay					0.1			0.0			0.7	
Total Delay					5.4			6.9			5.2	
LOS					A			A			A	
Approach Delay					5.4			6.9			5.2	

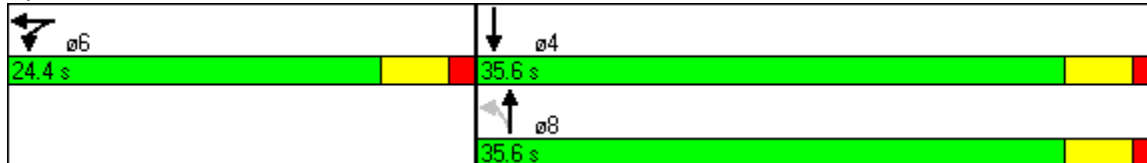


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					27			26			30	
Queue Length 95th (ft)					31			m46			m64	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1802			882			1110	
Starvation Cap Reductn					0			0			170	
Spillback Cap Reductn					75			0			95	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.66			0.26			0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 48 (80%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 5.5      Intersection LOS: A  
 Intersection Capacity Utilization 76.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

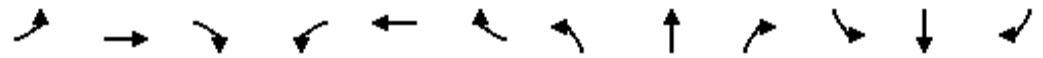
**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4912	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4912	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					24			42				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		495			479			180			163	
Travel Time (s)		13.5			13.1			4.9			4.4	
Volume (vph)	0	0	0	0	912	271	175	1341	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1245	0	0	1596	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.8	0.0	33.2	33.2	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.7%	0.0%	55.3%	55.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.8			30.2				
Actuated g/C Ratio					0.40			0.50				
v/c Ratio					0.63			0.66				
Control Delay					8.7			1.9				
Queue Delay					0.0			0.1				
Total Delay					8.8			2.0				
LOS					A			A				
Approach Delay					8.8			2.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5034	0	0	0	0	0	4630	0
Flt Permitted					0.990							
Satd. Flow (perm)	0	0	0	0	5034	0	0	0	0	0	4630	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					20						58	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	217	869	0	0	0	0	0	1352	314
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1143	0	0	0	0	0	1754	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.54						0.77	
Control Delay					14.1						12.1	
Queue Delay					0.0						0.5	
Total Delay					14.1						12.7	
LOS					B						B	
Approach Delay					14.1						12.7	



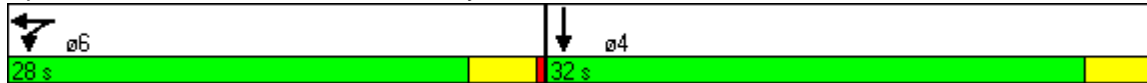


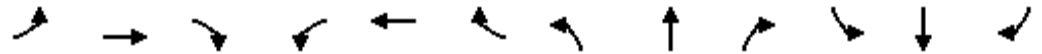
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B						B	
Queue Length 50th (ft)					106						235	
Queue Length 95th (ft)					143						m269	
Internal Link Dist (ft)		399			402			259			292	
Turn Bay Length (ft)												
Base Capacity (vph)					2109						2268	
Starvation Cap Reductn					0						185	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.54						0.84	

**Intersection Summary**

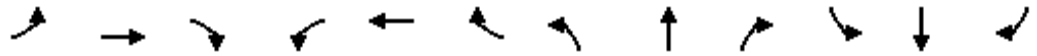
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 25 (42%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 13.3                      Intersection LOS: B  
 Intersection Capacity Utilization 61.0%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6305	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		300			483			190			163	
Travel Time (s)		8.2			13.2			5.2			4.4	
Volume (vph)	398	1149	0	0	0	0	0	3179	314	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1700	0	0	0	0	0	3677	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.19						1.16				
Control Delay		116.6						88.8				
Queue Delay		22.2						41.7				
Total Delay		138.8						130.5				
LOS		F						F				
Approach Delay		138.8						130.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						F				
Queue Length 50th (ft)		~643						~693				
Queue Length 95th (ft)		m#685						#758				
Internal Link Dist (ft)		220			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3163				
Starvation Cap Reductn		0						7				
Spillback Cap Reductn		58						235				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.24						1.26				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.19  
 Intersection Signal Delay: 133.1      Intersection LOS: F  
 Intersection Capacity Utilization 92.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3525	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3500	1339	0	0	0	0	3110	794	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16						4			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	98	1239	126	0	0	0	0	1329	108	0	1397	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1407	133	0	0	0	0	1342	109	0	1606	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	50.0	0.0
Total Split (%)	44.4%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	55.6%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		37.0	37.0					47.0	47.0		47.0	
Actuated g/C Ratio		0.41	0.41					0.52	0.52		0.52	
v/c Ratio		0.97	0.24					0.83	0.26		0.98	
Control Delay		30.9	13.7					12.3	4.7		35.2	
Queue Delay		32.0	0.0					2.3	0.0		0.0	
Total Delay		62.9	13.7					14.7	4.7		35.2	
LOS		E	B					B	A		D	
Approach Delay		58.6						13.9			35.2	

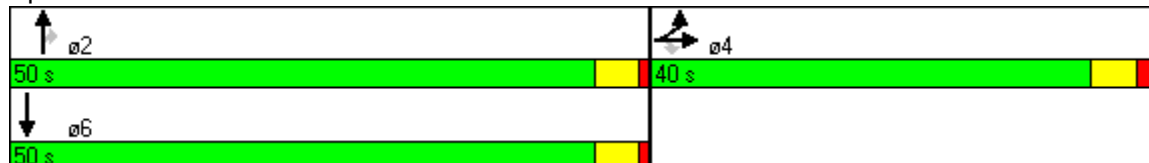


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						B			D		
Queue Length 50th (ft)		445	50					0	11		263	
Queue Length 95th (ft)		m365	m40					0	m16		#577	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)									75			
Base Capacity (vph)		1449	560					1624	417		1637	
Starvation Cap Reductn		143	0					167	0		0	
Spillback Cap Reductn		0	0					36	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		1.08	0.24					0.92	0.26		0.98	

**Intersection Summary**

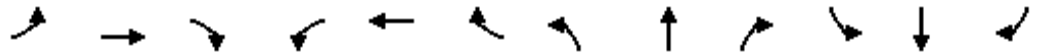
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.98
Intersection Signal Delay:	36.3
Intersection LOS:	D
Intersection Capacity Utilization:	84.5%
ICU Level of Service:	E
Analysis Period (min):	15
#	95th percentile volume exceeds capacity, queue may be longer.
	Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 501: O'Farrell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3325	1583	0	0	0	0	1905	0	0	2048	0
Flt Permitted		0.993									0.805	
Satd. Flow (perm)	0	3325	1583	0	0	0	0	1905	0	0	1672	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			211					38				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	169	1069	200	0	0	0	0	95	151	172	451	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1303	211	0	0	0	0	259	0	0	656	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		27.0	27.0					27.0			27.0	
Actuated g/C Ratio		0.45	0.45					0.45			0.45	
v/c Ratio		0.87	0.25					0.29			0.87	
Control Delay		23.4	2.6					8.4			16.7	
Queue Delay		0.0	0.0					0.0			4.1	
Total Delay		23.4	2.6					8.4			20.8	
LOS		C	A					A			C	
Approach Delay		20.5						8.4			20.8	

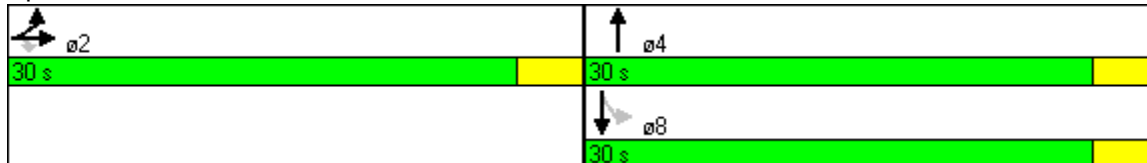


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			C	
Queue Length 50th (ft)		211	0					50			87	
Queue Length 95th (ft)		#343	30					m82			m96	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1496	828					878			752	
Starvation Cap Reductn		0	0					0			51	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.87	0.25					0.29			0.94	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 39 (65%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 19.3                      Intersection LOS: B  
 Intersection Capacity Utilization 92.0%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 502: O'Farrell St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4630	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4630	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23						14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	167	1215	0	0	0	0	0	1346	339	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1455	0	0	0	0	0	1774	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		24.0						30.0				
Actuated g/C Ratio		0.40						0.50				
v/c Ratio		0.71						0.76				
Control Delay		8.8						9.8				
Queue Delay		0.0						0.7				
Total Delay		8.8						10.5				
LOS		A						B				
Approach Delay		8.8						10.5				



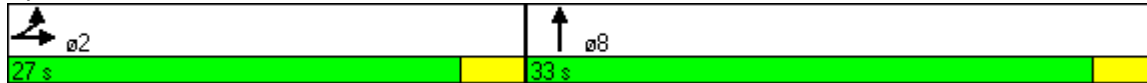


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	54						126					
Queue Length 95th (ft)	m73						206					
Internal Link Dist (ft)	288				110		116				99	
Turn Bay Length (ft)												
Base Capacity (vph)	2036						2322					
Starvation Cap Reductn	0						243					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.71						0.85					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 53 (88%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 9.8                      Intersection LOS: A  
 Intersection Capacity Utilization 67.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

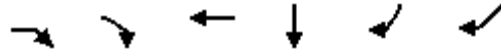
**Splits and Phases: 503: O'Farrell St. & Larkin St.**





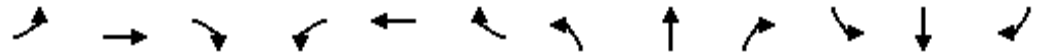
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			8									33
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1231	323	0	0	0	0	0	0	284	1343	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1296	340	0	0	0	0	0	0	0	1713	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.73	0.43								0.90	
Control Delay		6.0	4.7								12.8	
Queue Delay		0.0	0.1								0.2	
Total Delay		6.0	4.8								12.9	
LOS		A	A								B	
Approach Delay		5.7									12.9	





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4979	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4979	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		2		6		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1323	380	1667	2038	323	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1393	400	1755	2463	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.98	0.54	0.77	1.06		
Control Delay	44.8	20.4	26.2	50.8		
Queue Delay	0.0	0.0	1.1	22.1		
Total Delay	44.8	20.4	27.3	72.8		
LOS	D	C	C	E		
Approach Delay			27.3	72.8		





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6566	0	0	0	0
Flt Permitted								0.993				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6566	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	1131	202	536	3126	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1216	217	0	3699	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.70	0.39		0.97				
Control Delay					32.8	28.2		5.6				
Queue Delay					0.0	0.0		21.0				
Total Delay					32.8	28.2		26.6				
LOS					C	C		C				
Approach Delay					32.1			26.6				



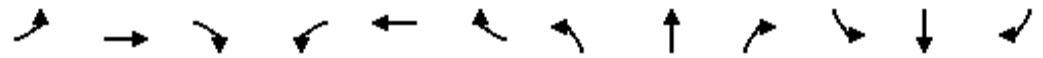
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C				C			
Queue Length 50th (ft)					267	127		72				
Queue Length 95th (ft)					316	m187		m60				
Internal Link Dist (ft)		405			194			90			242	
Turn Bay Length (ft)												
Base Capacity (vph)					1743	563		3798				
Starvation Cap Reductn					0	0		272				
Spillback Cap Reductn					0	0		35				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.70	0.39		1.05				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 50 (56%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 28.1                      Intersection LOS: C  
 Intersection Capacity Utilization 71.3%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 514: Geary St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5060	1469	0	3177	0	0	3035	1583
Flt Permitted					0.995							
Satd. Flow (perm)	0	0	0	0	4989	1152	0	3177	0	0	3035	1044
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						30						2
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	127	1223	139	0	1427	0	0	1270	166
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								1			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1378	142	0	1441	0	0	1309	171
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	42.2%	0.0%	57.8%	0.0%	0.0%	57.8%	57.8%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					35.0	35.0		49.0			49.0	49.0
Actuated g/C Ratio					0.39	0.39		0.54			0.54	0.54
v/c Ratio					0.70	0.30		0.83			0.79	0.30
Control Delay					25.4	17.0		5.0			21.6	16.5
Queue Delay					0.2	0.0		0.2			1.0	0.0
Total Delay					25.6	17.0		5.2			22.6	16.5
LOS					C	B		A			C	B
Approach Delay					24.8			5.2			21.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					236	42		33			228	53
Queue Length 95th (ft)					288	88		m36			242	m65
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)												80
Base Capacity (vph)					1968	466		1730			1652	569
Starvation Cap Reductn					0	0		34			84	0
Spillback Cap Reductn					109	0		1			141	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.74	0.30		0.85			0.87	0.30

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	6 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	17.5
Intersection LOS:	B
Intersection Capacity Utilization	84.5%
ICU Level of Service	E
Analysis Period (min)	15

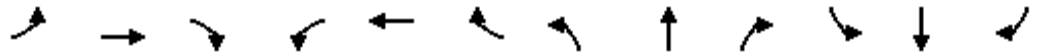
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 515: Geary St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50				50
Trailing Detector (ft)				0	0	0	0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3331	1583	0	2054	0	0	1957	0
Flt Permitted					0.995			0.295				
Satd. Flow (perm)	0	0	0	0	3331	1583	0	613	0	0	1957	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						111						27
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	113	1040	105	57	204	0	0	523	392
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1214	111	0	275	0	0	964	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8				4
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8				4
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0				4.0
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5				20.5
Total Split (s)	0.0	0.0	0.0	27.0	27.0	27.0	33.0	33.0	0.0	0.0	33.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.0%	45.0%	45.0%	55.0%	55.0%	0.0%	0.0%	55.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5				3.5
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5				1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max				Max
Act Effct Green (s)					24.0	24.0		30.0				30.0
Actuated g/C Ratio					0.40	0.40		0.50				0.50
v/c Ratio					0.91	0.16		0.90				0.97
Control Delay					28.2	3.9		42.4				37.2
Queue Delay					0.0	0.0		0.0				22.3
Total Delay					28.2	3.9		42.4				59.6
LOS					C	A		D				E
Approach Delay					26.2			42.4				59.6

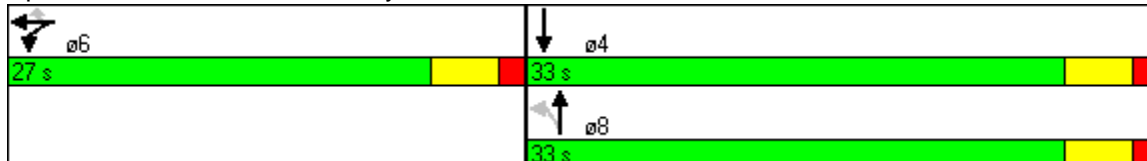


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			D			E	
Queue Length 50th (ft)					229	6		88			208	
Queue Length 95th (ft)					m#331	m18		m#170			#558	
Internal Link Dist (ft)		394			132			88			90	
Turn Bay Length (ft)												
Base Capacity (vph)					1332	700		307			992	
Starvation Cap Reductn					0	0		0			68	
Spillback Cap Reductn					0	0		0			77	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.91	0.16		0.90			1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 35 (58%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 40.5      Intersection LOS: D  
 Intersection Capacity Utilization 98.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 516: Geary St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						10		99				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		290			195			167				168
Travel Time (s)		7.9			5.3			4.6				4.6
Volume (vph)	0	0	0	0	918	307	340	1197	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	966	323	0	1618	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.51	0.38		0.89				
Control Delay					3.7	3.5		13.5				
Queue Delay					0.0	0.0		0.4				
Total Delay					3.7	3.5		13.9				
LOS					A	A		B				
Approach Delay					3.7			13.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A						B						
Queue Length 50th (ft)	40						17	101					
Queue Length 95th (ft)	m43						m25	#186					
Internal Link Dist (ft)	210						115	87					
Turn Bay Length (ft)								88					
Base Capacity (vph)	1887						849	1808					
Starvation Cap Reductn	0						0	6					
Spillback Cap Reductn	0						0	25					
Storage Cap Reductn	0						0	0					
Reduced v/c Ratio	0.51						0.38	0.91					

**Intersection Summary**

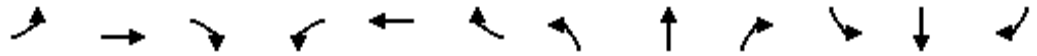
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 9.3                      Intersection LOS: A  
 Intersection Capacity Utilization 62.1%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 517: Geary St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4695	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4695	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					14						51	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	276	977	0	0	0	0	0	1351	251
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1319	0	0	0	0	0	1686	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.86						0.79	
Control Delay					22.6						8.0	
Queue Delay					0.0						0.3	
Total Delay					22.6						8.3	
LOS					C						A	
Approach Delay					22.6						8.3	

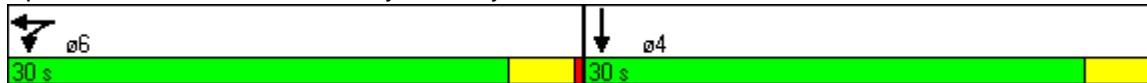


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					211							10
Queue Length 95th (ft)					#344							m132
Internal Link Dist (ft)		198			399			257				277
Turn Bay Length (ft)												
Base Capacity (vph)					1526							2141
Starvation Cap Reductn					0							103
Spillback Cap Reductn					0							91
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.86							0.83

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 52 (87%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 14.6      Intersection LOS: B  
 Intersection Capacity Utilization 73.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

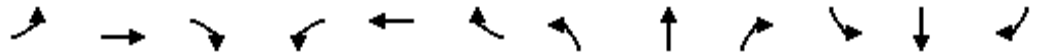
Splits and Phases: 518: Geary St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3265	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3265	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		6										37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	463	188	0	0	0	0	0	0	202	2173	56
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	740	0	0	0	0	0	0	0	0	2532	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		29.0									55.0	
Actuated g/C Ratio		0.32									0.61	
v/c Ratio		0.70									0.82	
Control Delay		30.7									8.3	
Queue Delay		0.0									27.2	
Total Delay		30.7									35.5	
LOS		C									D	
Approach Delay		30.7									35.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										D
Queue Length 50th (ft)		191										134
Queue Length 95th (ft)		247										146
Internal Link Dist (ft)		402				412		265			254	
Turn Bay Length (ft)												
Base Capacity (vph)		1056										3101
Starvation Cap Reductn		0										201
Spillback Cap Reductn		0										698
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.70										1.05

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	83 (92%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	34.4
Intersection LOS:	C
Intersection Capacity Utilization	72.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	5515	1338	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	5515	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1							55			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	114	551	0	0	0	0	0	2943	385	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	747	0	0	0	0	0	3165	414	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		25.0						59.0	59.0			
Actuated g/C Ratio		0.28						0.66	0.66			
v/c Ratio		0.79						0.88	0.46			
Control Delay		45.4						3.8	1.7			
Queue Delay		0.0						0.5	0.9			
Total Delay		45.4						4.3	2.6			
LOS		D						A	A			
Approach Delay		45.4						4.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D							A					
Queue Length 50th (ft)	236							50	7				
Queue Length 95th (ft)	m287							m52	m9				
Internal Link Dist (ft)	412				226		242		97				
Turn Bay Length (ft)													
Base Capacity (vph)	941							3615	896				
Starvation Cap Reductn	0							150	239				
Spillback Cap Reductn	0							18	0				
Storage Cap Reductn	0							0	0				
Reduced v/c Ratio	0.79							0.91	0.63				

**Intersection Summary**

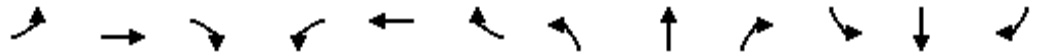
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 11.2      Intersection LOS: B  
 Intersection Capacity Utilization 67.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3525	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3488	1345	0	0	0	0	3160	913	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			46						11			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	64	788	84	0	0	0	0	1237	276	0	1310	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	936	92	0	0	0	0	1262	282	0	1365	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		32.0	32.0					52.0	52.0		52.0	
Actuated g/C Ratio		0.36	0.36					0.58	0.58		0.58	
v/c Ratio		0.75	0.18					0.69	0.53		0.77	
Control Delay		33.5	14.9					4.5	4.8		14.0	
Queue Delay		0.2	0.0					0.9	0.6		0.4	
Total Delay		33.7	14.9					5.4	5.3		14.4	
LOS		C	B					A	A		B	
Approach Delay		32.0						5.4			14.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)		269	24					37	13		162	
Queue Length 95th (ft)		340	m48					46	m18		m210	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)									70			
Base Capacity (vph)		1253	508					1826	532		1777	
Starvation Cap Reductn		38	0					292	62		97	
Spillback Cap Reductn		0	1					287	0		80	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.77	0.18					0.82	0.60		0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 15 (17%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 15.5      Intersection LOS: B  
 Intersection Capacity Utilization 68.6%      ICU Level of Service C  
 Analysis Period (min) 15

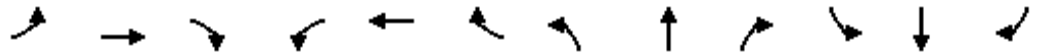
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	1583	0	0	0	0	1986	0	0	1928	0
Flt Permitted		0.992									0.792	
Satd. Flow (perm)	0	3385	1583	0	0	0	0	1986	0	0	1548	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			288					66				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	124	666	274	0	0	0	0	224	109	176	455	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	832	288	0	0	0	0	351	0	0	664	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.74	0.40					0.30			0.76	
Control Delay		22.4	4.1					3.4			11.7	
Queue Delay		0.0	0.4					0.0			1.0	
Total Delay		22.4	4.6					3.4			12.7	
LOS		C	A					A			B	
Approach Delay		17.8						3.4			12.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		137	0					16			112	
Queue Length 95th (ft)		197	44					m30			m151	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1128	720					1154			877	
Starvation Cap Reductn		0	0					0			46	
Spillback Cap Reductn		0	142					0			66	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.74	0.50					0.30			0.82	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 44 (73%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 13.9                      Intersection LOS: B  
 Intersection Capacity Utilization 84.1%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 538: Post St. & Polk St.

23 s	37 s
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4642	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4642	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28						86				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	148	803	0	0	0	0	0	1174	341	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1001	0	0	0	0	0	1595	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	29.5	29.5	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0	0.0	0.0
Total Split (%)	49.2%	49.2%	0.0%	0.0%	0.0%	0.0%	0.0%	50.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		26.5						27.5				
Actuated g/C Ratio		0.44						0.46				
v/c Ratio		0.66						0.73				
Control Delay		16.9						6.8				
Queue Delay		0.0						0.7				
Total Delay		16.9						7.5				
LOS		B						A				
Approach Delay		16.9						7.5				



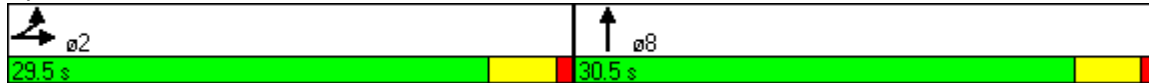


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B							A				
Queue Length 50th (ft)		177							39				
Queue Length 95th (ft)		244							m45				
Internal Link Dist (ft)		424				382			103			91	
Turn Bay Length (ft)													
Base Capacity (vph)		1511							2174				
Starvation Cap Reductn		0							255				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.66							0.83				

**Intersection Summary**

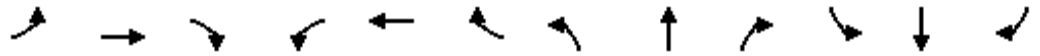
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 16 (27%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 11.1      Intersection LOS: B  
 Intersection Capacity Utilization 63.5%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			4									36
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	841	303	0	0	0	0	0	0	152	1299	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	885	319	0	0	0	0	0	0	0	1527	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.44	0.35								0.94	
Control Delay		6.0	5.7								24.4	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.0	5.7								24.4	
LOS		A	A								C	
Approach Delay		5.9									24.4	



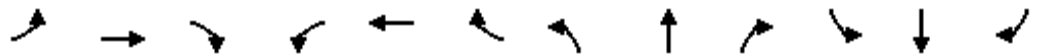
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A											C
Queue Length 50th (ft)	38		26									215
Queue Length 95th (ft)	66		m45									#297
Internal Link Dist (ft)	382		406			277			272			
Turn Bay Length (ft)												
Base Capacity (vph)	2005		899								1618	
Starvation Cap Reductn	0		0								0	
Spillback Cap Reductn	0		20								0	
Storage Cap Reductn	0		0								0	
Reduced v/c Ratio	0.44		0.36								0.94	

**Intersection Summary**

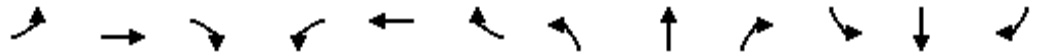
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 31 (52%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 16.2                      Intersection LOS: B  
 Intersection Capacity Utilization 58.1%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 540: Post St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			7	7							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	137	432	596	0	0	0	0	0	1862	58
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	161	455	627	0	0	0	0	0	2021	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	38.7	38.7	38.7	0.0	0.0	0.0	0.0	0.0	51.3	0.0
Total Split (%)	0.0%	0.0%	43.0%	43.0%	43.0%	0.0%	0.0%	0.0%	0.0%	0.0%	57.0%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			35.7	35.7	35.7						48.3	
Actuated g/C Ratio			0.40	0.40	0.40						0.54	
v/c Ratio			0.25	0.64	0.46						0.79	
Control Delay			18.7	6.2	4.6						7.6	
Queue Delay			0.0	0.5	0.0						0.4	
Total Delay			18.7	6.6	4.6						7.9	
LOS			B	A	A						A	
Approach Delay					5.5						7.9	



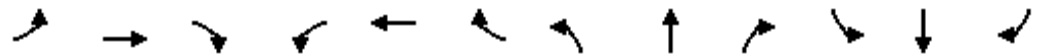
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS							A			A		
Queue Length 50th (ft)			57	35	26							91
Queue Length 95th (ft)			96	m42	m32							101
Internal Link Dist (ft)	81					419	254			75		
Turn Bay Length (ft)												
Base Capacity (vph)			643	706	1359							2552
Starvation Cap Reductn			0	49	0							127
Spillback Cap Reductn			0	0	0							144
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.25	0.69	0.46							0.84

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 7.6                      Intersection LOS: A  
 Intersection Capacity Utilization 79.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 554: Sutter St. & Gough St.**

↓ ø6	↘ ø4
51.3 s	38.7 s
	← ø6
	38.7 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5506	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	878	286	150	2809	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	924	301	0	3019	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	32.0	32.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	35.6%	35.6%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					29.0	29.0		55.0				
Actuated g/C Ratio					0.32	0.32		0.61				
v/c Ratio					0.84	0.59		0.90				
Control Delay					28.1	22.8		4.8				
Queue Delay					0.0	0.0		1.4				
Total Delay					28.1	22.8		6.2				
LOS					C	C		A				
Approach Delay					26.8			6.2				



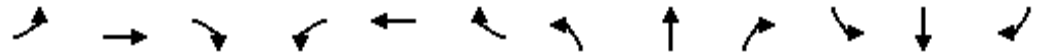
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						C						A
Queue Length 50th (ft)						303	181	27				
Queue Length 95th (ft)						m335	m203	26				
Internal Link Dist (ft)		419				217		98			76	
Turn Bay Length (ft)												
Base Capacity (vph)						1099	511	3372				
Starvation Cap Reductn						0	0	130				
Spillback Cap Reductn						0	0	185				
Storage Cap Reductn						0	0	0				
Reduced v/c Ratio						0.84	0.59	0.95				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 12.1                      Intersection LOS: B  
 Intersection Capacity Utilization 79.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		75
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3300	1370
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3374	1358	0	3238	0	0	3300	866
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						38						7
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	99	1082	93	0	1259	0	0	1103	82
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1243	98	0	1325	0	0	1161	86
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.91	0.17		0.77			0.66	0.18
Control Delay					37.0	12.1		11.2			21.3	16.7
Queue Delay					2.1	0.0		1.6			0.3	0.1
Total Delay					39.0	12.1		12.8			21.7	16.8
LOS					D	B		B			C	B
Approach Delay					37.1			12.8			21.3	



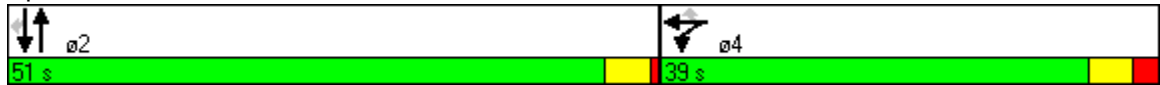


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D			B			C	
Queue Length 50th (ft)					343	21		324			216	24
Queue Length 95th (ft)					#482	53		338			m248	m37
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												75
Base Capacity (vph)					1365	566		1727			1760	465
Starvation Cap Reductn					50	0		161			173	0
Spillback Cap Reductn					1	2		227			0	39
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.95	0.17		0.88			0.73	0.20

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 23.8      Intersection LOS: C  
 Intersection Capacity Utilization 74.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 556: Sutter St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50				50
Trailing Detector (ft)				0	0	0	0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1938	0	0	1883	0
Flt Permitted					0.991			0.599				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1171	0	0	1883	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						183						36
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	252	1069	174	64	281	0	0	379	141
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1390	183	0	363	0	0	547	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	34.0	26.0	26.0	0.0	0.0	26.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	56.7%	56.7%	56.7%	43.3%	43.3%	0.0%	0.0%	43.3%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					31.0	31.0		23.0			23.0	
Actuated g/C Ratio					0.52	0.52		0.38			0.38	
v/c Ratio					0.80	0.20		0.81			0.74	
Control Delay					8.6	0.6		32.3			11.2	
Queue Delay					0.7	0.0		0.6			0.6	
Total Delay					9.2	0.6		32.9			11.8	
LOS					A	A		C			B	
Approach Delay					8.2			32.9			11.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4748	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4748	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						31		40				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1169	97	326	1003	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1231	102	0	1399	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.72	0.13		0.73				
Control Delay					6.4	1.6		7.9				
Queue Delay					0.0	0.0		0.1				
Total Delay					6.4	1.6		8.1				
LOS					A	A		A				
Approach Delay					6.0			8.1				

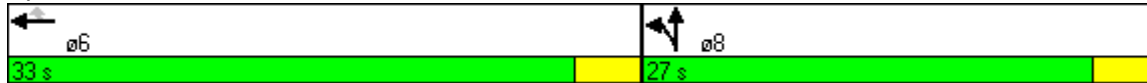


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					46	2		38				
Queue Length 95th (ft)					m60	m3		55				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	807		1923				
Starvation Cap Reductn					0	0		60				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.72	0.13		0.75				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 26 (43%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 7.1      Intersection LOS: A  
 Intersection Capacity Utilization 65.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					12						66	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	311	1065	0	0	0	0	0	1140	201
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1448	0	0	0	0	0	1412	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					32.0						22.0	
Actuated g/C Ratio					0.53						0.37	
v/c Ratio					0.80						0.82	
Control Delay					15.7						18.3	
Queue Delay					0.0						0.0	
Total Delay					15.7						18.4	
LOS					B						B	
Approach Delay					15.7						18.4	

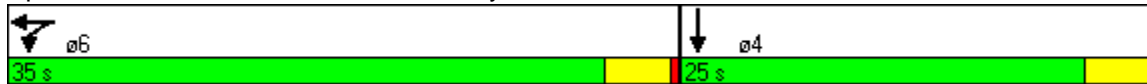


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B						B	
Queue Length 50th (ft)					202						187	
Queue Length 95th (ft)					287						234	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1805						1712	
Starvation Cap Reductn					0						2	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.80						0.83	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	17.0
Intersection LOS:	B
Intersection Capacity Utilization	71.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4714	0	0	0	0	0	0	0	0	4769	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4714	0	0	0	0	0	0	0	0	4769	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		10										24
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1194	339	0	0	0	0	0	0	144	1494	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1614	0	0	0	0	0	0	0	0	1742	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.0	45.0	0.0
Total Split (%)	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		42.0									42.0	
Actuated g/C Ratio		0.47									0.47	
v/c Ratio		0.73									0.78	
Control Delay		21.8									20.1	
Queue Delay		0.0									1.5	
Total Delay		21.8									21.6	
LOS		C									C	
Approach Delay		21.8									21.6	



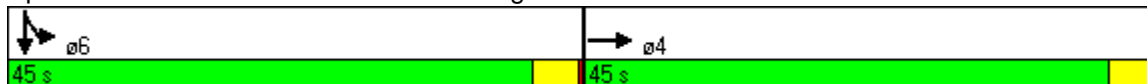


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									C	
Queue Length 50th (ft)		260									199	
Queue Length 95th (ft)		317									272	
Internal Link Dist (ft)		172			417			94			91	
Turn Bay Length (ft)												
Base Capacity (vph)		2205									2238	
Starvation Cap Reductn		0									299	
Spillback Cap Reductn		0									68	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.73									0.90	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	21.7
Intersection LOS:	C
Intersection Capacity Utilization	69.1%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4826	0	0	0	0	0	5634	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	4826	0	0	0	0	0	5634	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	282	1056	0	0	0	0	0	2665	372	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1394	0	0	0	0	0	3301	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		27.0						57.0				
Actuated g/C Ratio		0.30						0.63				
v/c Ratio		0.96						0.92				
Control Delay		33.3						8.0				
Queue Delay		0.0						52.6				
Total Delay		33.3						60.6				
LOS		C						E				
Approach Delay		33.3						60.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							E				
Queue Length 50th (ft)		111							77				
Queue Length 95th (ft)		#367							83				
Internal Link Dist (ft)		417			148				104		82		
Turn Bay Length (ft)													
Base Capacity (vph)		1449							3571				
Starvation Cap Reductn		0							108				
Spillback Cap Reductn		0							616				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.96							1.12				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	70
Control Type:	Pretimed
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	52.5
Intersection LOS:	D
Intersection Capacity Utilization:	77.6%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4977	0	0	0	0	0	3353	1417	1770	3123	0
Flt Permitted		0.995								0.098		
Satd. Flow (perm)	0	4918	0	0	0	0	0	3353	942	183	3123	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12							26			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	145	1240	85	0	0	0	0	1212	96	221	1100	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								1	1		27	27
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1615	0	0	0	0	0	1377	109	251	1250	0
Turn Type	Split								Perm	pm+pt		
Protected Phases	4	4						2		1	6	
Permitted Phases									2	6		
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.0	4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0	7.4	48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	40.7	40.7	12.3	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	45.2%	45.2%	13.7%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		34.0						37.7	37.7	50.0	50.0	
Actuated g/C Ratio		0.38						0.42	0.42	0.56	0.56	
v/c Ratio		0.86						0.98	0.27	0.94	0.72	
Control Delay		38.0						27.2	3.5	42.5	4.6	
Queue Delay		2.5						10.7	0.0	0.0	0.4	
Total Delay		40.4						37.8	3.5	42.5	5.0	
LOS		D						D	A	D	A	
Approach Delay		40.4						35.3			11.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1906	0	0	1939	0
Flt Permitted		0.998									0.826	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1906	0	0	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20						8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	63	1402	92	0	0	0	0	368	84	82	428	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1639	0	0	0	0	0	475	0	0	537	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.0						29.0			29.0	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.81						0.51			0.69	
Control Delay		19.3						12.7			22.7	
Queue Delay		0.5						0.5			6.3	
Total Delay		19.7						13.2			29.0	
LOS		B						B			C	
Approach Delay		19.7						13.2			29.0	

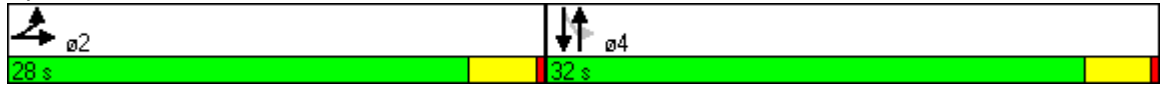


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B			C	
Queue Length 50th (ft)		180						90			189	
Queue Length 95th (ft)		236						m143			m280	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		2021						925			781	
Starvation Cap Reductn		0						152			191	
Spillback Cap Reductn		99						42			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.85						0.61			0.91	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 59 (98%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 20.4      Intersection LOS: C  
 Intersection Capacity Utilization 91.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3037	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3037	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						18	23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	129	1439	0	0	0	0	0	725	386	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1651	0	0	0	0	0	835	334	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.63						0.74	0.73			
Control Delay		2.2						9.9	15.1			
Queue Delay		0.0						0.3	0.0			
Total Delay		2.2						10.1	15.1			
LOS		A						B	B			
Approach Delay		2.2						11.6				



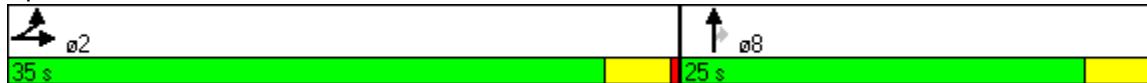


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A							B				
Queue Length 50th (ft)	20							32	8			
Queue Length 95th (ft)	22							78 m#206				
Internal Link Dist (ft)	216				181		103			10		
Turn Bay Length (ft)												
Base Capacity (vph)	2607							1125	456			
Starvation Cap Reductn	0							0	0			
Spillback Cap Reductn	0							38	0			
Storage Cap Reductn	0							0	0			
Reduced v/c Ratio	0.63							0.77	0.73			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 13 (22%), Referenced to phase 8:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 6.1                      Intersection LOS: A  
 Intersection Capacity Utilization 61.2%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		20										26
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1435	370	0	0	0	0	0	0	152	971	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1900	0	0	0	0	0	0	0	0	1182	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.73									0.73	
Control Delay		5.3									15.3	
Queue Delay		0.0									0.0	
Total Delay		5.3									15.3	
LOS		A									B	
Approach Delay		5.3									15.3	



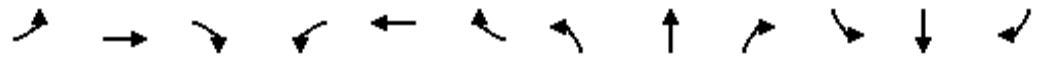
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A										B
Queue Length 50th (ft)		60										152
Queue Length 95th (ft)		71										202
Internal Link Dist (ft)		160				385		52		237		
Turn Bay Length (ft)												
Base Capacity (vph)		2607										1626
Starvation Cap Reductn		0										1
Spillback Cap Reductn		0										0
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.73										0.73

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	26 (43%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	64.5%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4648	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4648	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				22							7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	379	1680	0	0	0	0	0	1194	251
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	399	1768	0	0	0	0	0	1537	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				44.0	44.0						40.0	
Actuated g/C Ratio				0.49	0.49						0.44	
v/c Ratio				0.45	0.74						0.74	
Control Delay				2.5	3.3						10.8	
Queue Delay				0.1	0.2						1.1	
Total Delay				2.6	3.5						11.9	
LOS				A	A						B	
Approach Delay					3.4						11.9	

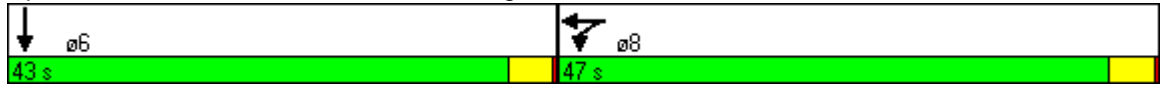


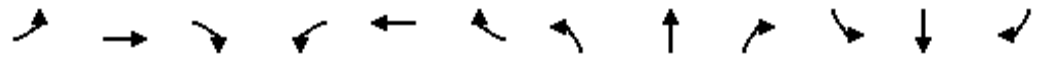
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						A						B
Queue Length 50th (ft)				20	45							78
Queue Length 95th (ft)				m18	m41							136
Internal Link Dist (ft)		169			423			88				273
Turn Bay Length (ft)												
Base Capacity (vph)				877	2383							2070
Starvation Cap Reductn				0	125							288
Spillback Cap Reductn				71	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.50	0.78							0.86

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 6.9      Intersection LOS: A  
 Intersection Capacity Utilization 81.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 612: Pine St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6029	0	0	5452	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5452	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1							
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			452			172			192	
Travel Time (s)		13.7			12.3			4.7			5.2	
Volume (vph)	0	0	0	0	1793	425	266	2632	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2672	0	0	3083	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	39.0	0.0	51.0	51.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					36.0			48.0				
Actuated g/C Ratio					0.40			0.53				
v/c Ratio					1.11			1.06				
Control Delay					78.5			44.7				
Queue Delay					29.2			27.7				
Total Delay					107.7			72.3				
LOS					F			E				
Approach Delay					107.7			72.3				



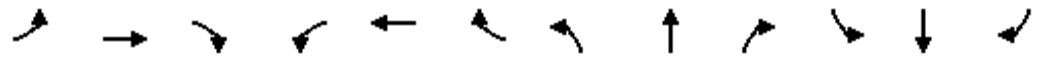
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			E				
Queue Length 50th (ft)					~526			~626				
Queue Length 95th (ft)					#521			m#701				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2412			2908				
Starvation Cap Reductn					136			166				
Spillback Cap Reductn					0			129				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					1.17			1.12				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.11  
 Intersection Signal Delay: 88.7      Intersection LOS: F  
 Intersection Capacity Utilization 81.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 613: Pine St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6262	0	1770	3203	0	0	3193	1280
Flt Permitted					0.998		0.095					
Satd. Flow (perm)	0	0	0	0	6233	0	177	3203	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23							22
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	80	1864	155	148	1165	0	0	1274	206
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								18			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2209	0	156	1226	0	0	1341	217
Turn Type				Split			pm+pt					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases							2					6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	4.0
Minimum Split (s)				36.0	36.0		7.0	48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	9.0	51.0	0.0	0.0	42.0	42.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	10.0%	56.7%	0.0%	0.0%	46.7%	46.7%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		1.0	1.0			1.0	1.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					36.0		48.0	48.0			39.0	39.0
Actuated g/C Ratio					0.40		0.53	0.53			0.43	0.43
v/c Ratio					0.88		0.78	0.72			0.97	0.57
Control Delay					29.7		24.5	2.8			37.8	23.3
Queue Delay					57.8		12.7	2.0			9.9	15.7
Total Delay					87.5		37.3	4.8			47.7	39.0
LOS					F		D	A			D	D
Approach Delay					87.5			8.4			46.5	



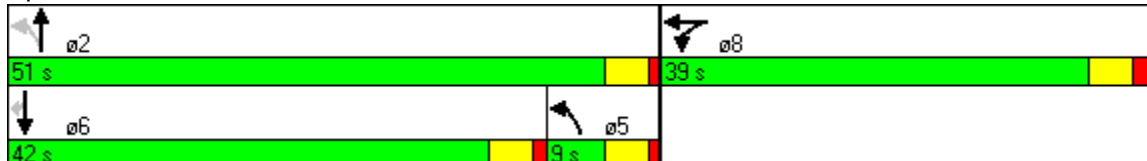


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			A			D	
Queue Length 50th (ft)					326		42	40			237	65
Queue Length 95th (ft)					379		m45	m37			#526	m87
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)												80
Base Capacity (vph)					2519		201	1708			1384	381
Starvation Cap Reductn					0		0	320			64	0
Spillback Cap Reductn					558		30	0			0	145
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					1.13		0.91	0.88			1.02	0.92

**Intersection Summary**

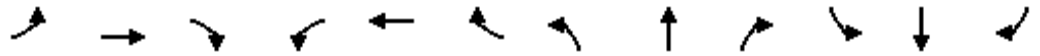
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 53.9                      Intersection LOS: D  
 Intersection Capacity Utilization 84.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6147	0	0	1932	0	0	1889	0
Flt Permitted				0.998			0.636					
Satd. Flow (perm)	0	0	0	0	6147	0	0	1243	0	0	1889	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	90	1830	108	103	328	0	0	390	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2135	0	0	453	0	0	552	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.83			0.75			0.60	
Control Delay					10.7			23.2			9.5	
Queue Delay					0.6			1.6			0.4	
Total Delay					11.3			24.8			9.8	
LOS					B			C			A	
Approach Delay					11.3			24.8			9.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			C			A	
Queue Length 50th (ft)					78			169			72	
Queue Length 95th (ft)					90			m#274			108	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2575			601			914	
Starvation Cap Reductn					0			49			83	
Spillback Cap Reductn					154			17			55	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.88			0.82			0.66	

**Intersection Summary**

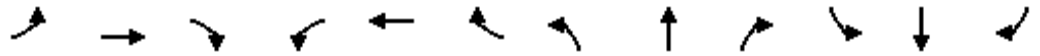
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 13.0      Intersection LOS: B  
 Intersection Capacity Utilization 91.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6104	0	0	3151	0	0	0	0
Flt Permitted								0.981				
Satd. Flow (perm)	0	0	0	0	6104	0	0	3151	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					82			13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		490			280			167				363
Travel Time (s)		13.4			7.6			4.6				9.9
Volume (vph)	0	0	0	0	1684	210	344	524	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1994	0	0	914	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.59			0.82				
Control Delay					2.6			11.3				
Queue Delay					0.0			0.0				
Total Delay					2.6			11.4				
LOS					A			B				
Approach Delay					2.6			11.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B				
Queue Length 50th (ft)					26			32				
Queue Length 95th (ft)					31			#62				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3394			1111				
Starvation Cap Reductn					0			2				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.59			0.82				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	46 (77%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	5.3
Intersection LOS:	A
Intersection Capacity Utilization:	59.1%
ICU Level of Service:	B
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4487	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4487	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					56						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	278	1670	0	0	0	0	0	845	224
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2051	0	0	0	0	0	1125	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.64						0.62	
Control Delay					11.8						16.2	
Queue Delay					0.0						0.0	
Total Delay					11.8						16.2	
LOS					B						B	
Approach Delay					11.8						16.2	

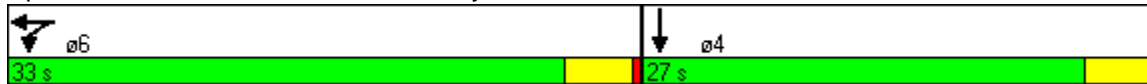


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					141						113	
Queue Length 95th (ft)					177						153	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3210						1800	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.64						0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization:	56.4%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3511	0	0	0	0	0	3507	0
Flt Permitted					0.638						0.997	
Satd. Flow (perm)	0	3461	0	0	2258	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28									7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	586	102	119	614	0	0	0	0	77	1224	55
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	748	0	0	852	0	0	0	0	0	1458	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						25.0	25.0
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0							44.0
Actuated g/C Ratio		0.44			0.44							0.49
v/c Ratio		0.48			0.85							0.85
Control Delay		18.2			26.1							23.6
Queue Delay		0.0			0.0							68.8
Total Delay		18.2			26.1							92.5
LOS		B			C							F
Approach Delay		18.2			26.1							92.5



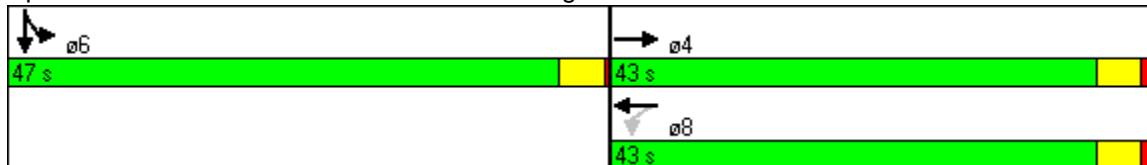


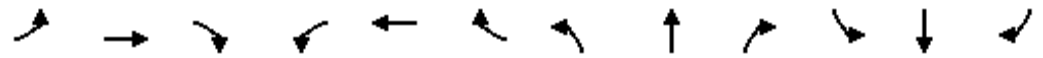
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C						F	
Queue Length 50th (ft)		146			131						327	
Queue Length 95th (ft)		197			m108						m333	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1554			1004						1718	
Starvation Cap Reductn		0			0						450	
Spillback Cap Reductn		0			0						20	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.48			0.85						1.15	

**Intersection Summary**

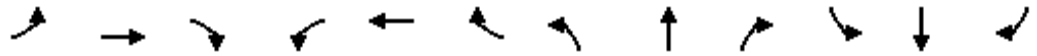
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 86 (96%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 55.8      Intersection LOS: E  
 Intersection Capacity Utilization 87.7%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3444	0	0	5691	0	0	0	0
Flt Permitted	0.160							0.999				
Satd. Flow (perm)	298	3539	0	0	3444	0	0	5691	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		518			441			167				346
Travel Time (s)		14.1			12.0			4.6				9.4
Volume (vph)	124	539	0	0	647	140	86	2822	149	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	146	634	0	0	926	0	0	3596	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	7.4	32.4	0.0	0.0	25.0	0.0	57.6	57.6	0.0	0.0	0.0	0.0
Total Split (%)	8.2%	36.0%	0.0%	0.0%	27.8%	0.0%	64.0%	64.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	29.4	29.4			22.0			54.6				
Actuated g/C Ratio	0.33	0.33			0.24			0.61				
v/c Ratio	0.86	0.55			1.09			1.04				
Control Delay	62.6	14.5			79.1			29.2				
Queue Delay	0.0	0.0			0.0			19.6				
Total Delay	62.6	14.5			79.1			48.7				
LOS	E	B			E			D				
Approach Delay		23.5			79.1			48.7				



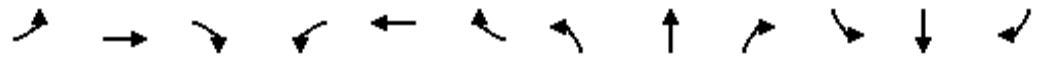
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			E			D					
Queue Length 50th (ft)	32	65			~326			~707				
Queue Length 95th (ft)	m#119	m77			#410			m127				
Internal Link Dist (ft)		438			361			87			266	
Turn Bay Length (ft)												
Base Capacity (vph)	169	1156			849			3460				
Starvation Cap Reductn	0	0			0			149				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.86	0.55			1.09			1.09				

**Intersection Summary**

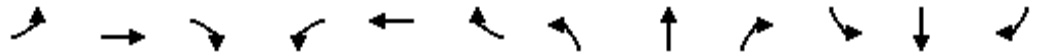
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 50.3                      Intersection LOS: D  
 Intersection Capacity Utilization 83.9%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 640: California St. & Franklin St.**

 2 57.6 s	 4 32.4 s
 7	 8 25 s      7.4 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		80	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3326	0	0	3361	0	0	3318	1385	0	3291	1362
Flt Permitted		0.844			0.842							
Satd. Flow (perm)	0	2810	0	0	2829	0	0	3318	907	0	3291	953
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			6				38			27
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	28	541	119	42	715	96	0	1206	114	0	1319	72
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								5	5		8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	791	0	0	937	0	0	1243	118	0	1403	77
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	4.0
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	42.5
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	0.0	50.0	50.0	0.0	50.0	50.0
Total Split (%)	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%	0.0%	55.6%	55.6%	0.0%	55.6%	55.6%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	1.2
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		37.0			37.0			47.0	47.0		47.0	47.0
Actuated g/C Ratio		0.41			0.41			0.52	0.52		0.52	0.52
v/c Ratio		0.68			0.80			0.72	0.24		0.82	0.15
Control Delay		36.6			29.6			4.2	1.1		19.5	11.2
Queue Delay		0.2			0.7			0.3	0.0		2.5	0.0
Total Delay		36.9			30.3			4.5	1.1		22.1	11.2
LOS		D			C			A	A		C	B
Approach Delay		36.9			30.3			4.2			21.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			A			C		
Queue Length 50th (ft)	218			238			46 0			211 11		
Queue Length 95th (ft)	m252			321			m51 m2			253 m18		
Internal Link Dist (ft)	361			163			282			265		
Turn Bay Length (ft)							80			75		
Base Capacity (vph)	1161			1167			1733 492			1719 511		
Starvation Cap Reductn	0			0			116 0			71 0		
Spillback Cap Reductn	56			56			0 0			201 0		
Storage Cap Reductn	0			0			0 0			0 0		
Reduced v/c Ratio	0.72			0.84			0.77 0.24			0.92 0.15		

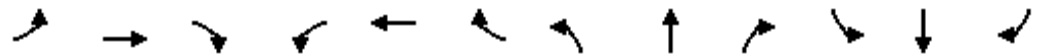
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 54 (60%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 20.8      Intersection LOS: C  
 Intersection Capacity Utilization 94.1%      ICU Level of Service F  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	3409	0	0	1910	0	0	1903	0
Flt Permitted								0.959			0.905	
Satd. Flow (perm)	0	3385	0	0	3409	0	0	1837	0	0	1732	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			26			22			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	552	103	0	785	100	25	347	64	72	421	88
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	689	0	0	931	0	0	458	0	0	612	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	0.0%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	58.3%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0			22.0			32.0			32.0	
Actuated g/C Ratio		0.37			0.37			0.53			0.53	
v/c Ratio		0.54			0.74			0.46			0.66	
Control Delay		16.0			19.0			7.6			8.0	
Queue Delay		0.0			0.0			0.3			0.6	
Total Delay		16.0			19.0			8.0			8.7	
LOS		B			B			A			A	
Approach Delay		16.0			19.0			8.0			8.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		94			97			47			64	
Queue Length 95th (ft)		140			161			m110			122	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1267			1266			990			934	
Starvation Cap Reductn		0			0			156			94	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.54			0.74			0.55			0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 14.0      Intersection LOS: B  
 Intersection Capacity Utilization 83.6%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 642: California St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3458	0	1770	1794	0	1770	0	1290
Flt Permitted		0.874					0.950			0.231		
Satd. Flow (perm)	0	3031	0	0	3458	0	1770	1794	0	430	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			42				44
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	30	658	0	0	727	17	98	480	156	84	0	60
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	732	0	0	896	0	104	677	0	105	0	75
Turn Type	Perm						Perm			custom		custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	25.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	0.0	35.0
Total Split (%)	41.7%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	0.0%	58.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		22.0			22.0		32.0	32.0		32.0		32.0
Actuated g/C Ratio		0.37			0.37		0.53	0.53		0.53		0.53
v/c Ratio		0.66			0.71		0.11	0.69		0.46		0.11
Control Delay		14.9			19.8		4.0	7.1		16.9		4.2
Queue Delay		0.0			0.0		0.0	0.1		0.0		0.0
Total Delay		14.9			19.8		4.0	7.2		16.9		4.2
LOS		B			B		A	A		B		A
Approach Delay		14.9			19.8			6.8				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A				
Queue Length 50th (ft)		57			140		10	62		21		5
Queue Length 95th (ft)		118			178		m14	m93		52		17
Internal Link Dist (ft)		412			61			283			587	
Turn Bay Length (ft)												
Base Capacity (vph)		1111			1270		944	976		229		709
Starvation Cap Reductn		0			0		0	19		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0
Reduced v/c Ratio		0.66			0.71		0.11	0.71		0.46		0.11

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	55 (92%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	14.0
Intersection LOS:	B
Intersection Capacity Utilization:	89.7%
ICU Level of Service:	E
Analysis Period (min):	15

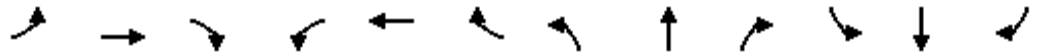
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 643: California St. & Larkin St.**

← ø2	↖ ø4
25 s	35 s
→ ø6	↗ ø8
25 s	35 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1844	0	0	0	0	0	1535	0
Flt Permitted	0.204			0.950								
Satd. Flow (perm)	380	0	1583	1770	1844	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			131	131	5						5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	114	0	124	324	404	30	0	0	0	0	908	52
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	163	0	177	364	488	0	0	0	0	0	980	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	35.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	0.0%	38.9%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	32.0		32.0	32.0	32.0						52.0	
Actuated g/C Ratio	0.36		0.36	0.36	0.36						0.58	
v/c Ratio	1.21		0.27	0.51	0.74						1.10	
Control Delay	174.4		7.8	3.4	13.3						73.1	
Queue Delay	0.0		0.5	2.4	0.0						5.8	
Total Delay	174.4		8.2	5.8	13.3						78.9	
LOS	F		A	A	B						E	
Approach Delay					10.1						78.9	

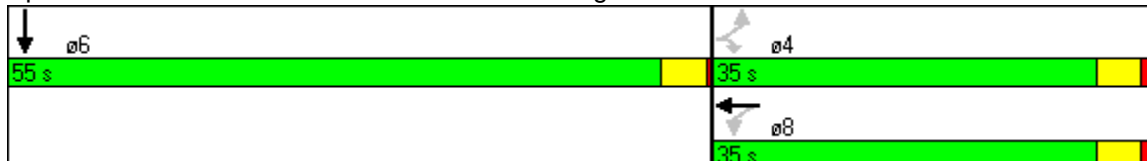


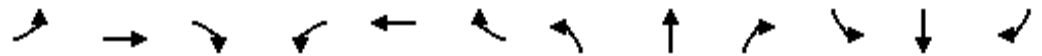
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B								E			
Queue Length 50th (ft)	~114		17	0	56						~656	
Queue Length 95th (ft)	#167		35	m0	m69						#865	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	135		647	714	659						889	
Starvation Cap Reductn	0		0	0	0						0	
Spillback Cap Reductn	0		204	228	0						11	
Storage Cap Reductn	0		0	0	0						0	
Reduced v/c Ratio	1.21		0.40	0.75	0.74						1.12	

**Intersection Summary**

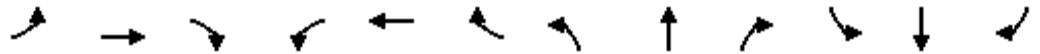
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 53.3                      Intersection LOS: D  
 Intersection Capacity Utilization 90.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 659: Sacramento St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3437	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3437	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1		28					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	666	156	92	2994	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	894	0	99	3219	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					24.0		60.0	60.0				
Actuated g/C Ratio					0.27		0.67	0.67				
v/c Ratio					0.97		0.08	1.01				
Control Delay					43.9		0.4	11.5				
Queue Delay					0.0		0.0	5.0				
Total Delay					43.9		0.4	16.5				
LOS					D		A	B				
Approach Delay					43.9			16.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D			B				
Queue Length 50th (ft)					287		1	~74				
Queue Length 95th (ft)					#409		m1	m58				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					917		1189	3193				
Starvation Cap Reductn					0		0	49				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					0.97		0.08	1.02				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 87 (97%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 21.9      Intersection LOS: C  
 Intersection Capacity Utilization 87.9%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3233	0	0	3150	0	0	3186	1275
Flt Permitted				0.994								
Satd. Flow (perm)	0	0	0	0	3181	0	0	3150	0	0	3186	1035
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18							27
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	116	722	109	0	1330	0	0	1275	100
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	987	0	0	1371	0	0	1342	105
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	57.8%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					35.0			49.0			49.0	49.0
Actuated g/C Ratio					0.39			0.54			0.54	0.54
v/c Ratio					0.78			0.80			0.77	0.18
Control Delay					28.8			7.2			13.3	8.1
Queue Delay					0.2			0.5			0.3	0.0
Total Delay					29.0			7.7			13.6	8.1
LOS					C			A			B	A
Approach Delay					29.0			7.7			13.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					249			0			149	11
Queue Length 95th (ft)					328			0			170	m17
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												70
Base Capacity (vph)					1268			1715			1735	576
Starvation Cap Reductn					0			91			65	0
Spillback Cap Reductn					27			0			29	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.80			0.84			0.80	0.18

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 15.3      Intersection LOS: B  
 Intersection Capacity Utilization 71.0%      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3493	0	0	1945	0	0	1869	0
Flt Permitted				0.994			0.859					
Satd. Flow (perm)	0	0	0	0	3493	0	0	1679	0	0	1869	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						64	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	103	672	40	42	405	0	0	478	233
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	857	0	0	470	0	0	748	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.73			0.49			0.69	
Control Delay					21.9			10.9			6.6	
Queue Delay					0.2			0.2			0.2	
Total Delay					22.1			11.0			6.7	
LOS					C			B			A	
Approach Delay					22.1			11.0			6.7	



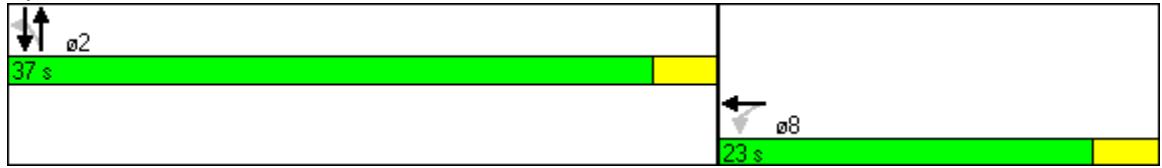


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			A	
Queue Length 50th (ft)					139			111			54	
Queue Length 95th (ft)					200			m120			96	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1170			951			1087	
Starvation Cap Reductn					0			72			33	
Spillback Cap Reductn					33			14			29	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.75			0.53			0.71	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 8 (13%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 14.0      Intersection LOS: B  
 Intersection Capacity Utilization 85.8%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 662: Sacramento St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1693	0	0	1506	0	0	5024	0	0	0	0
Flt Permitted		0.919						0.999				
Satd. Flow (perm)	0	1575	0	0	1506	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			40				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	14	47	0	0	17	145	39	2873	238	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	64	0	0	171	0	0	3316	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	20.5	20.5	0.0	0.0	20.5	0.0	69.5	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	22.8%	0.0%	77.2%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		17.5			17.5			66.5				
Actuated g/C Ratio		0.19			0.19			0.74				
v/c Ratio		0.21			0.58			0.89				
Control Delay		48.7			43.7			1.7				
Queue Delay		0.0			0.0			1.1				
Total Delay		48.7			43.7			2.8				
LOS		D			D			A				
Approach Delay		48.7			43.7			2.8				



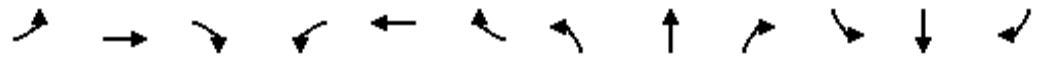
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A				
Queue Length 50th (ft)		37			99			26				
Queue Length 95th (ft)		m39			151			m25				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		306			296			3723				
Starvation Cap Reductn		0			0			197				
Spillback Cap Reductn		0			0			69				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.21			0.58			0.94				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 5.6      Intersection LOS: A  
 Intersection Capacity Utilization 82.9%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 671: Clay St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		90	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	50
Trailing Detector (ft)	0	0						0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1574	0	0	0	0	0	3362	1425	0	3230	1306
Flt Permitted		0.998										
Satd. Flow (perm)	0	1567	0	0	0	0	0	3362	903	0	3230	508
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11							40			171
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	9	233	43	0	0	0	0	1289	150	0	1332	162
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0	0		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	366	0	0	0	0	0	1371	160	0	1402	171
Turn Type	Split								Perm			Perm
Protected Phases	4	4						2			2	
Permitted Phases									2			2
Detector Phases	4	4						2	2		2	2
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	4.0
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	48.5
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0	55.0	55.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%	61.1%	61.1%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	3.5
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	0.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	Max
Act Effct Green (s)		32.0						52.0	52.0		52.0	52.0
Actuated g/C Ratio		0.36						0.58	0.58		0.58	0.58
v/c Ratio		0.65						0.71	0.30		0.75	0.47
Control Delay		25.9						3.5	1.1		12.5	5.4
Queue Delay		0.0						0.5	0.0		0.3	0.0
Total Delay		25.9						4.0	1.1		12.9	5.4
LOS		C						A	A		B	A
Approach Delay		25.9						3.7			12.0	



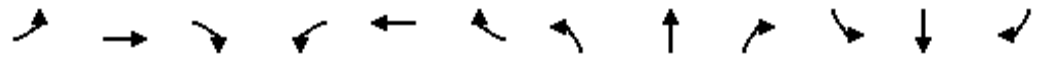
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	C						A			B			
Queue Length 50th (ft)	154						37			1	157		9
Queue Length 95th (ft)	m193						43			m1	193		m25
Internal Link Dist (ft)	370						421			247			76
Turn Bay Length (ft)										90			
Base Capacity (vph)	567						1942			539	1866		366
Starvation Cap Reductn	0						215			0	106		0
Spillback Cap Reductn	0						30			0	0		0
Storage Cap Reductn	0						0			0	0		0
Reduced v/c Ratio	0.65						0.79			0.30	0.80		0.47

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 71 (79%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 9.8                      Intersection LOS: A  
 Intersection Capacity Utilization 66.8%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3040	0	0	0	0	0	1871	0	0	1947	0
Flt Permitted		0.992									0.941	
Satd. Flow (perm)	0	3040	0	0	0	0	0	1871	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		262						53				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	62	72	249	0	0	0	0	303	142	43	462	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	403	0	0	0	0	0	468	0	0	531	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	28.5	28.5	0.0	0.0	0.0	0.0	0.0	31.5	0.0	31.5	31.5	0.0
Total Split (%)	47.5%	47.5%	0.0%	0.0%	0.0%	0.0%	0.0%	52.5%	0.0%	52.5%	52.5%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		25.5						28.5			28.5	
Actuated g/C Ratio		0.42						0.48			0.48	
v/c Ratio		0.28						0.51			0.61	
Control Delay		4.6						10.0			14.5	
Queue Delay		0.0						0.2			0.1	
Total Delay		4.6						10.2			14.6	
LOS		A						B			B	
Approach Delay		4.6						10.2			14.6	



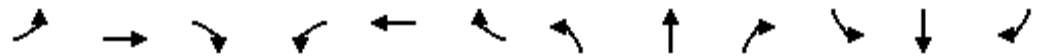
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B			B		
Queue Length 50th (ft)	15						48			105		
Queue Length 95th (ft)	38						m116			160		
Internal Link Dist (ft)	421				163		237			241		
Turn Bay Length (ft)												
Base Capacity (vph)	1443						917			874		
Starvation Cap Reductn	0						71			34		
Spillback Cap Reductn	0						0			4		
Storage Cap Reductn	0						0			0		
Reduced v/c Ratio	0.28						0.55			0.63		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 7 (12%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 10.2      Intersection LOS: B  
 Intersection Capacity Utilization 73.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 673: Clay St. & Polk St.

ø2	ø4
31.5 s	28.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1743	0	0	0	0	0	1490	0	0	1857	0
Flt Permitted		0.999									0.991	
Satd. Flow (perm)	0	1743	0	0	0	0	0	1490	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						37			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	8	194	128	0	0	0	0	89	32	23	811	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	423	0	0	0	0	0	163	0	0	872	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	0.0	58.0	0.0	58.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		29.0						55.0			55.0	
Actuated g/C Ratio		0.32						0.61			0.61	
v/c Ratio		0.72						0.18			0.77	
Control Delay		32.7						0.8			10.9	
Queue Delay		0.0						0.0			1.3	
Total Delay		32.7						0.8			12.2	
LOS		C						A			B	
Approach Delay		32.7						0.8			12.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		193						0			104	
Queue Length 95th (ft)		244						m0			191	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		587						925			1126	
Starvation Cap Reductn		0						0			105	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.72						0.18			0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 85 (94%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 16.9                      Intersection LOS: B  
 Intersection Capacity Utilization 79.8%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 679: Washington St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3493	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.993										
Satd. Flow (perm)	0	3493	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						36				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	37	212	0	0	0	0	0	2822	210	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	389	0	0	0	0	0	3225	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	20.5	20.5	0.0	0.0	0.0	0.0	0.0	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		17.5						66.5				
Actuated g/C Ratio		0.19						0.74				
v/c Ratio		0.57						0.92				
Control Delay		23.9						4.6				
Queue Delay		0.0						0.5				
Total Delay		23.9						5.0				
LOS		C						A				
Approach Delay		23.9						5.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							A				
Queue Length 50th (ft)		88							39				
Queue Length 95th (ft)		71							43				
Internal Link Dist (ft)		442				372			216			289	
Turn Bay Length (ft)													
Base Capacity (vph)		682							3512				
Starvation Cap Reductn		0							64				
Spillback Cap Reductn		0							21				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.57							0.94				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	8 (9%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	7.1
Intersection LOS:	A
Intersection Capacity Utilization	72.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3333	0	0	0	0	0	1912	0	0	1947	0
Flt Permitted		0.992									0.958	
Satd. Flow (perm)	0	3333	0	0	0	0	0	1912	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107						24				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	65	240	114	0	0	0	0	304	61	32	391	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	441	0	0	0	0	0	384	0	0	446	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	33.0	33.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	55.0%	55.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.0						30.0			30.0	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.32						0.40			0.48	
Control Delay		9.9						4.0			11.9	
Queue Delay		0.0						0.2			0.2	
Total Delay		9.9						4.1			12.1	
LOS		A						A			B	
Approach Delay		9.9						4.1			12.1	



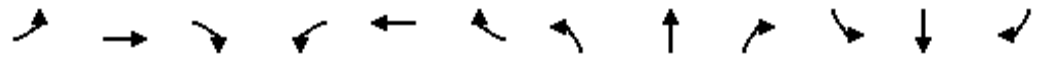
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		40						21			102	
Queue Length 95th (ft)		68						35			146	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1397						968			937	
Starvation Cap Reductn		0						130			100	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.32						0.46			0.53	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	11 (18%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	8.9
Intersection LOS:	A
Intersection Capacity Utilization	64.2%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↘	↙
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1861	0	0	1833	0
Flt Permitted		0.562		0.687				0.989				
Satd. Flow (perm)	0	960	0	1280	1829	0	0	1842	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			2							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	32	0	51	93	356	14	2	95	0	0	702	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	106	0	126	500	0	0	125	0	0	831	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		32.0		32.0	32.0			52.0				52.0
Actuated g/C Ratio		0.36		0.36	0.36			0.58				0.58
v/c Ratio		0.28		0.28	0.77			0.12				0.78
Control Delay		11.5		25.6	37.8			2.0				12.5
Queue Delay		0.0		0.0	0.2			0.0				0.7
Total Delay		11.5		25.6	38.0			2.0				13.3
LOS		B		C	D			A				B
Approach Delay		11.5			35.5			2.0				13.3



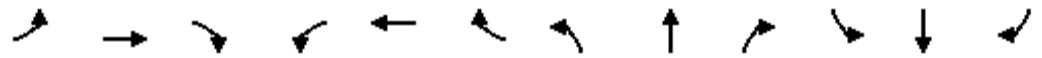
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			D			A			B	
Queue Length 50th (ft)		16		63	280			7			46	
Queue Length 95th (ft)		42		m88	307			m9			57	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		383		455	652			1064			1065	
Starvation Cap Reductn		0		0	7			0			39	
Spillback Cap Reductn		2		0	0			0			62	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.28		0.28	0.78			0.12			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 78 (87%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 20.6      Intersection LOS: C  
 Intersection Capacity Utilization 77.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3416	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3416	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					6			28				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	308	72	155	2704	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	400	0	0	3009	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	19.0	0.0	71.0	71.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	21.1%	0.0%	78.9%	78.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					16.0			68.0				
Actuated g/C Ratio					0.18			0.76				
v/c Ratio					0.65			0.84				
Control Delay					21.1			1.7				
Queue Delay					0.0			0.9				
Total Delay					21.1			2.6				
LOS					C			A				
Approach Delay					21.1			2.6				





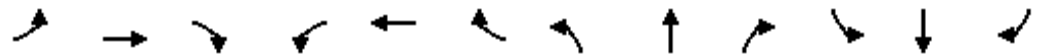
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					119			13				
Queue Length 95th (ft)					167			13				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					612			3601				
Starvation Cap Reductn					0			311				
Spillback Cap Reductn					0			148				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.65			0.91				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	19 (21%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	4.8
Intersection LOS:	A
Intersection Capacity Utilization	72.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3368	0	0	1924	0	0	1877	0
Flt Permitted				0.987			0.675					
Satd. Flow (perm)	0	0	0	0	3368	0	0	1320	0	0	1877	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					47						52	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	95	198	61	122	247	0	0	328	138
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	372	0	0	388	0	0	490	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	26.0	26.0	0.0	34.0	34.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	56.7%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					23.0			31.0			31.0	
Actuated g/C Ratio					0.38			0.52			0.52	
v/c Ratio					0.28			0.57			0.49	
Control Delay					11.8			7.7			8.2	
Queue Delay					0.0			0.1			0.3	
Total Delay					11.8			7.8			8.4	
LOS					B			A			A	
Approach Delay					11.8			7.8			8.4	

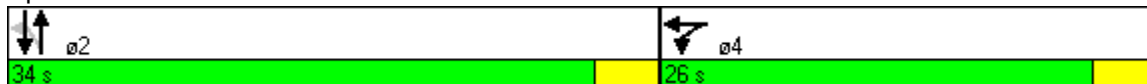


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					41			28			80	
Queue Length 95th (ft)					67			42			132	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1320			682			995	
Starvation Cap Reductn					0			17			122	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.28			0.58			0.56	

**Intersection Summary**

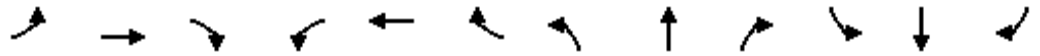
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	65.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	1828	0	0	1818	0	0	1857	0
Flt Permitted		0.997			0.929						0.990	
Satd. Flow (perm)	0	1814	0	0	1713	0	0	1818	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			23			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	118	25	42	179	17	0	116	25	22	731	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	179	0	0	262	0	0	193	0	0	803	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.32			0.51			0.17			0.69	
Control Delay		24.7			24.0			6.2			9.8	
Queue Delay		0.0			0.0			0.0			2.5	
Total Delay		24.7			24.0			6.2			12.3	
LOS		C			C			A			B	
Approach Delay		24.7			24.0			6.2			12.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		73			141			34			145	
Queue Length 95th (ft)		113			m198			46			m245	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		553			517			1160			1166	
Starvation Cap Reductn		0			0			0			238	
Spillback Cap Reductn		0			0			0			24	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.51			0.17			0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 15.2                      Intersection LOS: B  
 Intersection Capacity Utilization 81.9%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1846	0	0	1764	0	0	5029	0	0	0	0
Flt Permitted		0.814						0.998				
Satd. Flow (perm)	0	1516	0	0	1764	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			26				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	30	135	0	0	145	95	93	2517	166	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	174	0	0	253	0	0	2922	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	24.0	24.0	0.0	0.0	24.0	0.0	66.0	66.0	0.0	0.0	0.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	0.0%	26.7%	0.0%	73.3%	73.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		21.0			21.0			63.0				
Actuated g/C Ratio		0.23			0.23			0.70				
v/c Ratio		0.49			0.61			0.83				
Control Delay		46.0			16.0			3.6				
Queue Delay		0.0			0.0			1.0				
Total Delay		46.0			16.0			4.6				
LOS		D			B			A				
Approach Delay		46.0			16.0			4.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			A				
Queue Length 50th (ft)		101			120			17				
Queue Length 95th (ft)		m165			m124			18				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		354			416			3528				
Starvation Cap Reductn		0			0			255				
Spillback Cap Reductn		0			0			333				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.49			0.61			0.91				

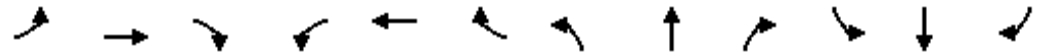
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	32 (36%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization:	86.4%
ICU Level of Service:	E
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

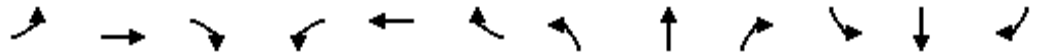
Splits and Phases: 694: Pacific Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1708	0	0	1769	0	0	1825	0	0	1902	0
Flt Permitted		0.951			0.858			0.868			0.972	
Satd. Flow (perm)	0	1632	0	0	1536	0	0	1604	0	0	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81			15			73			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	32	150	131	74	190	34	73	109	126	22	261	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	330	0	0	314	0	0	325	0	0	364	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.41			0.43			0.44			0.45	
Control Delay		9.6			12.5			5.8			13.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		9.6			12.5			5.8			13.3	
LOS		A			B			A			B	
Approach Delay		9.6			12.5			5.8			13.3	



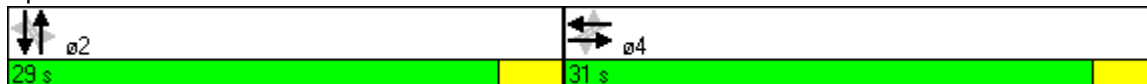


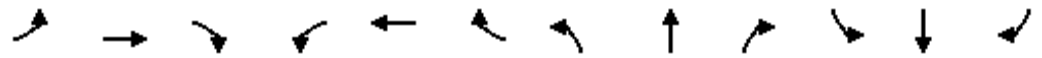
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A			B			A			B	
Queue Length 50th (ft)		53			67			0			81	
Queue Length 95th (ft)		106			123			43			143	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		805			725			736			817	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.43			0.44			0.45	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	29 (48%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.45
Intersection Signal Delay:	10.4
Intersection LOS:	B
Intersection Capacity Utilization	77.4%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3469	0	0	1827	0	0	1848	0
Flt Permitted		0.943			0.692			0.961			0.954	
Satd. Flow (perm)	0	3281	0	0	2434	0	0	1761	0	0	1772	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			6			10			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	6	343	45	217	542	29	9	110	16	55	501	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	414	0	0	927	0	0	187	0	0	620	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		42.0			42.0			42.0			42.0	
Actuated g/C Ratio		0.47			0.47			0.47			0.47	
v/c Ratio		0.27			0.81			0.23			0.75	
Control Delay		14.4			10.0			16.5			26.6	
Queue Delay		0.0			0.0			0.0			1.3	
Total Delay		14.4			10.0			16.5			27.8	
LOS		B			B			B			C	
Approach Delay		14.4			10.0			16.5			27.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		68			48			59			277	
Queue Length 95th (ft)		100			m52			73			416	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1542			1139			827			828	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			74	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.81			0.23			0.82	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 63 (70%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 16.6

Intersection LOS: B

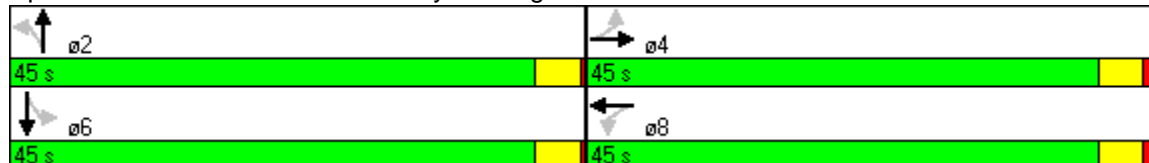
Intersection Capacity Utilization 84.1%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3405	0	0	5009	0	0	0	0
Flt Permitted		0.811						0.998				
Satd. Flow (perm)	0	2870	0	0	3405	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			32				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		500			455			330				362
Travel Time (s)		13.6			12.4			9.0				9.9
Volume (vph)	13	401	0	0	683	236	105	2312	225	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	450	0	0	967	0	0	2872	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.50			0.91			0.92				
Control Delay		20.0			18.8			10.1				
Queue Delay		0.0			0.0			1.7				
Total Delay		20.0			18.8			11.8				
LOS		B			B			B				
Approach Delay		20.0			18.8			11.8				



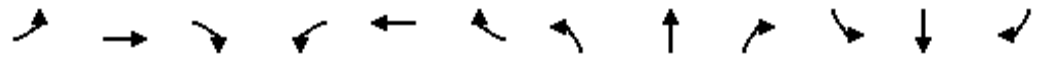
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B				
Queue Length 50th (ft)		68			309			209				
Queue Length 95th (ft)		m92			m#368			206				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		893			1062			3129				
Starvation Cap Reductn		0			0			134				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.50			0.91			0.96				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 14.2      Intersection LOS: B  
 Intersection Capacity Utilization 84.9%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 699: Broadway & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3438	0	0	0	0	0	3195	1370	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3400	0	0	0	0	0	3195	933	0	3283	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7							50			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	26	372	24	0	0	0	0	1315	47	0	1470	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	458	0	0	0	0	0	1429	51	0	1531	0
Turn Type	custom								Perm			
Protected Phases	4	4						2			6	
Permitted Phases	4								2			
Detector Phases	4	4						2	2		6	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	25.0	25.0						48.0	48.0		24.0	
Total Split (s)	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0						0.0	0.0		0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.0						57.0	57.0		57.0	
Actuated g/C Ratio		0.30						0.63	0.63		0.63	
v/c Ratio		0.44						0.71	0.08		0.74	
Control Delay		37.3						2.9	0.2		12.6	
Queue Delay		0.0						0.3	0.0		0.6	
Total Delay		37.3						3.2	0.2		13.1	
LOS		D						A	A		B	
Approach Delay		37.3						3.1			13.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D							A		B			
Queue Length 50th (ft)	128							14	0	210			
Queue Length 95th (ft)	m162							17	m0	237			
Internal Link Dist (ft)	372							413		65		274	
Turn Bay Length (ft)													
Base Capacity (vph)	1036							2024	609	2079			
Starvation Cap Reductn	0							160	0	214			
Spillback Cap Reductn	0							133	0	8			
Storage Cap Reductn	0							0	0	0			
Reduced v/c Ratio	0.44							0.77	0.08	0.82			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 79 (88%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 12.0      Intersection LOS: B  
 Intersection Capacity Utilization 64.0%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1807	0	0	1796	0	0	5040	0	0	0	0
Flt Permitted		0.654						0.997				
Satd. Flow (perm)	0	1218	0	0	1796	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	124	78	0	0	122	44	162	2230	92	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	213	0	0	174	0	0	2615	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	0.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		27.0			27.0			57.0				
Actuated g/C Ratio		0.30			0.30			0.63				
v/c Ratio		0.58			0.32			0.82				
Control Delay		34.4			28.8			4.3				
Queue Delay		0.0			0.0			0.5				
Total Delay		34.4			28.8			4.7				
LOS		C			C			A				
Approach Delay		34.4			28.8			4.7				





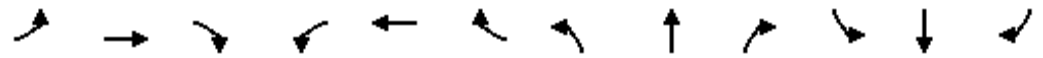
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		102			99			53				
Queue Length 95th (ft)		179			162			46				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		365			543			3196				
Starvation Cap Reductn		0			0			124				
Spillback Cap Reductn		0			0			201				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.58			0.32			0.87				

**Intersection Summary**

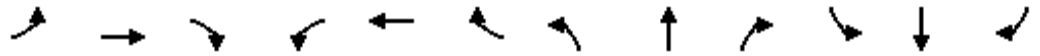
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	63 (70%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	8.2
Intersection LOS:	A
Intersection Capacity Utilization	78.5%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 701: Green St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1685	0	0	1703	0	0	1818	0	0	1840	0
Flt Permitted		0.974			0.893			0.917			0.963	
Satd. Flow (perm)	0	1645	0	0	1530	0	0	1679	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			8			14			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	18	369	81	65	401	32	23	126	21	34	399	29
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	571	0	0	586	0	0	289	0	0	525	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		30.0			30.0			24.0			24.0	
Actuated g/C Ratio		0.50			0.50			0.40			0.40	
v/c Ratio		0.68			0.76			0.42			0.73	
Control Delay		16.1			20.5			14.8			22.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.1			20.5			14.8			22.8	
LOS		B			C			B			C	
Approach Delay		16.1			20.5			14.8			22.8	



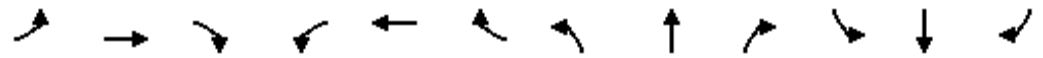
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		138			156			69			153	
Queue Length 95th (ft)		203			248			72			#251	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		835			769			680			716	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.68			0.76			0.42			0.73	

**Intersection Summary**

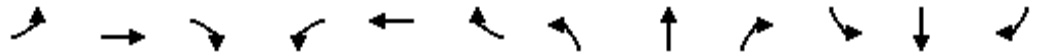
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	19.0
Intersection LOS:	B
Intersection Capacity Utilization:	85.9%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

**Splits and Phases: 702: Union St. & Gough St.**

<p>ø2</p> <p>27 s</p>	<p>ø4</p> <p>33 s</p>
<p>ø6</p> <p>27 s</p>	<p>ø8</p> <p>33 s</p>



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.914						0.996				
Satd. Flow (perm)	0	1580	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						5		12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	42	382	0	0	312	129	186	2110	102	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	446	0	0	328	136	0	2524	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		32.0			32.0	32.0		52.0				
Actuated g/C Ratio		0.36			0.36	0.36		0.58				
v/c Ratio		0.79			0.53	0.24		0.87				
Control Delay		38.4			35.4	29.0		8.0				
Queue Delay		1.6			0.0	0.0		1.0				
Total Delay		40.0			35.4	29.0		9.0				
LOS		D			D	C		A				
Approach Delay		40.0			33.6			9.0				



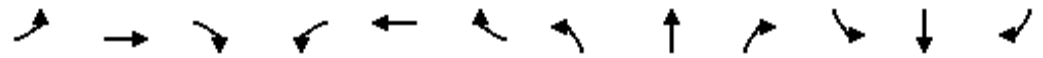
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A				
Queue Length 50th (ft)		225			167	63		157				
Queue Length 95th (ft)		#380			259	m116		47				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		562			615	566		2914				
Starvation Cap Reductn		0			0	0		172				
Spillback Cap Reductn		34			0	0		129				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.84			0.53	0.24		0.92				

**Intersection Summary**

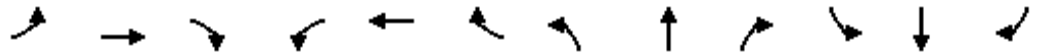
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 16.3                      Intersection LOS: B  
 Intersection Capacity Utilization 95.7%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 703: Union St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1831	0	0	5009	0	0	0	0
Flt Permitted		0.959						0.997				
Satd. Flow (perm)	0	1786	0	0	1831	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					8			31				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		505			460			341			351	
Travel Time (s)		13.8			12.5			9.3			9.6	
Volume (vph)	20	130	0	0	96	14	148	1953	180	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	158	0	0	116	0	0	2401	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	29.0	29.0	0.0	0.0	29.0	0.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	32.2%	0.0%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		26.0			26.0			58.0				
Actuated g/C Ratio		0.29			0.29			0.64				
v/c Ratio		0.31			0.22			0.74				
Control Delay		27.0			34.2			2.5				
Queue Delay		0.0			0.0			0.2				
Total Delay		27.0			34.2			2.8				
LOS		C			C			A				
Approach Delay		27.0			34.2			2.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		70			61			38				
Queue Length 95th (ft)		123			115			43				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		516			535			3239				
Starvation Cap Reductn		0			0			232				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.31			0.22			0.80				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	79 (88%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	5.6
Intersection LOS:	A
Intersection Capacity Utilization	66.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 705: Filbert St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5024	0	0	0	0
Flt Permitted		0.923						0.995				
Satd. Flow (perm)	0	1719	0	0	1790	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22			16				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	32	110	0	0	82	33	217	1674	96	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	150	0	0	121	0	0	2091	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	32.0	32.0	0.0	0.0	32.0	0.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	35.6%	0.0%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		29.0			29.0			55.0				
Actuated g/C Ratio		0.32			0.32			0.61				
v/c Ratio		0.27			0.20			0.68				
Control Delay		24.3			41.5			1.8				
Queue Delay		0.0			0.0			0.2				
Total Delay		24.3			41.5			1.9				
LOS		C			D			A				
Approach Delay		24.3			41.5			1.9				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			A				
Queue Length 50th (ft)		63			57			11				
Queue Length 95th (ft)		111			119			15				
Internal Link Dist (ft)		167			372			271		235		
Turn Bay Length (ft)												
Base Capacity (vph)		554			592			3076				
Starvation Cap Reductn		0			0			268				
Spillback Cap Reductn		0			1			229				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.27			0.20			0.74				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	1 (1%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	5.4
Intersection LOS:	A
Intersection Capacity Utilization	59.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 706: Greenwich St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1771	0	0	5050	0	0	0	0
Flt Permitted		0.946						0.999				
Satd. Flow (perm)	0	1762	0	0	1771	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			14				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	15	77	0	0	97	55	53	2414	94	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	97	0	0	160	0	0	2696	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	25.5	25.5	0.0	0.0	25.5	0.0	64.5	64.5	0.0	0.0	0.0	0.0
Total Split (%)	28.3%	28.3%	0.0%	0.0%	28.3%	0.0%	71.7%	71.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		22.5			22.5			61.5				
Actuated g/C Ratio		0.25			0.25			0.68				
v/c Ratio		0.22			0.36			0.78				
Control Delay		28.4			18.8			2.2				
Queue Delay		0.0			0.0			0.6				
Total Delay		28.4			18.8			2.8				
LOS		C			B			A				
Approach Delay		28.4			18.8			2.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		44			87			56				
Queue Length 95th (ft)		85			m146			55				
Internal Link Dist (ft)		423			355			282			257	
Turn Bay Length (ft)												
Base Capacity (vph)		441			447			3455				
Starvation Cap Reductn		0			0			360				
Spillback Cap Reductn		0			0			131				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.22			0.36			0.87				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	49 (54%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	4.6
Intersection LOS:	A
Intersection Capacity Utilization	73.1%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 901: Vallejo St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3301	0	0	3014	0	0	2969	1287
Flt Permitted				0.990								
Satd. Flow (perm)	0	0	0	0	3146	0	0	3014	0	0	2969	1116
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12							62
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	90	325	43	0	1341	0	0	1380	55
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	492	0	0	1412	0	0	1568	62
Turn Type				Perm								Perm
Protected Phases					8			2			6	
Permitted Phases				8								6
Detector Phases				8	8			2			6	6
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				30.0	30.0			50.0			50.0	50.0
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	60.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	66.7%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				1.0	1.0			0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					27.0			57.0			57.0	57.0
Actuated g/C Ratio					0.30			0.63			0.63	0.63
v/c Ratio					0.52			0.74			0.83	0.08
Control Delay					27.7			5.4			12.1	2.3
Queue Delay					0.0			0.2			0.3	0.0
Total Delay					27.7			5.6			12.3	2.3
LOS					C			A			B	A
Approach Delay					27.7			5.6			12.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					118			8			160	1
Queue Length 95th (ft)					167			10			m187	m3
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												
Base Capacity (vph)					952			1909			1880	730
Starvation Cap Reductn					0			77			47	0
Spillback Cap Reductn					0			70			0	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.52			0.77			0.86	0.08

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 1 (1%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 11.6      Intersection LOS: B  
 Intersection Capacity Utilization 64.0%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 902: Jackson St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1625	0	0	1677	0	0	3064	1354	0	2906	1327
Flt Permitted		0.983			0.856							
Satd. Flow (perm)	0	1600	0	0	1427	0	0	3064	1003	0	2906	983
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			9				51			11
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	9	213	79	54	218	54	0	1284	100	0	1302	22
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	359	0	0	518	0	0	1338	104	0	1400	24
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4					2			6
Detector Phases	4	4		4	4			2	2		6	6
Minimum Initial (s)	2.0	2.0		2.0	2.0			13.0	13.0		13.0	13.0
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0	50.0		48.5	48.5
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	51.0	0.0	51.0	51.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		36.0			36.0			48.0	48.0		48.0	48.0
Actuated g/C Ratio		0.40			0.40			0.53	0.53		0.53	0.53
v/c Ratio		0.56			0.90			0.82	0.19		0.90	0.05
Control Delay		28.8			46.2			6.3	0.6		27.8	10.0
Queue Delay		0.0			0.0			1.5	0.0		0.0	0.0
Total Delay		28.8			46.2			7.8	0.6		27.8	10.0
LOS		C			D			A	A		C	A
Approach Delay		28.8			46.2			7.3			27.5	

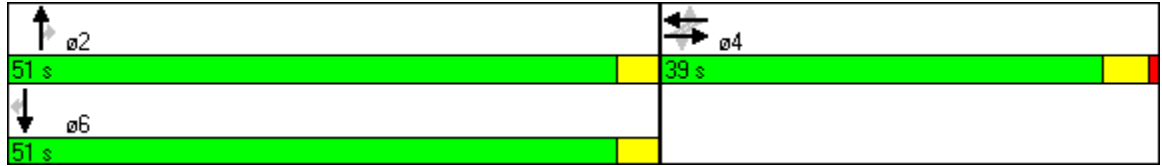


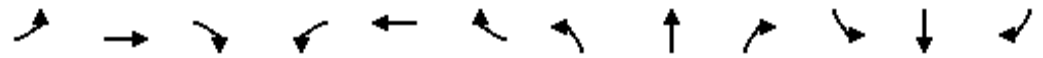
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			A			C	
Queue Length 50th (ft)		172			266			15	0		254	4
Queue Length 95th (ft)		m222			233			18	m0		#516	m5
Internal Link Dist (ft)		119			413			253			253	
Turn Bay Length (ft)									75			75
Base Capacity (vph)		644			576			1634	559		1550	529
Starvation Cap Reductn		0			0			79	0		0	0
Spillback Cap Reductn		0			0			145	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.56			0.90			0.90	0.19		0.90	0.05

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 13 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 22.4                      Intersection LOS: C  
 Intersection Capacity Utilization 83.1%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

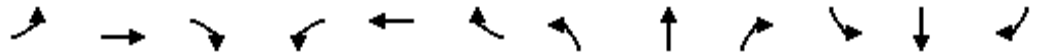
**Splits and Phases: 903: Pacific Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑	↑	↑	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		1	0		1	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50	50	50	50	50
Trailing Detector (ft)		0			0	0		0	0	0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	3014	1306	1627	2969	1287
Flt Permitted										0.098		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	3014	1221	167	2969	1204
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19				254			80			6
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	544	82	0	871	300	0	1179	168	246	1242	48
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	695	0	0	979	337	0	1241	177	265	1335	52
Turn Type						Perm			Perm	pm+pt		Perm
Protected Phases		4			8			2		1		6
Permitted Phases						8			2	6		6
Detector Phases		4			8	8		2	2	1		6
Minimum Initial (s)		4.0			4.0	4.0		4.0	4.0	2.0		4.0
Minimum Split (s)		30.5			31.0	31.0		42.5	42.5	11.0		50.0
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	44.0	44.0	15.0	59.0	59.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	48.9%	48.9%	16.7%	65.6%	65.6%
Yellow Time (s)		3.5			3.5	3.5		3.5	3.5	3.5		3.5
All-Red Time (s)		1.0			1.0	1.0		0.0	0.0	0.0		0.0
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max	Max	Max	Max	Max
Act Effct Green (s)		28.0			28.0	28.0		41.0	41.0	56.0	56.0	56.0
Actuated g/C Ratio		0.31			0.31	0.31		0.46	0.46	0.62	0.62	0.62
v/c Ratio		0.64			0.89	0.54		0.90	0.29	0.89	0.72	0.07
Control Delay		39.5			41.1	10.6		15.0	1.8	45.0	7.8	4.5
Queue Delay		0.0			0.0	0.0		2.8	0.0	0.0	0.5	0.0
Total Delay		39.5			41.1	10.6		17.8	1.8	45.0	8.3	4.5
LOS		D			D	B		B	A	D	A	A
Approach Delay		39.5			33.3			15.8			14.1	



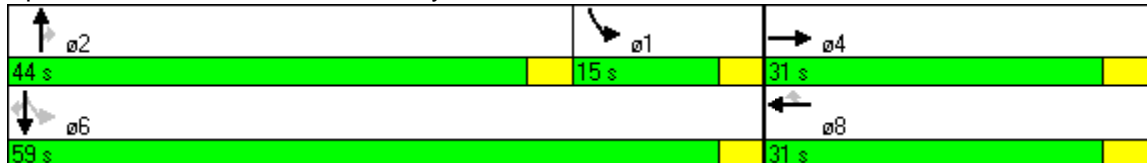


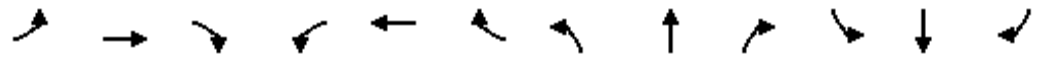
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Approach LOS	D			C			B			B				
Queue Length 50th (ft)	200			277			34	48			0	83	99	5
Queue Length 95th (ft)	m243			#384			110	m#461			m0	m#173	103	m7
Internal Link Dist (ft)	375			167			253			278				
Turn Bay Length (ft)							75			75				
Base Capacity (vph)	1085			1101			620	1373			600	299	1847	751
Starvation Cap Reductn	0			0			0	68			0	0	169	0
Spillback Cap Reductn	1			0			0	0			0	0	165	0
Storage Cap Reductn	0			0			0	0			0	0	0	0
Reduced v/c Ratio	0.64			0.89			0.54	0.95			0.29	0.89	0.80	0.07

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 23.0 Intersection LOS: C  
 Intersection Capacity Utilization 80.3% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 904: Broadway & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1681	0	0	1795	0	0	3064	1354	0	3014	1306
Flt Permitted		0.986			0.799							
Satd. Flow (perm)	0	1657	0	0	1420	0	0	3064	1044	0	3014	1008
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5				30			15
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	101	63	73	125	16	0	1425	54	0	1400	27
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	201	0	0	297	0	0	1454	55	0	1474	28
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0	50.0		50.0	50.0
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	0.0	58.0	58.0	0.0	58.0	58.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	64.4%	64.4%	0.0%	64.4%	64.4%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		29.0			29.0			55.0	55.0		55.0	55.0
Actuated g/C Ratio		0.32			0.32			0.61	0.61		0.61	0.61
v/c Ratio		0.37			0.64			0.78	0.08		0.80	0.05
Control Delay		28.2			33.3			4.1	0.6		11.1	3.8
Queue Delay		0.0			0.0			0.3	0.0		0.0	0.0
Total Delay		28.2			33.3			4.5	0.6		11.1	3.8
LOS		C			C			A	A		B	A
Approach Delay		28.2			33.3			4.3			10.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		87			141			51	1		130	1
Queue Length 95th (ft)		m132			170			m72	m1		131	m2
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)									75			75
Base Capacity (vph)		542			461			1872	650		1842	622
Starvation Cap Reductn		0			0			93	0		1	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.37			0.64			0.82	0.08		0.80	0.05

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 21 (23%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 11.0      Intersection LOS: B  
 Intersection Capacity Utilization 76.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 907: Vallejo St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1642	0	0	1784	0	0	3014	1306	0	3031	1322
Flt Permitted		0.995			0.950							
Satd. Flow (perm)	0	1633	0	0	1690	0	0	3014	1033	0	3031	1046
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			10				20			17
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	3	88	79	23	136	26	0	1413	35	0	1325	29
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	211	0	0	220	0	0	1427	35	0	1338	29
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0	50.0		50.0	50.0
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	0.0	59.0	59.0	0.0	59.0	59.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	0.0%	65.6%	65.6%	0.0%	65.6%	65.6%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		28.0			28.0			56.0	56.0		56.0	56.0
Actuated g/C Ratio		0.31			0.31			0.62	0.62		0.62	0.62
v/c Ratio		0.40			0.41			0.76	0.05		0.71	0.04
Control Delay		24.0			26.2			6.2	2.6		3.0	0.3
Queue Delay		0.0			0.0			0.1	0.0		0.1	0.0
Total Delay		24.0			26.2			6.3	2.6		3.1	0.3
LOS		C			C			A	A		A	A
Approach Delay		24.0			26.2			6.2			3.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		84			93			51	1		39	0
Queue Length 95th (ft)		m124			145			108	m2		m45	m0
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)									75			75
Base Capacity (vph)		522			533			1875	650		1886	657
Starvation Cap Reductn		0			0			23	0		63	0
Spillback Cap Reductn		0			0			6	0		1	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.40			0.41			0.77	0.05		0.73	0.04

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 7.4                      Intersection LOS: A  
 Intersection Capacity Utilization 68.8%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 908: Green St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕		↗	↕↕	↗		↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	1		0	0		0	1		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50	50		50	50
Trailing Detector (ft)	0	0		0	0		0	0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1635	0	0	3385	0	1652	2966	1354	0	3014	1263
Flt Permitted		0.987			0.667		0.127					
Satd. Flow (perm)	0	1612	0	0	2263	0	219	2966	1227	0	3014	1190
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			17				44			44
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	12	404	68	63	242	40	115	1252	74	0	1223	84
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	543	0	0	426	0	116	1265	75	0	1248	86
Turn Type	Perm			Perm			pm+pt		Perm			Perm
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2		2			6
Detector Phases	4	4		4	4		5	2	2		6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0	4.0		4.0	4.0
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	54.5	54.5		50.0	50.0
Total Split (s)	33.9	33.9	0.0	33.9	33.9	0.0	6.0	56.1	56.1	0.0	50.1	50.1
Total Split (%)	37.7%	37.7%	0.0%	37.7%	37.7%	0.0%	6.7%	62.3%	62.3%	0.0%	55.7%	55.7%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0	0.0		0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max	Max		Max	Max
Act Effct Green (s)		30.9			30.9		53.1	53.1	53.1		47.1	47.1
Actuated g/C Ratio		0.34			0.34		0.59	0.59	0.59		0.52	0.52
v/c Ratio		0.97			0.54		0.66	0.72	0.10		0.79	0.13
Control Delay		51.5			25.9		26.6	10.4	4.2		20.3	10.0
Queue Delay		0.0			0.0		0.0	0.3	0.0		0.3	0.0
Total Delay		51.5			25.9		26.6	10.7	4.2		20.6	10.0
LOS		D			C		C	B	A		C	B
Approach Delay		51.5			25.9			11.6			19.9	

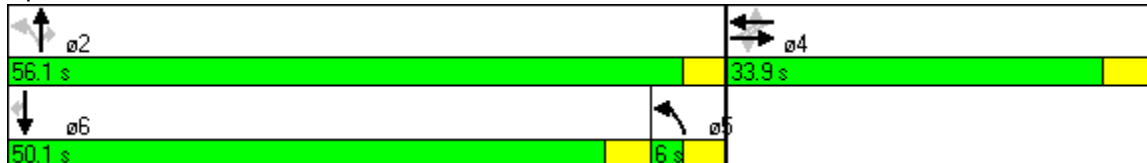


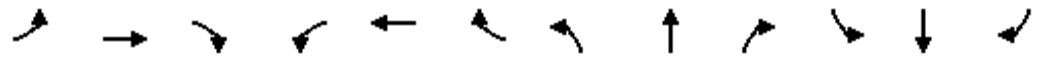
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D			C			B			B			
Queue Length 50th (ft)	321			97			20	117	5	188			8
Queue Length 95th (ft)	m#482			125			m23	116	m5	264			m24
Internal Link Dist (ft)	369			662			242			259			
Turn Bay Length (ft)							75			75			
Base Capacity (vph)	560			788			177	1750	742	1577			644
Starvation Cap Reductn	0			0			0	121	0	51			0
Spillback Cap Reductn	0			0			0	34	0	0			0
Storage Cap Reductn	0			0			0	0	0	0			0
Reduced v/c Ratio	0.97			0.54			0.66	0.78	0.10	0.82			0.13

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 21.9 Intersection LOS: C  
 Intersection Capacity Utilization 95.1% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 909: Union St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↗		↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		75	0		75
Storage Lanes	0		0	0		0	0		1	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	50
Trailing Detector (ft)	0	0		0	0			0	0		0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1734	0	0	1791	0	0	3014	1306	0	3031	1322
Flt Permitted		0.994			0.810							
Satd. Flow (perm)	0	1722	0	0	1451	0	0	3014	1014	0	3031	1027
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			7				12			11
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	215	88	43	92	15	0	1283	21	0	1176	18
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	373	0	0	179	0	0	1336	22	0	1188	18
Turn Type	Perm			Perm					Perm			Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			2
Detector Phases	4	4		4	4			2	2		2	2
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0	6.0		6.0	6.0
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0	18.0		18.0	18.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	0.0	55.0	55.0	0.0	55.0	55.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	61.1%	61.1%	0.0%	61.1%	61.1%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0	0.0		0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	Max
Act Effct Green (s)		32.0			32.0			52.0	52.0		52.0	52.0
Actuated g/C Ratio		0.36			0.36			0.58	0.58		0.58	0.58
v/c Ratio		0.60			0.34			0.77	0.04		0.68	0.03
Control Delay		28.5			22.8			5.8	0.3		2.6	0.1
Queue Delay		1.0			0.3			0.1	0.0		0.1	0.0
Total Delay		29.4			23.0			5.9	0.3		2.7	0.1
LOS		C			C			A	A		A	A
Approach Delay		29.4			23.0			5.8			2.7	





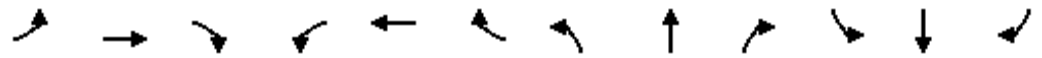
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		165			71			35	0		16	0
Queue Length 95th (ft)		232			115			m38	m0		23	m0
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)									75			75
Base Capacity (vph)		626			520			1741	591		1751	598
Starvation Cap Reductn		0			0			20	0		62	0
Spillback Cap Reductn		87			73			0	0		64	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.69			0.40			0.78	0.04		0.70	0.03

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 29 (32%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 8.4                      Intersection LOS: A  
 Intersection Capacity Utilization 73.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

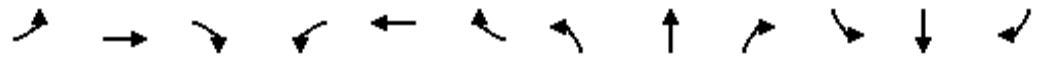
**Splits and Phases: 910: Filbert St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑↑↑			↑↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		50
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	50
Trailing Detector (ft)	0	0		0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1771	0	0	1819	0	0	4513	0	0	3056	1346
Flt Permitted		0.993			0.977							
Satd. Flow (perm)	0	1756	0	0	1777	0	0	4513	0	0	3056	1042
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			2				10
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	6	159	41	8	95	9	0	1295	10	0	1145	20
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	267	0	0	125	0	0	1450	0	0	1231	22
Turn Type	Perm			Perm								Perm
Protected Phases		4			4			2			2	
Permitted Phases	4			4								2
Detector Phases	4	4		4	4			2			2	2
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	10.0
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	50.0
Total Split (s)	35.5	35.5	0.0	35.5	35.5	0.0	0.0	54.5	0.0	0.0	54.5	54.5
Total Split (%)	39.4%	39.4%	0.0%	39.4%	39.4%	0.0%	0.0%	60.6%	0.0%	0.0%	60.6%	60.6%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	Max
Act Effct Green (s)		32.5			32.5			51.5			51.5	51.5
Actuated g/C Ratio		0.36			0.36			0.57			0.57	0.57
v/c Ratio		0.41			0.19			0.56			0.70	0.04
Control Delay		21.7			20.0			8.8			22.7	8.6
Queue Delay		0.0			0.0			0.2			0.5	0.0
Total Delay		21.7			20.0			9.0			23.2	8.6
LOS		C			B			A			C	A
Approach Delay		21.7			20.0			9.0			22.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4842	0	0	4881	0	0	1763	0	0	1759	0
Flt Permitted								0.807			0.985	
Satd. Flow (perm)	0	4842	0	0	4881	0	0	1442	0	0	1736	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			6			4			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1210	98	0	2178	42	39	103	9	12	228	44
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1422	0	0	2288	0	0	213	0	0	330	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.48			0.77			0.46			0.59	
Control Delay		10.1			11.8			27.6			30.0	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		10.1			11.9			27.6			30.0	
LOS		B			B			C			C	
Approach Delay		10.1			11.9			27.6			30.0	

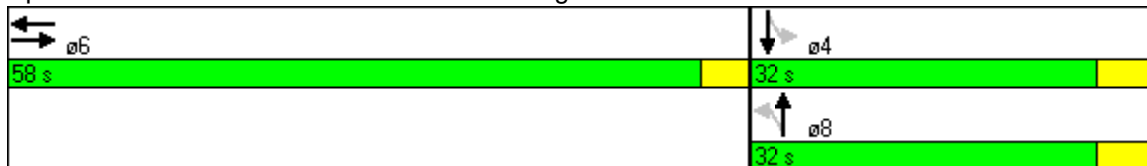


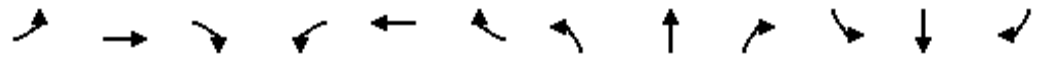
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		145			245			94			152	
Queue Length 95th (ft)		178			310			119			225	
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2970			2985			467			564	
Starvation Cap Reductn		0			76			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.48			0.79			0.46			0.59	

**Intersection Summary**

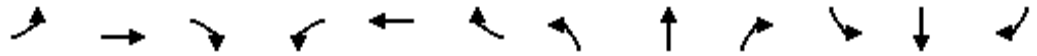
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	58 (64%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization	72.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5060	0	1610	3309	0	0	0	1611
Flt Permitted		0.929					0.950	0.982				
Satd. Flow (perm)	0	4724	0	0	5060	0	1610	3309	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				30
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1229	0	0	1165	36	1001	691	47	0	0	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1448	0	0	1292	0	647	1352	0	0	0	72
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	43.0	43.0	0.0	0.0	30.0	0.0	47.0	47.0	0.0	0.0	0.0	13.0
Total Split (%)	47.8%	47.8%	0.0%	0.0%	33.3%	0.0%	52.2%	52.2%	0.0%	0.0%	0.0%	14.4%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		41.1			27.0		42.9	42.9				11.1
Actuated g/C Ratio		0.46			0.30		0.48	0.48				0.12
v/c Ratio		0.67			0.85		0.84	0.86				0.32
Control Delay		13.4			17.2		18.9	14.3				28.4
Queue Delay		0.0			0.0		1.0	0.7				0.0
Total Delay		13.4			17.2		19.9	15.0				28.4
LOS		B			B		B	B				C
Approach Delay		13.4			17.2			16.6				

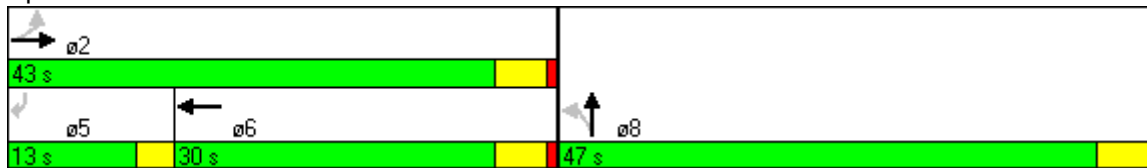


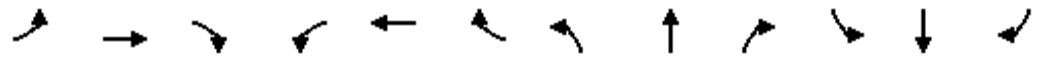
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B				
Queue Length 50th (ft)		101			113		182	195				22
Queue Length 95th (ft)		110			171		#379	285				49
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												
Base Capacity (vph)		2158			1522		787	1621				225
Starvation Cap Reductn		0			0		33	77				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.67			0.85		0.86	0.88				0.32

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2:EBTL and 5:SBR, Start of Green  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 16.0 Intersection LOS: B  
 Intersection Capacity Utilization 70.6% ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 923: Lombard St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↖	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1779	2601	0	1779	0	4658	1437	0	0	3539	1346
Flt Permitted		0.846					0.950					
Satd. Flow (perm)	0	1458	2601	0	1779	0	3546	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18		8			17				103
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	127	407	742	0	109	15	963	298	49	0	423	129
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	562	781	0	142	0	1024	369	0	0	470	143
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.24	0.47		0.25		0.76	0.41			0.44	0.40
Control Delay		140.0	1.1		23.4		15.1	1.4			27.0	12.2
Queue Delay		0.0	0.2		0.0		0.5	0.1			0.9	0.0
Total Delay		140.0	1.3		23.4		15.7	1.5			27.9	12.2
LOS		F	A		C		B	A			C	B
Approach Delay		59.3			23.4			11.9			24.3	



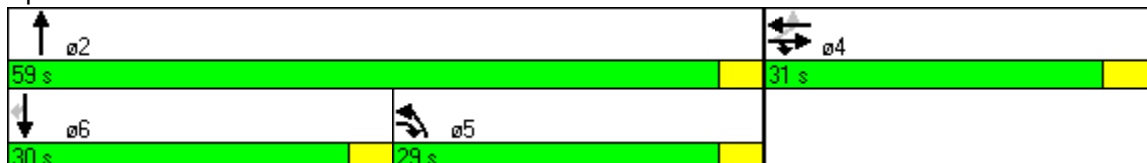


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E			C			B			C		
Queue Length 50th (ft)	~412		5	56		131		2	113		17	
Queue Length 95th (ft)	m#616		m5	99		204		3	158		66	
Internal Link Dist (ft)	390			403			246			91		
Turn Bay Length (ft)							300					
Base Capacity (vph)	454		1654	559		1346	901		1062		362	
Starvation Cap Reductn	0		0	0		84	88		0		0	
Spillback Cap Reductn	0		250	0		0	0		326		0	
Storage Cap Reductn	0		0	0		0	0		0		0	
Reduced v/c Ratio	1.24		0.56	0.25		0.81	0.45		0.64		0.40	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 31 (34%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.24  
 Intersection Signal Delay: 32.8      Intersection LOS: C  
 Intersection Capacity Utilization 104.3%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**



	↑	↗	↓	↙	↘	↗	↘	↙	↘	↙	↗
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Lane Configurations	↑↑	↗	↑↑	↗	↘	↗↗	↑↗		↘	↗↗↗	
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12
Grade (%)	0%		0%		0%		0%				
Storage Length (ft)		75				0		0	0	0	
Storage Lanes		1				3		0	1	3	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50	50		50	50	
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	
Turning Speed (mph)		9		9	15	15		9	15	9	9
Satd. Flow (prot)	3353	1478	3241	1330	1770	3036	2756	0	1652	3610	0
Flt Permitted					0.950	0.950			0.950		
Satd. Flow (perm)	3353	1001	3241	937	1770	3036	2756	0	1652	3610	0
Right Turn on Red		Yes		Yes	No			Yes			Yes
Satd. Flow (RTOR)		38		94			9			8	
Link Speed (mph)	25		25				25				
Link Distance (ft)	258		442				1192				
Travel Time (s)	7.0		12.1				32.5				
Volume (vph)	611	68	1109	111	208	964	481	48	143	775	164
Confl. Peds. (#/hr)		327		247				167			140
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)				12			16	16			
Mid-Block Traffic (%)	0%		0%				0%				
Lane Group Flow (vph)	643	72	1167	117	219	1015	557	0	151	989	0
Turn Type		Perm		Perm	Prot	Prot			Prot	custom	
Protected Phases	2		6		7	7	4		8	8	
Permitted Phases		2		6							
Detector Phases	2	2	6	6	7	7	4		8	8	
Minimum Initial (s)	1.0	1.0	2.0	2.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	42.0	42.0	42.0	42.0	40.0	40.0	40.0		37.0	37.0	
Total Split (s)	43.0	43.0	43.0	43.0	40.0	40.0	40.0	0.0	37.0	37.0	0.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	33.3%	33.3%	33.3%	0.0%	30.8%	30.8%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	3.8	3.8	3.8	3.8	3.3	3.3	3.3		3.3	3.3	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max	Max	Max	Max	Max	Max	Max		Max	Max	
Act Effct Green (s)	40.0	40.0	40.0	40.0	37.0	37.0	37.0		34.0	34.0	
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.31	0.31	0.31		0.28	0.28	
v/c Ratio	0.58	0.20	1.08	0.31	0.40	1.08	0.65		0.32	0.96	
Control Delay	35.5	16.9	90.3	11.0	35.5	94.7	39.6		36.3	62.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	35.5	16.9	90.3	11.0	35.5	94.7	39.6		36.3	62.4	
LOS	D	B	F	B	D	F	D		D	E	
Approach Delay	33.6		83.1				70.3				

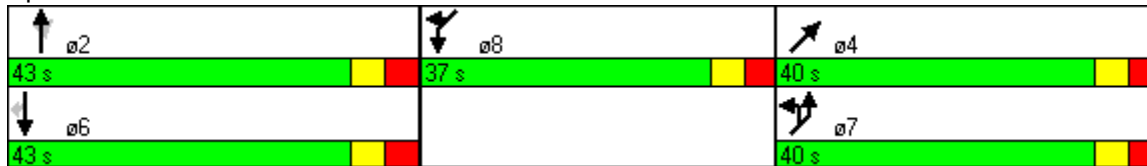


Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2
Approach LOS	C		F				E				
Queue Length 50th (ft)	215	18	~531	12	134	~454	193		92	328	
Queue Length 95th (ft)	276	54	#668	59	207	#585	256		153	#445	
Internal Link Dist (ft)	178		362				1112				
Turn Bay Length (ft)		75									
Base Capacity (vph)	1118	359	1080	375	546	936	856		468	1029	
Starvation Cap Reductn	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.58	0.20	1.08	0.31	0.40	1.08	0.65		0.32	0.96	

**Intersection Summary**

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	130
Control Type:	Pretimed
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	65.7
Intersection LOS:	E
Intersection Capacity Utilization	94.9%
ICU Level of Service	F
Analysis Period (min)	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases:** 1237: Otis St. & Mission St.





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1726	0	0	1611	3433	1750	0	3267	0	0
Flt Permitted		0.956				0.950					
Satd. Flow (perm)	0	1726	0	0	1275	3433	1750	0	3267	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			156		6		7		
Link Speed (mph)		25					25		25		
Link Distance (ft)		489					591		244		
Travel Time (s)		13.3					16.1		6.7		
Volume (vph)	40	75	2	7	13	1554	522	47	707	36	44
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	130	0	0	14	1636	598	0	828	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	38.0	46.0	37.5	0.0	29.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	42.2%	51.1%	41.7%	0.0%	32.8%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			35.0	43.0	34.5		26.5		
Actuated g/C Ratio		0.13			0.39	0.48	0.38		0.29		
v/c Ratio		0.58			0.02	1.00	0.89		0.86		
Control Delay		44.3			0.1	26.7	47.9		47.4		
Queue Delay		1.3			0.0	6.1	0.0		0.0		
Total Delay		45.6			0.1	32.7	47.9		47.4		
LOS		D			A	C	D		D		
Approach Delay		45.6					36.8		47.4		



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS		D					D		D		
Queue Length 50th (ft)		76				0	502	367	233		
Queue Length 95th (ft)		m96				0 m#574	m392		m#271		
Internal Link Dist (ft)		409					511		164		
Turn Bay Length (ft)											
Base Capacity (vph)		223				591	1640	675	967		
Starvation Cap Reductn		0				0	36	0	0		
Spillback Cap Reductn		20				3	0	0	0		
Storage Cap Reductn		0				0	0	0	0		
Reduced v/c Ratio		0.64				0.02	1.02	0.89	0.86		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 59 (66%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 39.7      Intersection LOS: D  
 Intersection Capacity Utilization 107.2%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**

ø3	ø4	ø10
38 s	37.5 s	14.5 s
ø7	ø8	
46 s	29.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		404			489			352			353	
Travel Time (s)		11.0			13.3			9.6			9.6	
Volume (vph)	0	39	0	0	36	0	0	0	0	85	1957	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	41	0	0	38	0	0	0	0	0	2290	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	36.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		33.0			33.0							51.0
Actuated g/C Ratio		0.37			0.37							0.57
v/c Ratio		0.06			0.06							0.64
Control Delay		18.9			0.2							3.6
Queue Delay		0.0			0.0							0.7
Total Delay		18.9			0.2							4.3
LOS		B			A							A
Approach Delay		18.9			0.2							4.3

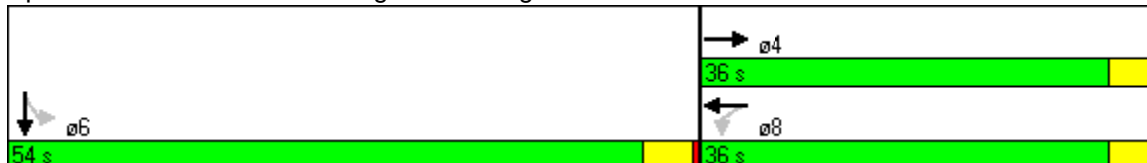


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A							A
Queue Length 50th (ft)		15			0							50
Queue Length 95th (ft)		36			m0							m51
Internal Link Dist (ft)		324			409			272				273
Turn Bay Length (ft)												
Base Capacity (vph)		683			683							3602
Starvation Cap Reductn		0			0							861
Spillback Cap Reductn		0			0							176
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.06			0.06							0.84

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 4.5                      Intersection LOS: A  
 Intersection Capacity Utilization 41.9%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1351: Page St & Gough St.**





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NET	NET	SWT	SWR
Lane Configurations		↔↔	↔↔			↔	↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%		
Storage Length (ft)		0	0					0		0
Storage Lanes		0	2					0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50		
Trailing Detector (ft)	0	0	0		0	0		0		
Turning Speed (mph)	15	15	9	9	9			9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4976		0	3268	0
Flt Permitted		0.950								
Satd. Flow (perm)	0	2092	2787	0	1257	4976		0	3268	0
Right Turn on Red				Yes	Yes			Yes		
Satd. Flow (RTOR)			13			11				
Link Speed (mph)		25				25		25		
Link Distance (ft)		352				649		591		
Travel Time (s)		9.6				17.7		16.1		
Volume (vph)	27	873	972	85	133	1963	96	639	75	
Confl. Peds. (#/hr)	150				150		300		300	
Confl. Bikes (#/hr)					160				160	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Mid-Block Traffic (%)		0%				0%		0%		
Lane Group Flow (vph)	0	947	1112	0	140	2167	0	752	0	
Turn Type	Perm		Perm		custom					
Protected Phases		6				4		8		
Permitted Phases	6		6		2					
Detector Phases	6	6	6		2	4		8		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0		
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0		
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0	
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5		
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0		
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	Max	Max	Max		Max	Max		Max		
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0		
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46		
v/c Ratio		0.95	0.83		0.23	0.95		0.51		
Control Delay		24.1	10.0		4.8	34.9		2.9		
Queue Delay		7.7	0.0		0.0	4.3		0.0		
Total Delay		31.7	10.0		4.8	39.3		2.9		
LOS		C	A		A	D		A		
Approach Delay		20.0				39.3		2.9		







Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	61	21	31	99	20	6	130	9	22	518	23
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	6	70	24	33	104	21	8	176	12	24	569	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	100	158	196	619
Volume Left (vph)	6	33	8	24
Volume Right (vph)	24	21	12	25
Hadj (s)	-0.10	0.00	0.01	0.02
Departure Headway (s)	6.3	6.3	5.7	5.1
Degree Utilization, x	0.18	0.28	0.31	0.87
Capacity (veh/h)	524	533	599	699
Control Delay (s)	10.7	11.6	11.2	32.5
Approach Delay (s)	10.7	11.6	11.2	32.5
Approach LOS	B	B	B	D

Intersection Summary			
Delay		23.5	
HCM Level of Service		C	
Intersection Capacity Utilization	58.3%		ICU Level of Service
Analysis Period (min)		15	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	176	46	38	227	19	14	136	5	21	479	45
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	17	200	52	49	295	25	18	179	7	24	544	51

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	269	369	204	619
Volume Left (vph)	17	49	18	24
Volume Right (vph)	52	25	7	51
Hadj (s)	-0.07	0.02	0.03	-0.01
Departure Headway (s)	7.6	7.4	7.9	7.0
Degree Utilization, x	0.57	0.75	0.45	1.20
Capacity (veh/h)	445	468	418	509
Control Delay (s)	20.2	29.6	17.1	131.0
Approach Delay (s)	20.2	29.6	17.1	131.0
Approach LOS	C	D	C	F

Intersection Summary			
Delay	69.1		
HCM Level of Service	F		
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	45	15	106	38	23	916
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	54	18	134	48	24	964
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.65	0.96			0.96	
vC, conflicting volume	1171	158			182	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1171	123			148	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	60	98			98	
cM capacity (veh/h)	135	891			1376	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	54	18	182	988
Volume Left	54	0	0	24
Volume Right	0	18	48	0
cSH	135	891	1700	1376
Volume to Capacity	0.40	0.02	0.11	0.02
Queue Length 95th (ft)	42	2	0	1
Control Delay (s)	48.3	9.1	0.0	0.5
Lane LOS	E	A		A
Approach Delay (s)	38.5		0.0	0.5
Approach LOS	E			

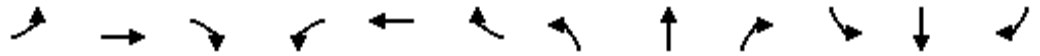
Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization		70.7%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	111	50	17	273	9	23	127	8	23	278	25
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	17	129	58	18	297	10	29	163	10	28	339	30

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	205	325	203	398
Volume Left (vph)	17	18	29	28
Volume Right (vph)	58	10	10	30
Hadj (s)	-0.12	0.03	0.03	0.00
Departure Headway (s)	6.5	6.3	6.6	6.1
Degree Utilization, x	0.37	0.57	0.37	0.67
Capacity (veh/h)	480	527	480	559
Control Delay (s)	13.2	17.4	13.4	20.8
Approach Delay (s)	13.2	17.4	13.4	20.8
Approach LOS	B	C	B	C

Intersection Summary			
Delay		17.1	
HCM Level of Service		C	
Intersection Capacity Utilization	45.6%		ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	107	117	75	152	17	23	133	20	23	270	52
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	10	135	148	107	217	24	30	175	26	26	300	58

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	294	349	232	383
Volume Left (vph)	10	107	30	26
Volume Right (vph)	148	24	26	58
Hadj (s)	-0.26	0.05	-0.01	-0.04
Departure Headway (s)	6.8	6.9	7.3	6.8
Degree Utilization, x	0.56	0.67	0.47	0.72
Capacity (veh/h)	474	481	430	497
Control Delay (s)	18.0	23.0	16.4	25.4
Approach Delay (s)	18.0	23.0	16.4	25.4
Approach LOS	C	C	C	D

Intersection Summary			
Delay		21.4	
HCM Level of Service		C	
Intersection Capacity Utilization	57.9%		ICU Level of Service B
Analysis Period (min)		15	

# 2035 BUILD ALTERNATIVE 3&4 CENTER LANE BRT





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.397								0.950		
Satd. Flow (perm)	740	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			84				12		237	38	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	9	0	109	0	0	0	900	73	732	236	124
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	9	0	115	0	0	0	1024	0	771	379	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	42.8	0.0	42.8	0.0	0.0	0.0	47.2	0.0	42.8	42.8	0.0
Total Split (%)	47.6%	0.0%	47.6%	0.0%	0.0%	0.0%	52.4%	0.0%	47.6%	47.6%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	39.8		39.8				44.2		39.8	39.8	
Actuated g/C Ratio	0.44		0.44				0.49		0.44	0.44	
v/c Ratio	0.03		0.15				0.74		0.33	0.61	
Control Delay	14.7		6.0				3.8		11.4	22.1	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	14.7		6.0				3.8		11.4	22.1	
LOS	B		A				A		B	C	
Approach Delay									15.0		







Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%			0%			0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.929					0.950		
Satd. Flow (perm)	4995	0	0	4724	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				355		20		12		1
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	632	43	13	1425	973	678	244	94	936	524	187
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	710	0	0	1514	1024	714	257	0	1084	552	197
Turn Type			Perm			Perm	custom	custom	custom	custom	Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.45			1.03	1.74	0.67	0.71		1.07	0.27	0.33
Control Delay	25.6			63.2	356.8	31.4	38.4		72.1	3.8	5.0
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	25.6			63.2	356.8	31.4	38.4		72.1	3.8	5.0
LOS	C			E	F	C	D		E	A	A
Approach Delay	25.6			181.7						44.3	

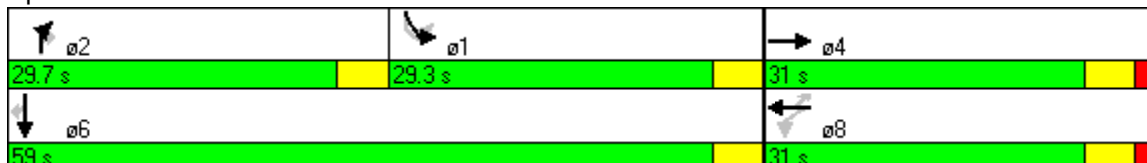


Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR	
Approach LOS	C			F						D		
Queue Length 50th (ft)	115			~341	~731	155	120		~357	30	20	
Queue Length 95th (ft)	151			#434	#971	207	#232		#459	38	m30	
Internal Link Dist (ft)	246			307						534		
Turn Bay Length (ft)											50	
Base Capacity (vph)	1562			1470	590	1071	363		1012	2026	590	
Starvation Cap Reductn	0			0	0	0	0		0	0	0	
Spillback Cap Reductn	0			0	0	0	0		0	0	0	
Storage Cap Reductn	0			0	0	0	0		0	0	0	
Reduced v/c Ratio	0.45			1.03	1.74	0.67	0.71		1.07	0.27	0.33	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 1:SBL and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.74  
 Intersection Signal Delay: 97.9                      Intersection LOS: F  
 Intersection Capacity Utilization 123.1%                      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 18: Duboce St. &**





Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑		↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		65	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3353	1243	0	3353	1583	0	1611	0	0	1628	0
Flt Permitted												
Satd. Flow (perm)	0	3353	817	0	3353	748	0	1611	0	0	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			1		1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1608	133	0	1183	193	0	527	39	0	594	31
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			23									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1624	134	0	1300	212	0	636	0	0	687	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	47.8%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		1.09	0.36		0.87	0.64		0.81			0.86	
Control Delay		77.9	19.0		41.1	39.4		42.4			15.4	
Queue Delay		0.0	0.0		1.1	0.0		0.0			0.0	
Total Delay		77.9	19.0		42.3	39.4		42.4			15.4	
LOS		E	B		D	D		D			B	
Approach Delay		73.4			41.9			42.4			15.4	















Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS	E			D			D			B		
Queue Length 50th (ft)	~552	45		375	105		391			36		
Queue Length 95th (ft)	#687	93		#460	m132		m448			#542		
Internal Link Dist (ft)	306			37			263			106		
Turn Bay Length (ft)		65			115							
Base Capacity (vph)	1490	368		1490	333		788			796		
Starvation Cap Reductn	0	0		61	0		0			0		
Spillback Cap Reductn	0	0		0	0		0			0		
Storage Cap Reductn	0	0		0	0		0			0		
Reduced v/c Ratio	1.09	0.36		0.91	0.64		0.81			0.86		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 75 (83%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 50.0 Intersection LOS: D  
 Intersection Capacity Utilization 87.3% ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.



						
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					2	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	843	0	936	634	123	625
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	887	0	985	667	129	658
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	37.0		37.0	47.0	47.0	47.0
Actuated g/C Ratio	0.41		0.41	0.52	0.52	0.52
v/c Ratio	0.45		0.68	0.69	0.16	0.70
Control Delay	4.2		24.5	24.9	16.8	21.2
Queue Delay	0.0		2.8	0.0	0.0	1.5
Total Delay	4.2		27.3	24.9	16.8	22.7
LOS	A		C	C	B	C
Approach Delay			27.3	23.6		22.7





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>SWT</del>	<del>SWT</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1540	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1540	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			33			2		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	109	1200	2179	185	634	516	88	109
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1378	2489	0	667	751	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.57	1.02		1.02	1.22		
Control Delay		11.7	41.5		62.2	127.7		
Queue Delay		0.0	0.0		0.0	0.9		
Total Delay		11.7	41.5		62.2	128.6		
LOS		B	D		E	F		
Approach Delay		30.9			62.2	128.6		





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	C				E	F		
Queue Length 50th (ft)	117	~326			~243	~357		
Queue Length 95th (ft)	155	#456			#443	m#486		
Internal Link Dist (ft)	272				455	524		
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2432			654	617		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	6	0			0	1		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.57	1.02			1.02	1.22		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 43 (72%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 48.7 Intersection LOS: D  
 Intersection Capacity Utilization 100.9% ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28							1			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	48	2224	183	0	0	0	0	485	334	0	530	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2585	0	0	0	0	0	511	352	0	558	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.12						0.74	0.50		0.68	
Control Delay		71.3						15.9	12.2		18.5	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		71.3						15.9	12.2		18.5	
LOS		E						B	B		B	
Approach Delay		71.3						14.4			18.5	

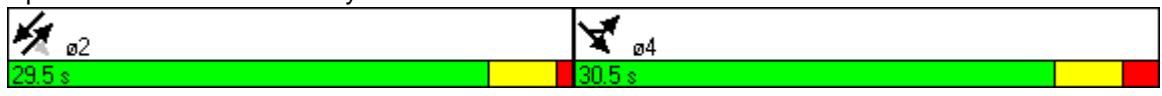


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		E						B			B	
Queue Length 50th (ft)		~391						189	108		153	
Queue Length 95th (ft)		#493						m186	m105		253	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2318						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.12						0.74	0.50		0.68	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 15 (25%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.12  
 Intersection Signal Delay: 51.7                      Intersection LOS: D  
 Intersection Capacity Utilization 82.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7										4
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			364			200	
Travel Time (s)		10.3			6.7			9.9			5.5	
Volume (vph)	0	1380	272	0	0	0	0	0	0	64	1969	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1776	0	0	0	0	0	0	0	0	2118	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									51.0	
Actuated g/C Ratio		0.37									0.57	
v/c Ratio		0.99									0.99	
Control Delay		47.3									20.5	
Queue Delay		0.0									0.0	
Total Delay		47.3									20.5	
LOS		D									C	
Approach Delay		47.3									20.5	



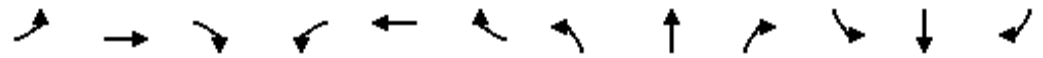
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D										C
Queue Length 50th (ft)		359										299
Queue Length 95th (ft)		#479										m#666
Internal Link Dist (ft)		296			165			284				120
Turn Bay Length (ft)												
Base Capacity (vph)		1801										2135
Starvation Cap Reductn		0										0
Spillback Cap Reductn		0										0
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.99										0.99

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 74 (82%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 32.7                      Intersection LOS: C  
 Intersection Capacity Utilization 68.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗↘					↖		↖↗↘				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	24					8						
Link Speed (mph)		25				25			25			25
Link Distance (ft)		226				221			408			169
Travel Time (s)		6.2				6.0			11.1			4.6
Volume (vph)	1444	0	0	0	0	46	0	1676	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%				0%			0%			0%
Lane Group Flow (vph)	1536	0	0	0	0	54	0	1728	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4			2			
Detector Phases	4					4			2			
Minimum Initial (s)	4.0					4.0			4.0			
Minimum Split (s)	21.0					21.0			20.0			
Total Split (s)	43.0	0.0	0.0	0.0	0.0	43.0	0.0	47.0	0.0	0.0	0.0	0.0
Total Split (%)	47.8%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%	52.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5			3.5			
All-Red Time (s)	1.5					1.5			1.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max			Max			
Act Effct Green (s)	40.0					40.0			44.0			
Actuated g/C Ratio	0.44					0.44			0.49			
v/c Ratio	0.76					0.08			0.77			
Control Delay	5.7					13.2			1.9			
Queue Delay	0.0					0.0			0.9			
Total Delay	5.8					13.2			2.9			
LOS	A					B			A			
Approach Delay								2.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS									A			
Queue Length 50th (ft)	33						15	19				
Queue Length 95th (ft)	m38						34	m19				
Internal Link Dist (ft)	146					141	328		89			
Turn Bay Length (ft)												
Base Capacity (vph)	2009						649	2238				
Starvation Cap Reductn	19						0	250				
Spillback Cap Reductn	5						1	14				
Storage Cap Reductn	0						0	0				
Reduced v/c Ratio	0.77						0.08	0.87				

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 4.4                      Intersection LOS: A  
 Intersection Capacity Utilization 77.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3448	0	0	0	0	0	4061	1117
Flt Permitted					0.992						0.998	
Satd. Flow (perm)	0	0	0	0	3448	0	0	0	0	0	4061	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											31	31
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	96	481	0	0	0	0	109	1973	1204
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	740	0	0	0	0	0	2668	719
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	66.0	66.0	66.0
Total Split (%)	0.0%	0.0%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	73.3%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					21.0						63.0	63.0
Actuated g/C Ratio					0.23						0.70	0.70
v/c Ratio					0.92						0.94	0.91
Control Delay					47.5						9.1	11.4
Queue Delay					0.0						22.0	8.8
Total Delay					47.5						31.1	20.2
LOS					D						C	C
Approach Delay					47.5						28.8	



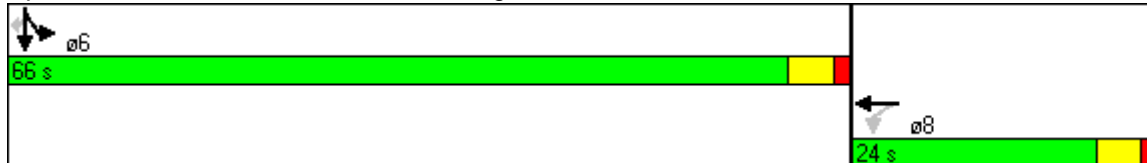


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D					C						
Queue Length 50th (ft)	217					216		133				
Queue Length 95th (ft)	238					m147		m97				
Internal Link Dist (ft)	289		371			112			228			
Turn Bay Length (ft)												
Base Capacity (vph)	805					2852		791				
Starvation Cap Reductn	0					300		60				
Spillback Cap Reductn	0					0		0				
Storage Cap Reductn	0					0		0				
Reduced v/c Ratio	0.92					1.05		0.98				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 32.1      Intersection LOS: C  
 Intersection Capacity Utilization 72.5%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 406: Fell St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3479	0	0	1863	0	0	4753	1137	0	0	0
Flt Permitted		0.861						0.990				
Satd. Flow (perm)	0	3047	0	0	1863	0	0	4753	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								3	663			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	39	70	0	0	39	0	450	1844	688	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	121	0	0	41	0	0	2409	698	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	21.0	21.0	0.0	0.0	21.0	0.0	69.0	69.0	69.0	0.0	0.0	0.0
Total Split (%)	23.3%	23.3%	0.0%	0.0%	23.3%	0.0%	76.7%	76.7%	76.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		18.0			18.0			66.0	66.0			
Actuated g/C Ratio		0.20			0.20			0.73	0.73			
v/c Ratio		0.20			0.11			0.69	0.69			
Control Delay		41.0			44.6			4.8	3.1			
Queue Delay		0.1			0.0			0.7	0.4			
Total Delay		41.1			44.6			5.5	3.5			
LOS		D			D			A	A			
Approach Delay		41.1			44.6			5.1				

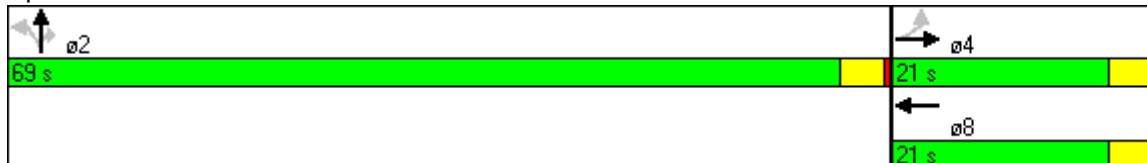


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A				
Queue Length 50th (ft)		37			23			165	5			
Queue Length 95th (ft)		m42			m28			232	17			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		609			373			3486	1011			
Starvation Cap Reductn		0			0			657	70			
Spillback Cap Reductn		101			0			273	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.24			0.11			0.85	0.74			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 6.9                      Intersection LOS: A  
 Intersection Capacity Utilization 65.4%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 407: Fell St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕		↕	↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3470	0	0	0	0	0	3064	0	1770	3153	0
Flt Permitted		0.995								0.950		
Satd. Flow (perm)	0	3470	0	0	0	0	0	3064	0	1770	3153	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						5			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	72	655	31	0	0	0	0	1586	53	135	1246	39
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	833	0	0	0	0	0	1690	0	141	1339	0
Turn Type	Split									Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases												
Detector Phases	4	4						2		1	6	
Minimum Initial (s)	4.0	4.0						4.0		3.6	4.0	
Minimum Split (s)	35.0	35.0						42.0		8.1	50.0	
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	46.0	0.0	9.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	0.0%	10.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	2.1	2.1						0.9		0.9	0.9	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		32.0						43.0		6.0	52.0	
Actuated g/C Ratio		0.36						0.48		0.07	0.58	
v/c Ratio		0.67						1.15		1.19	0.73	
Control Delay		25.9						78.9		122.4	4.4	
Queue Delay		0.2						1.0		0.0	1.2	
Total Delay		26.1						79.9		122.4	5.6	
LOS		C						E		F	A	
Approach Delay		26.1						79.9			16.7	

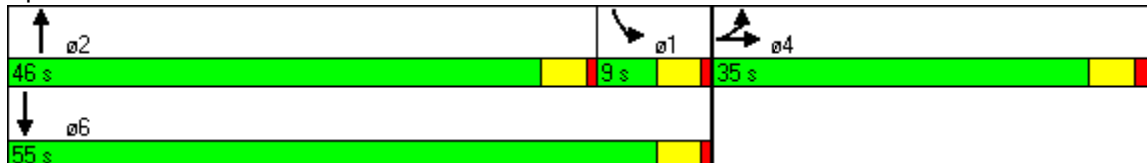


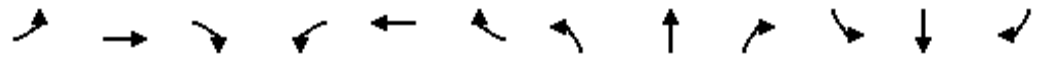
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						E			B	
Queue Length 50th (ft)		204						~578		~94	30	
Queue Length 95th (ft)		268						m#503		m#78	m30	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)										110		
Base Capacity (vph)		1237						1467		118	1824	
Starvation Cap Reductn		0						3		0	201	
Spillback Cap Reductn		55						0		0	266	
Storage Cap Reductn		0						0		0	0	
Reduced v/c Ratio		0.70						1.15		1.19	0.86	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 41 (46%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.19  
 Intersection Signal Delay: 45.4      Intersection LOS: D  
 Intersection Capacity Utilization 90.7%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17										3
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	86	153	640	424	0	0	0	0	170	2493	43
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	311	0	667	442	0	0	0	0	0	2789	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	25.0	44.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	27.8%	48.9%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		41.0	41.0							43.0
Actuated g/C Ratio		0.18		0.46	0.46							0.48
v/c Ratio		1.02		1.29	0.54							1.23
Control Delay		92.7		164.0	8.4							122.2
Queue Delay		0.9		5.6	0.4							9.6
Total Delay		93.6		169.6	8.8							131.8
LOS		F		F	A							F
Approach Delay		93.6			105.5							131.8

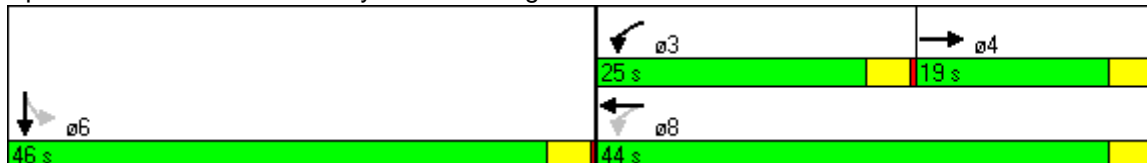


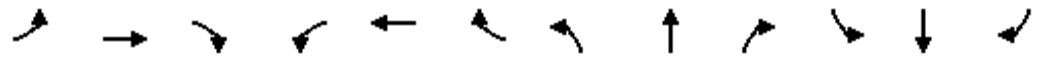
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			F						F	
Queue Length 50th (ft)		~175		~418	55						~713	
Queue Length 95th (ft)		#265		m#533	m76						#811	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)		306		516	818						2274	
Starvation Cap Reductn		0		0	93						39	
Spillback Cap Reductn		1		5	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		1.02		1.31	0.61						1.25	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.29  
 Intersection Signal Delay: 122.0 Intersection LOS: F  
 Intersection Capacity Utilization 111.9% ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3229	1441	0	4774	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	1796	0	0	3229	1441	0	4774	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4	4						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	256	0	0	951	750	113	1770	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	269	0	0	1290	559	0	2093	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	44.0	0.0	0.0	44.0	44.0	46.0	46.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	48.9%	0.0%	0.0%	48.9%	48.9%	51.1%	51.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		41.0			41.0	41.0		43.0				
Actuated g/C Ratio		0.46			0.46	0.46		0.48				
v/c Ratio		0.33			0.88	0.85		0.92				
Control Delay		25.8			6.0	7.4		26.3				
Queue Delay		0.0			2.3	0.8		10.9				
Total Delay		25.8			8.3	8.2		37.2				
LOS		C			A	A		D				
Approach Delay		25.8			8.2			37.2				



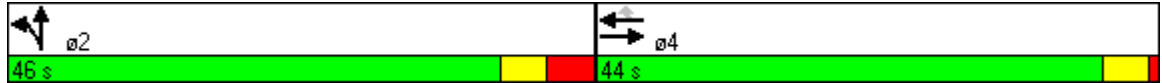


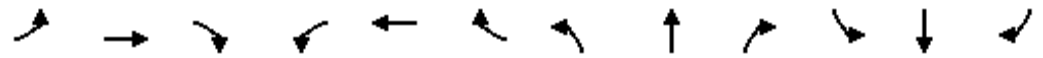
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			A			D					
Queue Length 50th (ft)	143			98			79			245		
Queue Length 95th (ft)	m122			m71			m58			#326		
Internal Link Dist (ft)	378			401			243			95		
Turn Bay Length (ft)												
Base Capacity (vph)	818			1473			659			2281		
Starvation Cap Reductn	0			91			15			209		
Spillback Cap Reductn	0			0			0			47		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.33			0.93			0.87			1.01		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 62 (69%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 23.8      Intersection LOS: C  
 Intersection Capacity Utilization 111.9%      ICU Level of Service H  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 413: Hayes St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑		↑	↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50		50	50			50	
Trailing Detector (ft)		0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	4569	0	1770	3352	0	0	2990	0
Flt Permitted					0.932		0.950					
Satd. Flow (perm)	0	1818	0	0	4262	0	1770	3352	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			34			3			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	210	46	24	1322	221	287	1395	24	0	1350	92
Confl. Peds. (#/hr)							224					449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	269	0	0	1650	0	299	1478	0	0	1502	0
Turn Type				Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases				4								
Detector Phases		4		4	4		5	2			6	
Minimum Initial (s)		4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0			39.0	
Total Split (s)	0.0	36.0	0.0	36.0	36.0	0.0	12.0	54.0	0.0	0.0	42.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%	13.3%	60.0%	0.0%	0.0%	46.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		33.0			33.0		9.0	51.0			39.0	
Actuated g/C Ratio		0.37			0.37		0.10	0.57			0.43	
v/c Ratio		0.40			1.04		1.69	0.78			1.16	
Control Delay		10.6			63.0		335.7	1.8			89.4	
Queue Delay		0.0			0.0		0.0	8.7			18.3	
Total Delay		10.6			63.0		335.7	10.5			107.7	
LOS		B			E		F	B			F	
Approach Delay		10.6			63.0			65.2			107.7	

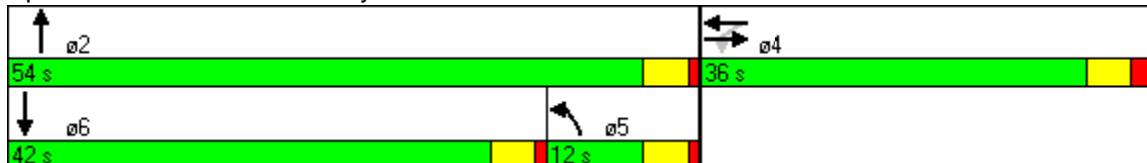


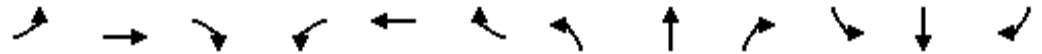
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			E			E			F	
Queue Length 50th (ft)		0			~371			~263			29	
Queue Length 95th (ft)		87			#468			m#233			m25	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)								172				
Base Capacity (vph)		675			1584			177			1901	
Starvation Cap Reductn		0			0			0			400	
Spillback Cap Reductn		0			0			0			29	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			1.04			1.69			0.98	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 47 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.69  
 Intersection Signal Delay: 74.0 Intersection LOS: E  
 Intersection Capacity Utilization 120.0% ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			96		33							20
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	204	95	1495	0	0	0	0	0	639	72
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	215	0	1674	0	0	0	0	0	673	76
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.24		0.56						0.52	0.14
Control Delay			5.0		3.8						10.9	6.9
Queue Delay			0.0		0.0						0.1	0.0
Total Delay			5.0		3.8						11.0	6.9
LOS			A		A						B	A
Approach Delay					3.8						10.6	

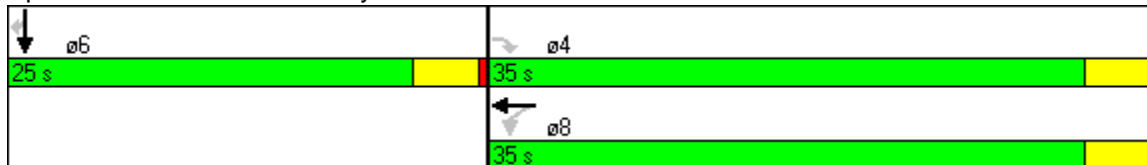


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)			20		27					45	5	
Queue Length 95th (ft)			49		m32					76	m19	
Internal Link Dist (ft)		153			70			300			82	
Turn Bay Length (ft)												
Base Capacity (vph)			904		2979					1298	535	
Starvation Cap Reductn			0		0					0	0	
Spillback Cap Reductn			22		17					72	0	
Storage Cap Reductn			0		0					0	0	
Reduced v/c Ratio			0.24		0.57					0.55	0.14	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 57 (95%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.56  
 Intersection Signal Delay: 5.8      Intersection LOS: A  
 Intersection Capacity Utilization 63.4%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3371	0	0	0	0	0	5050	0
Flt Permitted					0.584						0.997	
Satd. Flow (perm)	0	1749	0	0	2030	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	300	71	265	157	0	0	0	0	150	2370	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	399	0	0	468	0	0	0	0	0	2669	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	29.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0	61.0	61.0	0.0
Total Split (%)	0.0%	32.2%	0.0%	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	67.8%	67.8%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		26.0			26.0							58.0
Actuated g/C Ratio		0.29			0.29							0.64
v/c Ratio		0.78			2.60dl							0.82
Control Delay		41.5			37.1							2.6
Queue Delay		0.0			0.0							53.5
Total Delay		41.5			37.1							56.0
LOS		D			D							E
Approach Delay		41.5			37.1							56.0

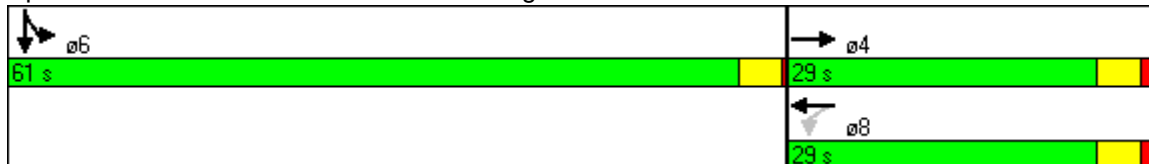


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D							E
Queue Length 50th (ft)		205			78							47
Queue Length 95th (ft)		#346			m#137							m42
Internal Link Dist (ft)		292			129			265				272
Turn Bay Length (ft)												
Base Capacity (vph)		510			586							3258
Starvation Cap Reductn		0			0							338
Spillback Cap Reductn		1			0							866
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.78			0.80							1.12

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	55 (61%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	51.9
Intersection LOS:	D
Intersection Capacity Utilization 95.2%	ICU Level of Service F
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3232	0	0	5050	0	0	0	0
Flt Permitted		0.643						0.999				
Satd. Flow (perm)	0	2235	0	0	3232	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	68	382	0	0	386	338	36	2411	106	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	505	0	0	754	0	0	2632	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.73			0.75			0.84				
Control Delay		23.2			15.5			7.3				
Queue Delay		0.0			0.0			4.2				
Total Delay		23.2			15.5			11.5				
LOS		C			B			B				
Approach Delay		23.2			15.5			11.5				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			B				
Queue Length 50th (ft)		72			218			176				
Queue Length 95th (ft)		m117			m213			186				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		695			1008			3147				
Starvation Cap Reductn		0			0			342				
Spillback Cap Reductn		0			0			443				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.73			0.75			0.97				

**Intersection Summary**

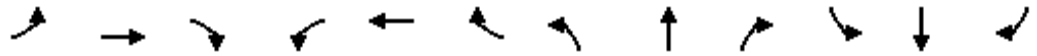
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 59 (66%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 13.8      Intersection LOS: B  
 Intersection Capacity Utilization 93.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 417: Grove St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3321	0	0	3452	0	1770	3075	0	0	2858	0
Flt Permitted		0.946			0.883		0.950					
Satd. Flow (perm)	0	3145	0	0	3057	0	1770	3075	0	0	2858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5						7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	7	440	41	36	470	24	193	1375	72	0	1365	61
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	568	0	0	589	0	205	1540	0	0	1486	0
Turn Type	Perm			Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0		9.7	31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	12.0	56.0	0.0	0.0	44.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	13.3%	62.2%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1		1.7	1.7			1.7	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		31.0			31.0		9.0	53.0			41.0	
Actuated g/C Ratio		0.34			0.34		0.10	0.59			0.46	
v/c Ratio		0.52			0.56		1.16	0.85			1.14	
Control Delay		41.9			26.2		132.3	8.8			105.5	
Queue Delay		0.0			0.0		0.0	0.3			0.0	
Total Delay		41.9			26.2		132.3	9.1			105.5	
LOS		D			C		F	A			F	
Approach Delay		41.9			26.2			23.6			105.5	

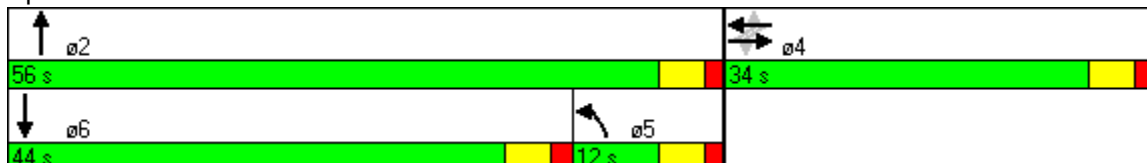


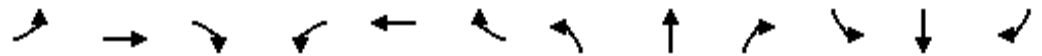
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			C			F		
Queue Length 50th (ft)	158			140			~136	100	~545			
Queue Length 95th (ft)	m201			193			m#200	m133	#684			
Internal Link Dist (ft)	397			406			90			592		
Turn Bay Length (ft)							130					
Base Capacity (vph)	1091			1056			177	1811	1306			
Starvation Cap Reductn	0			0			0	36	0			
Spillback Cap Reductn	0			0			0	0	0			
Storage Cap Reductn	0			0			0	0	0			
Reduced v/c Ratio	0.52			0.56			1.16	0.87	1.14			

**Intersection Summary**

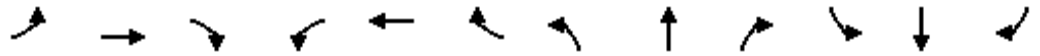
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.16  
 Intersection Signal Delay: 54.0 Intersection LOS: D  
 Intersection Capacity Utilization 104.6% ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 418: Grove St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3131	0
Flt Permitted		0.907			0.906						0.995	
Satd. Flow (perm)	0	2895	1377	0	2863	0	0	0	0	0	3131	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			144		16						24	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	26	350	137	41	465	36	0	0	0	63	554	65
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	395	144	0	570	0	0	0	0	0	717	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.30	0.21		0.44						0.50	
Control Delay		11.3	3.0		10.9						9.9	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.3	3.0		10.9						9.9	
LOS		B	A		B						A	
Approach Delay		9.1			10.9						9.9	



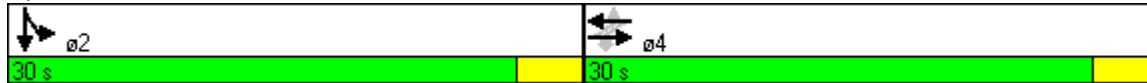
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A			B						A		
Queue Length 50th (ft)		45	0		54						64	
Queue Length 95th (ft)		72	25		m65						86	
Internal Link Dist (ft)		406			401			95			592	
Turn Bay Length (ft)												
Base Capacity (vph)		1303	699		1297						1422	
Starvation Cap Reductn		0	0		0						0	
Spillback Cap Reductn		0	0		0						0	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.30	0.21		0.44						0.50	

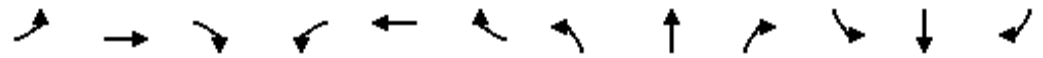
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	56 (93%), Referenced to phase 2:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization:	54.8%
ICU Level of Service:	A
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 419: Grove St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1770	0	0	4847	0	1770	0	1267
Flt Permitted	0.565							0.993		0.133		
Satd. Flow (perm)	982	1863	0	0	1770	0	0	4847	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			19				93
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			198			210			358	
Travel Time (s)		13.1			5.4			5.7			9.8	
Volume (vph)	178	235	0	0	133	79	321	1801	109	15	0	88
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	187	247	0	0	223	0	0	2349	0	16	0	93
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.48	0.33			0.31			0.97		0.13		0.14
Control Delay	17.4	12.7			9.5			6.0		6.2		2.5
Queue Delay	0.0	0.0			0.0			2.2		0.0		0.0
Total Delay	17.4	12.7			9.5			8.2		6.2		2.5
LOS	B	B			A			A		A		A
Approach Delay		14.7			9.5			8.2				

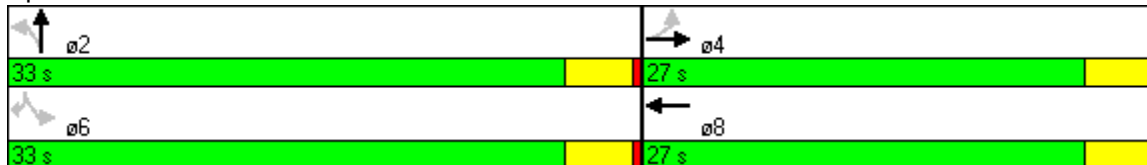


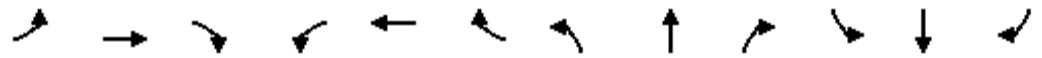
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			A			A					
Queue Length 50th (ft)	60	74			25			24		2		0
Queue Length 95th (ft)	125	136			m34			m23		7		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	393	745			712			2433		124		680
Starvation Cap Reductn	0	0			0			27		0		0
Spillback Cap Reductn	0	0			0			45		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.48	0.33			0.31			0.98		0.13		0.14

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 20 (33%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 9.0                      Intersection LOS: A  
 Intersection Capacity Utilization 77.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1798	0	0	1835	0	0	0	0	0	5050	0
Flt Permitted					0.454						0.999	
Satd. Flow (perm)	0	1798	0	0	846	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	361	128	76	172	0	0	0	0	44	2385	99
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	543	0	0	285	0	0	0	0	0	2661	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		36.0			36.0							48.0
Actuated g/C Ratio		0.40			0.40							0.53
v/c Ratio		0.75			0.84							0.99
Control Delay		31.2			26.7							17.9
Queue Delay		0.0			0.0							16.5
Total Delay		31.2			26.7							34.3
LOS		C			C							C
Approach Delay		31.2			26.7							34.3







Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	405	0	248	2569	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	533	0	0	2904	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	31.0	0.0	59.0	59.0	0.0	0.0
Total Split (%)	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	28.0			56.0		
Actuated g/C Ratio	0.31			0.62		
v/c Ratio	0.97			0.97		
Control Delay	47.5			16.4		
Queue Delay	0.0			2.9		
Total Delay	47.5			19.3		
LOS	D			B		
Approach Delay	47.5			19.3		





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑			↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1899	0	4891	0	0	1749
Flt Permitted	0.982					0.575
Satd. Flow (perm)	1899	0	4891	0	0	1019
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	4		11			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	36	60	1995	63	24	67
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	101	0	2166	0	0	96
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.14		0.86			0.18
Control Delay	12.3		10.1			3.9
Queue Delay	0.0		0.6			0.0
Total Delay	12.3		10.7			3.9
LOS	B		B			A
Approach Delay	12.3		10.7			3.9





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		11			23	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	33	0	0	2032	96
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	35	0	0	2240	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.08			0.80	
Control Delay		13.4			4.5	
Queue Delay		0.0			0.0	
Total Delay		13.4			4.6	
LOS		B			A	
Approach Delay					4.6	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS						A
Queue Length 50th (ft)		6				52
Queue Length 95th (ft)		25				76
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		438			2814	
Starvation Cap Reductn		0			14	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.08			0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	28 (47%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	4.7
Intersection LOS:	A
Intersection Capacity Utilization	51.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1719	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.555						0.998	
Satd. Flow (perm)	0	1719	0	0	1964	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	336	51	125	350	0	0	0	0	110	2352	110
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	461	0	0	500	0	0	0	0	0	2736	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					18.0	18.0	
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		30.0			30.0						54.0	
Actuated g/C Ratio		0.33			0.33						0.60	
v/c Ratio		0.80			1.04dl						0.90	
Control Delay		39.6			43.5						10.1	
Queue Delay		0.0			0.0						8.4	
Total Delay		39.6			43.5						18.5	
LOS		D			D						B	
Approach Delay		39.6			43.5						18.5	



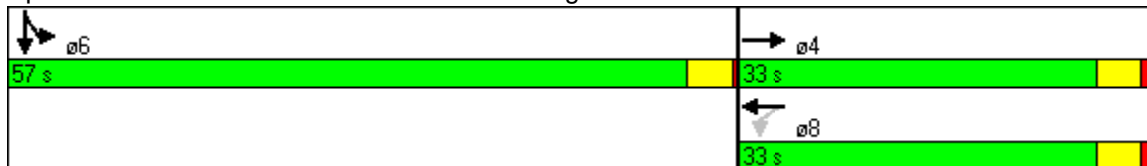


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D							B
Queue Length 50th (ft)		235			160							289
Queue Length 95th (ft)		322			m207							329
Internal Link Dist (ft)		361			207			253				268
Turn Bay Length (ft)												
Base Capacity (vph)		575			655							3032
Starvation Cap Reductn		0			0							296
Spillback Cap Reductn		0			0							302
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.80			0.76							1.00

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	44 (49%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	24.5
Intersection LOS:	C
Intersection Capacity Utilization:	94.2%
ICU Level of Service:	F
Analysis Period (min):	15
m	Volume for 95th percentile queue is metered by upstream signal.
dl	Defacto Left Lane. Recode with 1 though lane as a left lane.

**Splits and Phases:** 435: McAllister St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3193	0	0	5019	0	0	0	0
Flt Permitted		0.822						0.999				
Satd. Flow (perm)	0	1439	0	0	3193	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			25				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	418	0	0	427	371	48	2683	243	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	484	0	0	907	0	0	3131	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	38.0	38.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		35.0			35.0			49.0				
Actuated g/C Ratio		0.39			0.39			0.54				
v/c Ratio		0.86			0.73			1.14				
Control Delay		34.6			5.6			80.7				
Queue Delay		0.0			0.0			44.3				
Total Delay		34.6			5.6			125.0				
LOS		C			A			F				
Approach Delay		34.6			5.6			125.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			F				
Queue Length 50th (ft)		284			23			~761				
Queue Length 95th (ft)		m#382			38			m#802				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		560			1242			2744				
Starvation Cap Reductn		0			0			220				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.86			0.73			1.24				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 91.4      Intersection LOS: F  
 Intersection Capacity Utilization 109.9%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50			50	50
Trailing Detector (ft)	0	0		0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3421	0	0	3532	1425	0	2943	0	0	3127	1370
Flt Permitted		0.915			0.835							
Satd. Flow (perm)	0	3131	0	0	2948	1142	0	2943	0	0	3127	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				5		7				8
Link Speed (mph)		25			25			25				25
Link Distance (ft)		497			461			672				184
Travel Time (s)		13.6			12.6			18.3				5.0
Volume (vph)	14	585	62	37	763	136	0	1356	50	0	1327	35
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	743	0	0	860	146	0	1464	0	0	1397	37
Turn Type	Perm			Perm		Perm						Perm
Protected Phases		4			4			2				6
Permitted Phases	4			4		4						6
Detector Phases	4	4		4	4	4		2			6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0			3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	30.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	0.0	55.0	0.0	0.0	55.0	55.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	38.9%	0.0%	61.1%	0.0%	0.0%	61.1%	61.1%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max			Max	Max
Act Effct Green (s)		32.0			32.0	32.0		52.0			52.0	52.0
Actuated g/C Ratio		0.36			0.36	0.36		0.58			0.58	0.58
v/c Ratio		0.67			0.82	0.36		0.86			0.77	0.07
Control Delay		30.1			34.3	23.8		7.0			9.1	4.6
Queue Delay		0.5			0.0	0.6		5.1			0.0	0.0
Total Delay		30.6			34.3	24.3		12.1			9.2	4.6
LOS		C			C	C		B			A	A
Approach Delay		30.6			32.8			12.1			9.1	

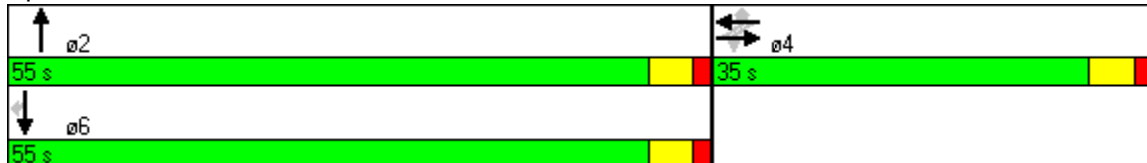


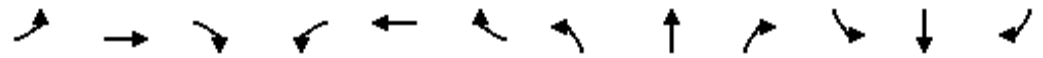
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		176			231	58		9			92	2
Queue Length 95th (ft)		m198			#310	110		11			108	m4
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)												70
Base Capacity (vph)		1116			1048	409		1703			1807	515
Starvation Cap Reductn		0			0	0		0			11	0
Spillback Cap Reductn		106			0	78		188			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.74			0.82	0.44		0.97			0.78	0.07

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 18.6      Intersection LOS: B  
 Intersection Capacity Utilization 98.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3043	0	1652	3001	0	0	1593	0	0	3172	0
Flt Permitted		0.906		0.327				0.978			0.938	
Satd. Flow (perm)	0	2762	0	569	3001	0	0	1561	0	0	2984	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			23			23			95	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	25	469	141	107	778	79	3	37	22	38	434	155
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	668	0	113	902	0	0	65	0	0	660	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	30.5	30.5	0.0	30.5	30.5	0.0	29.5	29.5	0.0	29.5	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	50.8%	50.8%	0.0%	49.2%	49.2%	0.0%	49.2%	49.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.5		27.5	27.5			26.5			26.5	
Actuated g/C Ratio		0.46		0.46	0.46			0.44			0.44	
v/c Ratio		0.51		0.43	0.65			0.09			0.48	
Control Delay		11.7		9.7	7.5			0.6			8.2	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		11.7		9.7	7.5			0.6			8.2	
LOS		B		A	A			A			A	
Approach Delay		11.7			7.8			0.6			8.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1811	0	0	3419	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.948			0.996				
Satd. Flow (perm)	287	1811	0	0	3244	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			3			6				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	109	337	76	15	818	233	153	1863	39	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	115	435	0	0	1122	0	0	2163	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.93	0.55			0.80			0.92				
Control Delay	91.3	20.7			10.7			8.2				
Queue Delay	0.0	0.0			0.0			0.5				
Total Delay	91.3	20.7			10.7			8.7				
LOS	F	C			B			A				
Approach Delay		35.5			10.7			8.7				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			11	11							32	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	376	98	930	0	0	0	0	0	1658	136
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	396	103	979	0	0	0	0	0	1888	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.63	0.15	0.72						0.76	
Control Delay			22.3	11.8	19.5						6.7	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			22.3	11.8	19.5						6.8	
LOS			C	B	B						A	
Approach Delay					18.8						6.8	

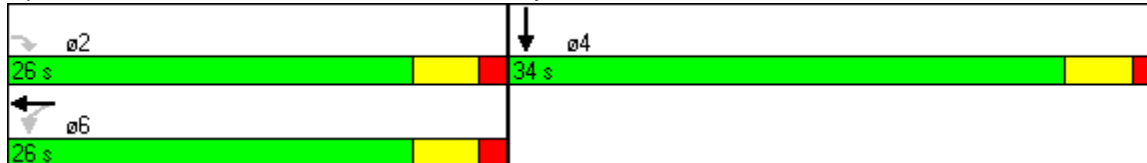


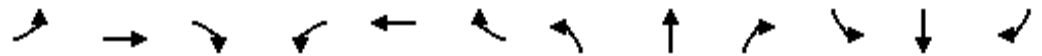
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)			96	21	153							53
Queue Length 95th (ft)			m172	48	216							124
Internal Link Dist (ft)		411			257			253				266
Turn Bay Length (ft)												
Base Capacity (vph)			624	685	1357							2469
Starvation Cap Reductn			0	0	0							59
Spillback Cap Reductn			0	0	0							5
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.63	0.15	0.72							0.78

**Intersection Summary**

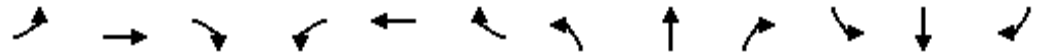
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBR, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 12.5      Intersection LOS: B  
 Intersection Capacity Utilization 73.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 440: McAllister St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4877	0	0	0	0	0	0	0	0	4743	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4877	0	0	0	0	0	0	0	0	4743	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		9										30
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	578	219	0	0	0	0	0	0	323	2353	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	857	0	0	0	0	0	0	0	0	2787	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.0	66.0	0.0
Total Split (%)	0.0%	26.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		21.0									63.0	
Actuated g/C Ratio		0.23									0.70	
v/c Ratio		0.75									0.84	
Control Delay		36.5									3.0	
Queue Delay		0.0									1.9	
Total Delay		36.5									4.9	
LOS		D									A	
Approach Delay		36.5									4.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									A	
Queue Length 50th (ft)		164									52	
Queue Length 95th (ft)		211									m54	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1145									3329	
Starvation Cap Reductn		0									284	
Spillback Cap Reductn		0									374	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.75									0.94	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 26 (29%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 12.3      Intersection LOS: B  
 Intersection Capacity Utilization 74.7%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5919	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5919	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	113	788	0	0	0	0	0	3048	143	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	919	0	0	0	0	0	3289	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		24.0						60.0				
Actuated g/C Ratio		0.27						0.67				
v/c Ratio		0.69						0.83				
Control Delay		36.2						2.6				
Queue Delay		0.0						6.1				
Total Delay		36.2						8.7				
LOS		D						A				
Approach Delay		36.2						8.7				



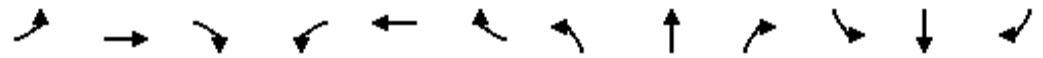
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D							A			
Queue Length 50th (ft)		190							88			
Queue Length 95th (ft)		m236							m68			
Internal Link Dist (ft)		216				162			71		240	
Turn Bay Length (ft)												
Base Capacity (vph)		1332							3952			
Starvation Cap Reductn		0							634			
Spillback Cap Reductn		0							383			
Storage Cap Reductn		0							0			
Reduced v/c Ratio		0.69							0.99			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 14.7      Intersection LOS: B  
 Intersection Capacity Utilization 70.7%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4843	0	0	0	0	0	3101	1346	1770	3177	0
Flt Permitted		0.997								0.950		
Satd. Flow (perm)	0	4795	0	0	0	0	0	3101	847	1770	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8							25			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	50	758	123	0	0	0	0	1441	65	114	1239	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					10	10		1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	980	0	0	0	0	0	1517	68	120	1304	0
Turn Type	Split								Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	2.0	4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0	6.4	48.0	
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	46.2	46.2	9.8	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	51.3%	51.3%	10.9%	62.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		31.0						43.2	43.2	6.8	53.0	
Actuated g/C Ratio		0.34						0.48	0.48	0.08	0.59	
v/c Ratio		0.59						1.02	0.16	0.90	0.70	
Control Delay		46.9						44.4	12.0	53.4	2.6	
Queue Delay		0.0						19.4	0.0	0.0	0.5	
Total Delay		46.9						63.8	12.0	53.4	3.1	
LOS		D						E	B	D	A	
Approach Delay		46.9						61.5			7.4	



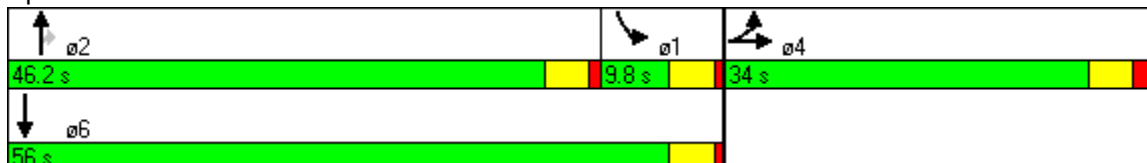


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		D							E			A	
Queue Length 50th (ft)		210							~225	8	62	29	
Queue Length 95th (ft)		254							#608	m15	m67	m39	
Internal Link Dist (ft)		159							387			98	
Turn Bay Length (ft)										70	90		
Base Capacity (vph)		1673							1488	420	134	1871	
Starvation Cap Reductn		0							73	0	0	206	
Spillback Cap Reductn		0							0	0	0	0	
Storage Cap Reductn		0							0	0	0	0	
Reduced v/c Ratio		0.59							1.07	0.16	0.90	0.78	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 38.6                      Intersection LOS: D  
 Intersection Capacity Utilization 81.9%                      ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4721	0	0	0	0	0	1594	0	0	3322	0
Flt Permitted		0.997									0.834	
Satd. Flow (perm)	0	4721	0	0	0	0	0	1594	0	0	2804	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		82						54				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	66	717	154	0	0	0	0	90	51	156	473	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	986	0	0	0	0	0	149	0	0	662	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.1	27.1	0.0	0.0	0.0	0.0	0.0	32.9	0.0	32.9	32.9	0.0
Total Split (%)	45.2%	45.2%	0.0%	0.0%	0.0%	0.0%	0.0%	54.8%	0.0%	54.8%	54.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.1						29.9			29.9	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.51						0.18			0.47	
Control Delay		13.4						3.3			11.1	
Queue Delay		0.0						0.0			0.0	
Total Delay		13.4						3.3			11.1	
LOS		B						A			B	
Approach Delay		13.4						3.3			11.1	

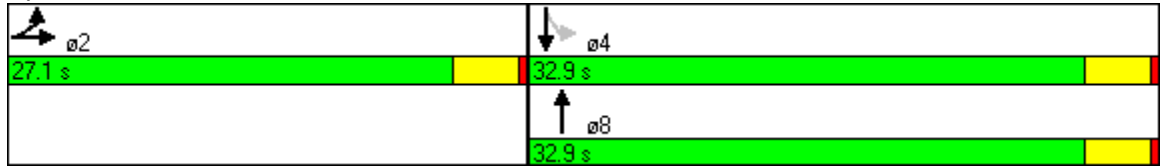


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			B	
Queue Length 50th (ft)		85						0			62	
Queue Length 95th (ft)		119						m17			113	
Internal Link Dist (ft)		387				419		100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		1945						821			1397	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.51						0.18			0.47	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 53 (88%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 11.7      Intersection LOS: B  
 Intersection Capacity Utilization 54.1%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	4766	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	5034	0	0	0	0	0	4766	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						51				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	183	741	0	0	0	0	0	1952	253	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	973	0	0	0	0	0	2321	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.56						0.86				
Control Delay		9.4						11.4				
Queue Delay		0.0						0.1				
Total Delay		9.4						11.5				
LOS		A						B				
Approach Delay		9.4						11.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	46						131					
Queue Length 95th (ft)	61						m168					
Internal Link Dist (ft)	419			404			78			233		
Turn Bay Length (ft)												
Base Capacity (vph)	1725						2684					
Starvation Cap Reductn	0						35					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.56						0.88					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 3 (5%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 10.9      Intersection LOS: B  
 Intersection Capacity Utilization 68.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4836	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4836	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		34										47
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	669	325	0	0	0	0	0	0	156	1469	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1046	0	0	0	0	0	0	0	0	1710	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.71									0.59	
Control Delay		13.9									5.8	
Queue Delay		0.0									0.3	
Total Delay		13.9									6.1	
LOS		B									A	
Approach Delay		13.9									6.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				3							11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	215	1041	0	0	0	0	0	2461	155
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	236	1144	0	0	0	0	0	2697	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				31.0	31.0						53.0	
Actuated g/C Ratio				0.34	0.34						0.59	
v/c Ratio				0.42	1.00						0.97	
Control Delay				9.6	38.0						10.5	
Queue Delay				0.0	0.0						4.9	
Total Delay				9.6	38.0						15.4	
LOS				A	D						B	
Approach Delay					33.1						15.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											C	B
Queue Length 50th (ft)				37	389							98
Queue Length 95th (ft)				m49	m#521							m99
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				557	1147							2789
Starvation Cap Reductn				0	0							90
Spillback Cap Reductn				0	0							0
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.42	1.00							1.00

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 21.4      Intersection LOS: C  
 Intersection Capacity Utilization 81.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5714	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5714	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	980	300	276	2885	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1021	312	0	3293	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	28.0	28.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	31.1%	31.1%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					25.0	25.0		59.0				
Actuated g/C Ratio					0.28	0.28		0.66				
v/c Ratio					0.73	0.71		0.88				
Control Delay					24.1	27.8		7.4				
Queue Delay					0.0	0.0		23.7				
Total Delay					24.1	27.8		31.1				
LOS					C	C		C				
Approach Delay					25.0			31.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C				C			
Queue Length 50th (ft)					229	190		184				
Queue Length 95th (ft)					m268	m244		339				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1396	441		3748				
Starvation Cap Reductn					0	0		381				
Spillback Cap Reductn					0	0		605				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.73	0.71		1.05				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 7 (8%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 29.3      Intersection LOS: C  
 Intersection Capacity Utilization 71.6%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

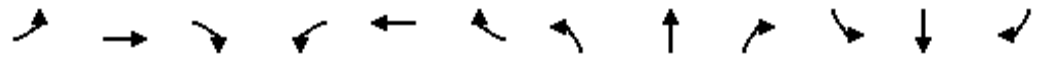
Splits and Phases: 467: Turk St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	90		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4995	0	1770	3135	0	0	2973	0
Flt Permitted				0.998			0.950					
Satd. Flow (perm)	0	0	0	0	4962	0	1679	3135	0	0	2973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7						10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	41	1070	53	128	1363	0	0	1312	82
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1266	0	135	1435	0	0	1423	0
Turn Type				Split			Prot					
Protected Phases				4	4		5	2			6	
Permitted Phases												
Detector Phases				4	4		5	2			6	
Minimum Initial (s)				4.0	4.0		2.0	4.0			4.0	
Minimum Split (s)				33.0	33.0		7.0	48.0			38.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	10.0	57.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	11.1%	63.3%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				2.2	2.2		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					30.0		7.0	54.0			44.0	
Actuated g/C Ratio					0.33		0.08	0.60			0.49	
v/c Ratio					0.76		0.98	0.76			0.98	
Control Delay					30.2		49.5	1.5			22.8	
Queue Delay					0.0		0.0	1.7			4.1	
Total Delay					30.2		49.5	3.3			26.9	
LOS					C		D	A			C	
Approach Delay					30.2			7.3			26.9	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4939	0	0	2077	0	0	2065	0
Flt Permitted				0.994			0.744					
Satd. Flow (perm)	0	0	0	0	4939	0	0	1571	0	0	2065	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24						22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	168	1026	91	51	105	0	0	461	87
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1353	0	0	165	0	0	577	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	27.5	27.5	0.0	32.5	32.5	0.0	0.0	32.5	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.8%	45.8%	0.0%	54.2%	54.2%	0.0%	0.0%	54.2%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					24.5			29.5			29.5	
Actuated g/C Ratio					0.41			0.49			0.49	
v/c Ratio					0.67			0.21			0.56	
Control Delay					8.3			12.7			7.5	
Queue Delay					0.0			0.0			1.3	
Total Delay					8.3			12.7			8.8	
LOS					A			B			A	
Approach Delay					8.3			12.7			8.8	



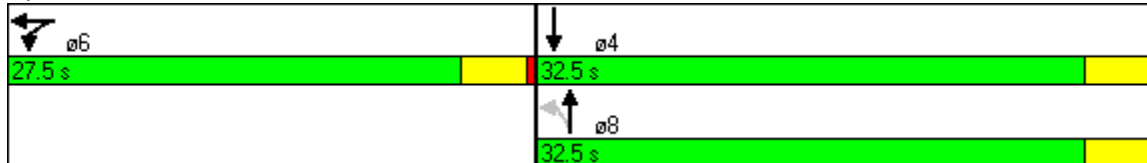
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B			A	
Queue Length 50th (ft)					56			37			66	
Queue Length 95th (ft)					95			75			m85	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2031			772			1026	
Starvation Cap Reductn					0			0			249	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.67			0.21			0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	5 (8%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	8.8
Intersection LOS:	A
Intersection Capacity Utilization:	73.2%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 469: Turk St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4869	0	0	4800	0	0	0	0
Flt Permitted								0.990				
Satd. Flow (perm)	0	0	0	0	4869	0	0	4800	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					19			19				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	857	124	428	1707	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1078	0	0	2179	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	22.0	0.0	38.0	38.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					19.0			35.0				
Actuated g/C Ratio					0.32			0.58				
v/c Ratio					0.69			0.78				
Control Delay					12.2			8.7				
Queue Delay					0.0			0.3				
Total Delay					12.2			9.0				
LOS					B			A				
Approach Delay					12.2			9.0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					60			122				
Queue Length 95th (ft)					77			130				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1555			2808				
Starvation Cap Reductn					0			173				
Spillback Cap Reductn					0			109				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.69			0.83				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	2 (3%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	10.1
Intersection LOS:	B
Intersection Capacity Utilization:	67.7%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 470: Turk St. & Larkin St.

← 06	↖ 08
22 s	38 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4681	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					36						70	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	257	693	0	0	0	0	0	1368	288
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	990	0	0	0	0	0	1690	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.56						0.65	
Control Delay					16.6						13.5	
Queue Delay					0.0						1.0	
Total Delay					16.6						14.5	
LOS					B						B	
Approach Delay					16.6						14.5	

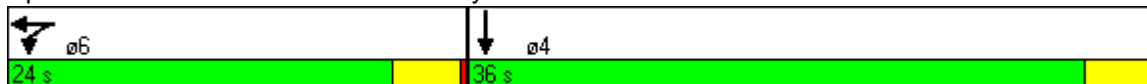


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					99						197	
Queue Length 95th (ft)					135						259	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1766						2606	
Starvation Cap Reductn					0						594	
Spillback Cap Reductn					0						49	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.56						0.84	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	53 (88%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	15.3
Intersection LOS:	B
Intersection Capacity Utilization:	58.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↗						↖↗↘↙	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	1798	0	0	0	0	0	5040	0
Flt Permitted					0.530						0.996	
Satd. Flow (perm)	0	1749	0	0	964	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2									10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	323	125	53	190	0	0	0	0	206	2438	97
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	509	0	0	286	0	0	0	0	0	2856	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	36.0	0.0	36.0	36.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		33.0			33.0							51.0
Actuated g/C Ratio		0.37			0.37							0.57
v/c Ratio		0.79			0.81							1.00
Control Delay		36.1			32.1							24.2
Queue Delay		21.3			0.0							33.8
Total Delay		57.4			32.1							58.0
LOS		E			C							E
Approach Delay		57.4			32.1							58.0

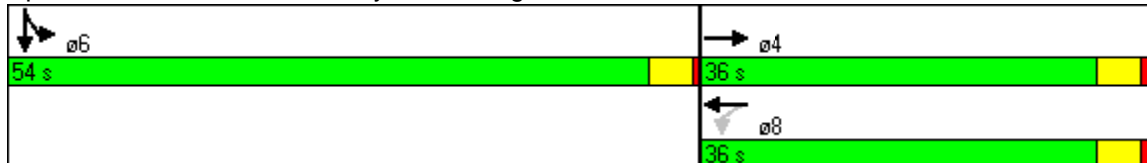


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		E			C						E	
Queue Length 50th (ft)		254			46						173	
Queue Length 95th (ft)		#383			m#110						#708	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		643			353						2860	
Starvation Cap Reductn		0			0						239	
Spillback Cap Reductn		139			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		1.01			0.81						1.09	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 55.9      Intersection LOS: E  
 Intersection Capacity Utilization 101.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1782	0	0	5901	0	0	0	0
Flt Permitted		0.841						0.999				
Satd. Flow (perm)	0	1529	0	0	1782	0	0	5901	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								19				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	73	456	0	0	206	36	37	2982	185	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	669	0	0	307	0	0	3303	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			47.0				
Actuated g/C Ratio		0.41			0.41			0.52				
v/c Ratio		1.06			0.42			1.07				
Control Delay		68.3			30.0			47.6				
Queue Delay		84.7			0.0			50.8				
Total Delay		152.9			30.0			98.4				
LOS		F			C			F				
Approach Delay		152.9			30.0			98.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			F				
Queue Length 50th (ft)		~406			156			~651				
Queue Length 95th (ft)		m#472			m198			#724				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		629			733			3091				
Starvation Cap Reductn		4			0			145				
Spillback Cap Reductn		100			0			302				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		1.26			0.42			1.18				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.07  
 Intersection Signal Delay: 102.0      Intersection LOS: F  
 Intersection Capacity Utilization 97.9%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1774	0	0	1791	0	0	2940	0	0	2947	0
Flt Permitted		0.971			0.949							
Satd. Flow (perm)	0	1717	0	0	1701	0	0	2940	0	0	2947	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			3			13			8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	35	515	91	14	180	25	0	1315	101	0	1289	62
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								8	8		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	791	0	0	257	0	0	1430	0	0	1351	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	0.0	48.0	0.0	0.0	48.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		39.0			39.0			45.0			45.0	
Actuated g/C Ratio		0.43			0.43			0.50			0.50	
v/c Ratio		1.06			0.35			0.97			0.91	
Control Delay		58.1			18.5			33.3			28.2	
Queue Delay		54.3			0.0			4.3			15.2	
Total Delay		112.4			18.5			37.5			43.5	
LOS		F			B			D			D	
Approach Delay		112.4			18.5			37.5			43.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			B			D			D	
Queue Length 50th (ft)		~510			93			201			247	
Queue Length 95th (ft)		m#449			141			#311			m#264	
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												
Base Capacity (vph)		746			739			1477			1478	
Starvation Cap Reductn		82			0			0			153	
Spillback Cap Reductn		0			0			38			22	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		1.19			0.35			0.99			1.02	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 53.8 Intersection LOS: D  
 Intersection Capacity Utilization 93.2% ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1764	0	0	1748	0	0	1953	0	0	2007	0
Flt Permitted		0.927			0.811			0.898			0.874	
Satd. Flow (perm)	0	1648	0	0	1438	0	0	1767	0	0	1776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			25			70			21	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	96	420	101	46	82	29	29	90	77	164	401	108
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	649	0	0	165	0	0	207	0	0	709	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.86			0.25			0.25			0.87	
Control Delay		29.0			6.3			6.4			22.2	
Queue Delay		0.0			0.0			0.0			1.4	
Total Delay		29.0			6.3			6.4			23.7	
LOS		C			A			A			C	
Approach Delay		29.0			6.3			6.4			23.7	

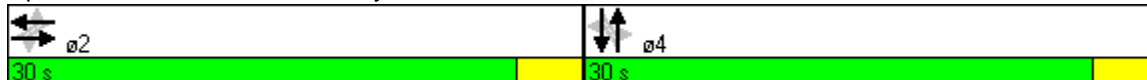


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A			C	
Queue Length 50th (ft)		193			1			10			123	
Queue Length 95th (ft)		#388			m2			m40			#408	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		753			661			834			811	
Starvation Cap Reductn		0			0			0			27	
Spillback Cap Reductn		0			0			0			6	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.86			0.25			0.25			0.90	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 49 (82%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 21.9      Intersection LOS: C  
 Intersection Capacity Utilization 95.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								46				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		211			283			134				161
Travel Time (s)		5.8			7.7			3.7				4.4
Volume (vph)	99	551	0	0	0	0	144	1484	203	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	684	0	0	0	0	0	1928	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		28.0							26.0			
Actuated g/C Ratio		0.47							0.43			
v/c Ratio		0.79							0.89			
Control Delay		18.0							12.1			
Queue Delay		0.0							0.3			
Total Delay		18.0							12.5			
LOS		B							B			
Approach Delay		18.0							12.5			

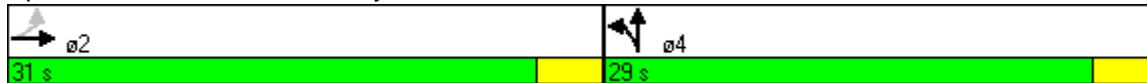


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						B					
Queue Length 50th (ft)	236						166					
Queue Length 95th (ft)	m277						#236					
Internal Link Dist (ft)	131				203		54		81			
Turn Bay Length (ft)												
Base Capacity (vph)	862						2169					
Starvation Cap Reductn	0						34					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.79						0.90					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 12 (20%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 13.9 Intersection LOS: B  
 Intersection Capacity Utilization 77.3% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4828	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4828	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		48										52
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	539	215	0	0	0	0	0	0	141	1441	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	793	0	0	0	0	0	0	0	0	1665	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.64									0.54	
Control Delay		13.9									2.3	
Queue Delay		0.0									0.6	
Total Delay		13.9									2.9	
LOS		B									A	
Approach Delay		13.9									2.9	



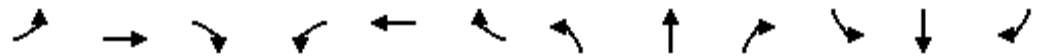
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		48									9	
Queue Length 95th (ft)		m89									16	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1243									3086	
Starvation Cap Reductn		0									912	
Spillback Cap Reductn		0									152	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.64									0.77	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 33 (55%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 6.4                      Intersection LOS: A  
 Intersection Capacity Utilization 52.6%                      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			4	4							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	51	241	334	0	0	0	0	0	2449	33
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	91	301	418	0	0	0	0	0	2613	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	29.0	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0
Total Split (%)	0.0%	0.0%	32.2%	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			26.0	26.0	26.0						58.0	
Actuated g/C Ratio			0.29	0.29	0.29						0.64	
v/c Ratio			0.19	0.59	0.78						0.88	
Control Delay			24.4	19.7	29.8						5.3	
Queue Delay			0.0	0.0	0.0						1.1	
Total Delay			24.4	19.7	29.8						6.3	
LOS			C	B	C						A	
Approach Delay					25.6						6.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A					
Queue Length 50th (ft)			37	56	105						58	
Queue Length 95th (ft)			44	m114	m157						m65	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			468	514	538						2967	
Starvation Cap Reductn			0	0	0						57	
Spillback Cap Reductn			0	0	0						160	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.19	0.59	0.78						0.93	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 19 (21%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 10.9      Intersection LOS: B  
 Intersection Capacity Utilization 74.7%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 488: Ellis St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		478			479			171				185
Travel Time (s)		13.0			13.1			4.7				5.0
Volume (vph)	0	0	0	0	461	517	111	2981	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	501	562	0	3289	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	40.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	44.4%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					37.0	37.0		47.0				
Actuated g/C Ratio					0.41	0.41		0.52				
v/c Ratio					0.34	0.86		0.93				
Control Delay					24.1	43.4		3.4				
Queue Delay					0.0	3.8		11.5				
Total Delay					24.1	47.2		15.0				
LOS					C	D		B				
Approach Delay					36.3			15.0				

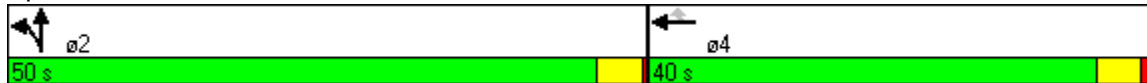


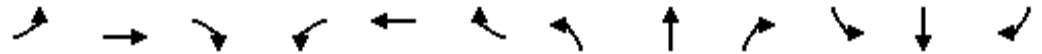
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						B					
Queue Length 50th (ft)					145	332			31			
Queue Length 95th (ft)					m186	m#467			m29			
Internal Link Dist (ft)	398			399			91			105		
Turn Bay Length (ft)												
Base Capacity (vph)					1455	651			3549			
Starvation Cap Reductn					0	43			315			
Spillback Cap Reductn					0	0			52			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.34	0.92			1.02			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 20.2                      Intersection LOS: C  
 Intersection Capacity Utilization 74.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 489: Ellis St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4841	0	0	3135	0	0	2840	0
Flt Permitted				0.997								
Satd. Flow (perm)	0	0	0	0	4787	0	0	3135	0	0	2840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							6
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	57	767	127	0	1330	0	0	1268	211
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1046	0	0	1430	0	0	1557	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Detector Phases				4	4			2			2	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.65			0.76			0.91	
Control Delay					27.6			3.7			17.4	
Queue Delay					2.1			6.2			9.3	
Total Delay					29.6			9.9			26.7	
LOS					C			A			C	
Approach Delay					29.6			9.9			26.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					181			26			173	
Queue Length 95th (ft)					228			m29			m176	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1618			1881			1706	
Starvation Cap Reductn					0			401			19	
Spillback Cap Reductn					406			39			148	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.86			0.97			1.00	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	21.5
Intersection LOS:	C
Intersection Capacity Utilization	74.9%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4934	0	0	2057	0	0	2007	0
Flt Permitted				0.993			0.760					
Satd. Flow (perm)	0	0	0	0	4934	0	0	1579	0	0	2007	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69						44	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	154	737	165	45	170	0	0	508	169
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1112	0	0	226	0	0	713	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.63			0.26			0.63	
Control Delay					6.8			5.3			6.8	
Queue Delay					0.0			0.0			0.7	
Total Delay					6.8			5.3			7.5	
LOS					A			A			A	
Approach Delay					6.8			5.3			7.5	

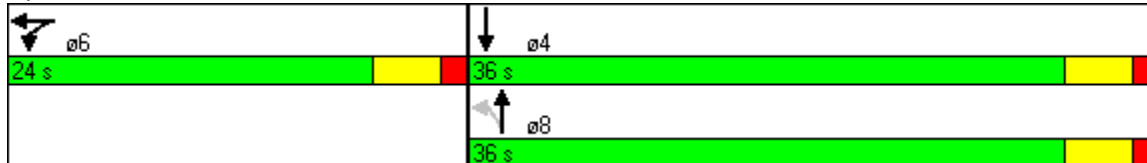


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					21			30			52	
Queue Length 95th (ft)					26			m35			m106	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1772			868			1124	
Starvation Cap Reductn					0			0			148	
Spillback Cap Reductn					1			0			110	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.63			0.26			0.73	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 40 (67%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 6.9                      Intersection LOS: A  
 Intersection Capacity Utilization 75.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4907	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4907	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					23			43				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		495			479			180			163	
Travel Time (s)		13.5			13.1			4.9			4.4	
Volume (vph)	0	0	0	0	881	272	175	1397	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1213	0	0	1655	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	26.1	0.0	33.9	33.9	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.5%	0.0%	56.5%	56.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.1			30.9				
Actuated g/C Ratio					0.38			0.52				
v/c Ratio					0.64			0.67				
Control Delay					9.9			1.7				
Queue Delay					0.1			0.3				
Total Delay					10.0			2.1				
LOS					A			A				
Approach Delay					10.0			2.1				



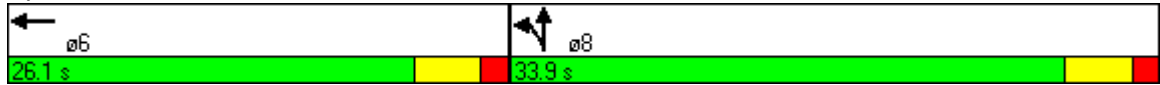


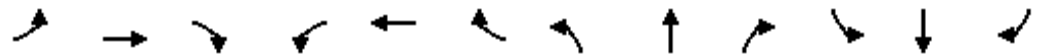
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					51			14				
Queue Length 95th (ft)					64			m14				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1903			2464				
Starvation Cap Reductn					0			278				
Spillback Cap Reductn					71			2				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.66			0.76				

**Intersection Summary**

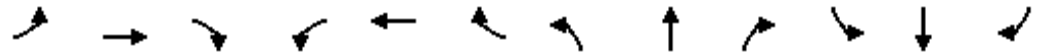
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 24 (40%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 5.4                      Intersection LOS: A  
 Intersection Capacity Utilization 60.3%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4630	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4630	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					20						65	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	237	838	0	0	0	0	0	1345	315
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1131	0	0	0	0	0	1748	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.54						0.77	
Control Delay					14.1						4.9	
Queue Delay					0.0						0.1	
Total Delay					14.1						4.9	
LOS					B						A	
Approach Delay					14.1						4.9	

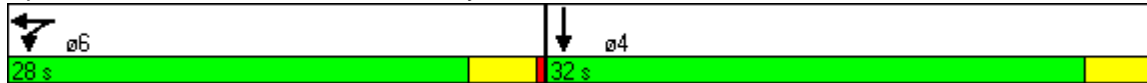


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B							A
Queue Length 50th (ft)					105							47
Queue Length 95th (ft)					141							m54
Internal Link Dist (ft)		399			402			259				292
Turn Bay Length (ft)												
Base Capacity (vph)					2107							2271
Starvation Cap Reductn					0							41
Spillback Cap Reductn					0							0
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.54							0.78

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 10 (17%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 8.5      Intersection LOS: A  
 Intersection Capacity Utilization 60.7%      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6483	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6483	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								23				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	398	1146	0	0	0	0	0	3183	315	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1696	0	0	0	0	0	3683	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	43.0	43.0	0.0	0.0	0.0	0.0	0.0	47.0	0.0	0.0	0.0	0.0
Total Split (%)	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	0.0%	52.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		40.0						44.0				
Actuated g/C Ratio		0.44						0.49				
v/c Ratio		1.15						1.16				
Control Delay		99.9						87.3				
Queue Delay		20.6						40.9				
Total Delay		120.4						128.2				
LOS		F						F				
Approach Delay		120.4						128.2				

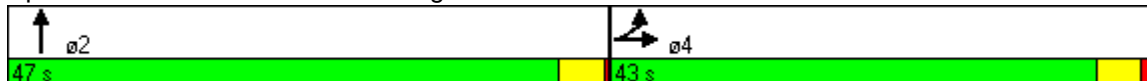


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						F				
Queue Length 50th (ft)		~628						~672				
Queue Length 95th (ft)		m#673						#735				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1469						3181				
Starvation Cap Reductn		0						7				
Spillback Cap Reductn		57						233				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.20						1.25				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 43 (48%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 140  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.16  
 Intersection Signal Delay: 125.7      Intersection LOS: F  
 Intersection Capacity Utilization 92.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	70		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3525	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3500	1339	0	0	0	0	3110	794	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			15						4			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	98	1237	126	0	0	0	0	1336	110	0	1420	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1405	133	0	0	0	0	1349	111	0	1632	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	50.0	0.0
Total Split (%)	44.4%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	55.6%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		37.0	37.0					47.0	47.0		47.0	
Actuated g/C Ratio		0.41	0.41					0.52	0.52		0.52	
v/c Ratio		0.97	0.24					0.83	0.27		1.00	
Control Delay		31.1	14.2					8.7	3.7		38.5	
Queue Delay		31.2	0.0					1.0	0.0		0.0	
Total Delay		62.3	14.2					9.7	3.7		38.5	
LOS		E	B					A	A		D	
Approach Delay		58.1						9.2			38.5	

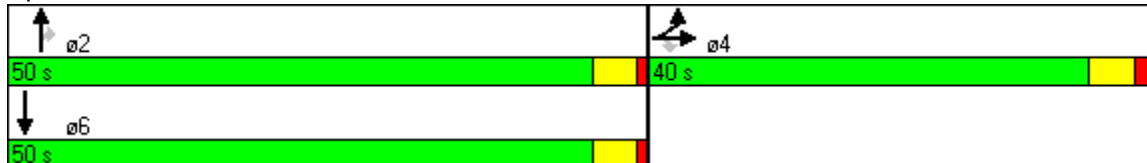


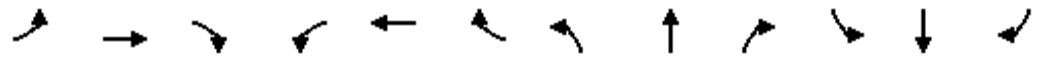
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						A			D		
Queue Length 50th (ft)		443	51					46	6		265	
Queue Length 95th (ft)		m373	m42					96	m10		#593	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1449	559					1624	417		1637	
Starvation Cap Reductn		142	0					98	0		0	
Spillback Cap Reductn		0	0					40	0		0	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		1.07	0.24					0.88	0.27		1.00	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 83 (92%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 35.8      Intersection LOS: D  
 Intersection Capacity Utilization 85.1%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 501: O'Farrell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3325	1583	0	0	0	0	1911	0	0	2052	0
Flt Permitted		0.993									0.846	
Satd. Flow (perm)	0	3325	1583	0	0	0	0	1911	0	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213					38				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	170	1065	202	0	0	0	0	98	141	157	475	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1300	213	0	0	0	0	251	0	0	665	0
Turn Type	Split		Perm							Perm		
Protected Phases	2	2						4			8	
Permitted Phases			2							8		
Detector Phases	2	2	2					4		8	8	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0					19.0		19.0	19.0	
Total Split (s)	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		27.0	27.0					27.0			27.0	
Actuated g/C Ratio		0.45	0.45					0.45			0.45	
v/c Ratio		0.87	0.26					0.28			0.84	
Control Delay		23.3	2.7					7.8			12.6	
Queue Delay		0.0	0.0					0.0			3.6	
Total Delay		23.3	2.7					7.8			16.2	
LOS		C	A					A			B	
Approach Delay		20.4						7.8			16.2	



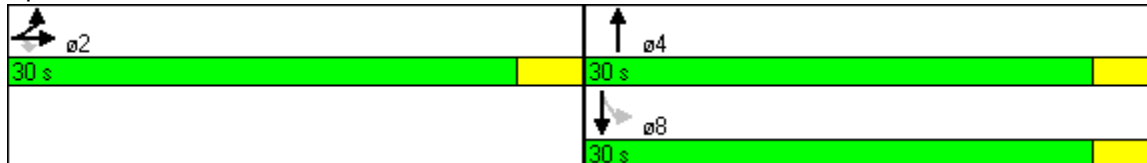


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)	210		0					48		75		
Queue Length 95th (ft)	#342		30					m94		m88		
Internal Link Dist (ft)	79				45			104		100		
Turn Bay Length (ft)												
Base Capacity (vph)	1496		830					881		791		
Starvation Cap Reductn	0		0					0		67		
Spillback Cap Reductn	0		0					0		0		
Storage Cap Reductn	0		0					0		0		
Reduced v/c Ratio	0.87		0.26					0.28		0.92		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 35 (58%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 17.9                      Intersection LOS: B  
 Intersection Capacity Utilization 91.9%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 502: O'Farrell St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4635	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4635	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23						11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	167	1212	0	0	0	0	0	1401	341	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1452	0	0	0	0	0	1834	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0	0.0	0.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		23.0						31.0				
Actuated g/C Ratio		0.38						0.52				
v/c Ratio		0.74						0.76				
Control Delay		9.7						16.1				
Queue Delay		0.0						1.0				
Total Delay		9.7						17.1				
LOS		A						B				
Approach Delay		9.7						17.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	83						234					
Queue Length 95th (ft)	m104						288					
Internal Link Dist (ft)	288			110			116			99		
Turn Bay Length (ft)												
Base Capacity (vph)	1952						2400					
Starvation Cap Reductn	0						303					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.74						0.87					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 53 (88%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 13.8      Intersection LOS: B  
 Intersection Capacity Utilization 68.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 503: O'Farrell St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			9									33
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1229	324	0	0	0	0	0	0	284	1336	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1294	341	0	0	0	0	0	0	0	1705	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0									24.0
Actuated g/C Ratio		0.50	0.50									0.40
v/c Ratio		0.73	0.43									0.89
Control Delay		6.1	4.8									12.4
Queue Delay		0.0	0.0									0.2
Total Delay		6.1	4.8									12.5
LOS		A	A									B
Approach Delay		5.8										12.5



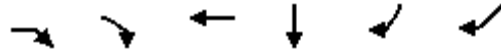
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A											B	
Queue Length 50th (ft)	63		29									46	
Queue Length 95th (ft)	75		m36									m#151	
Internal Link Dist (ft)	186		409			292			257				
Turn Bay Length (ft)													
Base Capacity (vph)	1770		796								1908		
Starvation Cap Reductn	0		0								14		
Spillback Cap Reductn	0		0								0		
Storage Cap Reductn	0		0								0		
Reduced v/c Ratio	0.73		0.43								0.90		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 9.3                      Intersection LOS: A  
 Intersection Capacity Utilization 72.2%                      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 504: O'Farrell St. & Hyde St.





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4984	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4984	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		2		6		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1320	379	1676	2096	322	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1389	399	1764	2522	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.98	0.54	0.77	1.08		
Control Delay	44.1	20.4	28.7	58.3		
Queue Delay	0.0	0.0	1.2	22.6		
Total Delay	44.1	20.4	29.8	80.9		
LOS	D	C	C	F		
Approach Delay			29.8	80.9		





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6751	0	0	0	0
Flt Permitted								0.993				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6751	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								9				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	1140	202	536	3130	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1226	217	0	3703	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.70	0.39		0.95				
Control Delay					32.1	27.4		4.7				
Queue Delay					0.0	0.0		13.2				
Total Delay					32.1	27.4		17.9				
LOS					C	C		B				
Approach Delay					31.4			17.9				





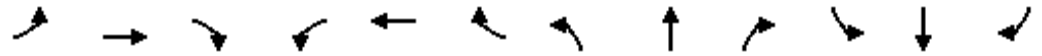
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						B					
Queue Length 50th (ft)					269	126			68			
Queue Length 95th (ft)					316	m185			m57			
Internal Link Dist (ft)	405				194		90				242	
Turn Bay Length (ft)												
Base Capacity (vph)					1743	563	3904					
Starvation Cap Reductn					0	0	290					
Spillback Cap Reductn					0	0	41					
Storage Cap Reductn					0	0	0					
Reduced v/c Ratio					0.70	0.39	1.02					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 21.7      Intersection LOS: C  
 Intersection Capacity Utilization 71.5%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 514: Geary St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		80
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5060	1469	0	3152	0	0	3035	1583
Flt Permitted					0.995							
Satd. Flow (perm)	0	0	0	0	4990	1152	0	3152	0	0	3035	1044
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						30						2
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	127	1233	139	0	1434	0	0	1293	167
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1388	142	0	1448	0	0	1333	172
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	42.2%	0.0%	57.8%	0.0%	0.0%	57.8%	57.8%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					35.0	35.0		49.0			49.0	49.0
Actuated g/C Ratio					0.39	0.39		0.54			0.54	0.54
v/c Ratio					0.71	0.30		0.84			0.81	0.30
Control Delay					25.6	17.0		5.4			18.9	14.3
Queue Delay					0.3	0.0		0.2			1.2	0.0
Total Delay					25.8	17.0		5.6			20.1	14.3
LOS					C	B		A			C	B
Approach Delay					25.0			5.6			19.4	



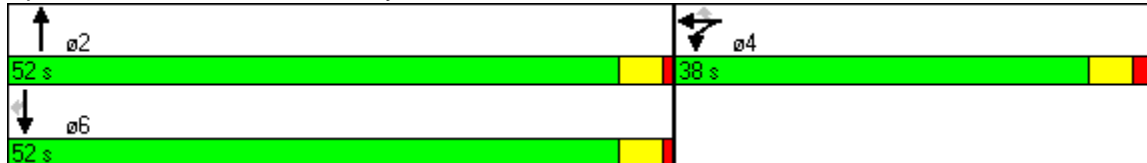
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					238	42		33			196	45
Queue Length 95th (ft)					291	88		m36			214	m55
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)												80
Base Capacity (vph)					1968	466		1716			1652	569
Starvation Cap Reductn					119	0		27			83	0
Spillback Cap Reductn					142	0		0			141	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.76	0.30		0.86			0.88	0.30

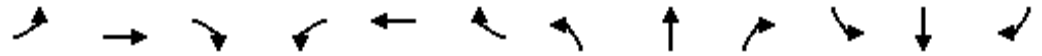
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	16.9
Intersection LOS:	B
Intersection Capacity Utilization:	85.1%
ICU Level of Service:	E
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 515: Geary St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3331	1583	0	2054	0	0	1957	0
Flt Permitted					0.995			0.288				
Satd. Flow (perm)	0	0	0	0	3331	1583	0	598	0	0	1957	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						112						26
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	113	1048	106	59	206	0	0	519	392
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1222	112	0	279	0	0	959	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	27.0	27.0	27.0	33.0	33.0	0.0	0.0	33.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.0%	45.0%	45.0%	55.0%	55.0%	0.0%	0.0%	55.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)				24.0	24.0	24.0	30.0	30.0			30.0	
Actuated g/C Ratio				0.40	0.40	0.40	0.50	0.50			0.50	
v/c Ratio				0.92	0.16	0.92	0.93	0.97			0.97	
Control Delay				27.2	2.3	27.2	47.6	36.7			47.6	
Queue Delay				0.3	0.0	0.3	0.0	20.3			0.0	
Total Delay				27.4	2.3	27.4	47.6	56.9			47.6	
LOS				C	A	C	D	E			D	
Approach Delay				25.3		25.3	47.6	56.9			47.6	

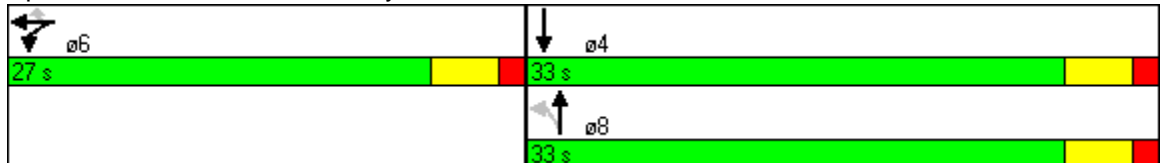


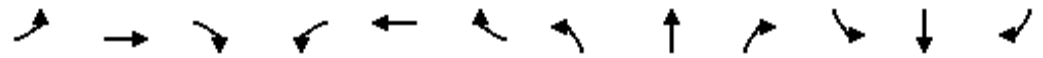
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR			
Approach LOS	C						D			E					
Queue Length 50th (ft)				248			2			89			216		
Queue Length 95th (ft)				m#336			m6			m#170			m#545		
Internal Link Dist (ft)	394			132			88			90					
Turn Bay Length (ft)															
Base Capacity (vph)				1332			700			299			992		
Starvation Cap Reductn				0			0			0			75		
Spillback Cap Reductn				8			0			0			69		
Storage Cap Reductn				0			0			0			0		
Reduced v/c Ratio				0.92			0.16			0.93			1.05		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 27 (45%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 39.5      Intersection LOS: D  
 Intersection Capacity Utilization 101.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 516: Geary St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						8		96				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		290			195			167			168	
Travel Time (s)		7.9			5.3			4.6			4.6	
Volume (vph)	0	0	0	0	928	307	339	1253	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	977	323	0	1676	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.52	0.38		0.93				
Control Delay					3.7	3.6		16.0				
Queue Delay					0.0	0.0		0.1				
Total Delay					3.7	3.6		16.0				
LOS					A	A		B				
Approach Delay					3.7			16.0				

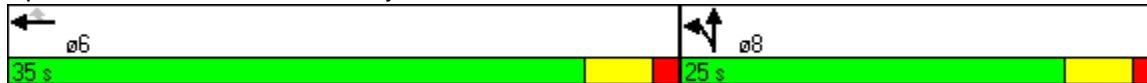


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)					42	25			131			
Queue Length 95th (ft)					m43	m25			#282			
Internal Link Dist (ft)	210				115				87	88		
Turn Bay Length (ft)												
Base Capacity (vph)					1887	848			1807			
Starvation Cap Reductn					0	0			4			
Spillback Cap Reductn					0	0			0			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.52	0.38			0.93			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 10.6                      Intersection LOS: B  
 Intersection Capacity Utilization 63.4%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 517: Geary St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4690	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4690	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					15						50	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	277	984	0	0	0	0	0	1343	251
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1328	0	0	0	0	0	1678	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.87						0.78	
Control Delay					23.0						9.8	
Queue Delay					0.0						0.3	
Total Delay					23.0						10.1	
LOS					C						B	
Approach Delay					23.0						10.1	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3262	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3262	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7										38
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	460	188	0	0	0	0	0	0	202	2230	56
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	737	0	0	0	0	0	0	0	0	2591	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		27.0									57.0	
Actuated g/C Ratio		0.30									0.63	
v/c Ratio		0.75									0.81	
Control Delay		33.8									9.2	
Queue Delay		0.0									11.4	
Total Delay		33.8									20.6	
LOS		C									C	
Approach Delay		33.8									20.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										C
Queue Length 50th (ft)		196										93
Queue Length 95th (ft)		255										112
Internal Link Dist (ft)		402			412			265				254
Turn Bay Length (ft)												
Base Capacity (vph)		984										3212
Starvation Cap Reductn		0										491
Spillback Cap Reductn		0										645
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.75										1.01

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	23.5
Intersection LOS:	C
Intersection Capacity Utilization	73.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3381	0	0	0	0	0	5730	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5730	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1							63			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	114	548	0	0	0	0	0	2946	386	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	744	0	0	0	0	0	3168	415	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	61.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	67.8%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		26.0						58.0	58.0			
Actuated g/C Ratio		0.29						0.64	0.64			
v/c Ratio		0.76						0.86	0.47			
Control Delay		37.9						3.2	1.8			
Queue Delay		0.0						0.5	0.8			
Total Delay		37.9						3.7	2.6			
LOS		D						A	A			
Approach Delay		37.9						3.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A				
Queue Length 50th (ft)		226						49	7			
Queue Length 95th (ft)		286						m51	m9			
Internal Link Dist (ft)		412			226			242			97	
Turn Bay Length (ft)												
Base Capacity (vph)		977						3693	885			
Starvation Cap Reductn		0						180	224			
Spillback Cap Reductn		0						0	0			
Storage Cap Reductn		0						0	0			
Reduced v/c Ratio		0.76						0.90	0.63			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 47 (52%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 9.5      Intersection LOS: A  
 Intersection Capacity Utilization 67.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3525	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3488	1345	0	0	0	0	3160	913	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			43						11			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	64	785	85	0	0	0	0	1251	277	0	1332	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	933	93	0	0	0	0	1277	283	0	1388	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		32.0	32.0					52.0	52.0		52.0	
Actuated g/C Ratio		0.36	0.36					0.58	0.58		0.58	
v/c Ratio		0.74	0.18					0.70	0.53		0.78	
Control Delay		32.8	14.8					3.7	4.3		14.8	
Queue Delay		0.2	0.0					0.6	0.4		0.4	
Total Delay		33.0	14.8					4.3	4.7		15.2	
LOS		C	B					A	A		B	
Approach Delay		31.4						4.4			15.2	



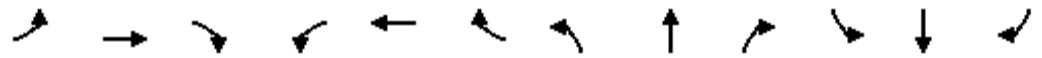
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)		267	24					36	13		170	
Queue Length 95th (ft)		338	m53					45	m17		m218	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)									70			
Base Capacity (vph)		1253	506					1826	532		1777	
Starvation Cap Reductn		37	0					211	44		97	
Spillback Cap Reductn		0	1					198	0		84	
Storage Cap Reductn		0	0					0	0		0	
Reduced v/c Ratio		0.77	0.18					0.79	0.58		0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 7 (8%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 15.1      Intersection LOS: B  
 Intersection Capacity Utilization 69.2%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 537: Post St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	1583	0	0	0	0	1992	0	0	1930	0
Flt Permitted		0.992									0.778	
Satd. Flow (perm)	0	3385	1583	0	0	0	0	1992	0	0	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289					61				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	125	662	275	0	0	0	0	247	109	176	479	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	829	289	0	0	0	0	375	0	0	689	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.73	0.40					0.32			0.80	
Control Delay		22.3	4.1					4.0			13.1	
Queue Delay		0.0	0.4					0.0			1.9	
Total Delay		22.3	4.6					4.0			15.0	
LOS		C	A					A			B	
Approach Delay		17.7						4.0			15.0	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4647	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4647	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27						79				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	149	798	0	0	0	0	0	1229	342	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	997	0	0	0	0	0	1654	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	28.6	28.6	0.0	0.0	0.0	0.0	0.0	31.4	0.0	0.0	0.0	0.0
Total Split (%)	47.7%	47.7%	0.0%	0.0%	0.0%	0.0%	0.0%	52.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		25.6						28.4				
Actuated g/C Ratio		0.43						0.47				
v/c Ratio		0.68						0.74				
Control Delay		19.5						4.8				
Queue Delay		0.0						0.3				
Total Delay		19.5						5.2				
LOS		B						A				
Approach Delay		19.5						5.2				

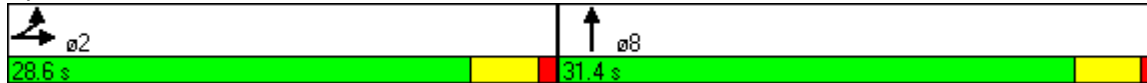


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A					
Queue Length 50th (ft)	181						46					
Queue Length 95th (ft)	m242						m48					
Internal Link Dist (ft)	424				382		103		91			
Turn Bay Length (ft)												
Base Capacity (vph)	1460						2241					
Starvation Cap Reductn	0						161					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.68						0.80					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 11 (18%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 10.6      Intersection LOS: B  
 Intersection Capacity Utilization 64.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

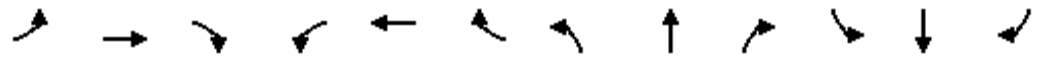
**Splits and Phases: 539: Post St. & Larkin St.**





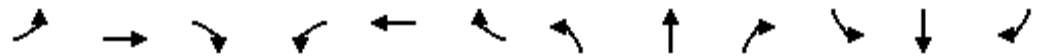
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			4									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	837	303	0	0	0	0	0	0	153	1291	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	881	319	0	0	0	0	0	0	0	1520	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.44	0.35								0.94	
Control Delay		6.3	5.8								25.6	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.3	5.8								25.6	
LOS		A	A								C	
Approach Delay		6.1									25.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4753	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4753	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			7	7							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	137	431	595	0	0	0	0	0	1919	58
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	161	454	626	0	0	0	0	0	2081	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	37.7	37.7	37.7	0.0	0.0	0.0	0.0	0.0	52.3	0.0
Total Split (%)	0.0%	0.0%	41.9%	41.9%	41.9%	0.0%	0.0%	0.0%	0.0%	0.0%	58.1%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			34.7	34.7	34.7						49.3	
Actuated g/C Ratio			0.39	0.39	0.39						0.55	
v/c Ratio			0.26	0.66	0.47						0.80	
Control Delay			19.4	6.6	4.7						7.5	
Queue Delay			0.0	0.1	0.0						0.5	
Total Delay			19.4	6.7	4.7						8.0	
LOS			B	A	A						A	
Approach Delay					5.5						8.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5720	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5720	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	876	286	150	2812	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	922	301	0	3022	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	36.7%	36.7%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		54.0				
Actuated g/C Ratio					0.33	0.33		0.60				
v/c Ratio					0.81	0.57		0.88				
Control Delay					29.2	24.6		4.3				
Queue Delay					0.2	0.0		1.2				
Total Delay					29.4	24.6		5.4				
LOS					C	C		A				
Approach Delay					28.2			5.4				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					303	183		25				
Queue Length 95th (ft)					m335	m207		25				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1137	528		3440				
Starvation Cap Reductn					18	0		135				
Spillback Cap Reductn					0	0		212				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.82	0.57		0.94				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 60 (67%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 12.0 Intersection LOS: B  
 Intersection Capacity Utilization 80.7% ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

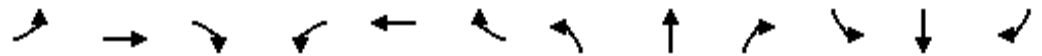
**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3336	1401
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3374	1358	0	3238	0	0	3336	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						37						7
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	100	1080	93	0	1273	0	0	1124	82
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			3	3
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1242	98	0	1340	0	0	1183	86
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.91	0.17		0.78			0.66	0.18
Control Delay					36.9	12.3		9.5			20.9	16.4
Queue Delay					2.0	0.0		5.2			0.2	0.1
Total Delay					38.9	12.3		14.8			21.1	16.5
LOS					D	B		B			C	B
Approach Delay					37.0			14.8			20.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50				50
Trailing Detector (ft)				0	0	0	0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1938	0	0	1887	0
Flt Permitted					0.991			0.605				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1183	0	0	1887	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						184						35
Link Speed (mph)		25			25			25				25
Link Distance (ft)		490			330			177				146
Travel Time (s)		13.4			9.0			4.8				4.0
Volume (vph)	0	0	0	252	1068	175	64	305	0	0	403	141
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	0	0	0	1389	184	0	388	0	0	572	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4				4
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4				4
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0				4.0
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0				19.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	33.0	27.0	27.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5				3.5
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0				0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max				Max
Act Effct Green (s)					30.0	30.0		24.0				24.0
Actuated g/C Ratio					0.50	0.50		0.40				0.40
v/c Ratio					0.82	0.21		0.82				0.74
Control Delay					9.9	0.7		31.5				12.8
Queue Delay					1.0	0.0		0.7				0.7
Total Delay					10.9	0.7		32.2				13.4
LOS					B	A		C				B
Approach Delay					9.7			32.2				13.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A					C					B		
Queue Length 50th (ft)	82					0	111					49	
Queue Length 95th (ft)	118					m0	m#254					m143	
Internal Link Dist (ft)	410					250					97		66
Turn Bay Length (ft)													
Base Capacity (vph)	1691					884	473					776	
Starvation Cap Reductn	0					0	0					45	
Spillback Cap Reductn	115					0	10					46	
Storage Cap Reductn	0					0	0					0	
Reduced v/c Ratio	0.88					0.21	0.84					0.78	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 27 (45%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 14.0      Intersection LOS: B  
 Intersection Capacity Utilization 96.2%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 557: Sutter St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4748	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4748	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						25		40				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1168	97	327	1058	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1229	102	0	1458	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.72	0.13		0.76				
Control Delay					6.3	1.8		6.2				
Queue Delay					0.0	0.0		0.1				
Total Delay					6.3	1.8		6.2				
LOS					A	A		A				
Approach Delay					6.0			6.2				

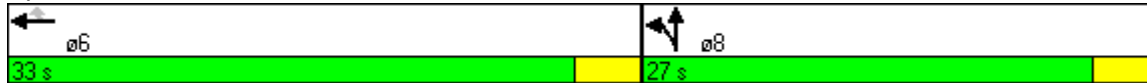


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					43	2		26				
Queue Length 95th (ft)					m61	m3		30				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	804		1923				
Starvation Cap Reductn					0	0		23				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.72	0.13		0.77				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 19 (32%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 6.1      Intersection LOS: A  
 Intersection Capacity Utilization 66.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					13						66	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	311	1063	0	0	0	0	0	1133	202
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1446	0	0	0	0	0	1406	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					32.0						22.0	
Actuated g/C Ratio					0.53						0.37	
v/c Ratio					0.80						0.82	
Control Delay					15.7						16.7	
Queue Delay					0.0						0.0	
Total Delay					15.7						16.7	
LOS					B						B	
Approach Delay					15.7						16.7	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					202						187	
Queue Length 95th (ft)					286						232	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1806						1712	
Starvation Cap Reductn					0						2	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.80						0.82	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	16.2
Intersection LOS:	B
Intersection Capacity Utilization:	71.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4760	0
Flt Permitted											0.994	
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4760	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		12										23
Link Speed (mph)		25			25			25				25
Link Distance (ft)		252			497			174				171
Travel Time (s)		6.9			13.6			4.7				4.7
Volume (vph)	0	1134	306	0	0	0	0	0	0	206	1584	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1516	0	0	0	0	0	0	0	0	1904	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	49.0	0.0
Total Split (%)	0.0%	45.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	54.4%	54.4%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		38.0									46.0	
Actuated g/C Ratio		0.42									0.51	
v/c Ratio		0.76									0.78	
Control Delay		25.0									13.7	
Queue Delay		0.0									0.5	
Total Delay		25.0									14.2	
LOS		C									B	
Approach Delay		25.0									14.2	

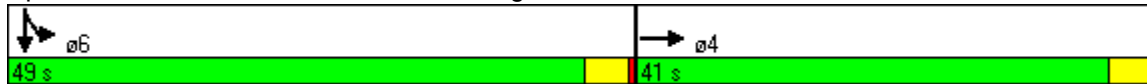


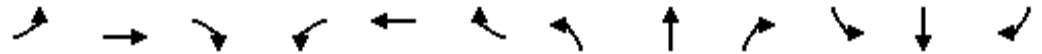
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		259										157
Queue Length 95th (ft)		317										238
Internal Link Dist (ft)		172				417		94		91		
Turn Bay Length (ft)												
Base Capacity (vph)		1999										2444
Starvation Cap Reductn		0										177
Spillback Cap Reductn		0										95
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.76										0.84

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	68 (76%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	18.9
Intersection LOS:	B
Intersection Capacity Utilization	70.2%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4826	0	0	0	0	0	5853	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	4826	0	0	0	0	0	5853	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	283	1057	0	0	0	0	0	2667	373	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1396	0	0	0	0	0	3304	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	0.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		29.0						55.0				
Actuated g/C Ratio		0.32						0.61				
v/c Ratio		0.90						0.92				
Control Delay		21.6						8.6				
Queue Delay		0.0						32.4				
Total Delay		21.6						41.0				
LOS		C						D				
Approach Delay		21.6						41.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						D				
Queue Length 50th (ft)		90						75				
Queue Length 95th (ft)		#249						80				
Internal Link Dist (ft)		417			148			104			82	
Turn Bay Length (ft)												
Base Capacity (vph)		1556						3581				
Starvation Cap Reductn		0						112				
Spillback Cap Reductn		0						494				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.90						1.07				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 35.2                      Intersection LOS: D  
 Intersection Capacity Utilization 77.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑	↓	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50	50	50	
Trailing Detector (ft)	0	0						0	0	0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4980	0	0	0	0	0	3353	1417	1770	3362	0
Flt Permitted		0.996								0.950		
Satd. Flow (perm)	0	4937	0	0	0	0	0	3353	942	1685	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13							27			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	104	1240	86	0	0	0	0	1227	96	222	1120	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								1	1		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1572	0	0	0	0	0	1394	109	252	1273	0
Turn Type	Split								Perm	Prot		
Protected Phases	4	4						2		1	6	
Permitted Phases									2			
Detector Phases	4	4						2	2	1	6	
Minimum Initial (s)	4.0	4.0						4.0	4.0	3.0	4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0	7.4	48.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	37.5	37.5	15.5	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	17.2%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5	3.5	3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9	0.9	0.9	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max	Max	Max	
Act Effct Green (s)		34.0						34.5	34.5	12.5	50.0	
Actuated g/C Ratio		0.38						0.38	0.38	0.14	0.56	
v/c Ratio		0.83						1.08	0.29	1.02	0.68	
Control Delay		35.7						64.3	6.4	69.7	3.8	
Queue Delay		1.7						17.0	0.0	0.0	0.5	
Total Delay		37.4						81.3	6.4	69.7	4.3	
LOS		D						F	A	E	A	
Approach Delay		37.4						75.9			15.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1908	0	0	1939	0
Flt Permitted		0.998									0.820	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1908	0	0	1603	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19						7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	63	1402	93	0	0	0	0	393	84	83	451	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1640	0	0	0	0	0	502	0	0	562	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	33.0	33.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	55.0%	55.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.0						30.0			30.0	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.85						0.52			0.70	
Control Delay		21.6						8.9			20.9	
Queue Delay		0.6						0.5			9.0	
Total Delay		22.2						9.5			29.9	
LOS		C						A			C	
Approach Delay		22.2						9.5			29.9	



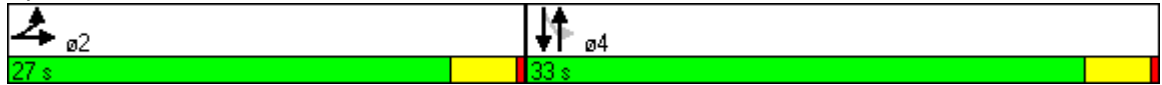


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			C	
Queue Length 50th (ft)		187						56			199	
Queue Length 95th (ft)		244						m108			m296	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		1940						958			802	
Starvation Cap Reductn		0						161			206	
Spillback Cap Reductn		80						59			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.88						0.63			0.94	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 56 (93%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 21.4                      Intersection LOS: C  
 Intersection Capacity Utilization 94.5%                      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3061	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3061	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						6	23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	129	1440	0	0	0	0	0	807	365	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1652	0	0	0	0	0	879	354	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.63						0.78	0.78			
Control Delay		3.2						11.2	17.2			
Queue Delay		0.0						0.7	0.0			
Total Delay		3.2						11.9	17.2			
LOS		A						B	B			
Approach Delay		3.2						13.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A							B				
Queue Length 50th (ft)	27							100	7			
Queue Length 95th (ft)	47							#171 m#215				
Internal Link Dist (ft)	216				181		103			10		
Turn Bay Length (ft)												
Base Capacity (vph)	2607							1126	456			
Starvation Cap Reductn	0							0	0			
Spillback Cap Reductn	0							64	0			
Storage Cap Reductn	0							0	0			
Reduced v/c Ratio	0.63							0.83	0.78			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 7 (12%), Referenced to phase 8:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 7.6                      Intersection LOS: A  
 Intersection Capacity Utilization 63.3%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 587: Bush St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		21										28
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1414	371	0	0	0	0	0	0	153	964	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1879	0	0	0	0	0	0	0	0	1176	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.72									0.72	
Control Delay		5.5									12.0	
Queue Delay		0.0									0.0	
Total Delay		5.5									12.1	
LOS		A									B	
Approach Delay		5.5									12.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A										B
Queue Length 50th (ft)		58										80
Queue Length 95th (ft)		72										50
Internal Link Dist (ft)		160				385		52		237		
Turn Bay Length (ft)												
Base Capacity (vph)		2608										1628
Starvation Cap Reductn		0										1
Spillback Cap Reductn		0										0
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.72										0.72

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	64.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4686	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4686	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				15							9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	384	1588	0	0	0	0	0	1341	181
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	404	1672	0	0	0	0	0	1620	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	46.0	46.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%	0.0%	0.0%	0.0%	0.0%	48.9%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				43.0	43.0						41.0	
Actuated g/C Ratio				0.48	0.48						0.46	
v/c Ratio				0.47	0.72						0.76	
Control Delay				5.3	5.8						8.9	
Queue Delay				0.0	0.2						1.6	
Total Delay				5.3	6.0						10.4	
LOS				A	A						B	
Approach Delay					5.9						10.4	

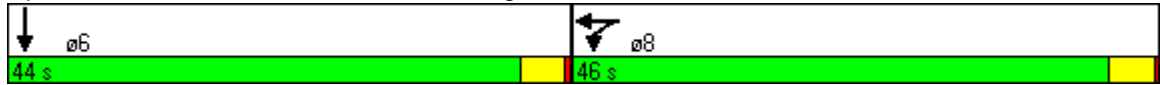


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS								A				B
Queue Length 50th (ft)				37	67						128	
Queue Length 95th (ft)				m35	m64						61	
Internal Link Dist (ft)		169			423			88			273	
Turn Bay Length (ft)												
Base Capacity (vph)				854	2329						2140	
Starvation Cap Reductn				0	116						325	
Spillback Cap Reductn				0	0						0	
Storage Cap Reductn				0	0						0	
Reduced v/c Ratio				0.47	0.76						0.89	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 82 (91%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 7.9      Intersection LOS: A  
 Intersection Capacity Utilization 81.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 612: Pine St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6029	0	0	5670	0	0	0	0
Flt Permitted								0.996				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5670	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								1				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			452			172			192	
Travel Time (s)		13.7			12.3			4.7			5.2	
Volume (vph)	0	0	0	0	1740	425	232	2669	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2608	0	0	3086	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					37.0			47.0				
Actuated g/C Ratio					0.41			0.52				
v/c Ratio					1.05			1.04				
Control Delay					53.9			37.8				
Queue Delay					38.5			27.4				
Total Delay					92.4			65.2				
LOS					F			E				
Approach Delay					92.4			65.2				



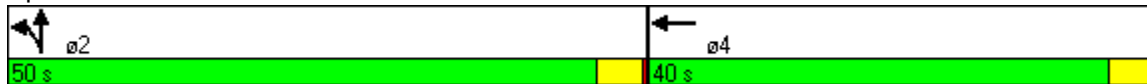


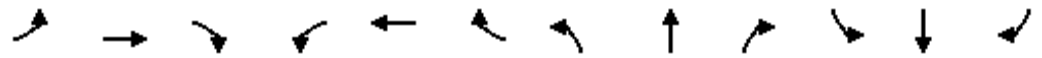
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			E				
Queue Length 50th (ft)					~492			~584				
Queue Length 95th (ft)					#489			#667				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2479			2961				
Starvation Cap Reductn					195			174				
Spillback Cap Reductn					0			88				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					1.14			1.11				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	110
Control Type:	Pretimed
Maximum v/c Ratio:	1.05
Intersection Signal Delay:	77.7
Intersection LOS:	E
Intersection Capacity Utilization:	81.2%
ICU Level of Service:	D
Analysis Period (min):	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Splits and Phases: 613: Pine St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑		↑	↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		70
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	50
Trailing Detector (ft)				0	0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6261	0	1770	3345	0	0	3193	1280
Flt Permitted				0.998			0.950					
Satd. Flow (perm)	0	0	0	0	6230	0	1681	3345	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22							19
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	80	1806	155	148	1187	0	0	1295	211
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								2			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2148	0	156	1249	0	0	1363	222
Turn Type				Split			Prot					Perm
Protected Phases				8	8		5	2			6	
Permitted Phases												6
Detector Phases				8	8		5	2			6	6
Minimum Initial (s)				4.0	4.0		2.5	4.0			4.0	4.0
Minimum Split (s)				36.0	36.0		7.0	48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	0.0	11.0	54.0	0.0	0.0	43.0	43.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	12.2%	60.0%	0.0%	0.0%	47.8%	47.8%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				2.2	2.2		1.0	1.0			1.0	1.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	Max
Act Effct Green (s)					33.0		8.0	51.0			40.0	40.0
Actuated g/C Ratio					0.37		0.09	0.57			0.44	0.44
v/c Ratio					0.93		0.99	0.66			0.96	0.57
Control Delay					35.9		53.0	2.1			32.5	21.2
Queue Delay					60.1		0.0	3.3			24.1	10.6
Total Delay					95.9		53.0	5.4			56.6	31.8
LOS					F		D	A			E	C
Approach Delay					95.9			10.7			53.1	

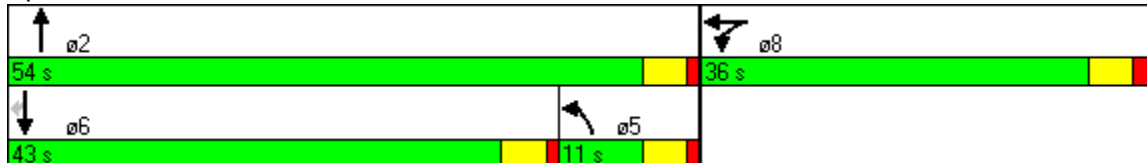


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			B			D	
Queue Length 50th (ft)					332		98	34			228	63
Queue Length 95th (ft)					#419		m94	m27			m#506	m78
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)							115					70
Base Capacity (vph)					2310		157	1896			1419	388
Starvation Cap Reductn					0		0	529			126	0
Spillback Cap Reductn					417		0	0			0	135
Storage Cap Reductn					0		0	0			0	0
Reduced v/c Ratio					1.13		0.99	0.91			1.05	0.88

**Intersection Summary**

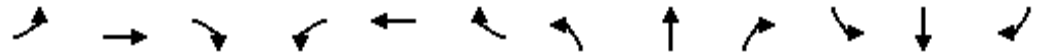
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 59.4                      Intersection LOS: E  
 Intersection Capacity Utilization 84.5%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6147	0	0	1941	0	0	1891	0
Flt Permitted				0.998			0.721					
Satd. Flow (perm)	0	0	0	0	6147	0	0	1410	0	0	1891	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24						2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	94	1808	108	67	389	0	0	410	134
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2116	0	0	480	0	0	573	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	31.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	51.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					26.0			28.0			28.0	
Actuated g/C Ratio					0.43			0.47			0.47	
v/c Ratio					0.79			0.73			0.65	
Control Delay					8.6			21.7			14.6	
Queue Delay					0.2			3.3			0.5	
Total Delay					8.8			25.0			15.0	
LOS					A			C			B	
Approach Delay					8.8			25.0			15.0	

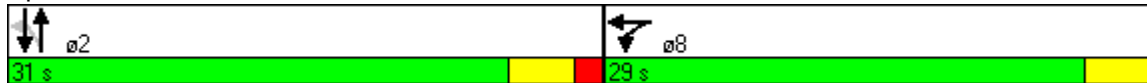


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			C			B	
Queue Length 50th (ft)					100			181			111	
Queue Length 95th (ft)					m116			m#276			169	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2677			658			884	
Starvation Cap Reductn					0			100			73	
Spillback Cap Reductn					104			0			71	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.82			0.86			0.71	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 55 (92%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 12.4      Intersection LOS: B  
 Intersection Capacity Utilization 93.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6104	0	0	3157	0	0	0	0
Flt Permitted								0.983				
Satd. Flow (perm)	0	0	0	0	6104	0	0	3157	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					83			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1685	211	325	619	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1996	0	0	994	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.59			0.89				
Control Delay					3.9			14.6				
Queue Delay					0.0			0.1				
Total Delay					3.9			14.7				
LOS					A			B				
Approach Delay					3.9			14.7				



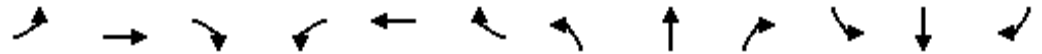
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	42						32					
Queue Length 95th (ft)	47						#262					
Internal Link Dist (ft)	410			200			87			283		
Turn Bay Length (ft)												
Base Capacity (vph)	3395						1113					
Starvation Cap Reductn	0						2					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.59						0.89					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	40 (67%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	7.5
Intersection LOS:	A
Intersection Capacity Utilization:	61.2%
ICU Level of Service:	B
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4482	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4482	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					56						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	272	1671	0	0	0	0	0	845	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2045	0	0	0	0	0	1126	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.64						0.63	
Control Delay					11.8						16.2	
Queue Delay					0.0						0.0	
Total Delay					11.8						16.2	
LOS					B						B	
Approach Delay					11.8						16.2	



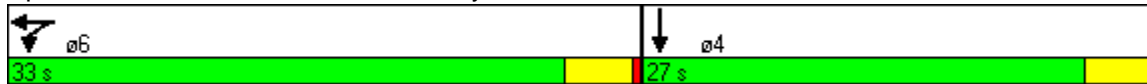


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					141						113	
Queue Length 95th (ft)					176						154	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3210						1798	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.64						0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	35 (58%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization:	56.4%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3511	0	0	0	0	0	3507	0
Flt Permitted					0.641						0.997	
Satd. Flow (perm)	0	3458	0	0	2269	0	0	0	0	0	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24									6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	559	102	118	586	0	0	0	0	77	1302	55
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	719	0	0	818	0	0	0	0	0	1542	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						25.0	25.0
Total Split (s)	0.0	42.0	0.0	42.0	42.0	0.0	0.0	0.0	0.0	48.0	48.0	0.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		39.0			39.0							45.0
Actuated g/C Ratio		0.43			0.43							0.50
v/c Ratio		0.48			0.83							0.88
Control Delay		18.8			28.4							26.8
Queue Delay		0.0			0.0							5.7
Total Delay		18.8			28.4							32.5
LOS		B			C							C
Approach Delay		18.8			28.4							32.5

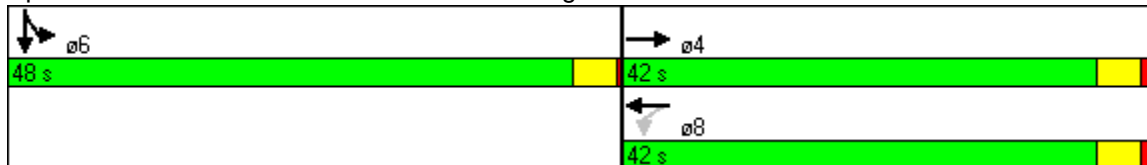


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C						C	
Queue Length 50th (ft)		143			142						491	
Queue Length 95th (ft)		193			m130						m463	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1512			983						1757	
Starvation Cap Reductn		0			0						175	
Spillback Cap Reductn		0			0						33	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.48			0.83						0.97	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 28.2                      Intersection LOS: C  
 Intersection Capacity Utilization 88.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**





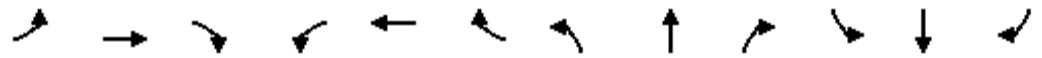
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3426	0	0	5913	0	0	0	0
Flt Permitted	0.154							0.999				
Satd. Flow (perm)	287	3539	0	0	3426	0	0	5913	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11			18				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	99	537	0	0	618	170	86	2859	149	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	116	632	0	0	927	0	0	3640	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	6.6	32.6	0.0	0.0	26.0	0.0	57.4	57.4	0.0	0.0	0.0	0.0
Total Split (%)	7.3%	36.2%	0.0%	0.0%	28.9%	0.0%	63.8%	63.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	29.6	29.6			23.0			54.4				
Actuated g/C Ratio	0.33	0.33			0.26			0.60				
v/c Ratio	0.75	0.54			1.05			1.02				
Control Delay	48.3	13.5			56.5			22.6				
Queue Delay	0.0	0.0			0.0			16.0				
Total Delay	48.3	13.5			56.5			38.6				
LOS	D	B			E			D				
Approach Delay		18.9			56.5			38.6				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		110	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	
Trailing Detector (ft)	0	0		0	0			0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3326	0	0	3361	0	0	3336	1401	0	3042	0
Flt Permitted		0.809			0.815							
Satd. Flow (perm)	0	2693	0	0	2738	0	0	3336	918	0	3042	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			8				28		10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	28	539	119	42	715	96	0	1227	115	0	1345	73
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								3	3		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	789	0	0	937	0	0	1265	119	0	1509	0
Turn Type	Perm			Perm					Perm			
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			
Detector Phases	4	4		4	4			2	2		2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	0.0	53.0	53.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	41.1%	41.1%	0.0%	0.0%	58.9%	58.9%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	
Act Effct Green (s)		34.0			34.0			50.0	50.0		50.0	
Actuated g/C Ratio		0.38			0.38			0.56	0.56		0.56	
v/c Ratio		0.77			0.90			0.68	0.23		0.89	
Control Delay		45.3			39.6			3.6	1.4		18.0	
Queue Delay		0.4			2.3			0.2	0.0		9.3	
Total Delay		45.7			41.9			3.8	1.4		27.3	
LOS		D			D			A	A		C	
Approach Delay		45.7			41.9			3.6			27.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	3409	0	0	1918	0	0	1905	0
Flt Permitted								0.963			0.898	
Satd. Flow (perm)	0	3385	0	0	3409	0	0	1851	0	0	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			26			19			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	551	103	0	785	100	25	408	64	72	441	88
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	688	0	0	931	0	0	522	0	0	633	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	25.0	0.0	0.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	0.0%	41.7%	0.0%	0.0%	41.7%	0.0%	58.3%	58.3%	0.0%	58.3%	58.3%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		22.0			22.0			32.0			32.0	
Actuated g/C Ratio		0.37			0.37			0.53			0.53	
v/c Ratio		0.54			0.74			0.52			0.68	
Control Delay		16.0			6.2			5.6			8.5	
Queue Delay		0.0			0.0			0.3			0.7	
Total Delay		16.0			6.2			5.9			9.2	
LOS		B			A			A			A	
Approach Delay		16.0			6.2			5.9			9.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		94			27			39			66	
Queue Length 95th (ft)		140			40			m97			127	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1267			1266			996			928	
Starvation Cap Reductn		0			0			117			89	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.54			0.74			0.59			0.75	

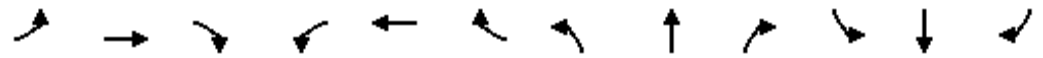
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	24 (40%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization	86.5%
ICU Level of Service	E
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 642: California St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3458	0	1770	1803	0	1770	0	1290
Flt Permitted		0.828					0.950			0.187		
Satd. Flow (perm)	0	2872	0	0	3458	0	1770	1803	0	348	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			38				31
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			282			363				667
Travel Time (s)		13.4			7.7			9.9				18.2
Volume (vph)	31	656	0	0	727	17	98	575	157	84	0	60
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	731	0	0	896	0	104	779	0	105	0	75
Turn Type	Perm						Perm			custom		custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	23.0	23.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	37.0	0.0	37.0
Total Split (%)	38.3%	38.3%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	61.7%	0.0%	61.7%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		20.0			20.0		34.0	34.0		34.0		34.0
Actuated g/C Ratio		0.33			0.33		0.57	0.57		0.57		0.57
v/c Ratio		0.76			0.78		0.10	0.75		0.53		0.10
Control Delay		34.7			23.7		3.3	8.3		21.2		4.4
Queue Delay		0.0			0.0		0.0	0.0		0.0		0.0
Total Delay		34.7			23.7		3.3	8.3		21.2		4.4
LOS		C			C		A	A		C		A
Approach Delay		34.7			23.7			7.7				

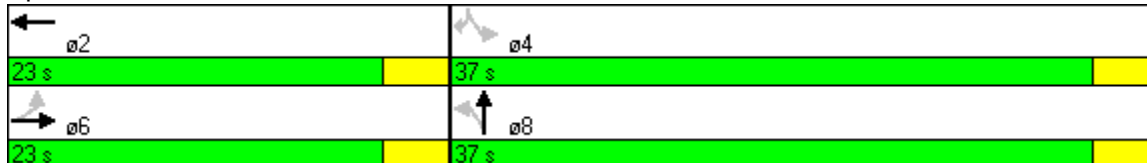


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		146			149		6	50		21		6
Queue Length 95th (ft)		#210			189		m10	m112		58		18
Internal Link Dist (ft)		412			202			283			587	
Turn Bay Length (ft)												
Base Capacity (vph)		957			1155		1003	1038		197		744
Starvation Cap Reductn		0			0		0	0		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0
Reduced v/c Ratio		0.76			0.78		0.10	0.75		0.53		0.10

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 48 (80%), Referenced to phase 2:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 20.8      Intersection LOS: C  
 Intersection Capacity Utilization 95.5%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 643: California St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1840	0	0	0	0	0	1535	0
Flt Permitted	0.250			0.950								
Satd. Flow (perm)	466	0	1583	1770	1840	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			146	146	5						6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	120	0	177	374	357	30	0	0	0	0	883	51
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	171	0	253	420	435	0	0	0	0	0	953	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	34.0	0.0	34.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	0.0%	37.8%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	31.0		31.0	31.0	31.0						53.0	
Actuated g/C Ratio	0.34		0.34	0.34	0.34						0.59	
v/c Ratio	1.06		0.39	0.60	0.68						1.05	
Control Delay	121.3		11.5	10.4	18.2						53.6	
Queue Delay	0.0		0.8	3.2	0.0						98.3	
Total Delay	121.3		12.3	13.6	18.2						151.9	
LOS	F		B	B	B						F	
Approach Delay					15.9						151.9	

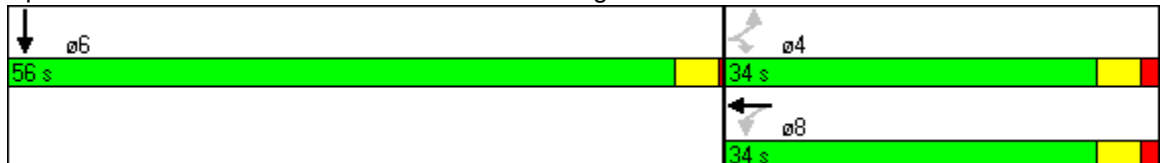


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Approach LOS							B							F
Queue Length 50th (ft)	~108		42	215	262							~586		
Queue Length 95th (ft)	#161		60	m224	m273							#829		
Internal Link Dist (ft)		120			429			288				241		
Turn Bay Length (ft)														
Base Capacity (vph)	161		641	705	637							906		
Starvation Cap Reductn	0		0	0	0							0		
Spillback Cap Reductn	0		171	189	0							163		
Storage Cap Reductn	0		0	0	0							0		
Reduced v/c Ratio	1.06		0.54	0.81	0.68							1.28		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 16 (18%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 81.6                      Intersection LOS: F  
 Intersection Capacity Utilization 91.2%                      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 659: Sacramento St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3440	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3440	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1		24					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	669	156	92	3036	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	897	0	99	3265	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	26.3	0.0	63.7	63.7	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	29.2%	0.0%	70.8%	70.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					23.3		60.7	60.7				
Actuated g/C Ratio					0.26		0.67	0.67				
v/c Ratio					1.01		0.08	1.01				
Control Delay					48.8		0.3	12.5				
Queue Delay					0.0		0.0	0.0				
Total Delay					48.8		0.3	12.5				
LOS					D		A	B				
Approach Delay					48.8			12.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D			B				
Queue Length 50th (ft)					~289		1	~93				
Queue Length 95th (ft)					#412		m0	m63				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					891		1202	3230				
Starvation Cap Reductn					0		0	0				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					1.01		0.08	1.01				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 19.9      Intersection LOS: B  
 Intersection Capacity Utilization 88.8%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3233	0	0	3150	0	0	3186	1275
Flt Permitted				0.994								
Satd. Flow (perm)	0	0	0	0	3181	0	0	3150	0	0	3186	1035
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18							27
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	117	725	109	0	1351	0	0	1301	100
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	991	0	0	1393	0	0	1369	105
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	57.8%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					35.0			49.0			49.0	49.0
Actuated g/C Ratio					0.39			0.54			0.54	0.54
v/c Ratio					0.78			0.81			0.79	0.18
Control Delay					29.0			6.1			13.1	8.1
Queue Delay					0.0			0.0			2.0	0.0
Total Delay					29.0			6.1			15.1	8.1
LOS					C			A			B	A
Approach Delay					29.0			6.1			14.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					251			44			150	11
Queue Length 95th (ft)					330			m51			m183	m16
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												80
Base Capacity (vph)					1268			1715			1735	576
Starvation Cap Reductn					0			0			222	0
Spillback Cap Reductn					0			0			0	0
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.78			0.81			0.90	0.18

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 53 (59%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 15.2      Intersection LOS: B  
 Intersection Capacity Utilization 71.7%      ICU Level of Service C  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3493	0	0	1947	0	0	1871	0
Flt Permitted					0.994			0.841				
Satd. Flow (perm)	0	0	0	0	3493	0	0	1644	0	0	1871	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						63	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	103	675	40	42	466	0	0	498	234
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	861	0	0	535	0	0	770	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.74			0.57			0.71	
Control Delay					22.0			14.6			7.2	
Queue Delay					0.2			0.1			0.2	
Total Delay					22.2			14.6			7.4	
LOS					C			B			A	
Approach Delay					22.2			14.6			7.4	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			A	
Queue Length 50th (ft)					140			144			54	
Queue Length 95th (ft)					201			m174			103	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1170			932			1088	
Starvation Cap Reductn					0			24			32	
Spillback Cap Reductn					36			15			32	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.76			0.59			0.73	

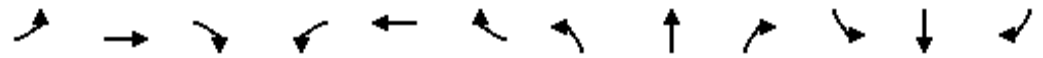
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization:	88.9%
ICU Level of Service:	E
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 662: Sacramento St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1693	0	0	1493	0	0	5024	0	0	0	0
Flt Permitted		0.921						0.999				
Satd. Flow (perm)	0	1578	0	0	1493	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			39				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	14	47	0	0	7	146	38	2915	239	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	64	0	0	161	0	0	3360	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	20.5	20.5	0.0	0.0	20.5	0.0	69.5	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	22.8%	0.0%	77.2%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		17.5			17.5			66.5				
Actuated g/C Ratio		0.19			0.19			0.74				
v/c Ratio		0.21			0.55			0.90				
Control Delay		34.0			51.9			1.8				
Queue Delay		0.0			0.0			1.7				
Total Delay		34.0			51.9			3.5				
LOS		C			D			A				
Approach Delay		34.0			51.9			3.5				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↗		↑↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1571	0	0	0	0	0	3185	1267	0	2984	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	1565	0	0	0	0	0	3185	802	0	2984	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11							31		24	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	9	233	44	0	0	0	0	1310	150	0	1357	153
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20	20		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	367	0	0	0	0	0	1394	160	0	1589	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.69						0.73	0.32		0.88	
Control Delay		28.9						3.2	1.5		15.9	
Queue Delay		0.0						0.3	0.0		0.5	
Total Delay		28.9						3.5	1.5		16.4	
LOS		C						A	A		B	
Approach Delay		28.9						3.3			16.4	



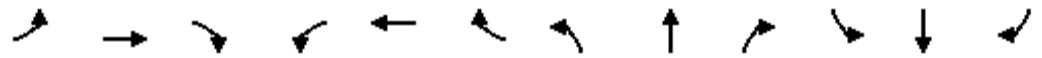
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		163						36	2		168	
Queue Length 95th (ft)		m199						40	m3		#201	
Internal Link Dist (ft)		370			421			247			76	
Turn Bay Length (ft)									70			
Base Capacity (vph)		531						1911	494		1800	
Starvation Cap Reductn		0						120	0		0	
Spillback Cap Reductn		0						1	0		37	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.69						0.78	0.32		0.90	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 57 (63%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 11.9                      Intersection LOS: B  
 Intersection Capacity Utilization 73.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3040	0	0	0	0	0	1881	0	0	1947	0
Flt Permitted		0.992									0.937	
Satd. Flow (perm)	0	3040	0	0	0	0	0	1881	0	0	1832	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		263						47				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	63	70	250	0	0	0	0	363	143	43	482	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	403	0	0	0	0	0	533	0	0	552	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	27.5	27.5	0.0	0.0	0.0	0.0	0.0	32.5	0.0	32.5	32.5	0.0
Total Split (%)	45.8%	45.8%	0.0%	0.0%	0.0%	0.0%	0.0%	54.2%	0.0%	54.2%	54.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.5						29.5			29.5	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.29						0.56			0.61	
Control Delay		4.9						8.8			13.1	
Queue Delay		0.0						0.2			0.1	
Total Delay		4.9						9.0			13.2	
LOS		A						A			B	
Approach Delay		4.9						9.0			13.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		15						47			107	
Queue Length 95th (ft)		40						m109			159	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1397						949			901	
Starvation Cap Reductn		0						78			20	
Spillback Cap Reductn		1						0			24	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.29						0.61			0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 9 (15%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 9.4                      Intersection LOS: A  
 Intersection Capacity Utilization 77.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 673: Clay St. & Polk St.

 2 32.5 s	 4 27.5 s
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1741	0	0	0	0	0	1486	0	0	1857	0
Flt Permitted		0.999									0.990	
Satd. Flow (perm)	0	1741	0	0	0	0	0	1486	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39						41			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	8	191	129	0	0	0	0	82	33	24	783	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	420	0	0	0	0	0	156	0	0	844	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	57.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		30.0						54.0			54.0	
Actuated g/C Ratio		0.33						0.60			0.60	
v/c Ratio		0.69						0.17			0.76	
Control Delay		30.6						0.4			16.3	
Queue Delay		0.0						0.0			1.6	
Total Delay		30.6						0.4			17.9	
LOS		C						A			B	
Approach Delay		30.6						0.4			17.9	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C						A			B		
Queue Length 50th (ft)		186						0			225		
Queue Length 95th (ft)		236						m0			342		
Internal Link Dist (ft)		160				442			211			300	
Turn Bay Length (ft)													
Base Capacity (vph)		606						908			1104		
Starvation Cap Reductn		0						0			120		
Spillback Cap Reductn		0						0			0		
Storage Cap Reductn		0						0			0		
Reduced v/c Ratio		0.69						0.17			0.86		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 2 (2%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 19.7      Intersection LOS: B  
 Intersection Capacity Utilization 75.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 679: Washington St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3493	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.993										
Satd. Flow (perm)	0	3493	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						36				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	37	211	0	0	0	0	0	2863	212	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	388	0	0	0	0	0	3272	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	20.5	20.5	0.0	0.0	0.0	0.0	0.0	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		17.5						66.5				
Actuated g/C Ratio		0.19						0.74				
v/c Ratio		0.57						0.93				
Control Delay		41.0						5.2				
Queue Delay		0.0						0.6				
Total Delay		41.0						5.8				
LOS		D						A				
Approach Delay		41.0						5.8				



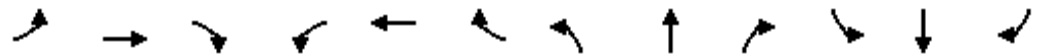
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		D							A				
Queue Length 50th (ft)		91							39				
Queue Length 95th (ft)		97							43				
Internal Link Dist (ft)		442				372			216			289	
Turn Bay Length (ft)													
Base Capacity (vph)		682							3512				
Starvation Cap Reductn		0							60				
Spillback Cap Reductn		0							0				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.57							0.95				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization	73.6%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3333	0	0	0	0	0	1916	0	0	1947	0
Flt Permitted		0.992									0.955	
Satd. Flow (perm)	0	3333	0	0	0	0	0	1916	0	0	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		108						20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	66	239	115	0	0	0	0	364	62	32	410	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	442	0	0	0	0	0	448	0	0	466	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	33.0	33.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	55.0%	55.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.0						30.0			30.0	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.32						0.46			0.50	
Control Delay		9.9						3.8			11.9	
Queue Delay		0.0						0.2			0.2	
Total Delay		9.9						4.0			12.2	
LOS		A						A			B	
Approach Delay		9.9						4.0			12.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		40						19			109	
Queue Length 95th (ft)		69						40			157	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1398						968			934	
Starvation Cap Reductn		0						115			99	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.32						0.53			0.56	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	16 (27%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	8.7
Intersection LOS:	A
Intersection Capacity Utilization	66.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1861	0	0	1831	0
Flt Permitted		0.578		0.686				0.988				
Satd. Flow (perm)	0	987	0	1278	1829	0	0	1840	0	0	1831	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66			3							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	33	0	52	93	356	15	2	88	0	0	674	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	108	0	126	501	0	0	116	0	0	802	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	54.0	54.0	0.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		33.0		33.0	33.0			51.0				51.0
Actuated g/C Ratio		0.37		0.37	0.37			0.57				0.57
v/c Ratio		0.27		0.27	0.74			0.11				0.77
Control Delay		11.0		11.8	19.8			3.9				13.8
Queue Delay		0.2		0.2	0.5			0.0				0.4
Total Delay		11.2		12.0	20.3			3.9				14.2
LOS		B		B	C			A				B
Approach Delay		11.2			18.6			3.9				14.2



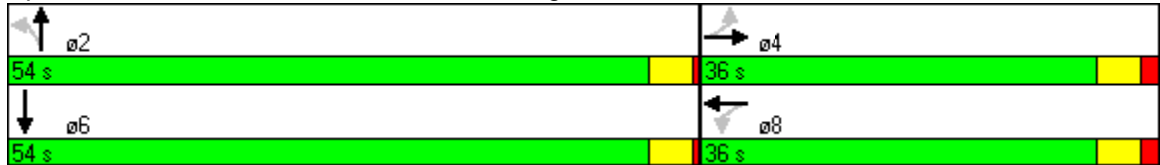


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		16		27	116			9			142	
Queue Length 95th (ft)		42		m36	127			m13			217	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		404		469	673			1043			1043	
Starvation Cap Reductn		0		0	27			0			39	
Spillback Cap Reductn		57		74	0			0			1	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.31		0.32	0.78			0.11			0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 16 (18%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 15.0      Intersection LOS: B  
 Intersection Capacity Utilization 76.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3419	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3419	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					6			29				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	309	72	155	2745	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	401	0	0	3052	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	18.0	0.0	72.0	72.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	80.0%	80.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					15.0			69.0				
Actuated g/C Ratio					0.17			0.77				
v/c Ratio					0.70			0.84				
Control Delay					20.8			1.2				
Queue Delay					0.0			0.4				
Total Delay					20.8			1.6				
LOS					C			A				
Approach Delay					20.8			1.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A				
Queue Length 50th (ft)					115			10				
Queue Length 95th (ft)					m160			19				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					575			3654				
Starvation Cap Reductn					0			200				
Spillback Cap Reductn					0			121				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.70			0.88				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 1 (1%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 3.8      Intersection LOS: A  
 Intersection Capacity Utilization 73.7%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3368	0	0	1928	0	0	1879	0
Flt Permitted				0.987			0.710					
Satd. Flow (perm)	0	0	0	0	3368	0	0	1388	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					45						53	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	95	197	61	123	307	0	0	347	139
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	371	0	0	452	0	0	511	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.31			0.59			0.48	
Control Delay					13.2			7.6			7.1	
Queue Delay					0.0			0.4			0.2	
Total Delay					13.2			8.0			7.3	
LOS					B			A			A	
Approach Delay					13.2			8.0			7.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					43			27			81	
Queue Length 95th (ft)					72			40			129	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1208			763			1057	
Starvation Cap Reductn					0			61			133	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.31			0.64			0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	25 (42%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	69.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	1828	0	0	1816	0	0	1857	0
Flt Permitted		0.997			0.925						0.990	
Satd. Flow (perm)	0	1814	0	0	1706	0	0	1816	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			24			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	119	25	42	179	17	0	111	25	22	703	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	180	0	0	262	0	0	186	0	0	774	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	59.0	59.0	0.0	59.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	65.6%	65.6%	0.0%	65.6%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			56.0			56.0	
Actuated g/C Ratio		0.31			0.31			0.62			0.62	
v/c Ratio		0.31			0.49			0.16			0.68	
Control Delay		23.9			19.5			5.3			8.9	
Queue Delay		0.0			0.1			0.0			1.3	
Total Delay		23.9			19.5			5.3			10.1	
LOS		C			B			A			B	
Approach Delay		23.9			19.5			5.3			10.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		72			62			24			140	
Queue Length 95th (ft)		112			m127			37			m243	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		573			534			1139			1146	
Starvation Cap Reductn		0			0			0			183	
Spillback Cap Reductn		10			9			0			29	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.50			0.16			0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 21 (23%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 13.0                      Intersection LOS: B  
 Intersection Capacity Utilization 80.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1846	0	0	1764	0	0	5029	0	0	0	0
Flt Permitted		0.814						0.998				
Satd. Flow (perm)	0	1516	0	0	1764	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			26				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	30	136	0	0	145	95	93	2557	167	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	175	0	0	253	0	0	2966	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	24.0	24.0	0.0	0.0	24.0	0.0	66.0	66.0	0.0	0.0	0.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	0.0%	26.7%	0.0%	73.3%	73.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		21.0			21.0			63.0				
Actuated g/C Ratio		0.23			0.23			0.70				
v/c Ratio		0.49			0.61			0.84				
Control Delay		25.9			14.4			3.5				
Queue Delay		0.0			0.0			0.8				
Total Delay		25.9			14.4			4.3				
LOS		C			B			A				
Approach Delay		25.9			14.4			4.3				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		48			104			28				
Queue Length 95th (ft)		m89			m105			54				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		354			415			3528				
Starvation Cap Reductn		0			0			273				
Spillback Cap Reductn		0			0			233				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.49			0.61			0.91				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 16 (18%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 6.2                      Intersection LOS: A  
 Intersection Capacity Utilization 87.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 694: Pacific Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1706	0	0	1769	0	0	1847	0	0	1904	0
Flt Permitted		0.951			0.857			0.881			0.970	
Satd. Flow (perm)	0	1630	0	0	1535	0	0	1643	0	0	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79			14			57			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	32	151	132	74	190	34	73	169	126	22	280	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	332	0	0	314	0	0	388	0	0	384	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.43			0.45			0.50			0.45	
Control Delay		10.4			13.4			5.7			12.8	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		10.4			13.4			5.9			12.8	
LOS		B			B			A			B	
Approach Delay		10.4			13.4			5.9			12.8	

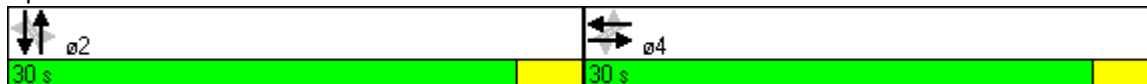


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		56			70			18			84	
Queue Length 95th (ft)		112			129			38			148	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		777			698			771			847	
Starvation Cap Reductn		0			0			59			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.43			0.45			0.54			0.45	

**Intersection Summary**

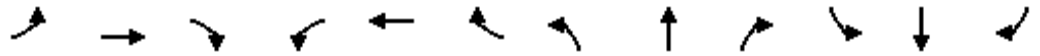
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	35 (58%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization	80.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3472	0	0	1827	0	0	1848	0
Flt Permitted		0.943			0.691			0.962			0.953	
Satd. Flow (perm)	0	3281	0	0	2433	0	0	1763	0	0	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			6			10			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	6	346	45	217	543	29	9	106	15	55	473	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	417	0	0	928	0	0	180	0	0	589	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		42.0			42.0			42.0			42.0	
Actuated g/C Ratio		0.47			0.47			0.47			0.47	
v/c Ratio		0.27			0.81			0.22			0.71	
Control Delay		14.5			12.5			6.8			25.0	
Queue Delay		0.0			0.3			0.0			0.0	
Total Delay		14.5			12.8			6.8			25.0	
LOS		B			B			A			C	
Approach Delay		14.5			12.8			6.8			25.0	

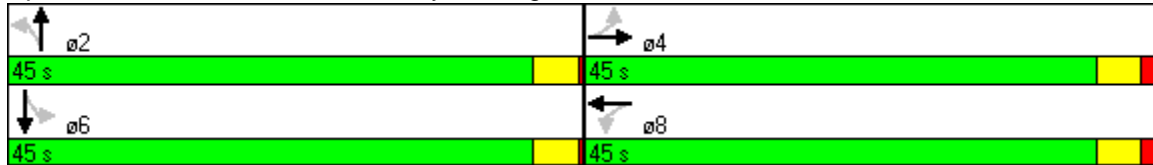


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			C	
Queue Length 50th (ft)		69			48			20			256	
Queue Length 95th (ft)		101			m79			23			385	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1542			1139			828			827	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		36			27			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.83			0.22			0.71	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 33 (37%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 16.0      Intersection LOS: B  
 Intersection Capacity Utilization 82.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

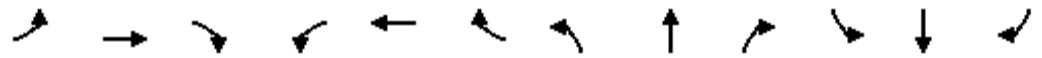
**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3405	0	0	5009	0	0	0	0
Flt Permitted		0.810						0.998				
Satd. Flow (perm)	0	2867	0	0	3405	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			32				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	13	403	0	0	684	236	105	2351	226	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	452	0	0	968	0	0	2915	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.51			0.91			0.93				
Control Delay		18.9			11.9			11.8				
Queue Delay		0.0			0.0			2.5				
Total Delay		18.9			11.9			14.3				
LOS		B			B			B				
Approach Delay		18.9			11.9			14.3				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50			50	
Trailing Detector (ft)	0	0						0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3442	0	0	0	0	0	3144	0	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3404	0	0	0	0	0	3144	0	0	3283	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	26	373	24	0	0	0	0	1336	47	0	1486	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	459	0	0	0	0	0	1503	0	0	1548	0
Turn Type	custom											
Protected Phases	4	4						2			6	
Permitted Phases	4											
Detector Phases	4	4						2			6	
Minimum Initial (s)	4.0	4.0						4.0			4.0	
Minimum Split (s)	25.0	25.0						48.0			24.0	
Total Split (s)	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0	0.0	61.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%	0.0%	67.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	1.0	1.0						0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max			Max	
Act Effct Green (s)		26.0						58.0			58.0	
Actuated g/C Ratio		0.29						0.64			0.64	
v/c Ratio		0.46						0.74			0.73	
Control Delay		37.5						2.5			13.0	
Queue Delay		0.1						0.3			1.2	
Total Delay		37.6						2.8			14.2	
LOS		D						A			B	
Approach Delay		37.6						2.8			14.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A			B	
Queue Length 50th (ft)		129						14			221	
Queue Length 95th (ft)		m162						16			m246	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)												
Base Capacity (vph)		999						2029			2116	
Starvation Cap Reductn		0						124			324	
Spillback Cap Reductn		58						126			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.49						0.79			0.86	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	65 (72%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	12.4
Intersection LOS:	B
Intersection Capacity Utilization	64.4%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1807	0	0	1794	0	0	5040	0	0	0	0
Flt Permitted		0.664						0.997				
Satd. Flow (perm)	0	1237	0	0	1794	0	0	5040	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	124	80	0	0	117	44	162	2267	93	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	215	0	0	169	0	0	2655	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	0.0	60.0	60.0	0.0	0.0	0.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		27.0			27.0			57.0				
Actuated g/C Ratio		0.30			0.30			0.63				
v/c Ratio		0.58			0.31			0.83				
Control Delay		34.1			32.2			4.5				
Queue Delay		0.0			0.0			0.6				
Total Delay		34.1			32.2			5.1				
LOS		C			C			A				
Approach Delay		34.1			32.2			5.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		103			95			72				
Queue Length 95th (ft)		179			m152			81				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		371			542			3196				
Starvation Cap Reductn		0			0			122				
Spillback Cap Reductn		0			0			205				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.58			0.31			0.89				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 8.7

Intersection LOS: A

Intersection Capacity Utilization 79.1%

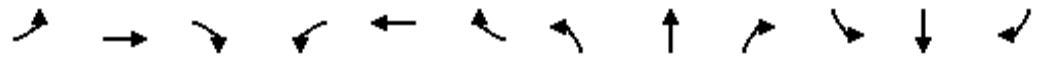
ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 701: Green St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1685	0	0	1701	0	0	1818	0	0	1839	0
Flt Permitted		0.975			0.890			0.920			0.960	
Satd. Flow (perm)	0	1647	0	0	1525	0	0	1685	0	0	1772	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			9			15			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	18	372	82	65	391	32	23	123	21	35	369	29
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	576	0	0	574	0	0	283	0	0	492	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		30.0			30.0			24.0			24.0	
Actuated g/C Ratio		0.50			0.50			0.40			0.40	
v/c Ratio		0.69			0.75			0.41			0.69	
Control Delay		16.2			19.8			14.5			20.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.2			19.8			14.5			20.8	
LOS		B			B			B			C	
Approach Delay		16.3			19.8			14.5			20.8	



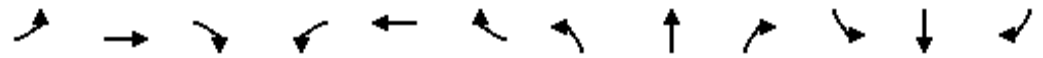
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		140			151			66			140	
Queue Length 95th (ft)		206			241			69			228	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		836			767			683			713	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.69			0.75			0.41			0.69	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	18.2
Intersection LOS:	B
Intersection Capacity Utilization	84.1%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 702: Union St. & Gough St.

 ø2 27 s	 ø4 33 s
 ø6 27 s	 ø8 33 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5035	0	0	0	0
Flt Permitted		0.931						0.996				
Satd. Flow (perm)	0	1609	0	0	1729	1583	0	5035	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						5		12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	42	386	0	0	301	130	187	2146	102	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	450	0	0	317	137	0	2563	0	0	0	0
Turn Type	Perm				Perm	Split						
Protected Phases		4			4	2	2					
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		32.0			32.0	32.0		52.0				
Actuated g/C Ratio		0.36			0.36	0.36		0.58				
v/c Ratio		0.79			0.52	0.24		0.88				
Control Delay		37.6			42.2	36.1		8.3				
Queue Delay		1.7			0.0	0.0		1.2				
Total Delay		39.3			42.2	36.1		9.5				
LOS		D			D	D		A				
Approach Delay		39.3			40.4			9.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A				
Queue Length 50th (ft)		226			178	72		159				
Queue Length 95th (ft)		#380			m233	m106		47				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		572			615	566		2914				
Starvation Cap Reductn		0			0	0		170				
Spillback Cap Reductn		38			0	0		117				
Storage Cap Reductn		0			0	0		0				
Reduced v/c Ratio		0.84			0.52	0.24		0.93				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 17.5      Intersection LOS: B  
 Intersection Capacity Utilization 96.0%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 703: Union St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1809	0	0	5009	0	0	0	0
Flt Permitted		0.962						0.997				
Satd. Flow (perm)	0	1792	0	0	1809	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			32				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	21	130	0	0	53	14	148	1989	181	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	159	0	0	71	0	0	2441	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	28.0	28.0	0.0	0.0	28.0	0.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	31.1%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.0			25.0			59.0				
Actuated g/C Ratio		0.28			0.28			0.66				
v/c Ratio		0.32			0.14			0.74				
Control Delay		28.0			34.2			2.1				
Queue Delay		0.0			0.0			0.7				
Total Delay		28.0			34.2			2.8				
LOS		C			C			A				
Approach Delay		28.0			34.2			2.8				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		72			29			30				
Queue Length 95th (ft)		125			m62			36				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		498			513			3295				
Starvation Cap Reductn		0			0			450				
Spillback Cap Reductn		0			0			33				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.32			0.14			0.86				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	59 (66%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	66.8%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 705: Filbert St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.923						0.995				
Satd. Flow (perm)	0	1719	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19			13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		247			452			351				315
Travel Time (s)		6.7			12.3			9.6				8.6
Volume (vph)	32	111	0	0	82	33	185	1760	79	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	151	0	0	121	0	0	2131	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.28			0.21			0.68				
Control Delay		25.2			11.4			3.0				
Queue Delay		0.0			0.0			0.3				
Total Delay		25.2			11.4			3.3				
LOS		C			B			A				
Approach Delay		25.2			11.4			3.3				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		64			18			22				
Queue Length 95th (ft)		114			m33			23				
Internal Link Dist (ft)		167			372			271				
Turn Bay Length (ft)								235				
Base Capacity (vph)		535			570			3135				
Starvation Cap Reductn		0			0			389				
Spillback Cap Reductn		0			1			186				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.28			0.21			0.78				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	74 (82%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	60.5%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 706: Greenwich St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1771	0	0	5055	0	0	0	0
Flt Permitted		0.946						0.999				
Satd. Flow (perm)	0	1762	0	0	1771	0	0	5055	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					6			14				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			435			362			337	
Travel Time (s)		13.7			11.9			9.9			9.2	
Volume (vph)	15	78	0	0	96	55	53	2452	95	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	98	0	0	159	0	0	2737	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	24.5	24.5	0.0	0.0	24.5	0.0	65.5	65.5	0.0	0.0	0.0	0.0
Total Split (%)	27.2%	27.2%	0.0%	0.0%	27.2%	0.0%	72.8%	72.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		21.5			21.5			62.5				
Actuated g/C Ratio		0.24			0.24			0.69				
v/c Ratio		0.23			0.37			0.78				
Control Delay		29.4			16.9			2.0				
Queue Delay		0.0			0.0			0.6				
Total Delay		29.4			16.9			2.6				
LOS		C			B			A				
Approach Delay		29.4			16.9			2.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A				
Queue Length 50th (ft)		45			86			53				
Queue Length 95th (ft)		88			m110			m53				
Internal Link Dist (ft)		423			355			282				
Turn Bay Length (ft)								257				
Base Capacity (vph)		421			428			3515				
Starvation Cap Reductn		0			0			367				
Spillback Cap Reductn		0			0			149				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.23			0.37			0.87				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 4.3      Intersection LOS: A  
 Intersection Capacity Utilization 73.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 901: Vallejo St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3301	0	0	3014	0	0	2936	0
Flt Permitted				0.990								
Satd. Flow (perm)	0	0	0	0	3147	0	0	3014	0	0	2936	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					12						8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	90	326	43	0	1362	0	0	1396	55
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	494	0	0	1434	0	0	1648	0
Turn Type				Perm								
Protected Phases					8			2			6	
Permitted Phases				8								
Detector Phases				8	8			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				30.0	30.0			50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					27.0			57.0			57.0	
Actuated g/C Ratio					0.30			0.63			0.63	
v/c Ratio					0.52			0.75			0.89	
Control Delay					27.8			5.5			12.8	
Queue Delay					0.1			0.4			0.2	
Total Delay					27.9			5.9			13.0	
LOS					C			A			B	
Approach Delay					27.9			5.9			13.0	



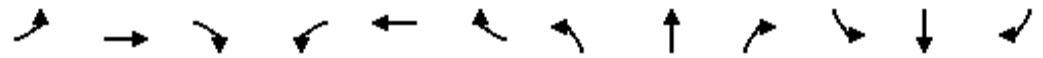
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					118			9			164	
Queue Length 95th (ft)					167			10			m180	
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												
Base Capacity (vph)					953			1909			1862	
Starvation Cap Reductn					0			131			17	
Spillback Cap Reductn					41			95			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.54			0.81			0.89	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 79 (88%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 12.2      Intersection LOS: B  
 Intersection Capacity Utilization 64.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 902: Jackson St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1622	0	0	1677	0	0	2974	0	0	2888	0
Flt Permitted		0.983			0.855							
Satd. Flow (perm)	0	1598	0	0	1425	0	0	2974	0	0	2888	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			8			14			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	9	214	80	54	218	54	0	1304	101	0	1317	22
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	361	0	0	518	0	0	1463	0	0	1440	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0			13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			48.5	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.56			0.90			0.92			0.93	
Control Delay		29.2			46.5			12.1			26.7	
Queue Delay		0.0			0.0			0.0			0.6	
Total Delay		29.2			46.5			12.2			27.3	
LOS		C			D			B			C	
Approach Delay		29.2			46.5			12.2			27.3	



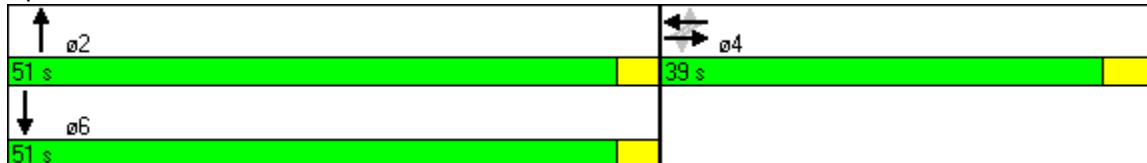


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		176			267			14			223	
Queue Length 95th (ft)		m225			234			#62			#540	
Internal Link Dist (ft)		119			413			253			253	
Turn Bay Length (ft)												
Base Capacity (vph)		643			575			1593			1542	
Starvation Cap Reductn		0			0			1			15	
Spillback Cap Reductn		0			0			2			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.56			0.90			0.92			0.94	

**Intersection Summary**

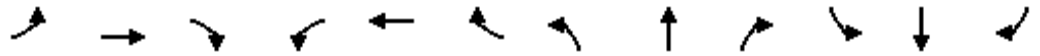
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 24.2 Intersection LOS: C  
 Intersection Capacity Utilization 87.1% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 903: Pacific Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↑	↑		↑↓		↑↓	↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	2		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	2929	0	3156	2944	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	2929	0	3110	2944	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19				196		24			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	546	83	0	872	303	0	1198	169	267	1256	48
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	699	0	0	980	340	0	1439	0	287	1403	0
Turn Type						Perm					Prot	
Protected Phases		4			8			2		1	6	
Permitted Phases						8						
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		39.0		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	47.0	0.0	12.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	52.2%	0.0%	13.3%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		44.0		9.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.49		0.10	0.62	
v/c Ratio		0.64			0.89	0.59		1.00		0.91	0.76	
Control Delay		33.3			41.2	15.4		23.8		52.8	5.1	
Queue Delay		0.0			0.0	0.0		8.6		0.0	0.7	
Total Delay		33.3			41.2	15.4		32.3		52.8	5.7	
LOS		C			D	B		C		D	A	
Approach Delay		33.3			34.6			32.3			13.7	

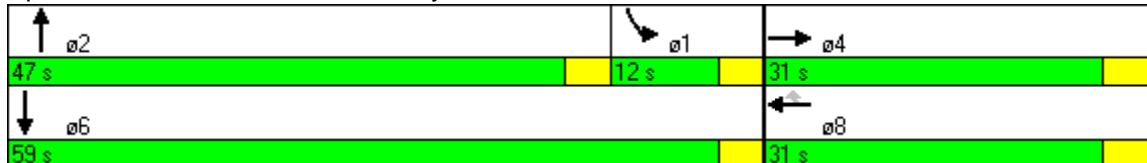


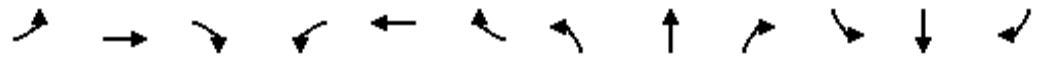
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		162			277	63		47		82	47	
Queue Length 95th (ft)		m211			#384	149		m#513		m#120		61
Internal Link Dist (ft)		375			167			253			278	
Turn Bay Length (ft)												
Base Capacity (vph)		1085			1101	580		1444		316	1834	
Starvation Cap Reductn		0			0	0		43		0	158	
Spillback Cap Reductn		13			0	0		0		0	137	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.65			0.89	0.59		1.03		0.91	0.84	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 9 (10%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 26.9 Intersection LOS: C  
 Intersection Capacity Utilization 80.9% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 904: Broadway & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1678	0	0	1795	0	0	3023	0	0	2993	0
Flt Permitted		0.986			0.786							
Satd. Flow (perm)	0	1654	0	0	1395	0	0	3023	0	0	2993	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			8			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	102	64	73	124	16	0	1446	55	0	1434	27
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	203	0	0	295	0	0	1532	0	0	1537	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	0.0	59.0	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	0.0%	65.6%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		28.0			28.0			56.0			56.0	
Actuated g/C Ratio		0.31			0.31			0.62			0.62	
v/c Ratio		0.39			0.68			0.81			0.82	
Control Delay		30.2			35.6			7.5			5.6	
Queue Delay		0.0			0.0			0.8			0.0	
Total Delay		30.2			35.6			8.4			5.6	
LOS		C			D			A			A	
Approach Delay		30.2			35.6			8.4			5.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			D			A			A	
Queue Length 50th (ft)		90			143			127			44	
Queue Length 95th (ft)		m134			173			m144			58	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		523			437			1884			1864	
Starvation Cap Reductn		0			0			130			1	
Spillback Cap Reductn		0			0			2			6	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.39			0.68			0.87			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 10.7                      Intersection LOS: B  
 Intersection Capacity Utilization 78.7%                      ICU Level of Service D  
 Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 907: Vallejo St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1644	0	0	1782	0	0	2987	0	0	3009	0
Flt Permitted		0.996			0.948							
Satd. Flow (perm)	0	1637	0	0	1684	0	0	2987	0	0	3009	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			10			5			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	3	90	80	23	131	26	0	1433	36	0	1358	29
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	214	0	0	214	0	0	1483	0	0	1401	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0			50.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	0.0	59.0	0.0	0.0	59.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	34.4%	34.4%	0.0%	0.0%	65.6%	0.0%	0.0%	65.6%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		28.0			28.0			56.0			56.0	
Actuated g/C Ratio		0.31			0.31			0.62			0.62	
v/c Ratio		0.41			0.40			0.80			0.75	
Control Delay		24.1			26.0			14.0			2.9	
Queue Delay		0.0			0.0			0.2			0.5	
Total Delay		24.1			26.0			14.2			3.3	
LOS		C			C			B			A	
Approach Delay		24.1			26.0			14.2			3.3	



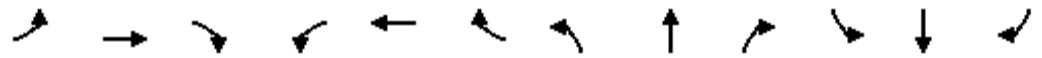
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		86			90			181			37	
Queue Length 95th (ft)		m126			141			195			m38	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)												
Base Capacity (vph)		522			531			1860			1874	
Starvation Cap Reductn		0			0			42			150	
Spillback Cap Reductn		0			0			34			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.41			0.40			0.82			0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 11.0      Intersection LOS: B  
 Intersection Capacity Utilization 70.6%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 908: Green St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	1		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1635	0	0	3380	0	1652	2921	0	0	2972	0
Flt Permitted		0.987			0.664		0.950					
Satd. Flow (perm)	0	1613	0	0	2249	0	1635	2921	0	0	2972	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			18			11			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	12	408	68	63	231	40	116	1271	74	0	1256	84
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	547	0	0	412	0	117	1359	0	0	1368	0
Turn Type	Perm			Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4		5	2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		1.5	4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5		5.0	55.0			45.0	
Total Split (s)	34.1	34.1	0.0	34.1	34.1	0.0	10.0	55.9	0.0	0.0	45.9	0.0
Total Split (%)	37.9%	37.9%	0.0%	37.9%	37.9%	0.0%	11.1%	62.1%	0.0%	0.0%	51.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		0.0	0.0			0.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max			Max	
Act Effct Green (s)		31.1			31.1		7.0	52.9			42.9	
Actuated g/C Ratio		0.35			0.35		0.08	0.59			0.48	
v/c Ratio		0.97			0.52		0.91	0.79			0.96	
Control Delay		50.6			25.3		79.4	9.7			32.7	
Queue Delay		0.0			0.0		0.0	0.4			0.3	
Total Delay		50.6			25.3		79.4	10.1			33.0	
LOS		D			C		E	B			C	
Approach Delay		50.6			25.3			15.6			33.0	



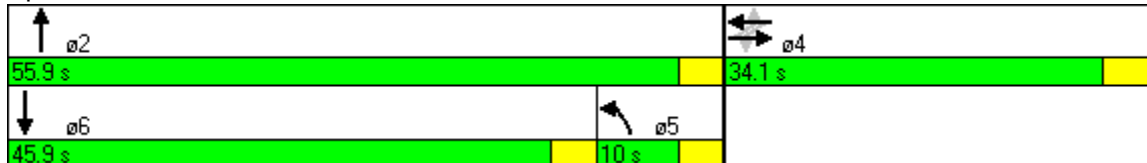


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		324			93		63	82			207	
Queue Length 95th (ft)		m#488			121		m#98		91		#530	
Internal Link Dist (ft)		369			662			242			259	
Turn Bay Length (ft)							120					
Base Capacity (vph)		564			789		128	1721			1422	
Starvation Cap Reductn		0			0		0	82			4	
Spillback Cap Reductn		0			0		0	85			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.97			0.52		0.91	0.83			0.96	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 27.9 Intersection LOS: C  
 Intersection Capacity Utilization 94.2% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 909: Union St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1724	0	0	1758	0	0	2997	0	0	3016	0
Flt Permitted		0.995			0.678							
Satd. Flow (perm)	0	1714	0	0	1191	0	0	2997	0	0	3016	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			9			3			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	216	88	43	49	15	0	1302	21	0	1209	18
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	374	0	0	127	0	0	1378	0	0	1239	0
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Detector Phases	4	4		8	8			2			6	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0			18.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	0.0	53.5	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	59.4%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag								Lag				
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		27.0			27.0			50.5			57.0	
Actuated g/C Ratio		0.30			0.30			0.56			0.63	
v/c Ratio		0.71			0.35			0.82			0.65	
Control Delay		34.4			26.2			8.8			2.1	
Queue Delay		3.4			0.5			0.4			0.2	
Total Delay		37.9			26.6			9.1			2.3	
LOS		D			C			A			A	
Approach Delay		37.9			26.6			9.1			2.3	



<b>Lane Group</b>	<b>ø1</b>
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phases	
Minimum Initial (s)	2.0
Minimum Split (s)	6.5
Total Split (s)	6.5
Total Split (%)	7%
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A			A	
Queue Length 50th (ft)		188			52			53			17	
Queue Length 95th (ft)		251			93			m60			21	
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)												
Base Capacity (vph)		530			364			1683			1911	
Starvation Cap Reductn		0			0			59			78	
Spillback Cap Reductn		84			58			0			151	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.84			0.42			0.85			0.70	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 2 (2%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 10.6                      Intersection LOS: B  
 Intersection Capacity Utilization 74.2%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 910: Filbert St. & Van Ness Avenue**



Lane Group	ø1
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1761	0	0	1818	0	0	4513	0	0	3035	0
Flt Permitted		0.993			0.978							
Satd. Flow (perm)	0	1748	0	0	1778	0	0	4513	0	0	3035	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			5			2			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	6	143	41	8	95	9	0	1314	10	0	1178	20
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	247	0	0	125	0	0	1471	0	0	1289	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	34.5	34.5	0.0	34.5	34.5	0.0	0.0	55.5	0.0	0.0	55.5	0.0
Total Split (%)	38.3%	38.3%	0.0%	38.3%	38.3%	0.0%	0.0%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.5			31.5			52.5			52.5	
Actuated g/C Ratio		0.35			0.35			0.58			0.58	
v/c Ratio		0.40			0.20			0.56			0.73	
Control Delay		17.0			20.7			11.7			15.1	
Queue Delay		0.0			0.0			0.2			0.5	
Total Delay		17.0			20.7			12.0			15.6	
LOS		B			C			B			B	
Approach Delay		17.0			20.7			12.0			15.6	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		65			47			112			373	
Queue Length 95th (ft)		87			88			127			446	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		623			626			2633			1772	
Starvation Cap Reductn		0			0			429			159	
Spillback Cap Reductn		0			0			55			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			0.20			0.67			0.80	

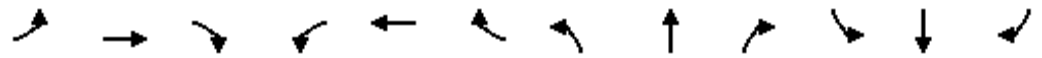
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	14.2
Intersection LOS:	B
Intersection Capacity Utilization	53.3%
ICU Level of Service	A
Analysis Period (min)	15

**Splits and Phases: 911: Greenwich St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4837	0	0	4881	0	0	1763	0	0	1767	0
Flt Permitted								0.746			0.988	
Satd. Flow (perm)	0	4837	0	0	4881	0	0	1333	0	0	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			6			4			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1226	109	0	2190	42	38	101	9	12	293	44
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1451	0	0	2301	0	0	209	0	0	406	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.49			0.77			0.48			0.71	
Control Delay		10.2			11.5			28.6			34.6	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		10.2			11.6			28.6			34.6	
LOS		B			B			C			C	
Approach Delay		10.2			11.6			28.6			34.6	

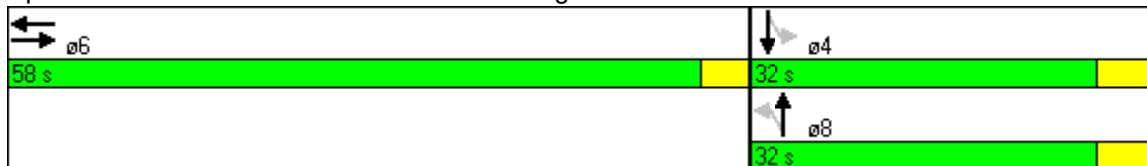


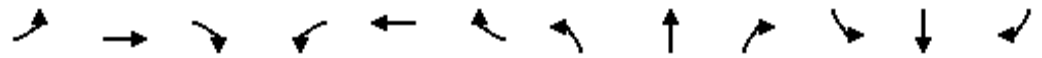
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		149			247			93			198	
Queue Length 95th (ft)		183			278			118			286	
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2967			2985			432			568	
Starvation Cap Reductn		0			74			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.79			0.48			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	39 (43%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	14.1
Intersection LOS:	B
Intersection Capacity Utilization	74.2%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↑	↑↑				↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5065	0	1610	3316	0	0	0	1611
Flt Permitted		0.916					0.950	0.984				
Satd. Flow (perm)	0	4658	0	0	5065	0	1610	3316	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				33
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1245	0	0	1176	36	1002	776	47	0	0	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1467	0	0	1304	0	679	1419	0	0	0	72
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	29.0	0.0	48.0	48.0	0.0	0.0	0.0	13.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	32.2%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	14.4%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		39.8			26.0		44.2	44.2				10.8
Actuated g/C Ratio		0.44			0.29		0.49	0.49				0.12
v/c Ratio		0.71			0.89		0.86	0.87				0.33
Control Delay		15.1			22.3		17.8	12.9				27.3
Queue Delay		0.0			0.0		0.8	0.6				0.0
Total Delay		15.1			22.3		18.6	13.5				27.3
LOS		B			C		B	B				C
Approach Delay		15.1			22.3			15.1				

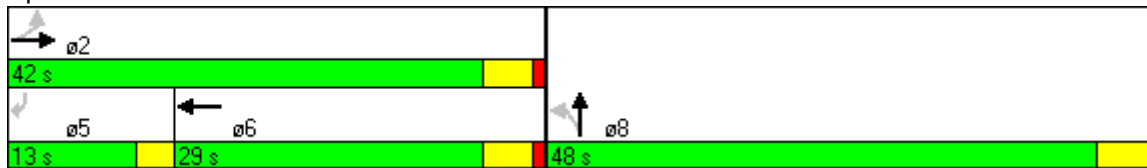


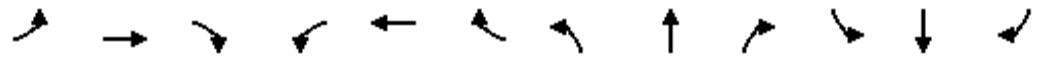
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			B				
Queue Length 50th (ft)		113			273		50	51				21
Queue Length 95th (ft)		123			#343		#440	116				47
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												
Base Capacity (vph)		2057			1467		805	1661				221
Starvation Cap Reductn		0			0		24	56				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.71			0.89		0.87	0.88				0.33

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	42 (47%), Referenced to phase 2:EBTL and 5:SBR, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	17.2
Intersection LOS:	B
Intersection Capacity Utilization:	72.4%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases: 923: Lombard St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1779	2601	0	1780	0	4658	1437	0	0	3539	1346
Flt Permitted		0.840					0.950					
Satd. Flow (perm)	0	1445	2601	0	1780	0	3547	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18		8			17				102
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	128	390	774	0	110	15	973	306	50	0	424	129
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	546	815	0	143	0	1035	379	0	0	471	143
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.21	0.49		0.26		0.77	0.42			0.44	0.40
Control Delay		126.5	3.2		23.4		15.7	1.3			27.1	12.4
Queue Delay		0.0	0.1		0.0		0.8	0.2			0.5	0.0
Total Delay		126.5	3.2		23.4		16.6	1.4			27.6	12.4
LOS		F	A		C		B	A			C	B
Approach Delay		52.7			23.4			12.5			24.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			C		
Queue Length 50th (ft)	~387		20	57		144		0	113		17	
Queue Length 95th (ft)	m#559		m25	100		203		1	158		67	
Internal Link Dist (ft)	390			403			246			91		
Turn Bay Length (ft)							300					
Base Capacity (vph)	450		1654	559		1346		901	1062		362	
Starvation Cap Reductn	0		0	0		105		91	0		0	
Spillback Cap Reductn	0		100	0		0		0	252		0	
Storage Cap Reductn	0		0	0		0		0	0		0	
Reduced v/c Ratio	1.21		0.52	0.26		0.83		0.47	0.58		0.40	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 30.4      Intersection LOS: C  
 Intersection Capacity Utilization 103.6%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**



	↑	↗	↓	↙	↘	↖	↗	↘	↙	↘	↖	↗
Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↗	↘	↘	↑↑		↘	↗↗		
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900	
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12	
Grade (%)	0%		0%				0%					
Storage Length (ft)		0				0		0	0	0		
Storage Lanes		0				2		0	1	3		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Leading Detector (ft)	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0		0	0	0	0	0		0	0		
Turning Speed (mph)		9		9	15	15		9	15	9	9	
Satd. Flow (prot)	3173	0	3241	1330	1770	1424	2608	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.977		0.950			
Satd. Flow (perm)	3173	0	3241	899	1770	1424	2608	0	1652	3610	0	
Right Turn on Red		Yes		Yes	No			Yes			Yes	
Satd. Flow (RTOR)	11			88			4			27		
Link Speed (mph)	25		25				25					
Link Distance (ft)	258		442				1192					
Travel Time (s)	7.0		12.1				32.5					
Volume (vph)	578	68	1133	111	208	1007	482	48	143	773	164	
Confl. Peds. (#/hr)		327		247				167			140	
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)				12			16	16				
Mid-Block Traffic (%)	0%		0%				0%					
Lane Group Flow (vph)	680	0	1193	117	219	569	1049	0	151	987	0	
Turn Type				Perm	Prot	Prot				Prot custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6								
Detector Phases	2		6	6	7	7	4		8	8		
Minimum Initial (s)	1.0		2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.23	0.35	0.42	1.37	1.37		0.34	1.01		
Control Delay	41.5		148.4	13.8	37.5	216.2	210.4		38.2	72.8		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	41.5		148.4	13.8	37.5	216.2	210.4		38.2	72.8		
LOS	D		F	B	D	F	F		D	E		
Approach Delay	41.5		136.4				191.6					

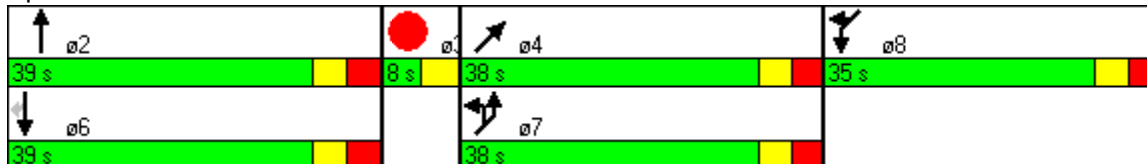


Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Approach LOS	D		F				F					
Queue Length 50th (ft)	242		~599	16	137	~639	~593		95	~332		
Queue Length 95th (ft)	312		#736	68	212	#882	#736		157	#455		
Internal Link Dist (ft)	178		362				1112					
Turn Bay Length (ft)												
Base Capacity (vph)	960		972	331	516	415	764		441	982		
Starvation Cap Reductn	0		0	0	0	0	0		0	0		
Spillback Cap Reductn	0		0	0	0	0	0		0	0		
Storage Cap Reductn	0		0	0	0	0	0		0	0		
Reduced v/c Ratio	0.71		1.23	0.35	0.42	1.37	1.37		0.34	1.01		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 150  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.37  
 Intersection Signal Delay: 128.2      Intersection LOS: F  
 Intersection Capacity Utilization 96.2%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 1237: Otis St. & Mission St.**







Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1726	0	0	1611	3433	1752	0	3334	0	0
Flt Permitted		0.956				0.950					
Satd. Flow (perm)	0	1726	0	0	1275	3433	1752	0	3334	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			155		6		7		
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					584		250		
Travel Time (s)		13.2					15.9		6.8		
Volume (vph)	41	75	2	7	13	1591	531	47	707	36	44
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	131	0	0	14	1675	608	0	828	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	14.5	14.5	0.0	0.0	38.0	46.0	37.5	0.0	29.5	0.0	0.0
Total Split (%)	16.1%	16.1%	0.0%	0.0%	42.2%	51.1%	41.7%	0.0%	32.8%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		11.5			35.0	43.0	34.5		26.5		
Actuated g/C Ratio		0.13			0.39	0.48	0.38		0.29		
v/c Ratio		0.59			0.02	1.02	0.90		0.84		
Control Delay		37.1			0.1	26.3	38.7		29.6		
Queue Delay		0.4			0.0	0.8	0.0		0.0		
Total Delay		37.6			0.1	27.1	38.7		29.6		
LOS		D			A	C	D		C		
Approach Delay		37.6					30.2		29.6		



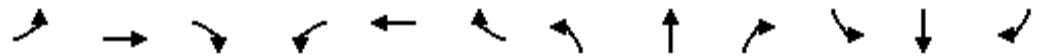
Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS	D					C					
Queue Length 50th (ft)	61				0	~52	374	247			
Queue Length 95th (ft)	m101				0	m#538	m388	m306			
Internal Link Dist (ft)	404							504	170		
Turn Bay Length (ft)											
Base Capacity (vph)	223				591	1640	675	987			
Starvation Cap Reductn	0				0	4	0	0			
Spillback Cap Reductn	8				157	0	0	0			
Storage Cap Reductn	0				0	0	0	0			
Reduced v/c Ratio	0.61				0.03	1.02	0.90	0.84			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 30.2      Intersection LOS: C  
 Intersection Capacity Utilization 108.3%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**

ø3	ø4	ø10
38 s	37.5 s	14.5 s
ø7	ø8	
46 s	29.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		401			484			341			364	
Travel Time (s)		10.9			13.2			9.3			9.9	
Volume (vph)	0	39	0	0	36	0	0	0	0	86	2020	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	41	0	0	38	0	0	0	0	0	2359	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.06			0.06							0.64
Control Delay		19.6			1.6							3.4
Queue Delay		0.0			0.0							0.7
Total Delay		19.6			1.6							4.1
LOS		B			A							A
Approach Delay		19.6			1.6							4.1





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3268	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3268	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Link Speed (mph)		25				25		25	
Link Distance (ft)		341				649		584	
Travel Time (s)		9.3				17.7		15.9	
Volume (vph)	28	877	1030	85	133	2008	96	639	75
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	952	1173	0	140	2215	0	752	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.95	0.88		0.23	0.97		0.51	
Control Delay		25.2	13.3		3.4	38.5		13.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0	
Total Delay		25.2	13.3		3.4	38.5		13.8	
LOS		C	B		A	D		B	
Approach Delay		18.6				38.5		13.8	

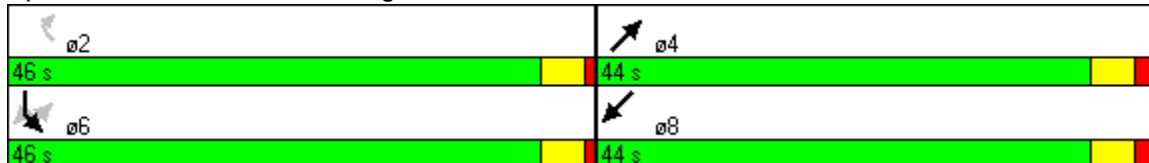


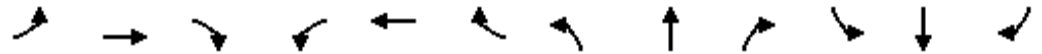
Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Approach LOS	B				D		B		
Queue Length 50th (ft)	255	203			10	435		244	
Queue Length 95th (ft)	#549	#473			m10	#568		m292	
Internal Link Dist (ft)	261					569		504	
Turn Bay Length (ft)									
Base Capacity (vph)	1000	1338			601	2273		1489	
Starvation Cap Reductn	0	0			0	0		0	
Spillback Cap Reductn	0	0			0	0		0	
Storage Cap Reductn	0	0			0	0		0	
Reduced v/c Ratio	0.95	0.88			0.23	0.97		0.51	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 6:SBL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 25.9 Intersection LOS: C  
 Intersection Capacity Utilization 90.4% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1390: Haight St & Market St.**





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	62	21	31	98	20	5	127	9	22	490	23
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	6	71	24	33	103	21	7	172	12	24	538	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	101	157	191	588
Volume Left (vph)	6	33	7	24
Volume Right (vph)	24	21	12	25
Hadj (s)	-0.10	0.00	0.00	0.02
Departure Headway (s)	6.2	6.2	5.6	5.0
Degree Utilization, x	0.17	0.27	0.30	0.82
Capacity (veh/h)	522	533	585	588
Control Delay (s)	10.5	11.4	10.9	27.2
Approach Delay (s)	10.5	11.4	10.9	27.2
Approach LOS	B	B	B	D

Intersection Summary			
Delay		20.2	
HCM Level of Service		C	
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	178	47	38	222	19	14	133	5	21	450	45
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	17	202	53	49	288	25	18	175	7	24	511	51

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	273	362	200	586
Volume Left (vph)	17	49	18	24
Volume Right (vph)	53	25	7	51
Hadj (s)	-0.07	0.02	0.03	-0.01
Departure Headway (s)	7.6	7.4	7.9	6.9
Degree Utilization, x	0.57	0.74	0.44	1.13
Capacity (veh/h)	449	468	418	511
Control Delay (s)	20.2	28.5	16.9	105.8
Approach Delay (s)	20.2	28.5	16.9	105.8
Approach LOS	C	D	C	F

Intersection Summary			
Delay		57.2	
HCM Level of Service		F	
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↷			↶
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	45	15	112	38	23	889
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	54	18	142	48	24	936
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.66	0.95			0.95	
vC, conflicting volume	1150	166			190	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1121	125			150	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	64	98			98	
cM capacity (veh/h)	149	882			1364	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	54	18	190	960
Volume Left	54	0	0	24
Volume Right	0	18	48	0
cSH	149	882	1700	1364
Volume to Capacity	0.36	0.02	0.11	0.02
Queue Length 95th (ft)	37	2	0	1
Control Delay (s)	42.2	9.2	0.0	0.5
Lane LOS	E	A		A
Approach Delay (s)	33.9		0.0	0.5
Approach LOS	D			

Intersection Summary			
Average Delay		2.4	
Intersection Capacity Utilization		69.6%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	112	51	17	241	9	23	124	8	23	354	25
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	17	130	59	18	262	10	29	159	10	28	432	30

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	207	290	199	490
Volume Left (vph)	17	18	29	28
Volume Right (vph)	59	10	10	30
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.8	6.7	6.8	6.1
Degree Utilization, x	0.39	0.54	0.37	0.83
Capacity (veh/h)	470	486	474	565
Control Delay (s)	14.0	17.2	13.7	31.7
Approach Delay (s)	14.0	17.2	13.7	31.7
Approach LOS	B	C	B	D

Intersection Summary			
Delay	22.0		
HCM Level of Service	C		
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	108	54	32	152	17	23	130	20	23	347	52
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	10	137	68	46	217	24	30	171	26	26	386	58

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	215	287	228	469
Volume Left (vph)	10	46	30	26
Volume Right (vph)	68	24	26	58
Hadj (s)	-0.15	0.02	-0.01	-0.03
Departure Headway (s)	6.8	6.7	6.7	6.1
Degree Utilization, x	0.40	0.54	0.42	0.80
Capacity (veh/h)	469	481	470	469
Control Delay (s)	14.3	17.2	14.5	29.2
Approach Delay (s)	14.3	17.2	14.5	29.2
Approach LOS	B	C	B	D

Intersection Summary			
Delay		20.9	
HCM Level of Service		C	
Intersection Capacity Utilization	53.6%		ICU Level of Service A
Analysis Period (min)		15	

# 2035 BUILD ALTERNATIVE 3&4 CENTER LANE BRT WITH DESIGN OPTION B





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%		0%			0%		
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50				50		50	50	
Trailing Detector (ft)	0		0				0		0	0	
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Flt Permitted	0.134								0.950		
Satd. Flow (perm)	250	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			33				10		94	222	
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	9	0	109	0	0	0	900	73	732	236	566
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										8	8
Mid-Block Traffic (%)		0%		0%		0%			0%		
Lane Group Flow (vph)	9	0	115	0	0	0	1024	0	771	844	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Detector Phases	2		2				4		2	2	
Minimum Initial (s)	4.0		4.0				4.0		4.0	4.0	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	54.0	0.0	54.0	0.0	0.0	0.0	36.0	0.0	54.0	54.0	0.0
Total Split (%)	60.0%	0.0%	60.0%	0.0%	0.0%	0.0%	40.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	Max		Max				Max		Max	Max	
Act Effct Green (s)	51.0		51.0				33.0		51.0	51.0	
Actuated g/C Ratio	0.57		0.57				0.37		0.57	0.57	
v/c Ratio	0.06		0.13				1.00		0.27	0.97	
Control Delay	10.2		6.9				28.4		8.9	40.4	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	10.2		6.9				28.4		8.9	40.4	
LOS	B		A				C		A	D	
Approach Delay									25.4		

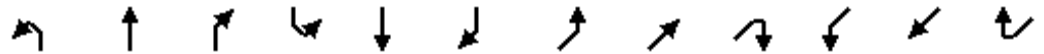




Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%			0%						0%	
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0		0	0	0	0	0	0	0	0	0
Turning Speed (mph)		9	15		9	9	9	15	15		9
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.929					0.950		
Satd. Flow (perm)	4995	0	0	4724	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				355		20		12		1
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	632	43	13	1425	973	678	244	94	936	524	187
Confl. Peds. (#/hr)		72			187		160				195
Confl. Bikes (#/hr)											
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										12	12
Mid-Block Traffic (%)	0%			0%						0%	
Lane Group Flow (vph)	710	0	0	1514	1024	714	257	0	1084	552	197
Turn Type			Perm		Perm	custom	custom	custom	custom		Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Detector Phases	4		8	8	8	2	2	1	1	6	6
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Recall Mode	Max		Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.45			1.03	1.74	0.67	0.71		1.07	0.27	0.33
Control Delay	25.6			63.2	356.8	31.4	38.4		68.2	3.7	4.8
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	25.6			63.2	356.8	31.4	38.4		68.2	3.7	4.8
LOS	C			E	F	C	D		E	A	A
Approach Delay	25.6			181.7						42.0	







Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑	↑		↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		65	0		115	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50		50	50		50			50	
Trailing Detector (ft)		0	0		0	0		0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3353	1243	0	3353	1583	0	1611	0	0	1628	0
Flt Permitted												
Satd. Flow (perm)	0	3353	817	0	3353	748	0	1611	0	0	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			1		1			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		386			117			343			186	
Travel Time (s)		10.5			3.2			9.4			5.1	
Volume (vph)	0	1166	133	0	1183	193	0	527	39	0	594	31
Confl. Peds. (#/hr)			554			404			496			823
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			23									
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1178	134	0	1300	212	0	636	0	0	687	0
Turn Type			Perm			Perm						
Protected Phases		4			4			2			2	
Permitted Phases			4			4						
Detector Phases		4	4		4	4		2			2	
Minimum Initial (s)		4.0	4.0		4.0	4.0		4.0			4.0	
Minimum Split (s)		43.0	43.0		43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	43.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	47.8%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5	3.5		3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7	2.7		2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max		Max	Max		Max			Max	
Act Effct Green (s)		40.0	40.0		40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.49			0.49	
v/c Ratio		0.79	0.36		0.87	0.64		0.81			0.86	
Control Delay		26.2	19.0		35.5	33.7		36.2			15.6	
Queue Delay		0.0	0.0		1.1	0.0		0.0			0.0	
Total Delay		26.2	19.0		36.6	33.7		36.2			15.6	
LOS		C	B		D	C		D			B	
Approach Delay		25.5			36.2			36.2			15.6	

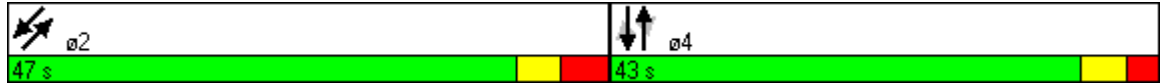


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS	C			D			D			B		
Queue Length 50th (ft)	292	45		277	84		391			40		
Queue Length 95th (ft)	377	93		#323	m112		m384			#535		
Internal Link Dist (ft)	306			37			263			106		
Turn Bay Length (ft)		65			115							
Base Capacity (vph)	1490	368		1490	333		788			796		
Starvation Cap Reductn	0	0		61	0		0			0		
Spillback Cap Reductn	0	0		0	0		0			0		
Storage Cap Reductn	0	0		0	0		0			0		
Reduced v/c Ratio	0.79	0.36		0.91	0.64		0.81			0.86		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 82 (91%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 29.4                      Intersection LOS: C  
 Intersection Capacity Utilization 74.9%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.





Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations	↑↑↑	↑	↓↓	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Grade (%)			0%	0%		0%
Storage Length (ft)	0		0		0	
Storage Lanes	4		0		1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	9	9	15		9	
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Flt Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					2	
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	796	0	985	634	123	625
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)			0%	0%		0%
Lane Group Flow (vph)	838	0	1037	667	129	658
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Detector Phases	1	1	6	2	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	37.0		37.0	47.0	47.0	47.0
Actuated g/C Ratio	0.41		0.41	0.52	0.52	0.52
v/c Ratio	0.43		0.71	0.69	0.16	0.70
Control Delay	3.4		25.4	24.2	16.4	21.2
Queue Delay	0.0		4.4	0.0	0.0	1.5
Total Delay	3.4		29.8	24.2	16.4	22.7
LOS	A		C	C	B	C
Approach Delay			29.8	22.9		22.7





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>SWT</del>	<del>SWT</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Grade (%)		0%			0%	0%		
Storage Length (ft)		0	0				0	
Storage Lanes		3	0				0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		
Trailing Detector (ft)	0	0	0		0	0		
Turning Speed (mph)	15	15	9	9			9	9
Satd. Flow (prot)	0	4831	4831	0	1635	1540	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1540	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			32			2		
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	109	1161	2218	185	634	516	88	109
Confl. Peds. (#/hr)								
Confl. Bikes (#/hr)								
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Mid-Block Traffic (%)		0%			0%	0%		
Lane Group Flow (vph)	0	1337	2530	0	667	751	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Detector Phases	4	4	4		2	2		
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max		Max	Max		
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.55	1.04		1.02	1.22		
Control Delay		11.5	47.0		62.2	127.7		
Queue Delay		0.0	0.0		0.0	1.7		
Total Delay		11.5	47.0		62.2	129.4		
LOS		B	D		E	F		
Approach Delay		34.7			62.2	129.4		



Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Approach LOS	C				E	F		
Queue Length 50th (ft)	112	~373			~243	~357		
Queue Length 95th (ft)	149	#468			#443	m#486		
Internal Link Dist (ft)	272				455	524		
Turn Bay Length (ft)								
Base Capacity (vph)	2416	2432			654	617		
Starvation Cap Reductn	0	0			0	0		
Spillback Cap Reductn	7	0			0	2		
Storage Cap Reductn	0	0			0	0		
Reduced v/c Ratio	0.56	1.04			1.02	1.22		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 39 (65%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 51.6                      Intersection LOS: D  
 Intersection Capacity Utilization 101.9%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28							1			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		100			334			604			477	
Travel Time (s)		2.7			9.1			16.5			13.0	
Volume (vph)	48	2224	183	0	0	0	0	485	334	0	530	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	2585	0	0	0	0	0	511	352	0	558	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.12						0.74	0.50		0.68	
Control Delay		71.1						15.9	12.2		18.5	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		71.1						15.9	12.2		18.5	
LOS		E						B	B		B	
Approach Delay		71.1						14.4			18.5	



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		E						B			B	
Queue Length 50th (ft)		~391						189	108		153	
Queue Length 95th (ft)		#493						m185	m104		253	
Internal Link Dist (ft)		20			254			524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2318						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.12						0.74	0.50		0.68	

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 11 (18%), Referenced to phase 2:NESW, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 51.5

Intersection LOS: D

Intersection Capacity Utilization 82.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

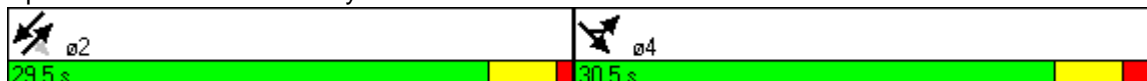
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7										4
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			364			200	
Travel Time (s)		10.3			6.7			9.9			5.5	
Volume (vph)	0	1380	272	0	0	0	0	0	0	64	1969	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1776	0	0	0	0	0	0	0	0	2118	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		33.0									51.0	
Actuated g/C Ratio		0.37									0.57	
v/c Ratio		0.99									0.99	
Control Delay		47.3									21.2	
Queue Delay		0.0									0.0	
Total Delay		47.3									21.2	
LOS		D									C	
Approach Delay		47.3									21.2	



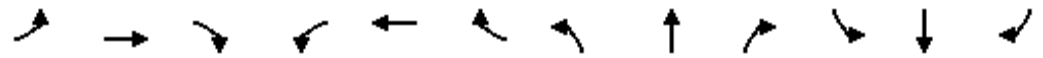
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									C	
Queue Length 50th (ft)		359									293	
Queue Length 95th (ft)		#479									m#671	
Internal Link Dist (ft)		296			165			284			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1801									2135	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.99									0.99	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 33.1      Intersection LOS: C  
 Intersection Capacity Utilization 68.9%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘↙					↗		↗↘↙				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%				0%		
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	3		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50					50		50				
Trailing Detector (ft)	0					0		0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	12					4						
Link Speed (mph)		25				25			25			25
Link Distance (ft)		226				221			408			169
Travel Time (s)		6.2				6.0			11.1			4.6
Volume (vph)	1444	0	0	0	0	46	0	2118	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%				0%			0%			0%
Lane Group Flow (vph)	1536	0	0	0	0	54	0	2184	0	0	0	0
Turn Type	custom					custom						
Protected Phases								2				
Permitted Phases	4					4			4			
Detector Phases	4					4			2			
Minimum Initial (s)	4.0					4.0			4.0			
Minimum Split (s)	21.0					21.0			20.0			
Total Split (s)	38.0	0.0	0.0	0.0	0.0	38.0	0.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	42.2%	0.0%	0.0%	0.0%	0.0%	42.2%	0.0%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5					3.5			3.5			
All-Red Time (s)	1.5					1.5			1.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max					Max			Max			
Act Effct Green (s)	35.0					35.0			49.0			
Actuated g/C Ratio	0.39					0.39			0.54			
v/c Ratio	0.88					0.10			0.88			
Control Delay	5.0					17.1			6.3			
Queue Delay	1.3					0.0			4.3			
Total Delay	6.4					17.1			10.6			
LOS	A					B			B			
Approach Delay								10.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS									B				
Queue Length 50th (ft)	18						18	45					
Queue Length 95th (ft)	m23						39	m8					
Internal Link Dist (ft)	146			141			328			89			
Turn Bay Length (ft)													
Base Capacity (vph)	1754					566		2492					
Starvation Cap Reductn	0					0		247					
Spillback Cap Reductn	85					28		154					
Storage Cap Reductn	0					0		0					
Reduced v/c Ratio	0.92					0.10		0.97					

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 9.0                      Intersection LOS: A  
 Intersection Capacity Utilization 86.7%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50					50	50	50
Trailing Detector (ft)				0	0					0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3448	0	0	0	0	0	4074	1117
Flt Permitted					0.992						0.996	
Satd. Flow (perm)	0	0	0	0	3448	0	0	0	0	0	4074	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											31	31
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	96	481	0	0	0	0	197	1973	1116
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	740	0	0	0	0	0	2667	721
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Detector Phases				8	8					6	6	6
Minimum Initial (s)				4.0	4.0					4.0	4.0	4.0
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	66.0	66.0	66.0
Total Split (%)	0.0%	0.0%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	73.3%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max					Max	Max	Max
Act Effct Green (s)					21.0						63.0	63.0
Actuated g/C Ratio					0.23						0.70	0.70
v/c Ratio					0.92						0.93	0.91
Control Delay					45.0						7.2	10.0
Queue Delay					0.0						18.5	8.9
Total Delay					45.0						25.7	18.9
LOS					D						C	B
Approach Delay					45.0						24.3	

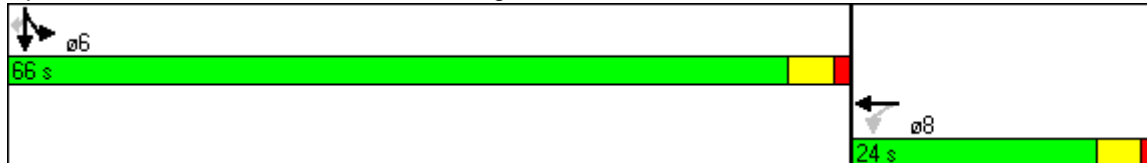


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						C					
Queue Length 50th (ft)	213						163 100					
Queue Length 95th (ft)	232						m108 m69					
Internal Link Dist (ft)	289			371			112			228		
Turn Bay Length (ft)												
Base Capacity (vph)	805						2861 791					
Starvation Cap Reductn	0						287 59					
Spillback Cap Reductn	0						0 0					
Storage Cap Reductn	0						0 0					
Reduced v/c Ratio	0.92						1.04 0.98					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 28.0 Intersection LOS: C  
 Intersection Capacity Utilization 73.2% ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 406: Fell St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕			↕↕↕	↕			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50	50			
Trailing Detector (ft)	0	0			0		0	0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3504	0	0	1863	0	0	4758	1137	0	0	0
Flt Permitted		0.897						0.990				
Satd. Flow (perm)	0	3175	0	0	1863	0	0	4758	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									349			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	39	158	0	0	39	0	538	2198	688	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	219	0	0	41	0	0	2850	717	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Detector Phases	4	4			8		2	2	2			
Minimum Initial (s)	10.0	10.0			4.0		10.0	10.0	10.0			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	21.0	21.0	0.0	0.0	21.0	0.0	69.0	69.0	69.0	0.0	0.0	0.0
Total Split (%)	23.3%	23.3%	0.0%	0.0%	23.3%	0.0%	76.7%	76.7%	76.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max	Max			
Act Effct Green (s)		18.0			18.0			66.0	66.0			
Actuated g/C Ratio		0.20			0.20			0.73	0.73			
v/c Ratio		0.34			0.11			0.82	0.77			
Control Delay		41.1			41.9			8.8	6.8			
Queue Delay		3.3			0.0			5.8	1.8			
Total Delay		44.4			41.9			14.6	8.6			
LOS		D			D			B	A			
Approach Delay		44.4			41.9			13.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			B				
Queue Length 50th (ft)		64			20			325	89			
Queue Length 95th (ft)		m72			m27			350	m181			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		635			373			3489	927			
Starvation Cap Reductn		0			0			599	92			
Spillback Cap Reductn		318			0			366	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.69			0.11			0.99	0.86			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 73 (81%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 15.5      Intersection LOS: B  
 Intersection Capacity Utilization 74.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 407: Fell St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50			50	
Trailing Detector (ft)	0	0						0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3480	0	0	0	0	0	3044	0	0	3153	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3480	0	0	0	0	0	3044	0	0	3153	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						8			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	72	743	31	0	0	0	0	1144	53	0	1246	39
Confl. Peds. (#/hr)			224			224			449			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	929	0	0	0	0	0	1234	0	0	1339	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Detector Phases	4	4						2			6	
Minimum Initial (s)	4.0	4.0						4.0			4.0	
Minimum Split (s)	35.0	35.0						42.0			50.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.1	2.1						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max			Max	
Act Effct Green (s)		34.0						50.0			50.0	
Actuated g/C Ratio		0.38						0.56			0.56	
v/c Ratio		0.70						0.73			0.76	
Control Delay		29.1						3.8			9.6	
Queue Delay		0.0						1.1			0.7	
Total Delay		29.1						4.9			10.3	
LOS		C						A			B	
Approach Delay		29.1						4.9			10.3	

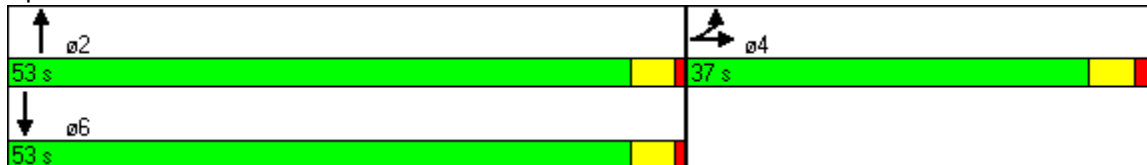


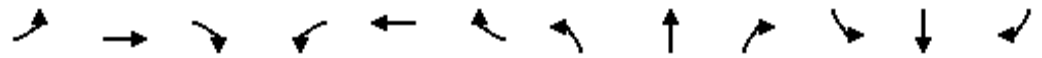
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		245						24			108	
Queue Length 95th (ft)		301						m16			m128	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)												
Base Capacity (vph)		1318						1695			1754	
Starvation Cap Reductn		0						232			156	
Spillback Cap Reductn		0						0			84	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.70						0.84			0.84	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 13.4      Intersection LOS: B  
 Intersection Capacity Utilization 71.6%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Flt Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17									3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	86	153	643	424	0	0	0	0	170	2490	43
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	311	0	670	442	0	0	0	0	0	2786	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Detector Phases		4		3	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		19.0		8.5	27.0						19.0	19.0
Total Split (s)	0.0	19.0	0.0	25.0	44.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	27.8%	48.9%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		16.0		41.0	41.0							43.0
Actuated g/C Ratio		0.18		0.46	0.46							0.48
v/c Ratio		1.02		1.30	0.54							1.23
Control Delay		92.7		171.6	16.3							123.1
Queue Delay		23.5		4.5	0.4							9.6
Total Delay		116.3		176.1	16.7							132.7
LOS		F		F	B							F
Approach Delay		116.3			112.8							132.7

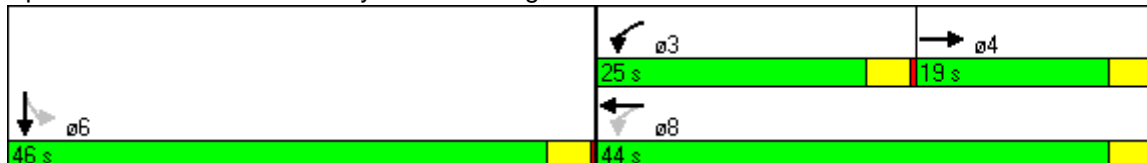


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			F							F
Queue Length 50th (ft)		~175		~430	119							~712
Queue Length 95th (ft)		#265		m#461	m128							#810
Internal Link Dist (ft)		335			378			228				265
Turn Bay Length (ft)												
Base Capacity (vph)		306		516	818							2274
Starvation Cap Reductn		0		0	101							39
Spillback Cap Reductn		20		4	0							26
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		1.09		1.31	0.62							1.25

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 130  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 126.2      Intersection LOS: F  
 Intersection Capacity Utilization 112.1%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50	50	50				
Trailing Detector (ft)		0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1796	0	0	3209	1441	0	4765	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	1796	0	0	3209	1441	0	4765	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4	4						
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		458			481			323			175	
Travel Time (s)		12.5			13.1			8.8			4.8	
Volume (vph)	0	256	0	0	842	750	225	2012	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	269	0	0	1206	524	0	2486	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Detector Phases		4			4	4	2	2				
Minimum Initial (s)		4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	38.0	0.0	0.0	38.0	38.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	42.2%	0.0%	0.0%	42.2%	42.2%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max	Max	Max				
Act Effct Green (s)		35.0			35.0	35.0		49.0				
Actuated g/C Ratio		0.39			0.39	0.39		0.54				
v/c Ratio		0.39			0.96	0.93		0.96				
Control Delay		31.2			17.0	19.9		26.7				
Queue Delay		0.0			0.0	0.0		25.8				
Total Delay		31.2			17.0	19.9		52.5				
LOS		C			B	B		D				
Approach Delay		31.3			17.8			52.5				

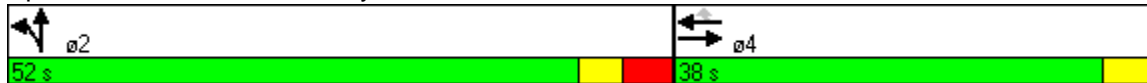


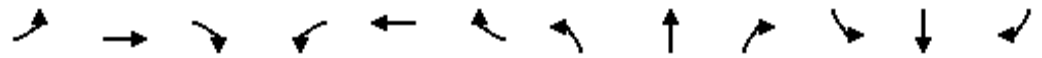
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			B			D					
Queue Length 50th (ft)	153			47 40			279					
Queue Length 95th (ft)	m135			m55 m47			#606					
Internal Link Dist (ft)	378			401			243			95		
Turn Bay Length (ft)												
Base Capacity (vph)	698			1250 563			2594					
Starvation Cap Reductn	0			0 0			244					
Spillback Cap Reductn	0			0 0			174					
Storage Cap Reductn	0			0 0			0					
Reduced v/c Ratio	0.39			0.96 0.93			1.06					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 37.9 Intersection LOS: D  
 Intersection Capacity Utilization 112.1% ICU Level of Service H  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 413: Hayes St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑			↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50			50			50	
Trailing Detector (ft)		0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1824	0	0	4659	0	0	3352	0	0	2932	0
Flt Permitted					0.932							
Satd. Flow (perm)	0	1824	0	0	4347	0	0	3352	0	0	2932	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			21			3			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	216	40	24	1459	145	0	1240	24	0	1221	133
Confl. Peds. (#/hr)						224						449
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								0			10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	269	0	0	1714	0	0	1317	0	0	1411	0
Turn Type				Perm								
Protected Phases		4			4			2			6	
Permitted Phases				4								
Detector Phases		4		4	4			2			6	
Minimum Initial (s)		4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)		35.0		35.0	35.0			51.0			39.0	
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max			Max			Max	
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.37			0.98			0.74			0.90	
Control Delay		17.1			44.3			4.7			17.3	
Queue Delay		0.0			0.0			0.4			4.1	
Total Delay		17.1			44.3			5.1			21.3	
LOS		B			D			A			C	
Approach Delay		17.1			44.3			5.1			21.3	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	50
Trailing Detector (ft)			0	0	0						0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			81		34							22
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	210	95	1456	0	0	0	0	0	680	172
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	221	0	1633	0	0	0	0	0	716	181
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Detector Phases			4	8	8						6	6
Minimum Initial (s)			4.0	4.0	4.0						4.0	4.0
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	Max
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.25		0.55						0.55	0.34
Control Delay			5.5		4.9						11.4	9.5
Queue Delay			0.0		0.0						0.2	0.0
Total Delay			5.5		4.9						11.6	9.5
LOS			A		A						B	A
Approach Delay					4.9						11.2	

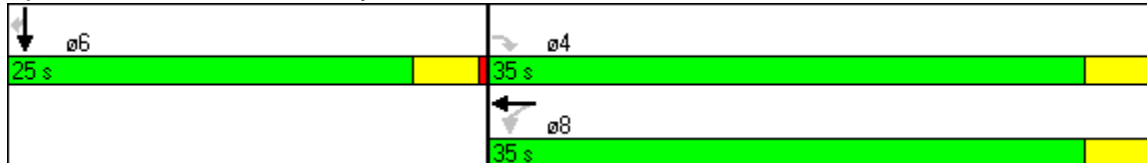


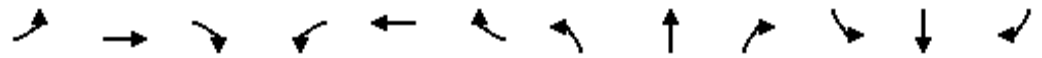
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)			24		27						54	20
Queue Length 95th (ft)			54		m32						92	51
Internal Link Dist (ft)		153			70			300			82	
Turn Bay Length (ft)												
Base Capacity (vph)			897		2979						1298	536
Starvation Cap Reductn			0		0						0	0
Spillback Cap Reductn			33		26						97	0
Storage Cap Reductn			0		0						0	0
Reduced v/c Ratio			0.26		0.55						0.60	0.34

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 55 (92%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.55  
 Intersection Signal Delay: 7.0                      Intersection LOS: A  
 Intersection Capacity Utilization 64.3%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	3371	0	0	0	0	0	5050	0
Flt Permitted					0.590						0.997	
Satd. Flow (perm)	0	1749	0	0	2051	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	300	71	255	157	0	0	0	0	150	2377	69
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	399	0	0	457	0	0	0	0	0	2677	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	28.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		25.0			25.0							59.0
Actuated g/C Ratio		0.28			0.28							0.66
v/c Ratio		0.81			2.83dl							0.81
Control Delay		45.0			41.1							2.4
Queue Delay		3.5			1.0							37.4
Total Delay		48.5			42.2							39.8
LOS		D			D							D
Approach Delay		48.5			42.2							39.8

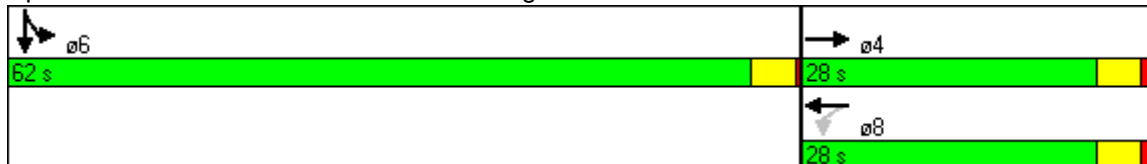


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D						D	
Queue Length 50th (ft)		209			94						40	
Queue Length 95th (ft)		#359			m#151						m40	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		490			570						3314	
Starvation Cap Reductn		0			0						518	
Spillback Cap Reductn		40			23						832	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.89			0.84						1.08	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 60 (67%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 41.1      Intersection LOS: D  
 Intersection Capacity Utilization 94.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3451	0	0	3215	0	0	5045	0	0	0	0
Flt Permitted		0.659						0.998				
Satd. Flow (perm)	0	2290	0	0	3215	0	0	5045	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			13				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	68	382	0	0	311	307	101	2588	106	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	505	0	0	644	0	0	2881	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	28.0	28.0	0.0	0.0	28.0	0.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	31.1%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.0			25.0			59.0				
Actuated g/C Ratio		0.28			0.28			0.66				
v/c Ratio		0.79			0.72			0.87				
Control Delay		29.0			16.3			7.3				
Queue Delay		0.0			0.0			16.4				
Total Delay		29.0			16.3			23.7				
LOS		C			B			C				
Approach Delay		29.0			16.3			23.7				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3376	0	0	3495	0	0	2970	0	0	2795	0
Flt Permitted		0.946			0.884							
Satd. Flow (perm)	0	3196	0	0	3099	0	0	2970	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			2							3
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	7	454	27	36	494	11	0	1237	172	0	1291	124
Confl. Peds. (#/hr)			631			409			414			414
Confl. Bikes (#/hr)												
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	567	0	0	601	0	0	1499	0	0	1474	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.7			1.7	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.51			0.56			0.86			0.89	
Control Delay		40.9			26.4			7.4			32.0	
Queue Delay		0.0			0.0			0.0			1.5	
Total Delay		40.9			26.4			7.4			33.5	
LOS		D			C			A			C	
Approach Delay		40.9			26.4			7.4			33.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A			C	
Queue Length 50th (ft)		152			144			58			387	
Queue Length 95th (ft)		m192			197			m74			#431	
Internal Link Dist (ft)		397			406			90			592	
Turn Bay Length (ft)												
Base Capacity (vph)		1105			1069			1749			1647	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			66	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.56			0.86			0.93	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 55 (61%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 24.0                      Intersection LOS: C  
 Intersection Capacity Utilization 91.2%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 418: Grove St. & Van Ness Avenue**

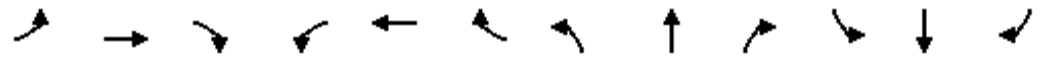






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50	50					50	50	
Trailing Detector (ft)	0	0	0	0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3128	0
Flt Permitted		0.907			0.906						0.996	
Satd. Flow (perm)	0	2895	1377	0	2863	0	0	0	0	0	3128	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			183		16						27	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	26	350	251	41	465	36	0	0	0	63	581	76
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	395	264	0	570	0	0	0	0	0	758	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4						2	2
Permitted Phases	4		4	4								
Detector Phases	4	4	4	4	4					2	2	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0	
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max	Max	Max					Max	Max	
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.30	0.37		0.44						0.53	
Control Delay		11.3	5.4		11.0						10.1	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.3	5.4		11.0						10.1	
LOS		B	A		B						B	
Approach Delay		8.9			11.0						10.1	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1652	1863	0	0	1770	0	0	4847	0	1770	0	1267
Flt Permitted	0.565							0.993		0.133		
Satd. Flow (perm)	982	1863	0	0	1770	0	0	4847	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			18				93
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			198			210			358	
Travel Time (s)		13.1			5.4			5.7			9.8	
Volume (vph)	178	235	0	0	133	79	321	1840	109	15	0	88
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									5			20
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	187	247	0	0	223	0	0	2390	0	16	0	93
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Detector Phases	4	4			8		2	2		6		6
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)	24.0	24.0			24.0			30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40			0.50		0.50		0.50
v/c Ratio	0.48	0.33			0.31			0.98		0.13		0.14
Control Delay	17.1	12.3			9.7			7.4		7.8		2.3
Queue Delay	0.0	0.0			0.0			4.7		0.0		0.0
Total Delay	17.1	12.3			9.7			12.2		7.8		2.3
LOS	B	B			A			B		A		A
Approach Delay		14.4			9.7			12.2				

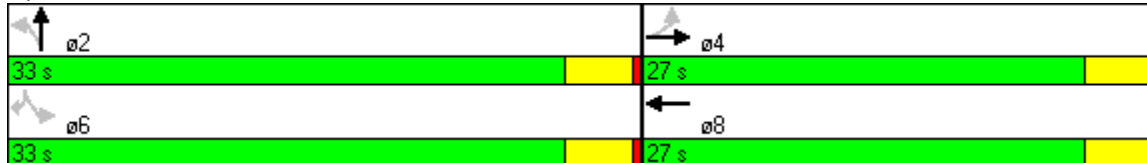


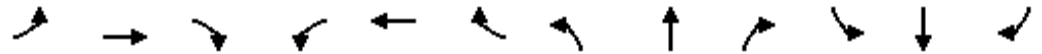
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			A			B					
Queue Length 50th (ft)	60	74			24			24		2		0
Queue Length 95th (ft)	125	136			m37			m23		9		0
Internal Link Dist (ft)		401			118			130			278	
Turn Bay Length (ft)												
Base Capacity (vph)	393	745			711			2433		124		680
Starvation Cap Reductn	0	0			0			27		0		0
Spillback Cap Reductn	0	0			0			56		0		0
Storage Cap Reductn	0	0			0			0		0		0
Reduced v/c Ratio	0.48	0.33			0.31			1.01		0.13		0.14

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 16 (27%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 12.0      Intersection LOS: B  
 Intersection Capacity Utilization 78.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 420: Grove St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1798	0	0	1835	0	0	0	0	0	5050	0
Flt Permitted					0.454						0.999	
Satd. Flow (perm)	0	1798	0	0	846	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	361	128	76	172	0	0	0	0	44	2392	99
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	543	0	0	285	0	0	0	0	0	2668	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						20.0	20.0
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		36.0			36.0							48.0
Actuated g/C Ratio		0.40			0.40							0.53
v/c Ratio		0.75			0.84							0.99
Control Delay		31.2			25.2							17.9
Queue Delay		0.0			0.0							17.1
Total Delay		31.2			25.2							35.0
LOS		C			C							D
Approach Delay		31.2			25.2							35.0





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50		
Trailing Detector (ft)	0		0	0		
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	405	0	248	2715	0	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			11	11		
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	533	0	0	3055	0	0
Turn Type			Split			
Protected Phases	4		2	2		
Permitted Phases						
Detector Phases	4		2	2		
Minimum Initial (s)	4.0		4.0	4.0		
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	30.0	0.0	60.0	60.0	0.0	0.0
Total Split (%)	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max	Max		
Act Effct Green (s)	27.0			57.0		
Actuated g/C Ratio	0.30			0.63		
v/c Ratio	1.00			1.00		
Control Delay	60.3			22.8		
Queue Delay	2.5			9.1		
Total Delay	62.8			31.9		
LOS	E			C		
Approach Delay	62.8			31.9		







Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑			↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50		50	50
Trailing Detector (ft)	0		0		0	0
Turning Speed (mph)	15	9		9	15	
Satd. Flow (prot)	1899	0	4896	0	0	1749
Flt Permitted	0.982					0.567
Satd. Flow (perm)	1899	0	4896	0	0	1005
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	3		11			
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	36	60	2034	63	24	67
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Mid-Block Traffic (%)	0%		0%			0%
Lane Group Flow (vph)	101	0	2207	0	0	96
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phases	8		2		6	6
Minimum Initial (s)	4.0		4.0		4.0	4.0
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max		Max		Max	Max
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.14		0.87			0.18
Control Delay	12.4		7.8			3.6
Queue Delay	0.0		0.8			0.0
Total Delay	12.4		8.6			3.6
LOS	B		A			A
Approach Delay	12.4		8.6			3.6





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	0	1	0			0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	
Trailing Detector (ft)		0			0	
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		11			23	
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	33	0	0	2032	96
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)					16	5
Mid-Block Traffic (%)	0%			0%	0%	
Lane Group Flow (vph)	0	35	0	0	2240	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases		4				
Detector Phases		4			2	
Minimum Initial (s)		4.0			4.0	
Minimum Split (s)		19.0			39.5	
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)		3.5			3.5	
All-Red Time (s)		0.0			0.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode		Max			Max	
Act Effct Green (s)		16.0			38.0	
Actuated g/C Ratio		0.27			0.63	
v/c Ratio		0.08			0.80	
Control Delay		13.4			4.7	
Queue Delay		0.0			0.0	
Total Delay		13.4			4.7	
LOS		B			A	
Approach Delay					4.7	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach LOS					A	
Queue Length 50th (ft)		6			54	
Queue Length 95th (ft)		25			83	
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)		438			2814	
Starvation Cap Reductn		0			14	
Spillback Cap Reductn		0			0	
Storage Cap Reductn		0			0	
Reduced v/c Ratio		0.08			0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	27 (45%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	4.8
Intersection LOS:	A
Intersection Capacity Utilization	51.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖↗						↖↗↘	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1719	0	0	3493	0	0	0	0	0	5045	0
Flt Permitted					0.556						0.998	
Satd. Flow (perm)	0	1719	0	0	1968	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3									13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	336	51	125	363	0	0	0	0	110	2359	110
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	461	0	0	514	0	0	0	0	0	2744	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						18.0	18.0
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		30.0			30.0							54.0
Actuated g/C Ratio		0.33			0.33							0.60
v/c Ratio		0.80			1.04dl							0.91
Control Delay		39.6			41.4							10.2
Queue Delay		0.0			0.0							10.5
Total Delay		39.6			41.4							20.7
LOS		D			D							C
Approach Delay		39.6			41.4							20.7



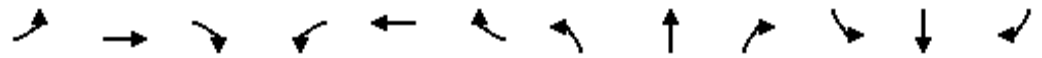
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D							C
Queue Length 50th (ft)		235			164							269
Queue Length 95th (ft)		322			m210							355
Internal Link Dist (ft)		361			207			253				268
Turn Bay Length (ft)												
Base Capacity (vph)		575			656							3032
Starvation Cap Reductn		0			0							316
Spillback Cap Reductn		0			0							297
Storage Cap Reductn		0			0							0
Reduced v/c Ratio		0.80			0.78							1.01

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 45 (50%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 25.9                      Intersection LOS: C  
 Intersection Capacity Utilization 94.7%                      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

**Splits and Phases: 435: McAllister St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1746	0	0	3176	0	0	5019	0	0	0	0
Flt Permitted		0.839						0.999				
Satd. Flow (perm)	0	1469	0	0	3176	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								22				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	418	0	0	440	441	48	2829	243	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	484	0	0	1001	0	0	3285	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	42.0	42.0	0.0	0.0	42.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		39.0			39.0			45.0				
Actuated g/C Ratio		0.43			0.43			0.50				
v/c Ratio		0.76			0.73			1.30				
Control Delay		27.6			7.5			156.2				
Queue Delay		0.0			0.0			45.2				
Total Delay		27.6			7.5			201.5				
LOS		C			A			F				
Approach Delay		27.6			7.5			201.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			F				
Queue Length 50th (ft)		276			42			~880				
Queue Length 95th (ft)		m351			75			m#874				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		637			1376			2521				
Starvation Cap Reductn		0			6			181				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.76			0.73			1.40				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 87 (97%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 143.1      Intersection LOS: F  
 Intersection Capacity Utilization 112.7%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	125		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50	50		50			50	50
Trailing Detector (ft)	0	0		0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3445	0	0	3532	1425	0	2924	0	0	3127	1370
Flt Permitted		0.925			0.858							
Satd. Flow (perm)	0	3188	0	0	3030	1142	0	2924	0	0	3127	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				6		9				10
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	14	598	49	37	800	99	0	1194	61	0	1329	81
Confl. Peds. (#/hr)	200		200	200		200			399			399
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	743	0	0	900	106	0	1308	0	0	1399	85
Turn Type	Perm			Perm		Perm						Perm
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4						6
Detector Phases	4	4		4	4	4		2			6	6
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0		3.0			3.0	3.0
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	30.0
Total Split (s)	37.0	37.0	0.0	37.0	37.0	37.0	0.0	53.0	0.0	0.0	53.0	53.0
Total Split (%)	41.1%	41.1%	0.0%	41.1%	41.1%	41.1%	0.0%	58.9%	0.0%	0.0%	58.9%	58.9%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max	Max		Max			Max	Max
Act Effct Green (s)		34.0			34.0	34.0		50.0			50.0	50.0
Actuated g/C Ratio		0.38			0.38	0.38		0.56			0.56	0.56
v/c Ratio		0.62			0.79	0.24		0.80			0.81	0.17
Control Delay		22.4			30.7	19.9		3.6			11.8	7.8
Queue Delay		0.0			0.0	0.0		0.0			0.2	0.0
Total Delay		22.4			30.7	19.9		3.6			11.9	7.8
LOS		C			C	B		A			B	A
Approach Delay		22.4			29.6			3.6			11.7	

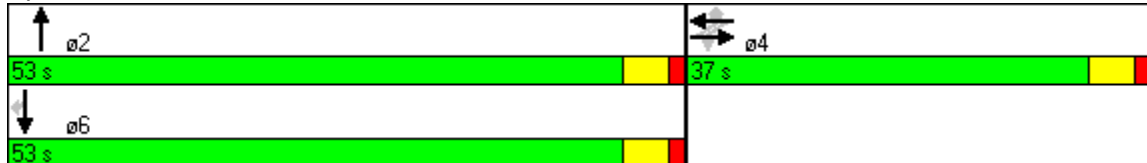


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		145			234	38		5			94	3
Queue Length 95th (ft)		m182			311	77		5			181	m18
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)												70
Base Capacity (vph)		1207			1145	435		1628			1737	497
Starvation Cap Reductn		0			0	0		0			36	0
Spillback Cap Reductn		0			0	0		0			0	0
Storage Cap Reductn		0			0	0		0			0	0
Reduced v/c Ratio		0.62			0.79	0.24		0.80			0.82	0.17

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 77 (86%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 15.1                      Intersection LOS: B  
 Intersection Capacity Utilization 94.8%                      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3027	0	1652	3001	0	0	1593	0	0	3175	0
Flt Permitted		0.908		0.319				0.977			0.938	
Satd. Flow (perm)	0	2754	0	555	3001	0	0	1559	0	0	2987	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		104			24			23			89	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	25	469	165	107	778	79	3	37	22	38	448	155
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	694	0	113	902	0	0	65	0	0	675	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	28.5	28.5	0.0	28.5	28.5	0.0
Total Split (%)	52.5%	52.5%	0.0%	52.5%	52.5%	0.0%	47.5%	47.5%	0.0%	47.5%	47.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.5		28.5	28.5			25.5			25.5	
Actuated g/C Ratio		0.48		0.48	0.48			0.42			0.42	
v/c Ratio		0.51		0.43	0.63			0.10			0.51	
Control Delay		10.7		12.3	10.2			1.1			10.0	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		10.7		12.3	10.3			1.1			10.0	
LOS		B		B	B			A			A	
Approach Delay		10.7			10.5			1.1			10.0	

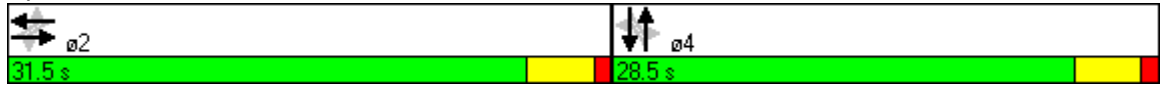


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		70		19	80			0			72	
Queue Length 95th (ft)		112		m20	m85			m0			139	
Internal Link Dist (ft)		381			175			592			104	
Turn Bay Length (ft)												
Base Capacity (vph)		1363		264	1438			676			1321	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	22			4			7	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.51		0.43	0.64			0.10			0.51	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 8 (13%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 10.2      Intersection LOS: B  
 Intersection Capacity Utilization 74.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 438: McAllister St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50				
Trailing Detector (ft)	0	0		0	0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	1811	0	0	3415	0	0	5016	0	0	0	0
Flt Permitted	0.154				0.948			0.996				
Satd. Flow (perm)	287	1811	0	0	3241	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			3			6				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	109	337	76	15	818	246	153	1902	39	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	115	435	0	0	1136	0	0	2204	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Detector Phases	2	2		6	6		8	8				
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0				
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.93	0.55			0.81			0.94				
Control Delay	86.4	14.6			11.2			9.5				
Queue Delay	0.0	0.0			0.0			0.7				
Total Delay	86.4	14.6			11.2			10.2				
LOS	F	B			B			B				
Approach Delay		29.6			11.2			10.2				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			11	11							32	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	376	98	943	0	0	0	0	0	1658	136
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	396	103	993	0	0	0	0	0	1888	0
Turn Type			custom	Perm								
Protected Phases					6						4	
Permitted Phases			2	6								
Detector Phases			2	6	6							4
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.63	0.15	0.73						0.76	
Control Delay			21.8	11.8	19.8						5.3	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			21.8	11.8	19.8						5.4	
LOS			C	B	B						A	
Approach Delay					19.0						5.4	

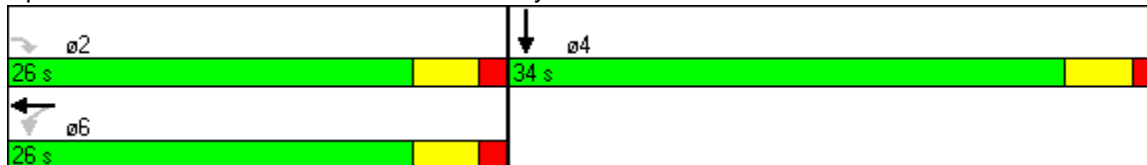


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)			96	21	156							51
Queue Length 95th (ft)			m172	48	220							88
Internal Link Dist (ft)		411			257			253				266
Turn Bay Length (ft)												
Base Capacity (vph)			624	685	1357							2469
Starvation Cap Reductn			0	0	0							59
Spillback Cap Reductn			0	0	0							5
Storage Cap Reductn			0	0	0							0
Reduced v/c Ratio			0.63	0.15	0.73							0.78

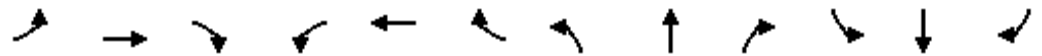
**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:EBR, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 11.8      Intersection LOS: B  
 Intersection Capacity Utilization 73.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 440: McAllister St. & Hyde St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4877	0	0	0	0	0	0	0	0	4738	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4877	0	0	0	0	0	0	0	0	4738	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		9										30
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	578	219	0	0	0	0	0	0	357	2360	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17	17	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	857	0	0	0	0	0	0	0	0	2830	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.0	66.0	0.0
Total Split (%)	0.0%	26.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		21.0									63.0	
Actuated g/C Ratio		0.23									0.70	
v/c Ratio		0.75									0.85	
Control Delay		36.5									3.1	
Queue Delay		0.0									2.6	
Total Delay		36.5									5.7	
LOS		D									A	
Approach Delay		36.5									5.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									A	
Queue Length 50th (ft)		164									47	
Queue Length 95th (ft)		211									m50	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1145									3326	
Starvation Cap Reductn		0									314	
Spillback Cap Reductn		0									371	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.75									0.96	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	27 (30%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	12.8
Intersection LOS:	B
Intersection Capacity Utilization:	75.6%
ICU Level of Service:	D
Analysis Period (min):	15

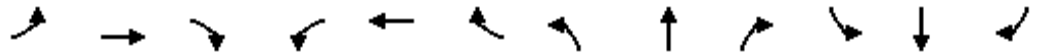
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4994	0	0	0	0	0	5907	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5907	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						10				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			242			151			320	
Travel Time (s)		8.1			6.6			4.1			8.7	
Volume (vph)	113	822	0	0	0	0	0	3195	212	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	954	0	0	0	0	0	3513	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		22.0						62.0				
Actuated g/C Ratio		0.24						0.69				
v/c Ratio		0.78						0.86				
Control Delay		38.8						3.9				
Queue Delay		0.0						10.9				
Total Delay		38.8						14.8				
LOS		D						B				
Approach Delay		38.8						14.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		D							B				
Queue Length 50th (ft)		200							81				
Queue Length 95th (ft)		m246							m55				
Internal Link Dist (ft)		216				162			71			240	
Turn Bay Length (ft)													
Base Capacity (vph)		1222							4072				
Starvation Cap Reductn		0							603				
Spillback Cap Reductn		0							41				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.78							1.01				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 80 (89%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 19.9                      Intersection LOS: B  
 Intersection Capacity Utilization 74.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑		↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4892	0	0	0	0	0	3101	1346	0	3177	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	4849	0	0	0	0	0	3101	847	0	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5							7			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	50	875	109	0	0	0	0	1242	65	0	1301	0
Confl. Peds. (#/hr)	193		193						387			387
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)			0					10	10		1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1089	0	0	0	0	0	1307	68	0	1369	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			6	
Permitted Phases									2			
Detector Phases	4	4						2	2		6	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0						38.0	38.0		48.0	
Total Split (s)	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		33.0						51.0	51.0		51.0	
Actuated g/C Ratio		0.37						0.57	0.57		0.57	
v/c Ratio		0.61						0.74	0.14		0.76	
Control Delay		16.7						4.9	2.4		5.3	
Queue Delay		0.0						0.4	0.0		0.7	
Total Delay		16.7						5.3	2.4		6.0	
LOS		B						A	A		A	
Approach Delay		16.7						5.2			6.0	



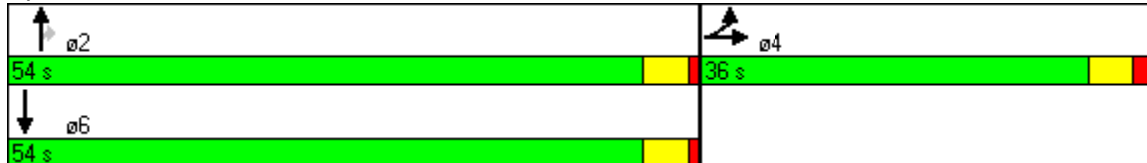
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						A			A	
Queue Length 50th (ft)		86						42	2		20	
Queue Length 95th (ft)		m144						55	m4		22	
Internal Link Dist (ft)		159			387			98			78	
Turn Bay Length (ft)									70			
Base Capacity (vph)		1797						1757	483		1800	
Starvation Cap Reductn		0						126	0		161	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		0.61						0.80	0.14		0.84	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	8.7
Intersection LOS:	A
Intersection Capacity Utilization	68.2%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4716	0	0	0	0	0	1623	0	0	3319	0
Flt Permitted		0.997									0.808	
Satd. Flow (perm)	0	4716	0	0	0	0	0	1623	0	0	2717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91						37				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	66	711	163	0	0	0	0	166	51	162	478	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	989	0	0	0	0	0	229	0	0	674	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Detector Phases	2	2						8		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.1	27.1	0.0	0.0	0.0	0.0	0.0	32.9	0.0	32.9	32.9	0.0
Total Split (%)	45.2%	45.2%	0.0%	0.0%	0.0%	0.0%	0.0%	54.8%	0.0%	54.8%	54.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.1						29.9			29.9	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.51						0.28			0.50	
Control Delay		13.2						6.0			14.7	
Queue Delay		0.0						0.0			0.0	
Total Delay		13.2						6.0			14.7	
LOS		B						A			B	
Approach Delay		13.2						6.0			14.7	

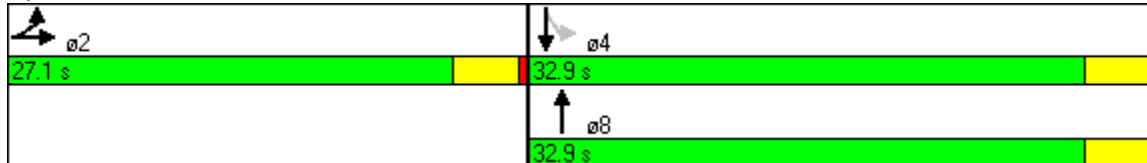


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		B						A				B	
Queue Length 50th (ft)		84						25				86	
Queue Length 95th (ft)		118						m47				139	
Internal Link Dist (ft)		387				419				100			75
Turn Bay Length (ft)													
Base Capacity (vph)		1949						827				1354	
Starvation Cap Reductn		0						0				0	
Spillback Cap Reductn		0						0				0	
Storage Cap Reductn		0						0				0	
Reduced v/c Ratio		0.51						0.28				0.50	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	12.9
Intersection LOS:	B
Intersection Capacity Utilization	58.5%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5034	0	0	0	0	0	4766	0	0	0	0
Flt Permitted		0.990										
Satd. Flow (perm)	0	5034	0	0	0	0	0	4766	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6						51				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			484			158			313	
Travel Time (s)		13.6			13.2			4.3			8.5	
Volume (vph)	183	741	0	0	0	0	0	2004	253	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	973	0	0	0	0	0	2375	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	23.5	23.5						36.5				
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		20.5						33.5				
Actuated g/C Ratio		0.34						0.56				
v/c Ratio		0.56						0.88				
Control Delay		9.9						15.3				
Queue Delay		0.0						0.2				
Total Delay		9.9						15.5				
LOS		A						B				
Approach Delay		9.9						15.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	48						172					
Queue Length 95th (ft)	63						m198					
Internal Link Dist (ft)	419			404			78			233		
Turn Bay Length (ft)												
Base Capacity (vph)	1724						2684					
Starvation Cap Reductn	0						34					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.56						0.90					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 58 (97%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 13.8      Intersection LOS: B  
 Intersection Capacity Utilization 69.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 454: Golden Gate Ave. & Larkin St.**

02	08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4836	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4836	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		34										47
Link Speed (mph)		25			25			25				25
Link Distance (ft)		484			471			346				354
Travel Time (s)		13.2			12.8			9.4				9.7
Volume (vph)	0	669	325	0	0	0	0	0	0	156	1469	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1046	0	0	0	0	0	0	0	0	1710	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.71									0.59	
Control Delay		12.4									4.6	
Queue Delay		0.0									0.2	
Total Delay		12.4									4.8	
LOS		B									A	
Approach Delay		12.4									4.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B									A	
Queue Length 50th (ft)		39									42	
Queue Length 95th (ft)		m86									50	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1475									2888	
Starvation Cap Reductn		0									337	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.71									0.67	

**Intersection Summary**

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 4 (7%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 7.7

Intersection LOS: A

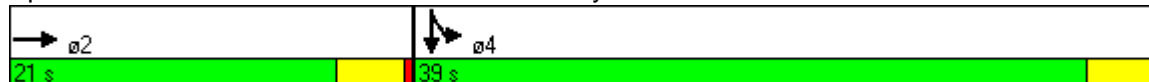
Intersection Capacity Utilization 58.4%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				2							11	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	215	1041	0	0	0	0	0	2502	155
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	236	1144	0	0	0	0	0	2739	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						18.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				31.0	31.0						53.0	
Actuated g/C Ratio				0.34	0.34						0.59	
v/c Ratio				0.42	1.00						0.98	
Control Delay				11.2	40.0						9.4	
Queue Delay				0.0	0.0						7.4	
Total Delay				11.2	40.0						16.8	
LOS				B	D						B	
Approach Delay					35.1						16.8	



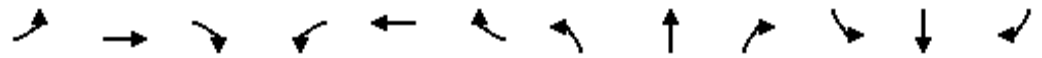
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											D	B
Queue Length 50th (ft)				40	379							92
Queue Length 95th (ft)				m67	m#512							m48
Internal Link Dist (ft)		903			211			247				322
Turn Bay Length (ft)												
Base Capacity (vph)				556	1147							2789
Starvation Cap Reductn				0	0							90
Spillback Cap Reductn				0	0							31
Storage Cap Reductn				0	0							0
Reduced v/c Ratio				0.42	1.00							1.01

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 22.9      Intersection LOS: C  
 Intersection Capacity Utilization 81.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5709	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5709	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		5				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		181			233			320				205
Travel Time (s)		4.9			6.4			8.7				5.6
Volume (vph)	0	0	0	0	942	274	314	2994	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	981	285	0	3446	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	26.0	26.0	64.0	64.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	28.9%	28.9%	71.1%	71.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					23.0	23.0		61.0				
Actuated g/C Ratio					0.26	0.26		0.68				
v/c Ratio					0.76	0.70		0.89				
Control Delay					14.6	17.9		3.4				
Queue Delay					0.4	0.0		40.8				
Total Delay					15.0	17.9		44.2				
LOS					B	B		D				
Approach Delay					15.6			44.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			D				
Queue Length 50th (ft)					204	154		24				
Queue Length 95th (ft)					228	m188		26				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1284	406		3871				
Starvation Cap Reductn					0	0		73				
Spillback Cap Reductn					55	0		706				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.80	0.70		1.09				

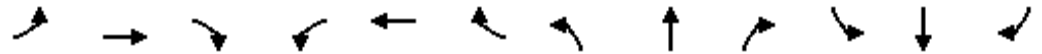
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 36.5                      Intersection LOS: D  
 Intersection Capacity Utilization 73.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 467: Turk St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↔↔			↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	90		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4997	0	0	3135	0	0	2971	0
Flt Permitted				0.998								
Satd. Flow (perm)	0	0	0	0	4966	0	0	3135	0	0	2971	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7						1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	41	1134	53	0	1292	0	0	1260	82
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1336	0	0	1360	0	0	1370	0
Turn Type				Split								
Protected Phases				4	4			2			6	
Permitted Phases												
Detector Phases				4	4			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			38.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					31.0			53.0			53.0	
Actuated g/C Ratio					0.34			0.59			0.59	
v/c Ratio					0.77			0.74			0.78	
Control Delay					30.0			10.5			4.7	
Queue Delay					0.0			0.0			2.4	
Total Delay					30.0			10.5			7.1	
LOS					C			B			A	
Approach Delay					30.0			10.5			7.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			A	
Queue Length 50th (ft)					244			108			38	
Queue Length 95th (ft)					300			184			m43	
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)												
Base Capacity (vph)					1726			1846			1750	
Starvation Cap Reductn					0			13			250	
Spillback Cap Reductn					0			0			97	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.77			0.74			0.91	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 15.8                      Intersection LOS: B  
 Intersection Capacity Utilization 71.0%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

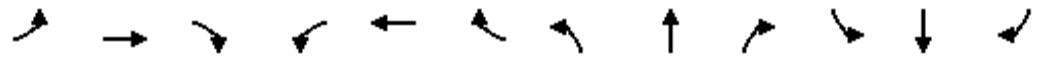
**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4944	0	0	2077	0	0	2063	0
Flt Permitted				0.994			0.711					
Satd. Flow (perm)	0	0	0	0	4944	0	0	1501	0	0	2063	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						24	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	168	1078	91	51	105	0	0	472	99
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1408	0	0	165	0	0	601	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	27.8	27.8	0.0	32.2	32.2	0.0	0.0	32.2	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.3%	46.3%	0.0%	53.7%	53.7%	0.0%	0.0%	53.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					24.8			29.2			29.2	
Actuated g/C Ratio					0.41			0.49			0.49	
v/c Ratio					0.68			0.23			0.59	
Control Delay					9.4			9.3			7.9	
Queue Delay					0.0			0.0			1.3	
Total Delay					9.4			9.3			9.2	
LOS					A			A			A	
Approach Delay					9.4			9.3			9.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4869	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4869	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					19			19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		222			273			313			233	
Travel Time (s)		6.1			7.4			8.5			6.4	
Volume (vph)	0	0	0	0	857	124	480	1707	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1078	0	0	2232	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	22.0	0.0	38.0	38.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					19.0			35.0				
Actuated g/C Ratio					0.32			0.58				
v/c Ratio					0.69			0.80				
Control Delay					12.3			5.9				
Queue Delay					0.0			0.4				
Total Delay					12.3			6.2				
LOS					B			A				
Approach Delay					12.3			6.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					59			73				
Queue Length 95th (ft)					75			m79				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1555			2805				
Starvation Cap Reductn					0			167				
Spillback Cap Reductn					0			109				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.69			0.85				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 2 (3%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 8.2                      Intersection LOS: A  
 Intersection Capacity Utilization 68.7%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 470: Turk St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4681	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					36						70	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		208			477			354			335	
Travel Time (s)		5.7			13.0			9.7			9.1	
Volume (vph)	0	0	0	257	693	0	0	0	0	0	1368	288
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	990	0	0	0	0	0	1690	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.56						0.65	
Control Delay					16.6						13.0	
Queue Delay					0.0						0.9	
Total Delay					16.6						13.9	
LOS					B						B	
Approach Delay					16.6						13.9	

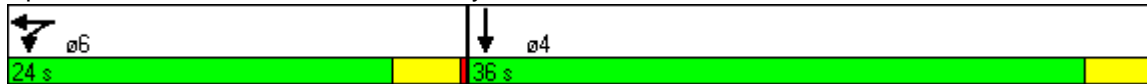


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					99						204	
Queue Length 95th (ft)					135						261	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1766						2606	
Starvation Cap Reductn					0						568	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.56						0.83	

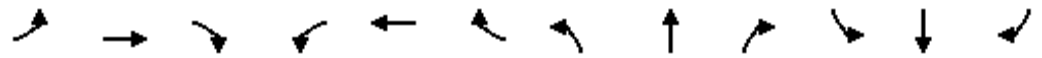
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	52 (87%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1749	0	0	1794	0	0	0	0	0	5040	0
Flt Permitted					0.583						0.996	
Satd. Flow (perm)	0	1749	0	0	1060	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	323	125	70	190	0	0	0	0	206	2462	97
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	509	0	0	306	0	0	0	0	0	2881	0
Turn Type				Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases				8								
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		20.0		20.0	20.0						17.0	17.0
Total Split (s)	0.0	42.0	0.0	42.0	42.0	0.0	0.0	0.0	0.0	48.0	48.0	0.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5						3.5	3.5
All-Red Time (s)		1.5		1.5	1.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		39.0			39.0							45.0
Actuated g/C Ratio		0.43			0.43							0.50
v/c Ratio		0.67			0.67							1.14
Control Delay		25.7			19.3							86.8
Queue Delay		13.6			0.0							41.8
Total Delay		39.4			19.3							128.7
LOS		D			B							F
Approach Delay		39.4			19.3							128.7

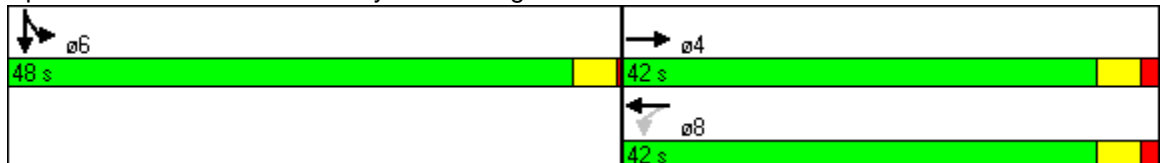


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B						F	
Queue Length 50th (ft)		224			37						~696	
Queue Length 95th (ft)		327			m82						#796	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		758			459						2524	
Starvation Cap Reductn		0			0						192	
Spillback Cap Reductn		232			0						0	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.97			0.67						1.24	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 22 (24%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 107.3      Intersection LOS: F  
 Intersection Capacity Utilization 102.4%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 478: Eddy St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1805	0	0	1783	0	0	5907	0	0	0	0
Flt Permitted		0.815						0.999				
Satd. Flow (perm)	0	1482	0	0	1783	0	0	5907	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								18				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	73	456	0	0	223	36	37	3065	185	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	669	0	0	328	0	0	3389	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		37.0			37.0			47.0				
Actuated g/C Ratio		0.41			0.41			0.52				
v/c Ratio		1.10			0.45			1.10				
Control Delay		82.2			29.8			59.6				
Queue Delay		94.2			0.0			49.0				
Total Delay		176.4			29.8			108.7				
LOS		F			C			F				
Approach Delay		176.4			29.8			108.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			F				
Queue Length 50th (ft)		~444			163			~676				
Queue Length 95th (ft)		m#454			m205			#756				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		609			733			3093				
Starvation Cap Reductn		1			0			154				
Spillback Cap Reductn		101			0			284				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		1.32			0.45			1.21				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 113.1      Intersection LOS: F  
 Intersection Capacity Utilization 100.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1783	0	0	1791	0	0	2909	0	0	2914	0
Flt Permitted		0.971			0.949							
Satd. Flow (perm)	0	1726	0	0	1701	0	0	2909	0	0	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			15			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	35	526	80	14	180	25	0	1232	113	0	1248	79
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								8	8		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	791	0	0	257	0	0	1358	0	0	1327	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	0.0	48.0	0.0	0.0	48.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		39.0			39.0			45.0			45.0	
Actuated g/C Ratio		0.43			0.43			0.50			0.50	
v/c Ratio		1.05			0.35			0.93			0.91	
Control Delay		55.3			18.4			36.7			25.7	
Queue Delay		54.8			0.0			1.0			12.3	
Total Delay		110.1			18.4			37.6			38.0	
LOS		F			B			D			D	
Approach Delay		110.1			18.4			37.6			38.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			B			D			D	
Queue Length 50th (ft)		~508			93			276			215	
Queue Length 95th (ft)		m429			141			#310			m#286	
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												
Base Capacity (vph)		750			739			1462			1462	
Starvation Cap Reductn		84			0			0			146	
Spillback Cap Reductn		0			0			23			34	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		1.19			0.35			0.94			1.01	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 51.8                      Intersection LOS: D  
 Intersection Capacity Utilization 91.0%                      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1758	0	0	1748	0	0	1953	0	0	2007	0
Flt Permitted		0.929			0.809			0.898			0.873	
Satd. Flow (perm)	0	1645	0	0	1434	0	0	1767	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			26			68			20	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	96	420	124	46	82	29	29	90	77	164	401	108
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	674	0	0	165	0	0	207	0	0	709	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Detector Phases	2	2		2	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.86			0.24			0.26			0.91	
Control Delay		27.9			5.1			5.0			27.1	
Queue Delay		0.0			0.0			0.0			2.2	
Total Delay		27.9			5.1			5.0			29.3	
LOS		C			A			A			C	
Approach Delay		27.9			5.1			5.0			29.3	

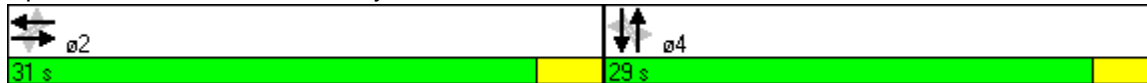


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			A			A			C	
Queue Length 50th (ft)		196			0			4			139	
Queue Length 95th (ft)		#398			m0			m27			#422	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		782			683			804			780	
Starvation Cap Reductn		0			0			0			23	
Spillback Cap Reductn		0			0			0			9	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.86			0.24			0.26			0.94	

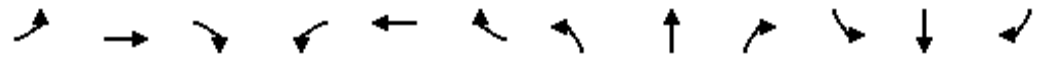
**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 49 (82%), Referenced to phase 2:EBWB, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 23.6      Intersection LOS: C  
 Intersection Capacity Utilization 97.2%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 481: Eddy St. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50					50	50				
Trailing Detector (ft)	0	0					0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								46				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		211			283			134				161
Travel Time (s)		5.8			7.7			3.7				4.4
Volume (vph)	99	551	0	0	0	0	144	1484	203	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	684	0	0	0	0	0	1928	0	0	0	0
Turn Type	Perm							Split				
Protected Phases		2						4	4			
Permitted Phases	2											
Detector Phases	2	2						4	4			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	19.0	19.0						19.0	19.0			
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.0	0.0						0.0	0.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		28.0							26.0			
Actuated g/C Ratio		0.47							0.43			
v/c Ratio		0.79							0.89			
Control Delay		18.2							11.9			
Queue Delay		0.0							0.4			
Total Delay		18.2							12.3			
LOS		B							B			
Approach Delay		18.2							12.3			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B						B				
Queue Length 50th (ft)		239						164				
Queue Length 95th (ft)		m262						#234				
Internal Link Dist (ft)		131			203			54			81	
Turn Bay Length (ft)												
Base Capacity (vph)		862						2169				
Starvation Cap Reductn		0						37				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		0.79						0.90				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 12 (20%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 13.8                      Intersection LOS: B  
 Intersection Capacity Utilization 77.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

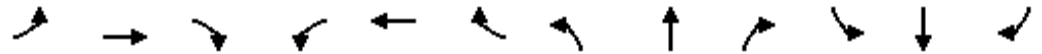
Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4828	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4828	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		48										52
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	539	215	0	0	0	0	0	0	141	1441	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	793	0	0	0	0	0	0	0	0	1665	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Detector Phases		2								4	4	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.64									0.54	
Control Delay		13.8									2.6	
Queue Delay		0.0									0.7	
Total Delay		13.8									3.3	
LOS		B									A	
Approach Delay		13.8									3.3	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↗↖↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Flt Permitted			0.950									
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			4	4							4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	51	241	334	0	0	0	0	0	2473	33
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											36	36
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	91	301	418	0	0	0	0	0	2638	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	29.0	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0
Total Split (%)	0.0%	0.0%	32.2%	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			26.0	26.0	26.0						58.0	
Actuated g/C Ratio			0.29	0.29	0.29						0.64	
v/c Ratio			0.19	0.59	0.78						0.89	
Control Delay			24.4	14.8	23.5						5.8	
Queue Delay			2.8	247.3	0.0						26.5	
Total Delay			27.3	262.0	23.5						32.3	
LOS			C	F	C						C	
Approach Delay					123.3						32.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						F						C
Queue Length 50th (ft)			37	52	77						56	
Queue Length 95th (ft)			44	m76	m105						m64	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			468	514	538						2967	
Starvation Cap Reductn			0	0	0						57	
Spillback Cap Reductn			290	318	0						464	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.51	1.54	0.78						1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 51.1                      Intersection LOS: D  
 Intersection Capacity Utilization 76.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 488: Ellis St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		478			479			171			185	
Travel Time (s)		13.0			13.1			4.7			5.0	
Volume (vph)	0	0	0	0	461	533	111	3064	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	501	579	0	3378	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	39.0	39.0	51.0	51.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.3%	43.3%	56.7%	56.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					36.0	36.0		48.0				
Actuated g/C Ratio					0.40	0.40		0.53				
v/c Ratio					0.35	0.91		0.93				
Control Delay					24.6	49.3		3.1				
Queue Delay					0.0	4.6		13.4				
Total Delay					24.6	53.8		16.5				
LOS					C	D		B				
Approach Delay					40.3			16.5				

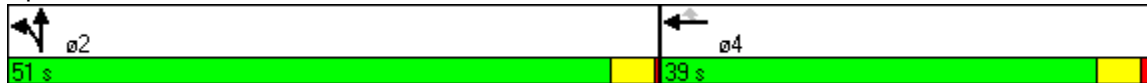


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						B					
Queue Length 50th (ft)					143	346			30			
Queue Length 95th (ft)					m187	m#504			m28			
Internal Link Dist (ft)	398			399			91			105		
Turn Bay Length (ft)												
Base Capacity (vph)					1416	633			3625			
Starvation Cap Reductn					0	28			323			
Spillback Cap Reductn					0	0			80			
Storage Cap Reductn					0	0			0			
Reduced v/c Ratio					0.35	0.96			1.02			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 32 (36%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 22.2                      Intersection LOS: C  
 Intersection Capacity Utilization 76.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 489: Ellis St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↔↔			↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4867	0	0	3135	0	0	2834	0
Flt Permitted				0.997								
Satd. Flow (perm)	0	0	0	0	4813	0	0	3135	0	0	2834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9							6
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	57	783	111	0	1247	0	0	1244	211
Confl. Peds. (#/hr)				187		187	374		374			374
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								6			14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1045	0	0	1341	0	0	1531	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Detector Phases				4	4			2			2	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.64			0.71			0.90	
Control Delay					27.4			3.2			6.6	
Queue Delay					0.4			3.1			3.6	
Total Delay					27.8			6.3			10.2	
LOS					C			A			B	
Approach Delay					27.8			6.3			10.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					181			26			29	
Queue Length 95th (ft)					227			m30			m31	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1628			1881			1703	
Starvation Cap Reductn					0			421			112	
Spillback Cap Reductn					177			3			112	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.72			0.92			0.96	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	13.6
Intersection LOS:	B
Intersection Capacity Utilization:	74.2%
ICU Level of Service:	D
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 490: Ellis St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4934	0	0	2057	0	0	2007	0
Flt Permitted					0.993			0.760				
Satd. Flow (perm)	0	0	0	0	4934	0	0	1579	0	0	2007	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69						44	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	154	737	165	45	170	0	0	508	169
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1112	0	0	226	0	0	713	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Detector Phases				6	6		8	8			4	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.63			0.26			0.63	
Control Delay					6.2			5.5			6.9	
Queue Delay					0.0			0.0			0.7	
Total Delay					6.2			5.5			7.6	
LOS					A			A			A	
Approach Delay					6.2			5.5			7.6	

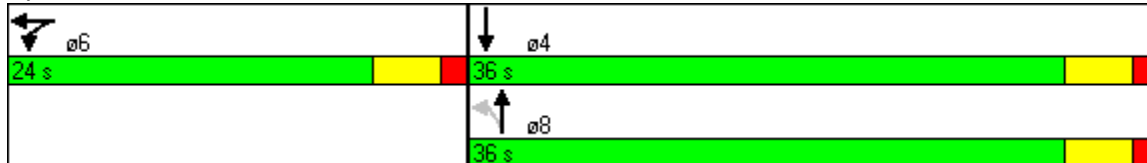


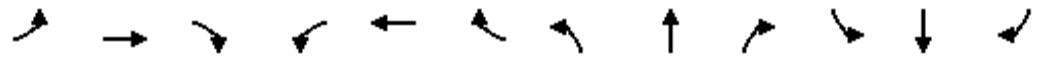
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A			A	
Queue Length 50th (ft)					23			31			56	
Queue Length 95th (ft)					27			m36			m106	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1772			868			1124	
Starvation Cap Reductn					0			0			148	
Spillback Cap Reductn					2			0			154	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.63			0.26			0.74	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 40 (67%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.63  
 Intersection Signal Delay: 6.6                      Intersection LOS: A  
 Intersection Capacity Utilization 75.6%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4907	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4907	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					23			42				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		495			479			180			163	
Travel Time (s)		13.5			13.1			4.9			4.4	
Volume (vph)	0	0	0	0	881	272	175	1397	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1213	0	0	1655	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Detector Phases					6		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	25.9	0.0	34.1	34.1	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.2%	0.0%	56.8%	56.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					22.9			31.1				
Actuated g/C Ratio					0.38			0.52				
v/c Ratio					0.64			0.67				
Control Delay					10.3			1.7				
Queue Delay					0.1			0.4				
Total Delay					10.4			2.2				
LOS					B			A				
Approach Delay					10.4			2.2				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4630	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4630	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					20						65	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			482			339			372	
Travel Time (s)		13.1			13.1			9.2			10.1	
Volume (vph)	0	0	0	237	838	0	0	0	0	0	1345	315
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											18	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1131	0	0	0	0	0	1748	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				28.0	28.0						32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					25.0						29.0	
Actuated g/C Ratio					0.42						0.48	
v/c Ratio					0.54						0.77	
Control Delay					14.1						4.9	
Queue Delay					0.0						0.1	
Total Delay					14.1						4.9	
LOS					B						A	
Approach Delay					14.1						4.9	







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑↔				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3305	0	0	0	0	0	6489	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6489	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								21				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	398	1140	0	0	0	0	0	3282	315	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1690	0	0	0	0	0	3787	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.18						1.16				
Control Delay		109.6						89.3				
Queue Delay		56.9						3.2				
Total Delay		166.5						92.5				
LOS		F						F				
Approach Delay		166.5						92.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						F				
Queue Length 50th (ft)		~636						~694				
Queue Length 95th (ft)		m#685						#757				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3255				
Starvation Cap Reductn		0						8				
Spillback Cap Reductn		140						20				
Storage Cap Reductn		0						0				
Reduced v/c Ratio		1.31						1.17				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 115.3      Intersection LOS: F  
 Intersection Capacity Utilization 93.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	70		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3525	1583	0	0	0	0	3110	1354	0	3135	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3500	1339	0	0	0	0	3110	794	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16						4			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	98	1237	120	0	0	0	0	1237	110	0	1402	0
Confl. Peds. (#/hr)	101		153						458	458		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1405	126	0	0	0	0	1249	111	0	1611	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			6	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		6	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					42.0	42.0		48.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	50.0	0.0
Total Split (%)	44.4%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	55.6%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		37.0	37.0					47.0	47.0		47.0	
Actuated g/C Ratio		0.41	0.41					0.52	0.52		0.52	
v/c Ratio		0.97	0.23					0.77	0.27		0.98	
Control Delay		20.8	6.2					13.4	11.3		36.6	
Queue Delay		31.6	0.0					0.5	0.0		0.0	
Total Delay		52.4	6.2					13.9	11.3		36.6	
LOS		D	A					B	B		D	
Approach Delay		48.6						13.7			36.6	

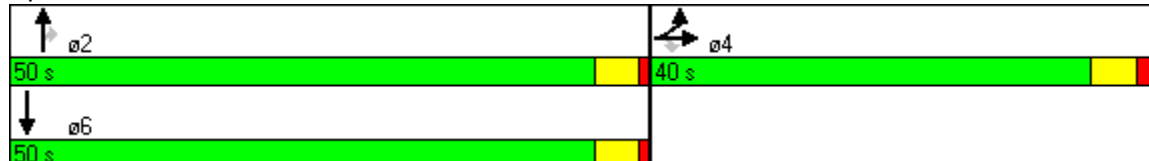


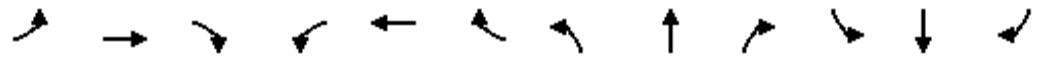
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						B			D		
Queue Length 50th (ft)	449	15						127	17		277	
Queue Length 95th (ft)	m286	m12						186	m35		#581	
Internal Link Dist (ft)	403				242			105			274	
Turn Bay Length (ft)												
Base Capacity (vph)	1449	560						1624	417		1637	
Starvation Cap Reductn	143	0						101	0		0	
Spillback Cap Reductn	0	0						27	0		0	
Storage Cap Reductn	0	0						0	0		0	
Reduced v/c Ratio	1.08	0.23						0.82	0.27		0.98	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 33.7 Intersection LOS: C  
 Intersection Capacity Utilization 84.6% ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 501: O'Farrell St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3325	1583	0	0	0	0	1911	0	0	2052	0
Flt Permitted		0.993									0.846	
Satd. Flow (perm)	0	3325	1583	0	0	0	0	1911	0	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213					38				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	170	1065	202	0	0	0	0	98	141	157	475	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1300	213	0	0	0	0	251	0	0	665	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Detector Phases	2	2	2					4			8	8
Minimum Initial (s)	4.0	4.0	4.0					4.0			4.0	4.0
Minimum Split (s)	21.0	21.0	21.0					19.0			19.0	19.0
Total Split (s)	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	3.5
All-Red Time (s)	0.0	0.0	0.0					0.0			0.0	0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		27.0	27.0					27.0			27.0	
Actuated g/C Ratio		0.45	0.45					0.45			0.45	
v/c Ratio		0.87	0.26					0.28			0.84	
Control Delay		23.3	2.7					7.7			15.0	
Queue Delay		0.0	0.0					0.0			3.6	
Total Delay		23.3	2.7					7.7			18.6	
LOS		C	A					A			B	
Approach Delay		20.4						7.7			18.6	

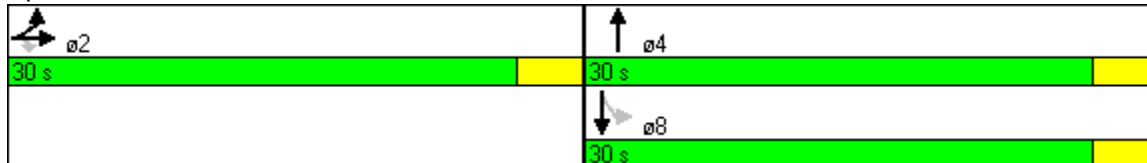


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						A			B	
Queue Length 50th (ft)		210	0					47			87	
Queue Length 95th (ft)		#342	30					m94			m98	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1496	830					881			791	
Starvation Cap Reductn		0	0					0			67	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.87	0.26					0.28			0.92	

**Intersection Summary**

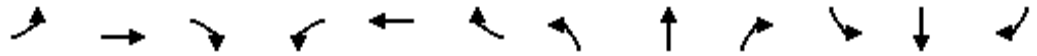
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 35 (58%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 18.6 Intersection LOS: B  
 Intersection Capacity Utilization 91.9% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 502: O'Farrell St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5055	0	0	0	0	0	4635	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4635	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23						11				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	167	1212	0	0	0	0	0	1401	341	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1452	0	0	0	0	0	1834	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0	0.0	0.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		23.0						31.0				
Actuated g/C Ratio		0.38						0.52				
v/c Ratio		0.74						0.76				
Control Delay		9.7						16.2				
Queue Delay		0.0						1.0				
Total Delay		9.7						17.2				
LOS		A						B				
Approach Delay		9.7						17.2				

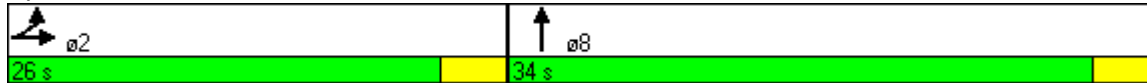


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A						B					
Queue Length 50th (ft)	83						235					
Queue Length 95th (ft)	m104						288					
Internal Link Dist (ft)	288			110			116			99		
Turn Bay Length (ft)												
Base Capacity (vph)	1952						2400					
Starvation Cap Reductn	0						303					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.74						0.87					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 53 (88%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 13.9      Intersection LOS: B  
 Intersection Capacity Utilization 68.1%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 503: O'Farrell St. & Larkin St.**

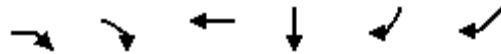




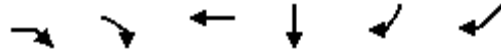


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			9									33
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1229	324	0	0	0	0	0	0	284	1336	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										13	18	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1294	341	0	0	0	0	0	0	0	1705	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		33.0	33.0								27.0	27.0
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		1.5	1.5								1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		30.0	30.0									24.0
Actuated g/C Ratio		0.50	0.50									0.40
v/c Ratio		0.73	0.43									0.89
Control Delay		6.1	4.8									12.4
Queue Delay		0.0	0.0									0.2
Total Delay		6.1	4.8									12.6
LOS		A	A									B
Approach Delay		5.8										12.6





Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)			0%	0%		
Storage Length (ft)	0				0	0
Storage Lanes	4				0	1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50	50		50
Trailing Detector (ft)	0	0	0	0		0
Turning Speed (mph)	9	9			9	9
Satd. Flow (prot)	3040	1583	4902	4984	0	1863
Flt Permitted						
Satd. Flow (perm)	3040	1583	4902	4984	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		1		6		
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1314	385	1676	2113	322	0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Mid-Block Traffic (%)			0%	0%		
Lane Group Flow (vph)	1383	405	1764	2540	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Detector Phases	4	4	4	6		4
Minimum Initial (s)	4.0	4.0	4.0	3.0		4.0
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max	Max		Max
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.97	0.55	0.77	1.09		
Control Delay	43.2	20.7	29.6	60.9		
Queue Delay	0.0	0.0	1.2	22.7		
Total Delay	43.2	20.7	30.8	83.5		
LOS	D	C	C	F		
Approach Delay			30.8	83.5		



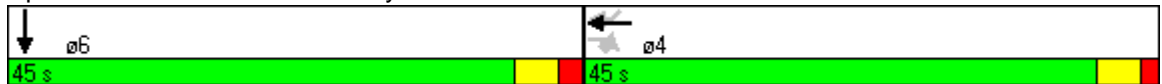
Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Approach LOS			C	F		
Queue Length 50th (ft)	385	158	357	~598		
Queue Length 95th (ft)	#550	248	m400	#686		
Internal Link Dist (ft)			405	265		
Turn Bay Length (ft)						
Base Capacity (vph)	1419	739	2288	2329		
Starvation Cap Reductn	0	0	292	106		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.97	0.55	0.88	1.14		

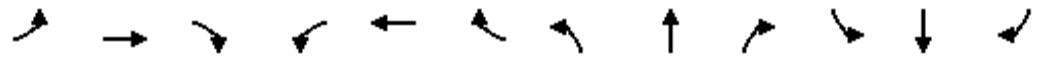
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 9 (10%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 54.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 88.3%  
 ICU Level of Service E  
 Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 513: Geary St. & Peter Yorke





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6751	0	0	0	0
Flt Permitted								0.993				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6751	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								9				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		485			274			170			322	
Travel Time (s)		13.2			7.5			4.6			8.8	
Volume (vph)	0	0	0	0	1140	214	536	3229	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1226	230	0	3803	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.70	0.41		0.97				
Control Delay					45.6	41.4		5.5				
Queue Delay					0.0	0.0		21.6				
Total Delay					45.6	41.4		27.1				
LOS					D	D		C				
Approach Delay					45.0			27.1				



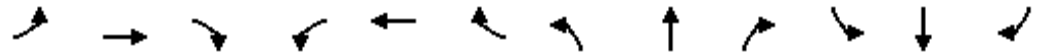
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						D						C
Queue Length 50th (ft)						266	133	70				
Queue Length 95th (ft)						316	m193	m58				
Internal Link Dist (ft)		405				194		90			242	
Turn Bay Length (ft)												
Base Capacity (vph)						1743	563	3904				
Starvation Cap Reductn						0	0	284				
Spillback Cap Reductn						0	0	41				
Storage Cap Reductn						0	0	0				
Reduced v/c Ratio						0.70	0.41	1.05				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 46 (51%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 32.1      Intersection LOS: C  
 Intersection Capacity Utilization 72.7%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 514: Geary St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		80
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	5060	1469	0	3152	0	0	3035	1583
Flt Permitted					0.995							
Satd. Flow (perm)	0	0	0	0	4990	1152	0	3152	0	0	3035	1044
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						39						2
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	127	1245	127	0	1335	0	0	1275	167
Confl. Peds. (#/hr)				155		218	329					329
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1400	130	0	1348	0	0	1314	172
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			6	
Permitted Phases						4						6
Detector Phases				4	4	4		2			6	6
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	42.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	0.0	52.0	0.0	0.0	52.0	52.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	42.2%	0.0%	57.8%	0.0%	0.0%	57.8%	57.8%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					35.0	35.0		49.0			49.0	49.0
Actuated g/C Ratio					0.39	0.39		0.54			0.54	0.54
v/c Ratio					0.71	0.28		0.79			0.80	0.30
Control Delay					25.7	14.9		5.0			22.2	17.0
Queue Delay					0.9	0.0		0.3			0.8	0.0
Total Delay					26.7	14.9		5.3			23.0	17.0
LOS					C	B		A			C	B
Approach Delay					25.7			5.3			22.3	

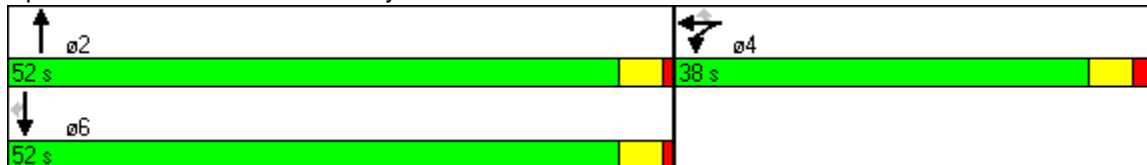


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					241	34		33			252	58
Queue Length 95th (ft)					294	76		m38			258	m68
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)												80
Base Capacity (vph)					1968	472		1716			1652	569
Starvation Cap Reductn					118	0		62			85	0
Spillback Cap Reductn					294	0		18			117	0
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.84	0.28		0.81			0.86	0.30

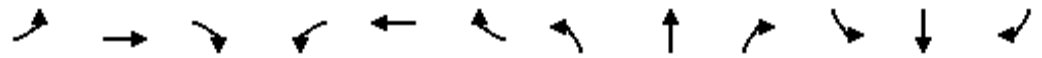
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 75 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 18.2                      Intersection LOS: B  
 Intersection Capacity Utilization 84.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 515: Geary St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3331	1583	0	2054	0	0	1957	0
Flt Permitted					0.995			0.288				
Satd. Flow (perm)	0	0	0	0	3331	1583	0	598	0	0	1957	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						112						28
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	113	1026	106	59	206	0	0	519	392
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1199	112	0	279	0	0	959	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Detector Phases				6	6	6	8	8			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	27.0	27.0	27.0	33.0	33.0	0.0	0.0	33.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.0%	45.0%	45.0%	55.0%	55.0%	0.0%	0.0%	55.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)				24.0	24.0			30.0			30.0	
Actuated g/C Ratio				0.40	0.40			0.50			0.50	
v/c Ratio				0.90	0.16			0.93			0.97	
Control Delay				26.3	3.0			48.0			35.8	
Queue Delay				0.2	0.0			0.0			20.0	
Total Delay				26.5	3.0			48.0			55.8	
LOS				C	A			D			E	
Approach Delay				24.5				48.0			55.8	

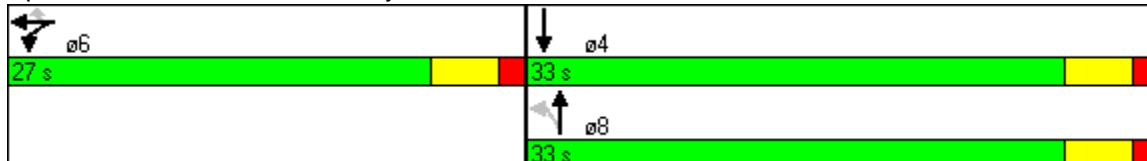


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						D			E		
Queue Length 50th (ft)					238	5	84		210			
Queue Length 95th (ft)					m#318	m12	m#172		m#544			
Internal Link Dist (ft)	394				132		88		90			
Turn Bay Length (ft)												
Base Capacity (vph)					1332	700	299		993			
Starvation Cap Reductn					0	0	0		75			
Spillback Cap Reductn					9	0	0		69			
Storage Cap Reductn					0	0	0		0			
Reduced v/c Ratio					0.91	0.16	0.93		1.04			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 31 (52%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 38.9      Intersection LOS: D  
 Intersection Capacity Utilization 100.4%      ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 516: Geary St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						8		96				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		290			195			167			168	
Travel Time (s)		7.9			5.3			4.6			4.6	
Volume (vph)	0	0	0	0	928	307	339	1253	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15	12				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	977	323	0	1676	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					35.0	35.0	25.0	25.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					32.0	32.0		22.0				
Actuated g/C Ratio					0.53	0.53		0.37				
v/c Ratio					0.52	0.38		0.93				
Control Delay					3.7	3.6		16.0				
Queue Delay					0.0	0.0		0.1				
Total Delay					3.7	3.6		16.1				
LOS					A	A		B				
Approach Delay					3.7			16.1				

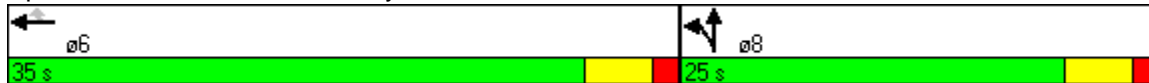


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	A						B						
Queue Length 50th (ft)	42						25	130					
Queue Length 95th (ft)	m43						m25	#282					
Internal Link Dist (ft)	210						115	87					
Turn Bay Length (ft)								88					
Base Capacity (vph)	1887						848	1807					
Starvation Cap Reductn	0						0	4					
Spillback Cap Reductn	0						0	0					
Storage Cap Reductn	0						0	0					
Reduced v/c Ratio	0.52						0.38	0.93					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 10.7      Intersection LOS: B  
 Intersection Capacity Utilization 63.4%      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 517: Geary St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4690	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4690	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					15						50	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		278			479			337			357	
Travel Time (s)		7.6			13.1			9.2			9.7	
Volume (vph)	0	0	0	277	984	0	0	0	0	0	1343	251
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1328	0	0	0	0	0	1678	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.87						0.78	
Control Delay					23.0						9.8	
Queue Delay					0.0						0.3	
Total Delay					23.0						10.1	
LOS					C						B	
Approach Delay					23.0						10.1	

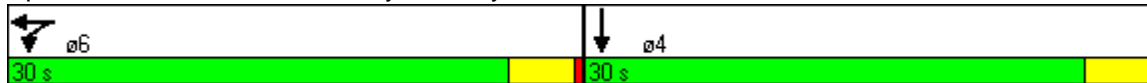


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C							B
Queue Length 50th (ft)					213							210
Queue Length 95th (ft)					#347							m238
Internal Link Dist (ft)		198			399			257				277
Turn Bay Length (ft)												
Base Capacity (vph)					1527							2138
Starvation Cap Reductn					0							102
Spillback Cap Reductn					0							88
Storage Cap Reductn					0							0
Reduced v/c Ratio					0.87							0.82

**Intersection Summary**

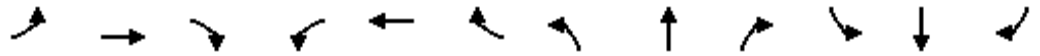
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 52 (87%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 15.8                      Intersection LOS: B  
 Intersection Capacity Utilization 73.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 518: Geary St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3258	0	0	0	0	0	0	0	0	5050	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	3258	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7										38
Link Speed (mph)		25			25			25				25
Link Distance (ft)		482			492			345				334
Travel Time (s)		13.1			13.4			9.4				9.1
Volume (vph)	0	456	193	0	0	0	0	0	0	202	2243	56
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	737	0	0	0	0	0	0	0	0	2604	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		27.0									57.0	
Actuated g/C Ratio		0.30									0.63	
v/c Ratio		0.75									0.81	
Control Delay		33.9									9.6	
Queue Delay		0.0									7.7	
Total Delay		33.9									17.3	
LOS		C									B	
Approach Delay		33.9									17.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		196										101
Queue Length 95th (ft)		255										136
Internal Link Dist (ft)		402			412			265				254
Turn Bay Length (ft)												
Base Capacity (vph)		982										3212
Starvation Cap Reductn		0										469
Spillback Cap Reductn		0										593
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.75										0.99

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	20.9
Intersection LOS:	C
Intersection Capacity Utilization	74.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 535: Post St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3381	0	0	0	0	0	5730	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5730	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1							58			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	114	543	0	0	0	0	0	3057	386	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	738	0	0	0	0	0	3287	415	0	0	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				
Permitted Phases									2			
Detector Phases	4	4						2	2			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		25.0						59.0	59.0			
Actuated g/C Ratio		0.28						0.66	0.66			
v/c Ratio		0.79						0.88	0.46			
Control Delay		38.2						3.6	1.8			
Queue Delay		0.0						1.4	1.0			
Total Delay		38.2						5.1	2.8			
LOS		D						A	A			
Approach Delay		38.2						4.8				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						A					
Queue Length 50th (ft)	222						51 7					
Queue Length 95th (ft)	285						m53 m9					
Internal Link Dist (ft)	412				226		242		97			
Turn Bay Length (ft)												
Base Capacity (vph)	940						3756			897		
Starvation Cap Reductn	0						278			253		
Spillback Cap Reductn	0						67			0		
Storage Cap Reductn	0						0			0		
Reduced v/c Ratio	0.79						0.95			0.64		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	50 (56%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	10.4
Intersection LOS:	B
Intersection Capacity Utilization:	69.3%
ICU Level of Service:	C
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50	50		50	
Trailing Detector (ft)	0	0	0					0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3525	1583	0	0	0	0	3160	1401	0	3076	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3488	1345	0	0	0	0	3160	913	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45						11			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	64	785	80	0	0	0	0	1140	277	0	1319	0
Confl. Peds. (#/hr)	149		149						297			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								3	3		13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	933	88	0	0	0	0	1163	283	0	1374	0
Turn Type	Split		Perm						Perm			
Protected Phases	4	4						2			2	
Permitted Phases			4						2			
Detector Phases	4	4	4					2	2		2	
Minimum Initial (s)	4.0	4.0	4.0					4.0	4.0		4.0	
Minimum Split (s)	34.0	34.0	34.0					48.0	48.0		48.0	
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max	Max		Max	
Act Effct Green (s)		32.0	32.0					52.0	52.0		52.0	
Actuated g/C Ratio		0.36	0.36					0.58	0.58		0.58	
v/c Ratio		0.74	0.17					0.64	0.53		0.77	
Control Delay		27.9	9.2					4.2	5.0		17.4	
Queue Delay		0.2	0.0					1.1	0.8		0.1	
Total Delay		28.1	9.2					5.3	5.8		17.5	
LOS		C	A					A	A		B	
Approach Delay		26.5						5.4			17.5	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50					50		50	50	
Trailing Detector (ft)	0	0	0					0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	1583	0	0	0	0	1992	0	0	1930	0
Flt Permitted		0.992									0.778	
Satd. Flow (perm)	0	3385	1583	0	0	0	0	1992	0	0	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289					61				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	125	662	275	0	0	0	0	247	109	176	479	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	829	289	0	0	0	0	375	0	0	689	0
Turn Type	Split		Perm								Perm	
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Detector Phases	2	2	2					4		4	4	
Minimum Initial (s)	4.0	4.0	4.0					4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max	Max					Max		Max	Max	
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.73	0.40					0.32			0.80	
Control Delay		22.3	4.1					3.8			13.1	
Queue Delay		0.0	0.4					0.0			1.7	
Total Delay		22.3	4.6					3.8			14.8	
LOS		C	A					A			B	
Approach Delay		17.7						3.8			14.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A			B		
Queue Length 50th (ft)		136	0					21			113	
Queue Length 95th (ft)		196	44					m42			m#164	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1128	720					1155			862	
Starvation Cap Reductn		0	0					0			23	
Spillback Cap Reductn		0	142					0			66	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.73	0.50					0.32			0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 40 (67%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 14.4      Intersection LOS: B  
 Intersection Capacity Utilization 86.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 538: Post St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3385	0	0	0	0	0	4647	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4647	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27						79				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		504			462			183			171	
Travel Time (s)		13.7			12.6			5.0			4.7	
Volume (vph)	149	798	0	0	0	0	0	1229	342	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	997	0	0	0	0	0	1654	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Detector Phases	2	2						8				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	28.6	28.6	0.0	0.0	0.0	0.0	0.0	31.4	0.0	0.0	0.0	0.0
Total Split (%)	47.7%	47.7%	0.0%	0.0%	0.0%	0.0%	0.0%	52.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		25.6						28.4				
Actuated g/C Ratio		0.43						0.47				
v/c Ratio		0.68						0.74				
Control Delay		17.3						4.8				
Queue Delay		0.0						0.3				
Total Delay		17.3						5.2				
LOS		B						A				
Approach Delay		17.3						5.2				

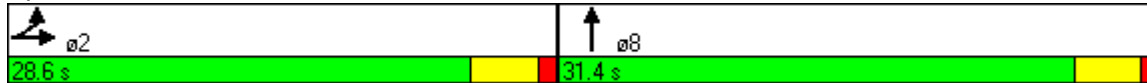


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B						A					
Queue Length 50th (ft)	181						46					
Queue Length 95th (ft)	m245						m48					
Internal Link Dist (ft)	424				382		103		91			
Turn Bay Length (ft)												
Base Capacity (vph)	1460						2241					
Starvation Cap Reductn	0						161					
Spillback Cap Reductn	0						0					
Storage Cap Reductn	0						0					
Reduced v/c Ratio	0.68						0.80					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 11 (18%), Referenced to phase 2:EBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 9.7      Intersection LOS: A  
 Intersection Capacity Utilization 64.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 539: Post St. & Larkin St.

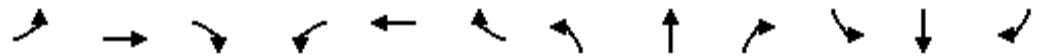






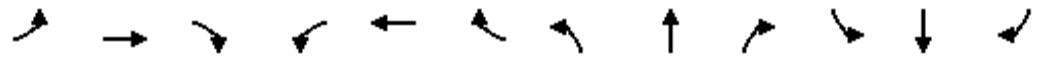
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50	50							50	50	
Trailing Detector (ft)		0	0							0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			4									37
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	837	303	0	0	0	0	0	0	153	1291	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										18	13	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	881	319	0	0	0	0	0	0	0	1520	0
Turn Type			Perm								Split	
Protected Phases		2									4	4
Permitted Phases			2									
Detector Phases		2	2								4	4
Minimum Initial (s)		4.0	4.0								4.0	4.0
Minimum Split (s)		37.0	37.0								23.0	23.0
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5								3.5	3.5
All-Red Time (s)		0.5	0.5								0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max	Max							Max	Max	
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.44	0.35								0.94	
Control Delay		6.3	5.8								25.6	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.3	5.8								25.6	
LOS		A	A								C	
Approach Delay		6.1									25.6	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)			50	50	50						50	
Trailing Detector (ft)			0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4753	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4753	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			6	6							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	138	431	595	0	0	0	0	0	1932	58
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	162	454	626	0	0	0	0	0	2095	0
Turn Type			custom	Perm								
Protected Phases					8						6	
Permitted Phases			4	8								
Detector Phases			4	8	8						6	
Minimum Initial (s)			4.0	4.0	4.0						4.0	
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	37.7	37.7	37.7	0.0	0.0	0.0	0.0	0.0	52.3	0.0
Total Split (%)	0.0%	0.0%	41.9%	41.9%	41.9%	0.0%	0.0%	0.0%	0.0%	0.0%	58.1%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode			Max	Max	Max						Max	
Act Effct Green (s)			34.7	34.7	34.7						49.3	
Actuated g/C Ratio			0.39	0.39	0.39						0.55	
v/c Ratio			0.26	0.66	0.47						0.80	
Control Delay			19.6	6.6	4.8						7.8	
Queue Delay			0.0	0.3	0.0						1.0	
Total Delay			19.6	6.9	4.8						8.8	
LOS			B	A	A						A	
Approach Delay					5.7						8.8	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5726	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5726	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		19				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		499			297			178			156	
Travel Time (s)		13.6			8.1			4.9			4.3	
Volume (vph)	0	0	0	0	876	342	150	2923	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	922	360	0	3136	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Detector Phases					4	4	2	2				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	32.0	32.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	35.6%	35.6%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					29.0	29.0		55.0				
Actuated g/C Ratio					0.32	0.32		0.61				
v/c Ratio					0.84	0.70		0.89				
Control Delay					44.4	42.7		5.1				
Queue Delay					0.0	0.0		11.7				
Total Delay					44.4	42.7		16.9				
LOS					D	D		B				
Approach Delay					44.0			16.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D			B				
Queue Length 50th (ft)					296	0		21				
Queue Length 95th (ft)					m322	m0		19				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1099	511		3507				
Starvation Cap Reductn					0	0		157				
Spillback Cap Reductn					0	0		418				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.84	0.70		1.02				

**Intersection Summary**

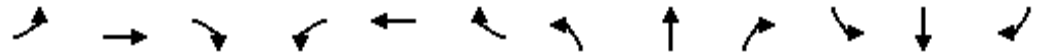
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 24.7      Intersection LOS: C  
 Intersection Capacity Utilization 81.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		1	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50		50			50	50
Trailing Detector (ft)				0	0	0		0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3336	1401
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3336	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						50						6
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	100	1113	60	0	1162	0	0	1111	105
Confl. Peds. (#/hr)				144		144						287
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			3	3
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1277	63	0	1223	0	0	1169	111
Turn Type				Split		Perm						Perm
Protected Phases				4	4			2			2	
Permitted Phases						4						2
Detector Phases				4	4	4		2			2	2
Minimum Initial (s)				4.0	4.0	4.0		4.0			4.0	4.0
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	51.0
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	3.5
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	0.9
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max		Max			Max	Max
Act Effct Green (s)					36.0	36.0		48.0			48.0	48.0
Actuated g/C Ratio					0.40	0.40		0.53			0.53	0.53
v/c Ratio					0.94	0.11		0.71			0.66	0.23
Control Delay					40.0	7.3		7.6			14.2	12.1
Queue Delay					3.4	0.0		0.1			0.3	0.2
Total Delay					43.4	7.3		7.7			14.5	12.3
LOS					D	A		A			B	B
Approach Delay					41.7			7.7			14.3	

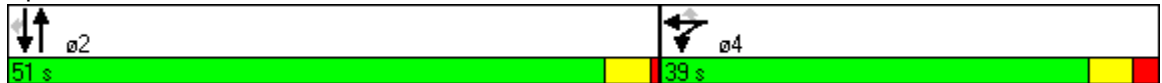


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					D			A			B	
Queue Length 50th (ft)					358	4		178			147	22
Queue Length 95th (ft)					#504	29		172			159	m27
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												70
Base Capacity (vph)					1365	573		1727			1779	475
Starvation Cap Reductn					49	0		65			155	0
Spillback Cap Reductn					0	0		3			0	72
Storage Cap Reductn					0	0		0			0	0
Reduced v/c Ratio					0.97	0.11		0.74			0.72	0.28

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 21.8      Intersection LOS: C  
 Intersection Capacity Utilization 72.5%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 556: Sutter St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1938	0	0	1887	0
Flt Permitted					0.991			0.605				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1183	0	0	1887	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						184						35
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	252	1068	175	64	305	0	0	403	141
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1389	184	0	388	0	0	572	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4			4	
Permitted Phases						6	4					
Detector Phases				6	6	6	4	4			4	
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0			19.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	33.0	27.0	27.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max	Max	Max	Max			Max	
Act Effct Green (s)					30.0	30.0		24.0			24.0	
Actuated g/C Ratio					0.50	0.50		0.40			0.40	
v/c Ratio					0.82	0.21		0.82			0.74	
Control Delay					10.6	0.4		31.8			11.4	
Queue Delay					1.2	0.0		0.8			0.9	
Total Delay					11.8	0.4		32.6			12.3	
LOS					B	A		C			B	
Approach Delay					10.5			32.6			12.3	

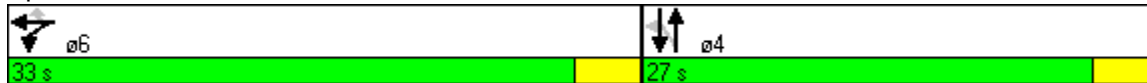


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			C			B	
Queue Length 50th (ft)					70	0		111			41	
Queue Length 95th (ft)					92	m1		m#254			m107	
Internal Link Dist (ft)		410			250			97			66	
Turn Bay Length (ft)												
Base Capacity (vph)					1691	884		473			776	
Starvation Cap Reductn					0	0		0			58	
Spillback Cap Reductn					131	0		12			47	
Storage Cap Reductn					0	0		0			0	
Reduced v/c Ratio					0.89	0.21		0.84			0.80	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 31 (52%), Referenced to phase 6:WBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 14.3      Intersection LOS: B  
 Intersection Capacity Utilization 96.2%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 557: Sutter St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50	50	50	50				
Trailing Detector (ft)					0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4748	0	0	0	0
Flt Permitted								0.988				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4748	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						25		40				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		155			270			171			155	
Travel Time (s)		4.2			7.4			4.7			4.2	
Volume (vph)	0	0	0	0	1168	97	327	1058	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							17	13				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1229	102	0	1458	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					6		8	8				
Permitted Phases						6						
Detector Phases					6	6	8	8				
Minimum Initial (s)					4.0	4.0	4.0	4.0				
Minimum Split (s)					19.0	19.0	19.0	19.0				
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.0	0.0	0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max	Max	Max	Max				
Act Effct Green (s)					30.0	30.0		24.0				
Actuated g/C Ratio					0.50	0.50		0.40				
v/c Ratio					0.72	0.13		0.76				
Control Delay					6.3	1.8		6.2				
Queue Delay					0.0	0.0		0.1				
Total Delay					6.3	1.8		6.2				
LOS					A	A		A				
Approach Delay					6.0			6.2				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			A				
Queue Length 50th (ft)					43	2		26				
Queue Length 95th (ft)					m61	m3		30				
Internal Link Dist (ft)		75			190			91			75	
Turn Bay Length (ft)												
Base Capacity (vph)					1706	804		1923				
Starvation Cap Reductn					0	0		23				
Spillback Cap Reductn					0	0		0				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.72	0.13		0.77				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 19 (32%), Referenced to phase 6:WBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 6.1                      Intersection LOS: A  
 Intersection Capacity Utilization 66.0%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					13						66	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		205			492			352			209	
Travel Time (s)		5.6			13.4			9.6			5.7	
Volume (vph)	0	0	0	311	1063	0	0	0	0	0	1133	202
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1446	0	0	0	0	0	1406	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				30.0	30.0						18.0	
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					32.0						22.0	
Actuated g/C Ratio					0.53						0.37	
v/c Ratio					0.80						0.82	
Control Delay					15.7						16.6	
Queue Delay					0.0						0.0	
Total Delay					15.7						16.6	
LOS					B						B	
Approach Delay					15.7						16.6	

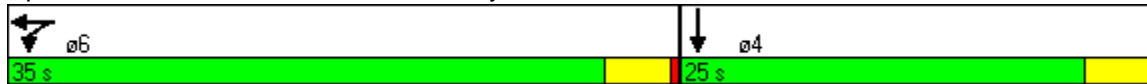


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS						B						B
Queue Length 50th (ft)					202						186	
Queue Length 95th (ft)					286						232	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1806						1712	
Starvation Cap Reductn					0						2	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.80						0.82	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	16.1
Intersection LOS:	B
Intersection Capacity Utilization	71.5%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4746	0
Flt Permitted											0.991	
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4746	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		14										19
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			497			174			171	
Travel Time (s)		6.9			13.6			4.7			4.7	
Volume (vph)	0	1134	306	0	0	0	0	0	0	360	1597	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										15	15	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1516	0	0	0	0	0	0	0	0	2082	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Detector Phases		4								6	6	
Minimum Initial (s)		4.0								4.0	4.0	
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max								Max	Max	
Act Effct Green (s)		36.0									48.0	
Actuated g/C Ratio		0.40									0.53	
v/c Ratio		0.80									0.82	
Control Delay		27.5									11.0	
Queue Delay		0.0									0.5	
Total Delay		27.5									11.5	
LOS		C									B	
Approach Delay		27.5									11.5	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C										B
Queue Length 50th (ft)		270										158
Queue Length 95th (ft)		330										195
Internal Link Dist (ft)		172		417			94			91		
Turn Bay Length (ft)												
Base Capacity (vph)		1896										2540
Starvation Cap Reductn		0										146
Spillback Cap Reductn		0										116
Storage Cap Reductn		0										0
Reduced v/c Ratio		0.80										0.87

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	18.3
Intersection LOS:	B
Intersection Capacity Utilization	73.6%
ICU Level of Service	D
Analysis Period (min)	15

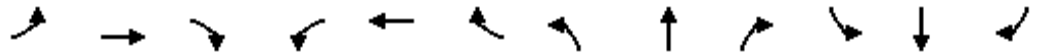
Splits and Phases: 583: Bush St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4831	0	0	0	0	0	5848	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	4831	0	0	0	0	0	5848	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						7				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	283	1211	0	0	0	0	0	2811	419	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1556	0	0	0	0	0	3510	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		31.0						53.0				
Actuated g/C Ratio		0.34						0.59				
v/c Ratio		0.93						1.02				
Control Delay		28.4						26.2				
Queue Delay		3.1						33.8				
Total Delay		31.5						60.1				
LOS		C						E				
Approach Delay		31.5						60.1				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		C							E				
Queue Length 50th (ft)		165							~401				
Queue Length 95th (ft)		#393							#731				
Internal Link Dist (ft)		417				148			104			82	
Turn Bay Length (ft)													
Base Capacity (vph)		1665							3447				
Starvation Cap Reductn		0							85				
Spillback Cap Reductn		61							260				
Storage Cap Reductn		0							0				
Reduced v/c Ratio		0.97							1.10				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 70 (78%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 51.3                      Intersection LOS: D  
 Intersection Capacity Utilization 83.5%                      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑		↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4995	0	0	0	0	0	3353	1417	0	3362	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	4957	0	0	0	0	0	3353	942	0	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12							3			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	104	1440	86	0	0	0	0	1083	96	0	1153	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								1	1		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1791	0	0	0	0	0	1231	109	0	1310	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			6	
Permitted Phases									2			
Detector Phases	4	4						2	2		6	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	37.0	37.0						33.0	33.0		48.0	
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	48.0	0.0	48.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	0.0%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.2	2.2						0.9	0.9		0.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		39.0						45.0	45.0		45.0	
Actuated g/C Ratio		0.43						0.50	0.50		0.50	
v/c Ratio		0.82						0.73	0.23		0.78	
Control Delay		23.2						5.2	3.2		19.4	
Queue Delay		13.6						0.4	0.0		0.3	
Total Delay		36.8						5.6	3.2		19.6	
LOS		D						A	A		B	
Approach Delay		36.8						5.4			19.6	

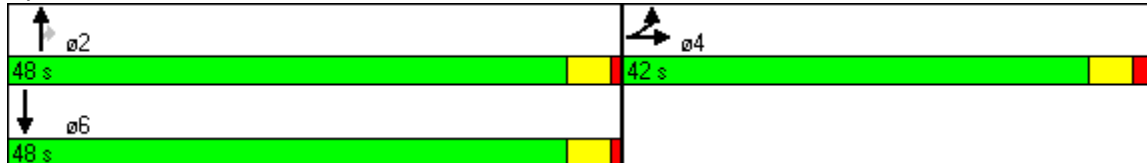


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS	D						A			B			
Queue Length 50th (ft)	375						35	5	197				
Queue Length 95th (ft)	m397						40	m8	210				
Internal Link Dist (ft)	141						225		106		89		
Turn Bay Length (ft)										70			
Base Capacity (vph)	2171						1677		473		1681		
Starvation Cap Reductn	401						99		0		67		
Spillback Cap Reductn	0						119		0		0		
Storage Cap Reductn	0						0		0		0		
Reduced v/c Ratio	1.01						0.79		0.23		0.81		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 22.3      Intersection LOS: C  
 Intersection Capacity Utilization 73.0%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 585: Bush St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4822	0	0	0	0	0	1908	0	0	1938	0
Flt Permitted		0.998									0.759	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1908	0	0	1484	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19						6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	63	1380	93	0	0	0	0	393	84	105	451	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1617	0	0	0	0	0	502	0	0	586	0
Turn Type	Split									Perm		
Protected Phases	2	2						4			4	
Permitted Phases										4		
Detector Phases	2	2						4		4	4	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	26.3	26.3	0.0	0.0	0.0	0.0	0.0	33.7	0.0	33.7	33.7	0.0
Total Split (%)	43.8%	43.8%	0.0%	0.0%	0.0%	0.0%	0.0%	56.2%	0.0%	56.2%	56.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		23.3						30.7			30.7	
Actuated g/C Ratio		0.39						0.51			0.51	
v/c Ratio		0.86						0.51			0.77	
Control Delay		22.8						11.1			24.7	
Queue Delay		0.7						0.5			16.4	
Total Delay		23.4						11.7			41.1	
LOS		C						B			D	
Approach Delay		23.4						11.7			41.1	

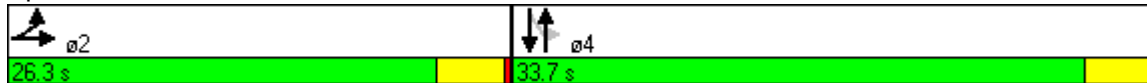


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						B			D	
Queue Length 50th (ft)		187						88			214	
Queue Length 95th (ft)		#253						m135			m#331	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		1884						979			759	
Starvation Cap Reductn		0						172			169	
Spillback Cap Reductn		72						59			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.89						0.62			0.99	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 56 (93%), Referenced to phase 4:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 25.1                      Intersection LOS: C  
 Intersection Capacity Utilization 95.3%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 586: Bush St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50			
Trailing Detector (ft)	0	0						0	0			
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4856	0	0	0	0	0	3061	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3061	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						6	23			
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		296			261			183			90	
Travel Time (s)		8.1			7.1			5.0			2.5	
Volume (vph)	129	1440	0	0	0	0	0	807	365	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1652	0	0	0	0	0	879	354	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Detector Phases	2	2						8	8			
Minimum Initial (s)	4.0	4.0						4.0	4.0			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max			
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.63						0.78	0.78			
Control Delay		3.4						11.2	17.2			
Queue Delay		0.0						0.7	0.0			
Total Delay		3.4						11.9	17.2			
LOS		A						B	B			
Approach Delay		3.4						13.4				

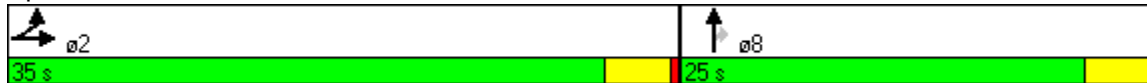


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	A							B				
Queue Length 50th (ft)	28							100	7			
Queue Length 95th (ft)	m49							#171 m#215				
Internal Link Dist (ft)	216				181		103			10		
Turn Bay Length (ft)												
Base Capacity (vph)	2607							1126	456			
Starvation Cap Reductn	0							0	0			
Spillback Cap Reductn	0							64	0			
Storage Cap Reductn	0							0	0			
Reduced v/c Ratio	0.63							0.83	0.78			

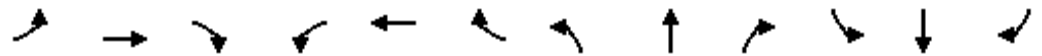
**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 7 (12%), Referenced to phase 8:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 7.7                      Intersection LOS: A  
 Intersection Capacity Utilization 63.3%                      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 587: Bush St. & Larkin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50								50	50	
Trailing Detector (ft)		0								0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		21										28
Link Speed (mph)		25			25			25				25
Link Distance (ft)		240			465			132				317
Travel Time (s)		6.5			12.7			3.6				8.6
Volume (vph)	0	1414	371	0	0	0	0	0	0	153	964	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)												30
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	1879	0	0	0	0	0	0	0	0	1176	0
Turn Type											Split	
Protected Phases		2									4	4
Permitted Phases												
Detector Phases		2									4	4
Minimum Initial (s)		4.0									4.0	4.0
Minimum Split (s)		36.0									24.0	24.0
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%
Yellow Time (s)		3.5									3.5	3.5
All-Red Time (s)		0.5									0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max									Max	Max
Act Effct Green (s)		33.0										21.0
Actuated g/C Ratio		0.55										0.35
v/c Ratio		0.72										0.72
Control Delay		5.5										12.0
Queue Delay		0.0										0.0
Total Delay		5.5										12.1
LOS		A										B
Approach Delay		5.5										12.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS		A										B	
Queue Length 50th (ft)		58										80	
Queue Length 95th (ft)		72										50	
Internal Link Dist (ft)		160				385			52		237		
Turn Bay Length (ft)													
Base Capacity (vph)		2608										1628	
Starvation Cap Reductn		0										1	
Spillback Cap Reductn		0										0	
Storage Cap Reductn		0										0	
Reduced v/c Ratio		0.72										0.72	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	64.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4691	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4691	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				13							8	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		249			503			168			353	
Travel Time (s)		6.8			13.7			4.6			9.6	
Volume (vph)	0	0	0	428	1546	0	0	0	0	0	1464	181
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	451	1627	0	0	0	0	0	1750	0
Turn Type				Split								
Protected Phases				8	8						6	
Permitted Phases												
Detector Phases				8	8						6	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				20.0	20.0						20.0	
Total Split (s)	0.0	0.0	0.0	44.0	44.0	0.0	0.0	0.0	0.0	0.0	46.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.9%	48.9%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)				41.0	41.0						43.0	
Actuated g/C Ratio				0.46	0.46						0.48	
v/c Ratio				0.55	0.73						0.78	
Control Delay				2.9	3.3						7.5	
Queue Delay				0.3	0.2						2.2	
Total Delay				3.2	3.5						9.7	
LOS				A	A						A	
Approach Delay					3.4						9.7	

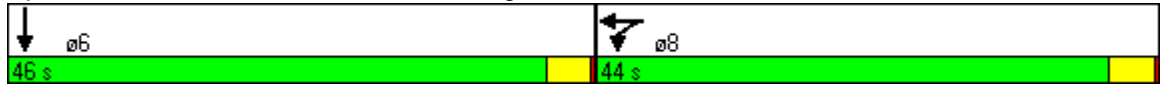


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS											A	A
Queue Length 50th (ft)				28	43						68	
Queue Length 95th (ft)				m26	m40						m75	
Internal Link Dist (ft)		169			423			88			273	
Turn Bay Length (ft)												
Base Capacity (vph)				813	2221						2245	
Starvation Cap Reductn				76	101						345	
Spillback Cap Reductn				0	0						34	
Storage Cap Reductn				0	0						0	
Reduced v/c Ratio				0.61	0.77						0.92	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 78 (87%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 6.3      Intersection LOS: A  
 Intersection Capacity Utilization 82.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 612: Pine St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6029	0	0	5664	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5664	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			452			172				192
Travel Time (s)		13.7			12.3			4.7				5.2
Volume (vph)	0	0	0	0	1689	405	285	2760	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2523	0	0	3239	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					35.0			49.0				
Actuated g/C Ratio					0.39			0.54				
v/c Ratio					1.08			1.05				
Control Delay					67.4			42.6				
Queue Delay					17.8			31.1				
Total Delay					85.3			73.7				
LOS					F			E				
Approach Delay					85.3			73.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					F			E				
Queue Length 50th (ft)					~487			~620				
Queue Length 95th (ft)					#485			m#608				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2345			3084				
Starvation Cap Reductn					87			199				
Spillback Cap Reductn					0			188				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					1.12			1.12				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	64 (71%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	100
Control Type:	Pretimed
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	78.8
Intersection LOS:	E
Intersection Capacity Utilization:	82.3%
ICU Level of Service:	E
Analysis Period (min):	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 613: Pine St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑			↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	115		0	0		70
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6272	0	0	3345	0	0	3193	1280
Flt Permitted				0.998								
Satd. Flow (perm)	0	0	0	0	6242	0	0	3345	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22							1
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	80	1839	143	0	1149	0	0	1106	255
Confl. Peds. (#/hr)				139		139	277					277
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								2			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2171	0	0	1209	0	0	1164	268
Turn Type				Split								Perm
Protected Phases				8	8			2			6	
Permitted Phases												6
Detector Phases				8	8			2			6	6
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				36.0	36.0			48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	49.0
Total Split (%)	0.0%	0.0%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	54.4%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.2	2.2			1.0			1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					38.0			46.0			46.0	46.0
Actuated g/C Ratio					0.42			0.51			0.51	0.51
v/c Ratio					0.82			0.71			0.71	0.62
Control Delay					25.8			6.6			18.0	19.9
Queue Delay					2.8			0.7			1.1	17.0
Total Delay					28.6			7.2			19.1	36.9
LOS					C			A			B	D
Approach Delay					28.6			7.2			22.4	

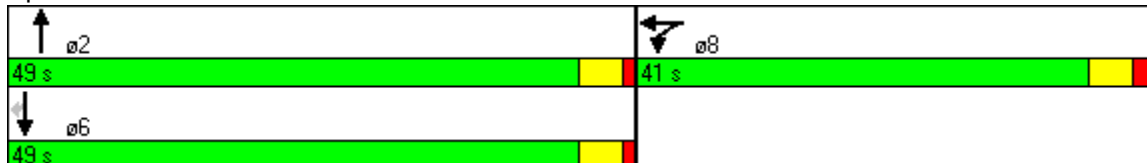


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			C	
Queue Length 50th (ft)					304			33			187	81
Queue Length 95th (ft)					354			39			m211	m92
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)												70
Base Capacity (vph)					2661			1710			1632	435
Starvation Cap Reductn					57			200			235	0
Spillback Cap Reductn					369			0			0	152
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.95			0.80			0.83	0.95

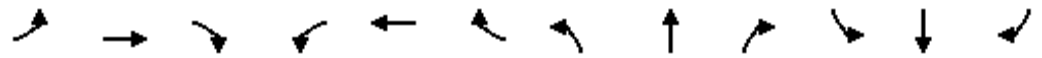
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 31 (34%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 21.4      Intersection LOS: C  
 Intersection Capacity Utilization 69.2%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←←←←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6147	0	0	1941	0	0	1885	0
Flt Permitted				0.998			0.696					
Satd. Flow (perm)	0	0	0	0	6147	0	0	1361	0	0	1885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	94	1808	108	67	389	0	0	432	155
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2116	0	0	480	0	0	618	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.82			0.73			0.68	
Control Delay					10.0			21.2			14.5	
Queue Delay					0.6			3.2			0.6	
Total Delay					10.5			24.5			15.1	
LOS					B			C			B	
Approach Delay					10.5			24.5			15.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			C			B	
Queue Length 50th (ft)					103			181			126	
Queue Length 95th (ft)					m125			m#275			191	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2575			658			912	
Starvation Cap Reductn					0			99			79	
Spillback Cap Reductn					155			6			76	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.87			0.86			0.74	

**Intersection Summary**

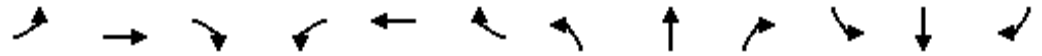
Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 55 (92%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 13.5      Intersection LOS: B  
 Intersection Capacity Utilization 95.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6104	0	0	3157	0	0	0	0
Flt Permitted								0.983				
Satd. Flow (perm)	0	0	0	0	6104	0	0	3157	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					83			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			280			167			363	
Travel Time (s)		13.4			7.6			4.6			9.9	
Volume (vph)	0	0	0	0	1685	211	325	619	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	1996	0	0	994	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Detector Phases					2		8	8				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.59			0.89				
Control Delay					3.9			14.6				
Queue Delay					0.0			0.1				
Total Delay					3.9			14.6				
LOS					A			B				
Approach Delay					3.9			14.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					A			B				
Queue Length 50th (ft)					42			32				
Queue Length 95th (ft)					47			#262				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3395			1113				
Starvation Cap Reductn					0			2				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.59			0.89				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	40 (67%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	7.5
Intersection LOS:	A
Intersection Capacity Utilization:	61.2%
ICU Level of Service:	B
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50						50	
Trailing Detector (ft)				0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4482	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4482	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					56						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	272	1671	0	0	0	0	0	845	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	2045	0	0	0	0	0	1126	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Detector Phases				6	6						4	
Minimum Initial (s)				4.0	4.0						4.0	
Minimum Split (s)				33.0	33.0						27.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max						Max	
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.64						0.63	
Control Delay					11.8						16.2	
Queue Delay					0.0						0.0	
Total Delay					11.8						16.2	
LOS					B						B	
Approach Delay					11.8						16.2	

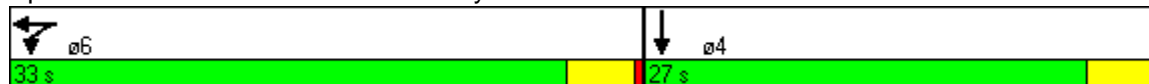


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS												
Queue Length 50th (ft)					141						113	
Queue Length 95th (ft)					176						154	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3210						1798	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	
Reduced v/c Ratio					0.64						0.63	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	35 (58%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization	56.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3458	0	0	3500	0	0	0	0	0	3511	0
Flt Permitted					0.597						0.997	
Satd. Flow (perm)	0	3458	0	0	2113	0	0	0	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17									6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	559	102	162	586	0	0	0	0	77	1381	55
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										14		14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	719	0	0	869	0	0	0	0	0	1627	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Detector Phases		4		8	8					6	6	
Minimum Initial (s)		4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)		20.0		20.0	20.0					25.0	25.0	
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		40.0			40.0						44.0	
Actuated g/C Ratio		0.44			0.44						0.49	
v/c Ratio		0.47			0.93						0.95	
Control Delay		18.3			32.3						30.3	
Queue Delay		0.0			0.0						21.8	
Total Delay		18.3			32.3						52.1	
LOS		B			C						D	
Approach Delay		18.3			32.3						52.1	

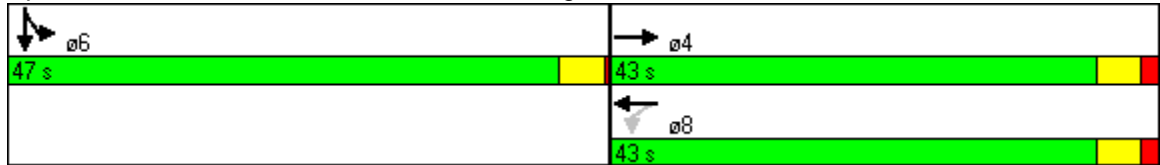


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			D					
Queue Length 50th (ft)	142			162			522					
Queue Length 95th (ft)	191			m144			m472					
Internal Link Dist (ft)	414			438			273		288			
Turn Bay Length (ft)												
Base Capacity (vph)	1546			939			1720					
Starvation Cap Reductn	0			0			163					
Spillback Cap Reductn	0			0			31					
Storage Cap Reductn	0			0			0					
Reduced v/c Ratio	0.47			0.93			1.04					

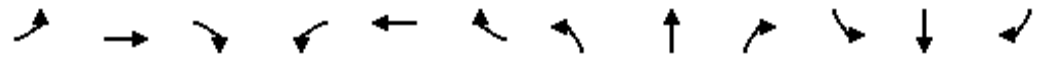
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 39.2      Intersection LOS: D  
 Intersection Capacity Utilization 91.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 639: California St. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	3539	0	0	3429	0	0	5913	0	0	0	0
Flt Permitted	0.148							0.999				
Satd. Flow (perm)	276	3539	0	0	3429	0	0	5913	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			17				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		518			441			167			346	
Travel Time (s)		14.1			12.0			4.6			9.4	
Volume (vph)	99	537	0	0	662	170	86	2930	149	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	116	632	0	0	979	0	0	3723	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Detector Phases	7	4			8		2	2				
Minimum Initial (s)	3.0	4.0			4.0		1.5	1.5				
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	6.5	33.5	0.0	0.0	27.0	0.0	56.5	56.5	0.0	0.0	0.0	0.0
Total Split (%)	7.2%	37.2%	0.0%	0.0%	30.0%	0.0%	62.8%	62.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)	30.5	30.5			24.0			53.5				
Actuated g/C Ratio	0.34	0.34			0.27			0.59				
v/c Ratio	0.76	0.53			1.06			1.06				
Control Delay	49.9	12.9			66.4			37.5				
Queue Delay	0.0	0.0			0.0			20.9				
Total Delay	49.9	12.9			66.4			58.4				
LOS	D	B			E			E				
Approach Delay		18.6			66.4			58.4				

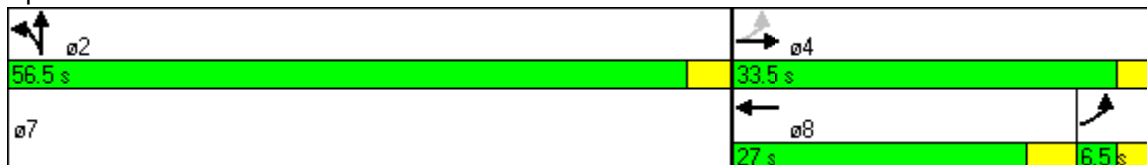


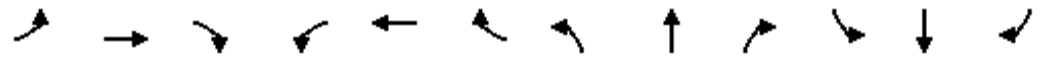
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B							E				
Queue Length 50th (ft)	20	60						~333				
Queue Length 95th (ft)	m#88	m70						#419				
Internal Link Dist (ft)	438							361				
Turn Bay Length (ft)								87				
Base Capacity (vph)	152	1199						922				
Starvation Cap Reductn	0	0						0				
Spillback Cap Reductn	0	0						0				
Storage Cap Reductn	0	0						0				
Reduced v/c Ratio	0.76	0.53						1.06				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 69 (77%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 105  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 54.4      Intersection LOS: D  
 Intersection Capacity Utilization 85.5%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 640: California St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕	↗		↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		110	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50	50		50	
Trailing Detector (ft)	0	0		0	0			0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3343	0	0	3361	0	0	3336	1401	0	2993	0
Flt Permitted		0.822			0.825							
Satd. Flow (perm)	0	2751	0	0	2772	0	0	3336	918	0	2993	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			8				30		18	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	28	550	108	42	715	96	0	1156	136	0	1211	117
Confl. Peds. (#/hr)	157		186	186		157			357			210
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								3	3		28	28
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	788	0	0	937	0	0	1192	140	0	1412	0
Turn Type	Perm			Perm					Perm			
Protected Phases		4			4			2			2	
Permitted Phases	4			4					2			
Detector Phases	4	4		4	4			2	2		2	
Minimum Initial (s)	3.0	3.0		3.0	3.0			4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5	42.5		42.5	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	52.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	57.8%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2	1.2		1.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max	Max		Max	
Act Effct Green (s)		35.0			35.0			49.0	49.0		49.0	
Actuated g/C Ratio		0.39			0.39			0.54	0.54		0.54	
v/c Ratio		0.73			0.87			0.66	0.27		0.86	
Control Delay		40.1			35.3			4.0	1.7		18.4	
Queue Delay		0.0			0.0			0.2	0.0		0.0	
Total Delay		40.1			35.3			4.2	1.7		18.4	
LOS		D			D			A	A		B	
Approach Delay		40.1			35.3			3.9			18.4	

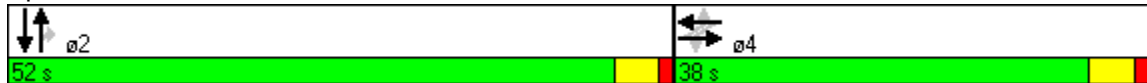


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A			B	
Queue Length 50th (ft)		218			251			42	2		197	
Queue Length 95th (ft)		m252			#369			50	m5		204	
Internal Link Dist (ft)		361			163			282			265	
Turn Bay Length (ft)									110			
Base Capacity (vph)		1078			1083			1816	513		1638	
Starvation Cap Reductn		0			0			116	0		0	
Spillback Cap Reductn		0			0			0	0		5	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.73			0.87			0.70	0.27		0.86	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 38 (42%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 21.4      Intersection LOS: C  
 Intersection Capacity Utilization 95.6%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 641: California St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3364	0	0	3409	0	0	1918	0	0	1906	0
Flt Permitted								0.962			0.900	
Satd. Flow (perm)	0	3364	0	0	3409	0	0	1849	0	0	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			25			20			22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	551	135	0	785	100	25	408	64	72	452	88
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	722	0	0	931	0	0	522	0	0	645	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Detector Phases		4			4		2	2		2	2	
Minimum Initial (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	24.0	0.0	0.0	24.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max			Max		Max	Max		Max	Max	
Act Effct Green (s)		21.0			21.0			33.0			33.0	
Actuated g/C Ratio		0.35			0.35			0.55			0.55	
v/c Ratio		0.60			0.77			0.51			0.67	
Control Delay		17.2			7.6			4.8			7.6	
Queue Delay		0.0			0.0			0.3			0.7	
Total Delay		17.2			7.6			5.1			8.2	
LOS		B			A			A			A	
Approach Delay		17.2			7.6			5.1			8.2	



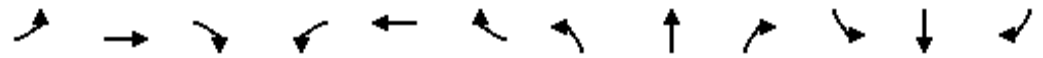
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		101			28			39			49	
Queue Length 95th (ft)		150			40			m84			93	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1213			1209			1026			959	
Starvation Cap Reductn		0			0			135			95	
Spillback Cap Reductn		0			0			0			13	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.60			0.77			0.59			0.75	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 24 (40%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 9.7                      Intersection LOS: A  
 Intersection Capacity Utilization 87.0%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 642: California St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	1		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50		50		50
Trailing Detector (ft)	0	0			0		0	0		0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3461	0	0	3458	0	1770	1803	0	1770	0	1290
Flt Permitted		0.828					0.950			0.187		
Satd. Flow (perm)	0	2872	0	0	3458	0	1770	1803	0	348	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			38				31
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	31	656	0	0	727	17	98	575	157	84	0	60
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	731	0	0	896	0	104	779	0	105	0	75
Turn Type	Perm						Perm			custom		custom
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Detector Phases	6	6			2		8	8		4		4
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0		4.0		4.0
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	23.0	23.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	37.0	0.0	37.0
Total Split (%)	38.3%	38.3%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	61.7%	0.0%	61.7%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max		Max		Max
Act Effct Green (s)		20.0			20.0		34.0	34.0		34.0		34.0
Actuated g/C Ratio		0.33			0.33		0.57	0.57		0.57		0.57
v/c Ratio		0.76			0.78		0.10	0.75		0.53		0.10
Control Delay		33.7			23.7		3.3	8.3		21.2		4.4
Queue Delay		0.0			0.0		0.0	0.0		0.0		0.0
Total Delay		33.7			23.7		3.3	8.3		21.2		4.4
LOS		C			C		A	A		C		A
Approach Delay		33.7			23.7			7.8				

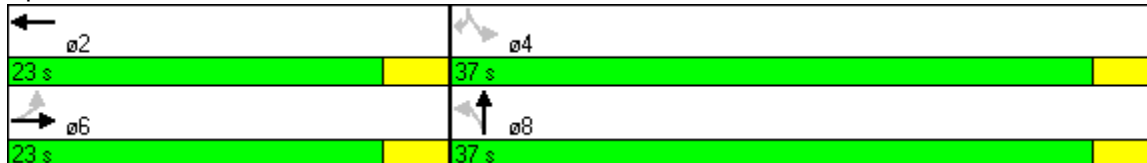


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A				
Queue Length 50th (ft)		146			149		6	50		21		6
Queue Length 95th (ft)		#206			189		m10	m112		58		18
Internal Link Dist (ft)		412			61			283			587	
Turn Bay Length (ft)												
Base Capacity (vph)		957			1155		1003	1038		197		744
Starvation Cap Reductn		0			0		0	0		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0
Reduced v/c Ratio		0.76			0.78		0.10	0.75		0.53		0.10

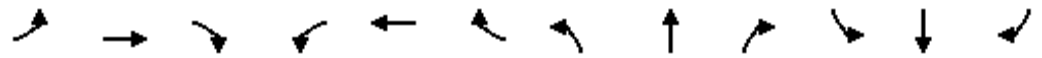
**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 48 (80%), Referenced to phase 2:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 20.5      Intersection LOS: C  
 Intersection Capacity Utilization 95.5%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 643: California St. & Larkin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50						50	
Trailing Detector (ft)	0		0	0	0						0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	1770	0	1583	1770	1840	0	0	0	0	0	1535	0
Flt Permitted	0.250			0.950								
Satd. Flow (perm)	466	0	1583	1770	1840	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			134	134	5						5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	120	0	177	418	357	30	0	0	0	0	918	51
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											14	14
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	171	0	253	470	435	0	0	0	0	0	989	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Detector Phases	4		4	8	8						6	
Minimum Initial (s)	4.0		4.0	4.0	4.0						4.0	
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	34.0	0.0	34.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	0.0%	37.8%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max						Max	
Act Effct Green (s)	31.0		31.0	31.0	31.0						53.0	
Actuated g/C Ratio	0.34		0.34	0.34	0.34						0.59	
v/c Ratio	1.06		0.40	0.67	0.68						1.09	
Control Delay	121.3		12.5	12.3	18.1						71.5	
Queue Delay	0.0		0.8	8.3	0.0						126.0	
Total Delay	121.3		13.3	20.6	18.1						197.5	
LOS	F		B	C	B						F	
Approach Delay					19.4						197.5	

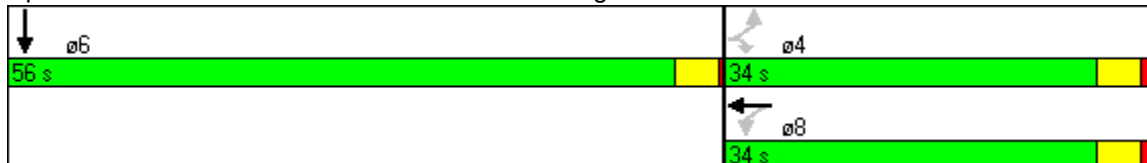


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Approach LOS							B						
Queue Length 50th (ft)	~108		47	244	263							~623	
Queue Length 95th (ft)	#161		65	m250	m268							#868	
Internal Link Dist (ft)		120			429			288				241	
Turn Bay Length (ft)													
Base Capacity (vph)	161		633	698	637							906	
Starvation Cap Reductn	0		0	3	0							0	
Spillback Cap Reductn	0		171	189	0							189	
Storage Cap Reductn	0		0	0	0							0	
Reduced v/c Ratio	1.06		0.55	0.92	0.68							1.38	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 16 (18%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 102.2      Intersection LOS: F  
 Intersection Capacity Utilization 95.5%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 659: Sacramento St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3444	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3444	0	1770	4789	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1		21					
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		509			230			346			331	
Travel Time (s)		13.9			6.3			9.4			9.0	
Volume (vph)	0	0	0	0	713	156	92	3107	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	945	0	99	3341	0	0	0	0
Turn Type							Perm					
Protected Phases					4			2				
Permitted Phases							2					
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					20.5		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					24.0		60.0	60.0				
Actuated g/C Ratio					0.27		0.67	0.67				
v/c Ratio					1.03		0.08	1.05				
Control Delay					59.2		0.4	27.9				
Queue Delay					0.0		0.0	0.7				
Total Delay					59.2		0.4	28.5				
LOS					E		A	C				
Approach Delay					59.2			27.7				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					E			C				
Queue Length 50th (ft)					~317		1	~748				
Queue Length 95th (ft)					#436		m0	m62				
Internal Link Dist (ft)		429			150			266			251	
Turn Bay Length (ft)												
Base Capacity (vph)					919		1187	3193				
Starvation Cap Reductn					0		0	5				
Spillback Cap Reductn					0		0	0				
Storage Cap Reductn					0		0	0				
Reduced v/c Ratio					1.03		0.08	1.05				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 34.5      Intersection LOS: C  
 Intersection Capacity Utilization 91.4%      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	50
Trailing Detector (ft)				0	0			0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3233	0	0	3150	0	0	3186	1275
Flt Permitted				0.994								
Satd. Flow (perm)	0	0	0	0	3181	0	0	3150	0	0	3186	1035
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19							30
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	117	725	109	0	1280	0	0	1211	144
Confl. Peds. (#/hr)				143		141	85					85
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	991	0	0	1320	0	0	1275	152
Turn Type				Split								Perm
Protected Phases				4	4			2			2	
Permitted Phases												2
Detector Phases				4	4			2			2	2
Minimum Initial (s)				4.0	4.0			4.0			4.0	4.0
Minimum Split (s)				35.0	35.0			42.5			42.5	42.5
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	51.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	56.7%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.1	2.1			0.7			0.7	0.7
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	Max
Act Effct Green (s)					36.0			48.0			48.0	48.0
Actuated g/C Ratio					0.40			0.53			0.53	0.53
v/c Ratio					0.76			0.79			0.75	0.27
Control Delay					27.4			8.9			16.0	11.5
Queue Delay					0.0			0.0			1.6	0.0
Total Delay					27.5			8.9			17.7	11.5
LOS					C			A			B	B
Approach Delay					27.5			8.9			17.0	

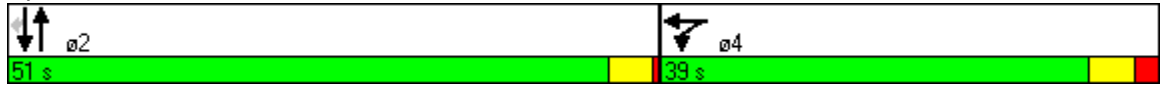


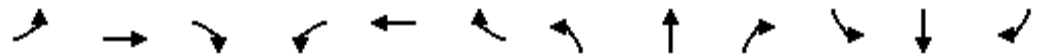
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					245			0		176	26	
Queue Length 95th (ft)					323			m0		209	m37	
Internal Link Dist (ft)		144			160			265		247		
Turn Bay Length (ft)												80
Base Capacity (vph)					1305			1680		1699	566	
Starvation Cap Reductn					9			0		248	0	
Spillback Cap Reductn					0			1		0	0	
Storage Cap Reductn					0			0		0	0	
Reduced v/c Ratio					0.76			0.79		0.88	0.27	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 16.9      Intersection LOS: B  
 Intersection Capacity Utilization 69.8%      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 661: Sacramento St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3493	0	0	1947	0	0	1873	0
Flt Permitted					0.994			0.827				
Satd. Flow (perm)	0	0	0	0	3493	0	0	1617	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						63	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	103	675	40	42	466	0	0	509	234
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	861	0	0	535	0	0	782	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Detector Phases				8	8		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.74			0.58			0.72	
Control Delay					22.0			13.7			7.6	
Queue Delay					0.2			0.1			0.2	
Total Delay					22.2			13.8			7.7	
LOS					C			B			A	
Approach Delay					22.2			13.8			7.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			B			A	
Queue Length 50th (ft)					140			131			57	
Queue Length 95th (ft)					201			m168			108	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1170			916			1089	
Starvation Cap Reductn					0			18			31	
Spillback Cap Reductn					28			10			23	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.75			0.60			0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	13 (22%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	88.9%
ICU Level of Service:	E
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 662: Sacramento St. & Polk St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1697	0	0	1493	0	0	5024	0	0	0	0
Flt Permitted		0.932						0.999				
Satd. Flow (perm)	0	1597	0	0	1493	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			38				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	14	58	0	0	7	146	38	2986	239	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	76	0	0	161	0	0	3435	0	0	0	0
Turn Type	Perm						Perm					
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	20.5	20.5	0.0	0.0	20.5	0.0	69.5	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	22.8%	0.0%	77.2%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		17.5			17.5			66.5				
Actuated g/C Ratio		0.19			0.19			0.74				
v/c Ratio		0.24			0.55			0.92				
Control Delay		35.6			50.4			2.5				
Queue Delay		0.0			0.0			4.6				
Total Delay		35.6			50.4			7.0				
LOS		D			D			A				
Approach Delay		35.6			50.4			7.0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			D			A				
Queue Length 50th (ft)		39			87			27				
Queue Length 95th (ft)		m47			m104			m25				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		311			293			3722				
Starvation Cap Reductn		0			0			249				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.24			0.55			0.99				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 76 (84%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 9.5                      Intersection LOS: A  
 Intersection Capacity Utilization 85.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 671: Clay St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↑↑	↗		↑↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50	50		50	
Trailing Detector (ft)	0	0						0	0		0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1575	0	0	0	0	0	3185	1267	0	2975	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	1569	0	0	0	0	0	3185	802	0	2975	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10							29		25	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	9	244	44	0	0	0	0	1239	150	0	1311	153
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20	20		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	381	0	0	0	0	0	1318	160	0	1541	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Detector Phases	4	4						2	2		2	
Minimum Initial (s)	4.0	4.0						4.0	4.0		4.0	
Minimum Split (s)	33.0	33.0						48.5	48.5		48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.1	2.1						0.8	0.8		0.8	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max	Max		Max	
Act Effct Green (s)		30.0						54.0	54.0		54.0	
Actuated g/C Ratio		0.33						0.60	0.60		0.60	
v/c Ratio		0.72						0.69	0.32		0.86	
Control Delay		31.4						3.5	1.7		15.1	
Queue Delay		0.0						0.6	0.0		0.3	
Total Delay		31.4						4.1	1.7		15.3	
LOS		C						A	A		B	
Approach Delay		31.4						3.8			15.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C						A			B		
Queue Length 50th (ft)	175						35			2		
Queue Length 95th (ft)	m209						42			m3		
Internal Link Dist (ft)	370			421			247			76		
Turn Bay Length (ft)							70					
Base Capacity (vph)	532						1911			493		
Starvation Cap Reductn	0						249			0		
Spillback Cap Reductn	0						126			0		
Storage Cap Reductn	0						0			0		
Reduced v/c Ratio	0.72						0.79			0.32		

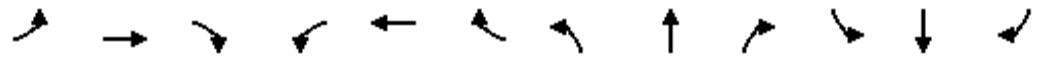
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	55 (61%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	12.1
Intersection LOS:	B
Intersection Capacity Utilization	72.6%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 672: Clay St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3037	0	0	0	0	0	1881	0	0	1947	0
Flt Permitted		0.992									0.937	
Satd. Flow (perm)	0	3037	0	0	0	0	0	1881	0	0	1832	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		275						47				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	63	70	261	0	0	0	0	363	143	43	482	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	415	0	0	0	0	0	533	0	0	552	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	27.5	27.5	0.0	0.0	0.0	0.0	0.0	32.5	0.0	32.5	32.5	0.0
Total Split (%)	45.8%	45.8%	0.0%	0.0%	0.0%	0.0%	0.0%	54.2%	0.0%	54.2%	54.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.5						29.5			29.5	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.30						0.56			0.61	
Control Delay		4.8						9.7			13.1	
Queue Delay		0.0						0.3			0.1	
Total Delay		4.8						10.0			13.2	
LOS		A						B			B	
Approach Delay		4.8						10.0			13.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A							B			B
Queue Length 50th (ft)		15							62			107
Queue Length 95th (ft)		40							m114			159
Internal Link Dist (ft)		421				163			237		241	
Turn Bay Length (ft)												
Base Capacity (vph)		1403							949			901
Starvation Cap Reductn		0							83			20
Spillback Cap Reductn		2							0			28
Storage Cap Reductn		0							0			0
Reduced v/c Ratio		0.30							0.62		0.63	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 10 (17%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 9.7                      Intersection LOS: A  
 Intersection Capacity Utilization 77.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 673: Clay St. & Polk St.

 2 32.5 s	 4 27.5 s
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1741	0	0	0	0	0	1486	0	0	1857	0
Flt Permitted		0.999									0.991	
Satd. Flow (perm)	0	1741	0	0	0	0	0	1486	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38						42			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	8	191	129	0	0	0	0	82	33	24	829	12
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	420	0	0	0	0	0	156	0	0	892	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Detector Phases	4	4						2		6	6	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	0.0	58.0	0.0	58.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		29.0						55.0			55.0	
Actuated g/C Ratio		0.32						0.61			0.61	
v/c Ratio		0.72						0.17			0.79	
Control Delay		32.3						14.5			10.7	
Queue Delay		0.0						0.0			1.6	
Total Delay		32.3						14.5			12.3	
LOS		C						B			B	
Approach Delay		32.3						14.5			12.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C						B			B	
Queue Length 50th (ft)		190						74			106	
Queue Length 95th (ft)		241						m78			207	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		587						924			1126	
Starvation Cap Reductn		0						0			102	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.72						0.17			0.87	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 25 (28%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 18.2                      Intersection LOS: B  
 Intersection Capacity Utilization 77.4%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 679: Washington St. & Gough St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50				
Trailing Detector (ft)	0	0						0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3493	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.993										
Satd. Flow (perm)	0	3493	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						35				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		522			452			296			369	
Travel Time (s)		14.2			12.3			8.1			10.1	
Volume (vph)	37	211	0	0	0	0	0	2934	212	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	388	0	0	0	0	0	3347	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Detector Phases	4	4						2				
Minimum Initial (s)	4.0	4.0						4.0				
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	20.5	20.5	0.0	0.0	0.0	0.0	0.0	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max				
Act Effct Green (s)		17.5						66.5				
Actuated g/C Ratio		0.19						0.74				
v/c Ratio		0.57						0.95				
Control Delay		43.0						6.7				
Queue Delay		0.0						1.0				
Total Delay		43.0						7.7				
LOS		D						A				
Approach Delay		43.0						7.7				



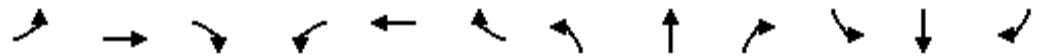
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D							A			
Queue Length 50th (ft)		120							45			
Queue Length 95th (ft)		116							#76			
Internal Link Dist (ft)		442				372			216		289	
Turn Bay Length (ft)												
Base Capacity (vph)		682							3512			
Starvation Cap Reductn		0							54			
Spillback Cap Reductn		0							0			
Storage Cap Reductn		0							0			
Reduced v/c Ratio		0.57							0.97			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 82 (91%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 11.3                      Intersection LOS: B  
 Intersection Capacity Utilization 75.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 680: Washington St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50		50	50	
Trailing Detector (ft)	0	0						0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3333	0	0	0	0	0	1916	0	0	1947	0
Flt Permitted		0.992									0.955	
Satd. Flow (perm)	0	3333	0	0	0	0	0	1916	0	0	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		108						20				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	66	239	115	0	0	0	0	364	62	32	410	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	442	0	0	0	0	0	448	0	0	466	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			2	
Permitted Phases										2		
Detector Phases	4	4						2		2	2	
Minimum Initial (s)	4.0	4.0						4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	33.0	33.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	55.0%	55.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max		Max	Max	
Act Effct Green (s)		24.0						30.0			30.0	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.32						0.46			0.50	
Control Delay		9.9						3.8			11.9	
Queue Delay		0.0						0.2			0.2	
Total Delay		9.9						4.0			12.2	
LOS		A						A			B	
Approach Delay		9.9						4.0			12.2	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		A						A			B	
Queue Length 50th (ft)		40						19			109	
Queue Length 95th (ft)		69						40			157	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1398						968			934	
Starvation Cap Reductn		0						115			99	
Spillback Cap Reductn		0						4			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.32						0.53			0.56	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	17 (28%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	8.7
Intersection LOS:	A
Intersection Capacity Utilization	66.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.

 2	 4
33 s	27 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50			50	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1861	0	0	1833	0
Flt Permitted		0.555		0.684				0.987				
Satd. Flow (perm)	0	948	0	1274	1829	0	0	1839	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66			3							13
Link Speed (mph)		25			25			25				25
Link Distance (ft)		537			487			380				309
Travel Time (s)		14.6			13.3			10.4				8.4
Volume (vph)	33	0	52	93	356	15	2	88	0	0	720	96
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Mid-Block Traffic (%)		0%			0%			0%				0%
Lane Group Flow (vph)	0	108	0	126	501	0	0	116	0	0	850	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Detector Phases	4	4		8	8		2	2				6
Minimum Initial (s)	3.5	3.5		3.5	3.5		4.0	4.0				4.0
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0				17.0
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5				0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max				Max
Act Effct Green (s)		32.0		32.0	32.0			52.0				52.0
Actuated g/C Ratio		0.36		0.36	0.36			0.58				0.58
v/c Ratio		0.28		0.28	0.77			0.11				0.80
Control Delay		11.6		12.7	21.6			1.5				13.9
Queue Delay		0.0		0.0	0.2			0.0				1.0
Total Delay		11.7		12.7	21.7			1.5				15.0
LOS		B		B	C			A				B
Approach Delay		11.7			19.9			1.5				15.0

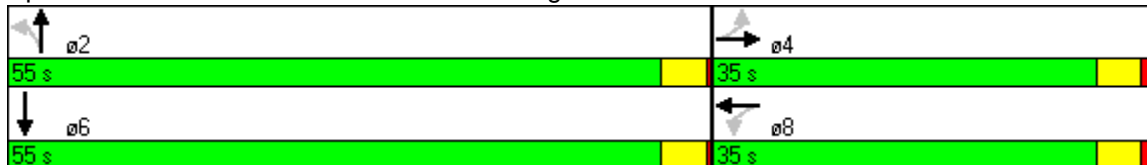


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		16		28	121			6			143	
Queue Length 95th (ft)		43		m38	132			m7			196	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		380		453	652			1063			1065	
Starvation Cap Reductn		0		0	8			0			38	
Spillback Cap Reductn		2		0	0			0			68	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.29		0.28	0.78			0.11			0.85	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 18 (20%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 15.7      Intersection LOS: B  
 Intersection Capacity Utilization 78.4%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 686: Jackson St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)					50		50	50				
Trailing Detector (ft)					0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3412	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					5			27				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	309	78	155	2816	0	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	407	0	0	3127	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Detector Phases					4		2	2				
Minimum Initial (s)					4.0		4.0	4.0				
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	19.0	0.0	71.0	71.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	21.1%	0.0%	78.9%	78.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					Max		Max	Max				
Act Effct Green (s)					16.0			68.0				
Actuated g/C Ratio					0.18			0.76				
v/c Ratio					0.67			0.87				
Control Delay					19.1			1.8				
Queue Delay					0.0			0.7				
Total Delay					19.1			2.5				
LOS					B			A				
Approach Delay					19.1			2.5				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A				
Queue Length 50th (ft)					116			29				
Queue Length 95th (ft)					m162			m31				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					611			3601				
Starvation Cap Reductn					0			192				
Spillback Cap Reductn					0			79				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.67			0.92				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 89 (99%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 4.4                      Intersection LOS: A  
 Intersection Capacity Utilization 75.3%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50		50	50			50	
Trailing Detector (ft)				0	0		0	0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3368	0	0	1928	0	0	1879	0
Flt Permitted				0.987			0.710					
Satd. Flow (perm)	0	0	0	0	3368	0	0	1388	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					45						53	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	95	197	61	123	307	0	0	347	139
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	371	0	0	452	0	0	511	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Detector Phases				4	4		2	2			2	
Minimum Initial (s)				4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max		Max	Max			Max	
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.31			0.59			0.48	
Control Delay					13.2			7.7			7.1	
Queue Delay					0.0			0.4			0.2	
Total Delay					13.2			8.1			7.3	
LOS					B			A			A	
Approach Delay					13.2			8.1			7.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					B			A			A	
Queue Length 50th (ft)					43			27			81	
Queue Length 95th (ft)					72			40			129	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1208			763			1057	
Starvation Cap Reductn					0			61			133	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.31			0.64			0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	26 (43%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	69.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1818	0	0	1828	0	0	1816	0	0	1857	0
Flt Permitted		0.997			0.929						0.990	
Satd. Flow (perm)	0	1814	0	0	1713	0	0	1816	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			24			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	119	25	42	179	17	0	111	25	22	749	10
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									14			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	180	0	0	262	0	0	186	0	0	822	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.33			0.51			0.16			0.70	
Control Delay		24.8			18.9			4.6			8.8	
Queue Delay		0.0			0.0			0.0			1.8	
Total Delay		24.8			18.9			4.6			10.7	
LOS		C			B			A			B	
Approach Delay		24.8			18.9			4.6			10.7	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		73			63			24			137	
Queue Length 95th (ft)		114			m118			35			270	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		553			517			1159			1166	
Starvation Cap Reductn		0			0			0			193	
Spillback Cap Reductn		0			0			0			8	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.51			0.16			0.84	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 13.1                      Intersection LOS: B  
 Intersection Capacity Utilization 82.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 693: Pacific Ave. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1846	0	0	1760	0	0	5029	0	0	0	0
Flt Permitted		0.766						0.998				
Satd. Flow (perm)	0	1427	0	0	1760	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			26				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	30	136	0	0	145	101	93	2634	167	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	175	0	0	259	0	0	3047	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	23.0	23.0	0.0	0.0	23.0	0.0	67.0	67.0	0.0	0.0	0.0	0.0
Total Split (%)	25.6%	25.6%	0.0%	0.0%	25.6%	0.0%	74.4%	74.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		20.0			20.0			64.0				
Actuated g/C Ratio		0.22			0.22			0.71				
v/c Ratio		0.55			0.66			0.85				
Control Delay		36.1			14.7			3.1				
Queue Delay		0.0			0.0			1.9				
Total Delay		36.1			14.7			4.9				
LOS		D			B			A				
Approach Delay		36.1			14.7			4.9				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			B			A				
Queue Length 50th (ft)		58			102			18				
Queue Length 95th (ft)		m124			m103			21				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		317			395			3584				
Starvation Cap Reductn		0			0			275				
Spillback Cap Reductn		0			0			368				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.55			0.66			0.95				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 7.2                      Intersection LOS: A  
 Intersection Capacity Utilization 89.1%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 694: Pacific Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1706	0	0	1769	0	0	1847	0	0	1904	0
Flt Permitted		0.951			0.857			0.881			0.970	
Satd. Flow (perm)	0	1630	0	0	1535	0	0	1643	0	0	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79			14			57			23	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	32	151	132	74	190	34	73	169	126	22	280	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	332	0	0	314	0	0	388	0	0	384	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Detector Phases	4	4		4	4		2	2		2	2	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.43			0.45			0.50			0.45	
Control Delay		10.4			13.4			5.7			12.8	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		10.4			13.4			5.9			12.8	
LOS		B			B			A			B	
Approach Delay		10.4			13.4			5.9			12.8	

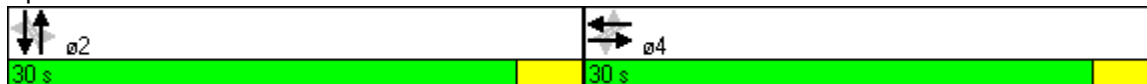


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		56			70			18			84	
Queue Length 95th (ft)		112			129			38			148	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		777			698			771			847	
Starvation Cap Reductn		0			0			59			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.43			0.45			0.54			0.45	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization	80.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3476	0	0	3472	0	0	1827	0	0	1848	0
Flt Permitted		0.943			0.691			0.959			0.956	
Satd. Flow (perm)	0	3281	0	0	2433	0	0	1758	0	0	1775	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			6			10			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	6	346	45	217	543	29	9	106	15	55	519	14
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	417	0	0	928	0	0	180	0	0	639	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		42.0			42.0			42.0			42.0	
Actuated g/C Ratio		0.47			0.47			0.47			0.47	
v/c Ratio		0.27			0.81			0.22			0.77	
Control Delay		14.5			12.1			6.3			27.7	
Queue Delay		0.0			0.7			0.0			0.0	
Total Delay		14.5			12.7			6.3			27.7	
LOS		B			B			A			C	
Approach Delay		14.5			12.7			6.3			27.7	

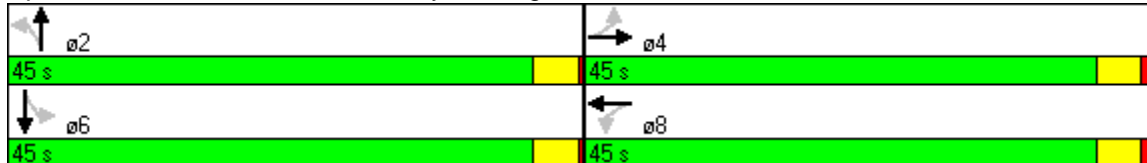


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			C	
Queue Length 50th (ft)		69			48			20			290	
Queue Length 95th (ft)		101			m68			23			436	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1542			1139			826			829	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		63			47			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.85			0.22			0.77	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 33 (37%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 16.9      Intersection LOS: B  
 Intersection Capacity Utilization 84.9%      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 698: Broadway & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3532	0	0	3391	0	0	5014	0	0	0	0
Flt Permitted		0.793						0.998				
Satd. Flow (perm)	0	2807	0	0	3391	0	0	5014	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			30				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		500			455			330			362	
Travel Time (s)		13.6			12.4			9.0			9.9	
Volume (vph)	13	403	0	0	684	265	105	2434	226	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	452	0	0	999	0	0	3006	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.52			0.95			0.96				
Control Delay		18.9			14.1			14.7				
Queue Delay		0.0			0.0			5.7				
Total Delay		18.9			14.1			20.4				
LOS		B			B			C				
Approach Delay		18.9			14.1			20.4				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C				
Queue Length 50th (ft)		63			16			202				
Queue Length 95th (ft)		m82			m#31			#538				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		873			1057			3131				
Starvation Cap Reductn		0			0			127				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.52			0.95			1.00				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 18.8      Intersection LOS: B  
 Intersection Capacity Utilization 88.2%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 699: Broadway & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50						50			50	
Trailing Detector (ft)	0	0						0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3442	0	0	0	0	0	3143	0	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3404	0	0	0	0	0	3143	0	0	3283	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7						8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			493			145			354	
Travel Time (s)		12.3			13.4			4.0			9.7	
Volume (vph)	26	373	24	0	0	0	0	1265	47	0	1440	0
Confl. Peds. (#/hr)	135		135						270	270		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	459	0	0	0	0	0	1426	0	0	1500	0
Turn Type	custom											
Protected Phases	4	4						2			6	
Permitted Phases	4											
Detector Phases	4	4						2			6	
Minimum Initial (s)	4.0	4.0						4.0			4.0	
Minimum Split (s)	25.0	25.0						48.0			24.0	
Total Split (s)	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	1.0	1.0						0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max						Max			Max	
Act Effct Green (s)		27.0						57.0			57.0	
Actuated g/C Ratio		0.30						0.63			0.63	
v/c Ratio		0.44						0.72			0.72	
Control Delay		38.3						5.0			12.4	
Queue Delay		0.1						0.3			0.7	
Total Delay		38.4						5.3			13.1	
LOS		D						A			B	
Approach Delay		38.4						5.3			13.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D						A			B	
Queue Length 50th (ft)		128						14			200	
Queue Length 95th (ft)		m159						16			224	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1038						1994			2079	
Starvation Cap Reductn		0						156			265	
Spillback Cap Reductn		90						59			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.48						0.78			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 13.3                      Intersection LOS: B  
 Intersection Capacity Utilization 63.1%                      ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 700: Washington St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1807	0	0	1788	0	0	5045	0	0	0	0
Flt Permitted		0.645						0.997				
Satd. Flow (perm)	0	1201	0	0	1788	0	0	5045	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			12				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	124	80	0	0	117	48	162	2379	93	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	215	0	0	174	0	0	2773	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	29.0	29.0	0.0	0.0	29.0	0.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	32.2%	0.0%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		26.0			26.0			58.0				
Actuated g/C Ratio		0.29			0.29			0.64				
v/c Ratio		0.62			0.33			0.85				
Control Delay		36.8			29.4			5.1				
Queue Delay		0.0			0.0			0.5				
Total Delay		36.8			29.4			5.6				
LOS		D			C			A				
Approach Delay		36.8			29.4			5.6				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			A				
Queue Length 50th (ft)		106			98			83				
Queue Length 95th (ft)		184			m157			124				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		347			520			3255				
Starvation Cap Reductn		0			0			122				
Spillback Cap Reductn		0			0			160				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.62			0.33			0.90				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 9.1                      Intersection LOS: A  
 Intersection Capacity Utilization 81.5%                      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 701: Green St. & Franklin St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1679	0	0	1701	0	0	1818	0	0	1840	0
Flt Permitted		0.975			0.891			0.914			0.963	
Satd. Flow (perm)	0	1640	0	0	1526	0	0	1674	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			9			15			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	18	361	93	65	391	32	23	123	21	35	404	29
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	575	0	0	574	0	0	283	0	0	532	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phases	4	4		8	8		2	2		6	6	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		30.0			30.0			24.0			24.0	
Actuated g/C Ratio		0.50			0.50			0.40			0.40	
v/c Ratio		0.69			0.75			0.42			0.74	
Control Delay		16.1			19.7			14.6			23.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.1			19.7			14.6			23.3	
LOS		B			B			B			C	
Approach Delay		16.1			19.7			14.6			23.3	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		138			151			67			156	
Queue Length 95th (ft)		204			241			70			#262	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		835			768			679			716	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.69			0.75			0.42			0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	18.9
Intersection LOS:	B
Intersection Capacity Utilization:	85.9%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

**Splits and Phases: 702: Union St. & Gough St.**

ø2 27 s	ø4 33 s
ø6 27 s	ø8 33 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50	50				
Trailing Detector (ft)	0	0			0	0	0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5030	0	0	0	0
Flt Permitted		0.948						0.995				
Satd. Flow (perm)	0	1639	0	0	1729	1583	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						5		12				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		503			449			345			341	
Travel Time (s)		13.7			12.2			9.4			9.3	
Volume (vph)	42	375	0	0	231	84	257	2192	102	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	439	0	0	243	88	0	2685	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Detector Phases	4	4			4	4	2	2				
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	33.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	36.7%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max	Max	Max	Max				
Act Effct Green (s)		30.0			30.0	30.0		54.0				
Actuated g/C Ratio		0.33			0.33	0.33		0.60				
v/c Ratio		0.80			0.42	0.17		0.89				
Control Delay		40.5			38.0	32.2		7.3				
Queue Delay		1.9			0.0	0.0		1.4				
Total Delay		42.4			38.0	32.2		8.7				
LOS		D			D	C		A				
Approach Delay		42.4			36.5			8.7				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1850	0	0	1809	0	0	5009	0	0	0	0
Flt Permitted		0.959						0.997				
Satd. Flow (perm)	0	1786	0	0	1809	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			32				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	21	119	0	0	53	14	148	1989	181	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	147	0	0	71	0	0	2441	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	28.0	28.0	0.0	0.0	28.0	0.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	31.1%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		25.0			25.0			59.0				
Actuated g/C Ratio		0.28			0.28			0.66				
v/c Ratio		0.30			0.14			0.74				
Control Delay		27.6			32.9			1.8				
Queue Delay		0.0			0.0			0.7				
Total Delay		27.6			32.9			2.5				
LOS		C			C			A				
Approach Delay		27.6			32.9			2.5				

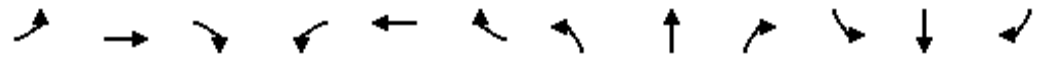




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.923						0.995				
Satd. Flow (perm)	0	1719	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19			13				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		247			452			351			315	
Travel Time (s)		6.7			12.3			9.6			8.6	
Volume (vph)	32	111	0	0	82	33	185	1760	79	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	151	0	0	121	0	0	2131	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.28			0.21			0.68				
Control Delay		25.2			12.9			4.0				
Queue Delay		0.0			0.0			0.5				
Total Delay		25.2			12.9			4.4				
LOS		C			B			A				
Approach Delay		25.2			12.9			4.4				

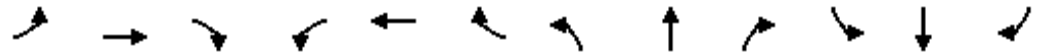






Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				
Trailing Detector (ft)	0	0			0		0	0				
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1848	0	0	1771	0	0	5055	0	0	0	0
Flt Permitted		0.945						0.999				
Satd. Flow (perm)	0	1760	0	0	1771	0	0	5055	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			14				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	15	78	0	0	96	55	53	2564	95	0	0	0
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	98	0	0	159	0	0	2855	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Detector Phases	4	4			4		2	2				
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	23.5	23.5	0.0	0.0	23.5	0.0	66.5	66.5	0.0	0.0	0.0	0.0
Total Split (%)	26.1%	26.1%	0.0%	0.0%	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max				
Act Effct Green (s)		20.5			20.5			63.5				
Actuated g/C Ratio		0.23			0.23			0.71				
v/c Ratio		0.24			0.39			0.80				
Control Delay		30.4			18.7			2.1				
Queue Delay		0.0			0.0			1.0				
Total Delay		30.4			18.7			3.1				
LOS		C			B			A				
Approach Delay		30.4			18.7			3.1				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)				50	50			50			50	
Trailing Detector (ft)				0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	0	0	0	3318	0	0	3014	0	0	2936	0
Flt Permitted				0.990								
Satd. Flow (perm)	0	0	0	0	3163	0	0	3014	0	0	2936	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10						9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	90	332	37	0	1291	0	0	1350	55
Confl. Peds. (#/hr)				130		130	260					260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	0	0	0	494	0	0	1359	0	0	1596	0
Turn Type				Perm								
Protected Phases					8			2			6	
Permitted Phases				8								
Detector Phases				8	8			2			6	
Minimum Initial (s)				4.0	4.0			4.0			4.0	
Minimum Split (s)				30.0	30.0			50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode				Max	Max			Max			Max	
Act Effct Green (s)					27.0			57.0			57.0	
Actuated g/C Ratio					0.30			0.63			0.63	
v/c Ratio					0.52			0.71			0.86	
Control Delay					27.9			3.6			12.6	
Queue Delay					0.0			0.3			0.2	
Total Delay					27.9			3.9			12.8	
LOS					C			A			B	
Approach Delay					27.9			3.9			12.8	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS					C			A			B	
Queue Length 50th (ft)					119			9			158	
Queue Length 95th (ft)					168			11			m191	
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												
Base Capacity (vph)					956			1909			1863	
Starvation Cap Reductn					0			69			21	
Spillback Cap Reductn					0			126			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.52			0.76			0.87	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	11.4
Intersection LOS:	B
Intersection Capacity Utilization:	63.1%
ICU Level of Service:	B
Analysis Period (min):	15

m Volume for 95th percentile queue is metered by upstream signal.

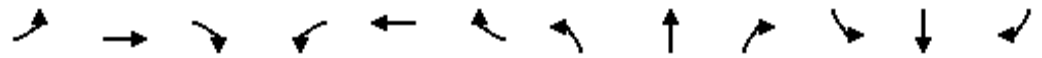
**Splits and Phases: 902: Jackson St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1622	0	0	1689	0	0	2971	0	0	2885	0
Flt Permitted		0.983			0.855							
Satd. Flow (perm)	0	1598	0	0	1435	0	0	2971	0	0	2885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			10			14			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	9	214	80	54	224	48	0	1227	101	0	1271	22
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	361	0	0	518	0	0	1383	0	0	1391	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	2.0	2.0		2.0	2.0			13.0			13.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			48.5	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.56			0.89			0.87			0.90	
Control Delay		29.5			45.2			9.8			22.7	
Queue Delay		0.0			0.0			0.1			0.3	
Total Delay		29.5			45.2			9.9			23.0	
LOS		C			D			A			C	
Approach Delay		29.5			45.2			9.9			23.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑		↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	0		0	1		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50	50		50		50	50	
Trailing Detector (ft)		0			0	0		0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	2925	0	1627	2944	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	2925	0	1611	2944	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19				308		23			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	546	83	0	901	274	0	1115	169	287	1210	48
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	699	0	0	1012	308	0	1352	0	309	1353	0
Turn Type						Perm					Prot	
Protected Phases		4			8			2		1	6	
Permitted Phases						8						
Detector Phases		4			8	8		2		1	6	
Minimum Initial (s)		4.0			4.0	4.0		4.0		2.0	4.0	
Minimum Split (s)		30.5			31.0	31.0		39.0		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	41.0	0.0	18.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	45.6%	0.0%	20.0%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode		Max			Max	Max		Max		Max	Max	
Act Effct Green (s)		28.0			28.0	28.0		38.0		15.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.42		0.17	0.62	
v/c Ratio		0.64			0.92	0.47		1.08		1.14	0.74	
Control Delay		35.5			44.4	5.5		60.0		115.3	4.8	
Queue Delay		0.1			0.0	0.0		11.6		0.0	0.6	
Total Delay		35.6			44.4	5.5		71.5		115.3	5.4	
LOS		D			D	A		E		F	A	
Approach Delay		35.6			35.3			71.5			25.9	

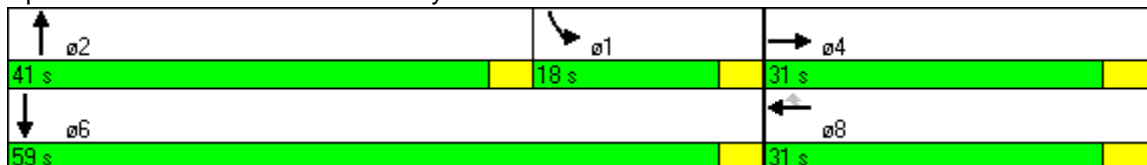


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Approach LOS	D			D			E			C				
Queue Length 50th (ft)	171			290			0			~157		~211	51	
Queue Length 95th (ft)	m218			#405			55			m#567		m#293	67	
Internal Link Dist (ft)	375			167			253			278				
Turn Bay Length (ft)														
Base Capacity (vph)	1085			1101			657			1248			271	1834
Starvation Cap Reductn	0			0			0			31		0	174	
Spillback Cap Reductn	17			0			0			0		0	64	
Storage Cap Reductn	0			0			0			0		0	0	
Reduced v/c Ratio	0.65			0.92			0.47			1.11		1.14	0.82	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 42.0 Intersection LOS: D  
 Intersection Capacity Utilization 87.7% ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

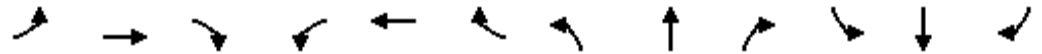
**Splits and Phases: 904: Broadway & Van Ness Avenue**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1681	0	0	1795	0	0	3018	0	0	2992	0
Flt Permitted		0.986			0.796							
Satd. Flow (perm)	0	1656	0	0	1415	0	0	3018	0	0	2992	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			8			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	102	64	73	124	16	0	1334	55	0	1408	27
Confl. Peds. (#/hr)	130		130	130		130			260			260
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	203	0	0	295	0	0	1417	0	0	1510	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	0.0	58.0	0.0	0.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		29.0			29.0			55.0			55.0	
Actuated g/C Ratio		0.32			0.32			0.61			0.61	
v/c Ratio		0.37			0.64			0.77			0.83	
Control Delay		29.3			33.2			4.7			9.0	
Queue Delay		0.0			0.0			0.4			0.0	
Total Delay		29.3			33.2			5.1			9.0	
LOS		C			C			A			A	
Approach Delay		29.3			33.2			5.1			9.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		89			140			36			96	
Queue Length 95th (ft)		m131			169			m50			99	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		542			459			1847			1830	
Starvation Cap Reductn		0			0			112			3	
Spillback Cap Reductn		0			0			11			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.37			0.64			0.82			0.83	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 1 (1%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 10.7      Intersection LOS: B  
 Intersection Capacity Utilization 76.6%      ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 907: Vallejo St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1650	0	0	1797	0	0	2985	0	0	3008	0
Flt Permitted		0.996			0.949							
Satd. Flow (perm)	0	1643	0	0	1701	0	0	2985	0	0	3008	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			8			5			4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	3	90	80	23	136	21	0	1321	36	0	1332	29
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	214	0	0	214	0	0	1370	0	0	1374	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0			50.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		30.0			30.0			54.0			54.0	
Actuated g/C Ratio		0.33			0.33			0.60			0.60	
v/c Ratio		0.38			0.37			0.76			0.76	
Control Delay		23.1			24.3			12.3			5.7	
Queue Delay		0.0			0.0			0.2			0.4	
Total Delay		23.1			24.3			12.5			6.1	
LOS		C			C			B			A	
Approach Delay		23.1			24.3			12.5			6.1	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		86			88			146			71	
Queue Length 95th (ft)		m123			136			146			m75	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)												
Base Capacity (vph)		559			572			1793			1806	
Starvation Cap Reductn		0			0			43			105	
Spillback Cap Reductn		0			0			58			82	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.38			0.37			0.79			0.81	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 88 (98%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 11.2                      Intersection LOS: B  
 Intersection Capacity Utilization 67.3%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 908: Green St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1644	0	0	3380	0	0	2921	0	0	2969	0
Flt Permitted		0.987			0.679							
Satd. Flow (perm)	0	1622	0	0	2299	0	0	2921	0	0	2969	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			18			11			13	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	12	408	57	63	231	40	0	1271	74	0	1241	84
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	535	0	0	412	0	0	1359	0	0	1352	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			6	
Minimum Initial (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Minimum Split (s)	31.5	31.5		31.5	31.5			55.0			45.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	0.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		32.0			32.0			52.0			52.0	
Actuated g/C Ratio		0.36			0.36			0.58			0.58	
v/c Ratio		0.92			0.50			0.80			0.79	
Control Delay		40.4			24.2			15.7			12.3	
Queue Delay		2.1			0.0			0.3			0.0	
Total Delay		42.5			24.2			16.0			12.4	
LOS		D			C			B			B	
Approach Delay		42.5			24.2			16.0			12.4	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1736	0	0	1758	0	0	2997	0	0	3016	0
Flt Permitted		0.995			0.691							
Satd. Flow (perm)	0	1725	0	0	1213	0	0	2997	0	0	3016	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			9			3			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	216	77	43	49	15	0	1302	21	0	1205	18
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15		13	13
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	361	0	0	127	0	0	1378	0	0	1235	0
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Detector Phases	4	4		8	8			2			6	
Minimum Initial (s)	6.0	6.0		6.0	6.0			6.0			6.0	
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0			18.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	0.0	54.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	60.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag								Lag				
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		27.0			27.0			51.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.57			0.63	
v/c Ratio		0.68			0.34			0.81			0.65	
Control Delay		33.7			26.0			5.8			2.1	
Queue Delay		0.0			0.0			0.4			0.1	
Total Delay		33.7			26.0			6.2			2.2	
LOS		C			C			A			A	
Approach Delay		33.7			26.0			6.2			2.2	





<b>Lane Group</b>	<b>ø1</b>
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phases	
Minimum Initial (s)	2.0
Minimum Split (s)	6.0
Total Split (s)	6.0
Total Split (%)	7%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		176			52			26			17	
Queue Length 95th (ft)		238			93			m31			24	
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)												
Base Capacity (vph)		532			370			1700			1911	
Starvation Cap Reductn		0			0			60			78	
Spillback Cap Reductn		0			0			0			1	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.68			0.34			0.84			0.67	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	4 (4%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	8.6
Intersection LOS:	A
Intersection Capacity Utilization	73.9%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 910: Filbert St. & Van Ness Avenue**



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Lane Group	ø1
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50			50			50	
Trailing Detector (ft)	0	0		0	0			0			0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1761	0	0	1818	0	0	4513	0	0	3035	0
Flt Permitted		0.993			0.978							
Satd. Flow (perm)	0	1748	0	0	1778	0	0	4513	0	0	3035	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			5			2			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	6	143	41	8	95	9	0	1314	10	0	1174	20
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Confl. Bikes (#/hr)												
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								8	8		10	10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	247	0	0	125	0	0	1471	0	0	1284	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Detector Phases	4	4		4	4			2			2	
Minimum Initial (s)	10.0	10.0		10.0	10.0			10.0			10.0	
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	34.5	34.5	0.0	34.5	34.5	0.0	0.0	55.5	0.0	0.0	55.5	0.0
Total Split (%)	38.3%	38.3%	0.0%	38.3%	38.3%	0.0%	0.0%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max			Max			Max	
Act Effct Green (s)		31.5			31.5			52.5			52.5	
Actuated g/C Ratio		0.35			0.35			0.58			0.58	
v/c Ratio		0.40			0.20			0.56			0.72	
Control Delay		17.6			20.7			11.1			15.9	
Queue Delay		0.0			0.0			0.2			0.5	
Total Delay		17.6			20.7			11.3			16.4	
LOS		B			C			B			B	
Approach Delay		17.6			20.7			11.3			16.4	



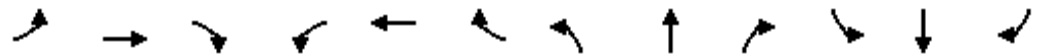
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		64			47			110			374	
Queue Length 95th (ft)		84			88			113			450	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												
Base Capacity (vph)		623			626			2633			1772	
Starvation Cap Reductn		0			0			429			160	
Spillback Cap Reductn		0			0			55			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			0.20			0.67			0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization	53.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 911: Greenwich St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	4823	0	0	4881	0	0	1763	0	0	1767	0
Flt Permitted								0.746			0.988	
Satd. Flow (perm)	0	4823	0	0	4881	0	0	1333	0	0	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			6			4			7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1202	133	0	2190	42	38	101	9	12	293	44
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1452	0	0	2301	0	0	209	0	0	406	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.49			0.77			0.48			0.71	
Control Delay		10.1			11.6			28.6			34.6	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		10.1			11.7			28.6			34.6	
LOS		B			B			C			C	
Approach Delay		10.1			11.7			28.6			34.6	

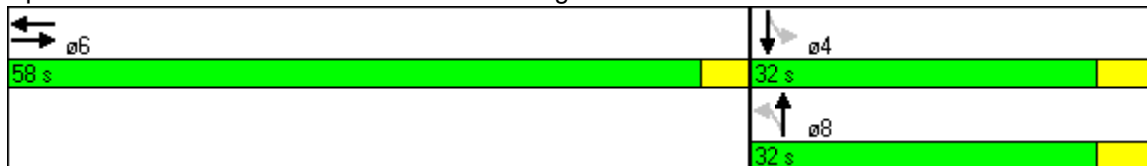


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		147			243			93			198	
Queue Length 95th (ft)		182			301			118			286	
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2963			2985			432			568	
Starvation Cap Reductn		0			74			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.79			0.48			0.71	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	40 (44%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	14.1
Intersection LOS:	B
Intersection Capacity Utilization	74.2%
ICU Level of Service	D
Analysis Period (min)	15

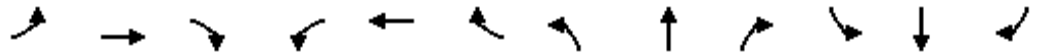
Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↖	↖				↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	1		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	5085	0	0	5065	0	1610	3316	0	0	0	1611
Flt Permitted		0.916					0.950	0.984				
Satd. Flow (perm)	0	4658	0	0	5065	0	1610	3316	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				33
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1221	0	0	1176	36	1002	776	47	0	0	54
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									16			
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	1438	0	0	1304	0	679	1419	0	0	0	72
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	29.0	0.0	48.0	48.0	0.0	0.0	0.0	13.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	32.2%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	14.4%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		39.8			26.0		44.2	44.2				10.8
Actuated g/C Ratio		0.44			0.29		0.49	0.49				0.12
v/c Ratio		0.70			0.89		0.86	0.87				0.33
Control Delay		14.5			21.7		16.9	12.1				27.3
Queue Delay		0.0			0.0		0.8	0.6				0.0
Total Delay		14.5			21.7		17.8	12.7				27.3
LOS		B			C		B	B				C
Approach Delay		14.5			21.7			14.3				



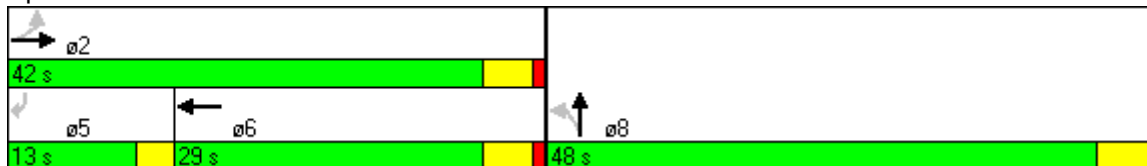


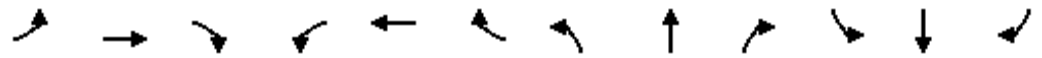
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			B					
Queue Length 50th (ft)	105			273			40	41				21
Queue Length 95th (ft)	114			#343			#449	53				47
Internal Link Dist (ft)	429			390			235			100		
Turn Bay Length (ft)												
Base Capacity (vph)	2057			1467			805	1661				221
Starvation Cap Reductn	0			0			24	56				0
Spillback Cap Reductn	0			0			0	0				0
Storage Cap Reductn	0			0			0	0				0
Reduced v/c Ratio	0.70			0.89			0.87	0.88				0.33

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 45 (50%), Referenced to phase 2:EBTL and 5:SBR, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 16.5      Intersection LOS: B  
 Intersection Capacity Utilization 72.4%      ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 923: Lombard St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50		50	50			50	50
Trailing Detector (ft)	0	0	0		0		0	0			0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1777	2601	0	1780	0	4658	1437	0	0	3539	1346
Flt Permitted		0.835					0.950					
Satd. Flow (perm)	0	1434	2601	0	1780	0	3547	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18		8			17				102
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	128	370	770	0	110	15	973	306	50	0	424	129
Confl. Peds. (#/hr)	135		135			135	270		270			270
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								10	10			10
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	524	811	0	143	0	1035	379	0	0	471	143
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Detector Phases	4	4	4 5		4		5	2			6	6
Minimum Initial (s)	8.0	8.0			8.0		8.0	8.0			8.0	8.0
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Max	Max			Max		Max	Max			Max	Max
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.17	0.49		0.26		0.77	0.42			0.44	0.40
Control Delay		111.5	2.9		23.4		15.6	1.3			27.1	12.4
Queue Delay		0.0	0.1		0.0		0.8	0.2			0.5	0.0
Total Delay		111.5	3.0		23.4		16.4	1.4			27.6	12.4
LOS		F	A		C		B	A			C	B
Approach Delay		45.6			23.4			12.4			24.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			B			C		
Queue Length 50th (ft)	~362		18	57		133		1	113		17	
Queue Length 95th (ft)	m#546		m22	100		203		1	158		67	
Internal Link Dist (ft)	390			403			246			91		
Turn Bay Length (ft)							300					
Base Capacity (vph)	446		1654	559		1346		901	1062		362	
Starvation Cap Reductn	0		0	0		105		91	0		0	
Spillback Cap Reductn	0		117	0		0		0	252		0	
Storage Cap Reductn	0		0	0		0		0	0		0	
Reduced v/c Ratio	1.17		0.53	0.26		0.83		0.47	0.58		0.40	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.17  
 Intersection Signal Delay: 27.5      Intersection LOS: C  
 Intersection Capacity Utilization 102.6%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**



Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↑	↑	↑	↑↑		↑	↑↑↑		
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900	
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12	
Grade (%)	0%		0%				0%					
Storage Length (ft)		0				0		0	0	0		
Storage Lanes		0				2		0	1	3		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50	50		50	50		
Trailing Detector (ft)	0		0	0	0	0	0		0	0		
Turning Speed (mph)		9		9	15	15		9	15	9	9	
Satd. Flow (prot)	3173	0	3241	1330	1770	1424	2612	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.987		0.950			
Satd. Flow (perm)	3173	0	3241	899	1770	1424	2612	0	1652	3610	0	
Right Turn on Red		Yes		Yes	Yes			Yes			Yes	
Satd. Flow (RTOR)	11			88	404		6			23		
Link Speed (mph)	25		25				25					
Link Distance (ft)	258		442				1192					
Travel Time (s)	7.0		12.1				32.5					
Volume (vph)	578	68	1133	111	633	582	482	48	143	790	147	
Confl. Peds. (#/hr)		327		247				167			140	
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)				12			16	16				
Mid-Block Traffic (%)	0%		0%				0%					
Lane Group Flow (vph)	680	0	1193	117	666	411	760	0	151	987	0	
Turn Type				Perm	Prot	Prot				Prot custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6								
Detector Phases	2		6	6	7	7	4		8	8		
Minimum Initial (s)	1.0		2.0	2.0	4.0	4.0	4.0		4.0	4.0		4.0
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max		Max	Max	Max	Max	Max		Max	Max		Max
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.23	0.35	0.83	0.99	0.99		0.34	1.01		
Control Delay	41.5		148.4	13.8	25.3	84.8	73.1		38.2	73.5		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	41.5		148.4	13.8	25.3	84.8	73.1		38.2	73.5		
LOS	D		F	B	C	F	E		D	E		
Approach Delay	41.5		136.4				58.4					

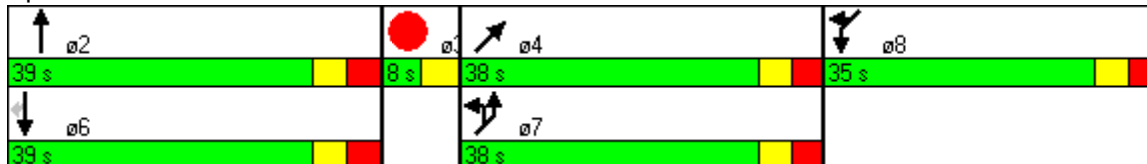


Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Approach LOS	D		F				E					
Queue Length 50th (ft)	242		~599	16	203	348	320		95	~334		
Queue Length 95th (ft)	312		#736	68	#389	#580	#464		157	#457		
Internal Link Dist (ft)	178		362				1112					
Turn Bay Length (ft)												
Base Capacity (vph)	960		972	331	802	415	766		441	980		
Starvation Cap Reductn	0		0	0	0	0	0		0	0		
Spillback Cap Reductn	0		0	0	0	0	0		0	0		
Storage Cap Reductn	0		0	0	0	0	0		0	0		
Reduced v/c Ratio	0.71		1.23	0.35	0.83	0.99	0.99		0.34	1.01		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 130  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.23  
 Intersection Signal Delay: 79.0 Intersection LOS: E  
 Intersection Capacity Utilization 100.0% ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 1237: Otis St. & Mission St.**





Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%					0%		0%		
Storage Length (ft)		0	0			0		0		0	
Storage Lanes		1	0			2		0		0	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50	50	50		50		
Trailing Detector (ft)	0	0			0	0	0		0		
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Satd. Flow (prot)	0	1730	0	0	1611	3433	1749	0	3335	0	0
Flt Permitted		0.956				0.950					
Satd. Flow (perm)	0	1730	0	0	1299	3433	1749	0	3335	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			212		5		7		
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					584		250		
Travel Time (s)		13.2					15.9		6.8		
Volume (vph)	41	75	2	7	13	2033	531	47	707	36	44
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%					0%		0%		
Lane Group Flow (vph)	0	131	0	0	14	2140	608	0	828	0	0
Turn Type	Perm				custom		Prot				
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Detector Phases	10	10			3	7	4		8		
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0		4.0		
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	17.5	17.5	0.0	0.0	41.0	42.0	31.5	0.0	30.5	0.0	0.0
Total Split (%)	19.4%	19.4%	0.0%	0.0%	45.6%	46.7%	35.0%	0.0%	33.9%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Recall Mode	Max	Max			Max	Max	Max		Max		
Act Effct Green (s)		14.5			38.0	39.0	28.5		27.5		
Actuated g/C Ratio		0.16			0.42	0.43	0.32		0.31		
v/c Ratio		0.47			0.02	1.44	1.09		0.81		
Control Delay		38.3			0.1	220.1	87.7		27.1		
Queue Delay		0.6			0.0	0.0	0.0		0.0		
Total Delay		38.9			0.1	220.1	87.7		27.1		
LOS		D			A	F	F		C		
Approach Delay		38.9					190.8		27.1		



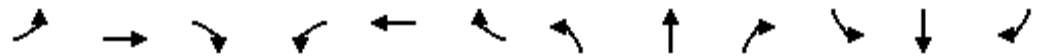
Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Approach LOS	D					F			C		
Queue Length 50th (ft)	76				0	~884	~378	244			
Queue Length 95th (ft)	m94				0	m#910	m#396	m304			
Internal Link Dist (ft)	404							504	170		
Turn Bay Length (ft)											
Base Capacity (vph)	281				671	1488	557	1024			
Starvation Cap Reductn	0				0	0	0	0			
Spillback Cap Reductn	28				144	0	0	0			
Storage Cap Reductn	0				0	0	0	0			
Reduced v/c Ratio	0.52				0.03	1.44	1.09	0.81			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 34 (38%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 145  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.44  
 Intersection Signal Delay: 148.3      Intersection LOS: F  
 Intersection Capacity Utilization 120.9%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**

03	04	10
41 s	31.5 s	17.5 s
07	08	
42 s	30.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50		50	50					50	50	
Trailing Detector (ft)		0		0	0					0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												25
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		401			484			341			364	
Travel Time (s)		10.9			13.2			9.3			9.9	
Volume (vph)	0	39	0	0	36	0	0	0	0	86	2020	135
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Lane Group Flow (vph)	0	41	0	0	38	0	0	0	0	0	2359	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Detector Phases		4		8	8						6	6
Minimum Initial (s)		4.0		4.0	4.0						4.0	4.0
Minimum Split (s)		24.0		24.0	24.0						24.5	24.5
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5						4.0	4.0
All-Red Time (s)		0.5		0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		Max		Max	Max					Max	Max	
Act Effct Green (s)		32.0			32.0							52.0
Actuated g/C Ratio		0.36			0.36							0.58
v/c Ratio		0.06			0.06							0.64
Control Delay		19.6			0.2							3.1
Queue Delay		0.0			0.0							0.6
Total Delay		19.6			0.2							3.7
LOS		B			A							A
Approach Delay		19.6			0.2							3.7







Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12
Grade (%)		0%				0%		0%	
Storage Length (ft)		0	0				0		0
Storage Lanes		0	2				0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50	50		50	50		50	
Trailing Detector (ft)	0	0	0		0	0		0	
Turning Speed (mph)	15	15	9	9	9		9		9
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3268	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3268	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Link Speed (mph)		25				25		25	
Link Distance (ft)		341				649		584	
Travel Time (s)		9.3				17.7		15.9	
Volume (vph)	28	877	1030	85	575	2008	96	639	75
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0
Parking (#/hr)									
Mid-Block Traffic (%)		0%				0%		0%	
Lane Group Flow (vph)	0	952	1173	0	605	2215	0	752	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Detector Phases	6	6	6		2	4		8	
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	Max	Max	Max		Max	Max		Max	
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.95	0.88		1.01	0.97		0.51	
Control Delay		24.9	13.0		36.6	38.5		4.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0	
Total Delay		24.9	13.0		36.6	38.5		4.0	
LOS		C	B		D	D		A	
Approach Delay		18.3				38.5		4.0	

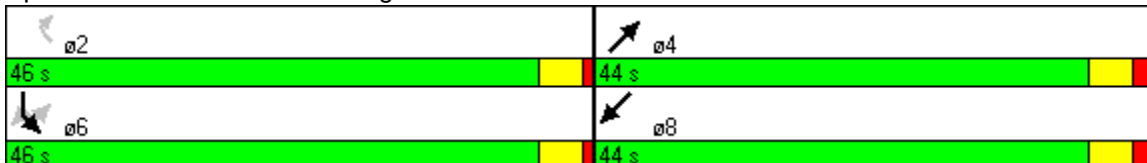


Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Approach LOS	B			D			A		
Queue Length 50th (ft)	234	187			~254	435		1	
Queue Length 95th (ft)	#542	#377			m#379	#568		m1	
Internal Link Dist (ft)	261					569		504	
Turn Bay Length (ft)									
Base Capacity (vph)	1000	1338			601	2273		1489	
Starvation Cap Reductn	0	0			0	0		0	
Spillback Cap Reductn	0	0			0	0		0	
Storage Cap Reductn	0	0			0	0		0	
Reduced v/c Ratio	0.95	0.88			1.01	0.97		0.51	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 9 (10%), Referenced to phase 6:SBL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 26.2 Intersection LOS: C  
 Intersection Capacity Utilization 90.7% ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1390: Haight St & Market St.**





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	62	21	31	98	20	5	127	9	22	536	23
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	6	71	24	33	103	21	7	172	12	24	589	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	101	157	191	638
Volume Left (vph)	6	33	7	24
Volume Right (vph)	24	21	12	25
Hadj (s)	-0.10	0.00	0.00	0.02
Departure Headway (s)	6.4	6.3	5.7	5.1
Degree Utilization, x	0.18	0.28	0.30	0.90
Capacity (veh/h)	525	534	599	700
Control Delay (s)	10.8	11.7	11.1	36.3
Approach Delay (s)	10.8	11.7	11.1	36.3
Approach LOS	B	B	B	E

Intersection Summary			
Delay		25.9	
HCM Level of Service		D	
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	178	47	38	222	19	14	133	5	21	496	45
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	17	202	53	49	288	25	18	175	7	24	564	51

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	273	362	200	639
Volume Left (vph)	17	49	18	24
Volume Right (vph)	53	25	7	51
Hadj (s)	-0.07	0.02	0.03	-0.01
Departure Headway (s)	7.6	7.3	7.9	6.9
Degree Utilization, x	0.57	0.74	0.44	1.23
Capacity (veh/h)	449	468	419	512
Control Delay (s)	20.2	28.4	16.8	142.7
Approach Delay (s)	20.2	28.4	16.8	142.7
Approach LOS	C	D	C	F

Intersection Summary			
Delay		74.9	
HCM Level of Service		F	
Intersection Capacity Utilization	65.4%		ICU Level of Service C
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	45	15	112	38	34	924
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	54	18	142	48	36	973
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.63	0.95			0.95	
vC, conflicting volume	1210	166			190	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1223	125			150	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	56	98			97	
cM capacity (veh/h)	121	882			1364	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	54	18	190	1008
Volume Left	54	0	0	36
Volume Right	0	18	48	0
cSH	121	882	1700	1364
Volume to Capacity	0.44	0.02	0.11	0.03
Queue Length 95th (ft)	48	2	0	2
Control Delay (s)	56.2	9.2	0.0	0.7
Lane LOS	F	A		A
Approach Delay (s)	44.4		0.0	0.7
Approach LOS	E			

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization		72.1%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	112	51	17	241	9	23	124	8	23	378	25
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	17	130	59	18	262	10	29	159	10	28	461	30

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	207	290	199	520
Volume Left (vph)	17	18	29	28
Volume Right (vph)	59	10	10	30
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.9	6.8	6.9	6.1
Degree Utilization, x	0.40	0.55	0.38	0.88
Capacity (veh/h)	471	496	474	566
Control Delay (s)	14.4	17.8	14.0	38.9
Approach Delay (s)	14.4	17.8	14.0	38.9
Approach LOS	B	C	B	E

Intersection Summary			
Delay		25.6	
HCM Level of Service		D	
Intersection Capacity Utilization	49.2%		ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	97	65	32	152	17	23	130	20	23	371	52
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	10	123	82	46	217	24	30	171	26	26	412	58

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	215	287	228	496
Volume Left (vph)	10	46	30	26
Volume Right (vph)	82	24	26	58
Hadj (s)	-0.19	0.02	-0.01	-0.03
Departure Headway (s)	6.9	6.8	6.8	6.2
Degree Utilization, x	0.41	0.55	0.43	0.85
Capacity (veh/h)	466	486	476	559
Control Delay (s)	14.6	17.7	14.9	34.7
Approach Delay (s)	14.6	17.7	14.9	34.7
Approach LOS	B	C	B	D

Intersection Summary			
Delay		23.5	
HCM Level of Service		C	
Intersection Capacity Utilization	54.9%		ICU Level of Service A
Analysis Period (min)		15	



# 2035 LOCALLY PREFERRED ALTERNATIVE (LPA)





Lane Group	EBL2	EBL	EBR	NBL	NBR	SEL	SER	SER2	SWL	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		50	0	0	0	0	0		0	0	
Storage Lanes		1	1	0	0	0	2		0	1	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	15	9	15	9	9	15	9	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.94	1.00	0.91
Fr <sub>t</sub>			0.850				0.850			0.850	
Fl <sub>t</sub> Protected	0.950								0.950		
Satd. Flow (prot)	1770	0	1583	0	0	0	2787	0	4990	1362	0
Fl <sub>t</sub> Permitted	0.134								0.950		
Satd. Flow (perm)	250	0	1583	0	0	0	2787	0	4990	1362	0
Right Turn on Red			Yes		Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			33				10		94	222	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.21	1.00
Link Speed (mph)		25		25		25			25		
Link Distance (ft)		310		614		707			700		
Travel Time (s)		8.5		16.7		19.3			19.1		
Volume (vph)	9	0	109	0	0	0	900	73	732	236	566
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										8	8
Adj. Flow (vph)	9	0	115	0	0	0	947	77	771	248	596
Lane Group Flow (vph)	9	0	115	0	0	0	1024	0	771	844	0
Turn Type	custom		custom				custom			Perm	
Protected Phases									2		
Permitted Phases	2		2				4			2	
Minimum Split (s)	25.5		25.5				25.5		25.5	25.5	
Total Split (s)	54.0	0.0	54.0	0.0	0.0	0.0	36.0	0.0	54.0	54.0	0.0
Total Split (%)	60.0%	0.0%	60.0%	0.0%	0.0%	0.0%	40.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)	3.5		3.5				3.5		3.5	3.5	
All-Red Time (s)	2.0		2.0				2.0		2.0	2.0	
Lead/Lag											
Lead-Lag Optimize?											
Act Effct Green (s)	51.0		51.0				33.0		51.0	51.0	
Actuated g/C Ratio	0.57		0.57				0.37		0.57	0.57	
v/c Ratio	0.06		0.13				1.00		0.27	0.97	
Control Delay	10.2		6.9				28.4		8.9	40.4	
Queue Delay	0.0		0.0				0.0		0.0	0.0	
Total Delay	10.2		6.9				28.4		8.9	40.4	
LOS	B		A				C		A	D	
Approach Delay									25.4		
Approach LOS									C		
Queue Length 50th (ft)	2		20				223		63	351	
Queue Length 95th (ft)	10		44				m#61		84	#658	
Internal Link Dist (ft)		230		534		627			620		
Turn Bay Length (ft)	50										
Base Capacity (vph)	142		911				1028		2868	868	
Starvation Cap Reductn	0		0				0		0	0	
Spillback Cap Reductn	0		0				0		0	0	





Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑	↑	↑↑↑	↑		↓	↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	0			0			0		50
Storage Lanes		0	0			4			2		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)		9	15			9	9	9	15	15	9
Lane Util. Factor	0.91	0.91	0.91	0.91	1.00	0.76	1.00	0.95	0.97	0.95	1.00
Ped Bike Factor	0.99				0.70		0.74				0.71
Frt	0.990				0.850	0.850	0.850				0.850
Flt Protected									0.950		
Satd. Flow (prot)	4995	0	0	5085	1583	3610	1583	0	3433	3256	1330
Flt Permitted				0.929					0.950		
Satd. Flow (perm)	4995	0	0	4724	1109	3610	1175	0	3433	3256	947
Right Turn on Red		Yes			Yes		Yes	Yes			Yes
Satd. Flow (RTOR)	12				355		20		12		1
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.25
Link Speed (mph)	25			25						25	
Link Distance (ft)	326			387						614	
Travel Time (s)	8.9			10.6						16.7	
Volume (vph)	632	43	13	1425	973	678	244	94	936	524	187
Confl. Peds. (#/hr)		72			187		160				195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										12	12
Adj. Flow (vph)	665	45	14	1500	1024	714	257	99	985	552	197
Lane Group Flow (vph)	710	0	0	1514	1024	714	257	0	1084	552	197
Turn Type			Perm		Perm	custom	custom	custom	custom		Perm
Protected Phases	4			8		2			1		6
Permitted Phases			8		8		2	1	1		6
Minimum Split (s)	31.0		31.0	31.0	31.0	29.0	29.0	10.6	10.6	59.0	59.0
Total Split (s)	31.0	0.0	31.0	31.0	31.0	29.7	29.7	29.3	29.3	59.0	59.0
Total Split (%)	34.4%	0.0%	34.4%	34.4%	34.4%	33.0%	33.0%	32.6%	32.6%	65.6%	65.6%
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0		2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag						Lead	Lead	Lag	Lag		
Lead-Lag Optimize?											
Act Effct Green (s)	28.0			28.0	28.0	26.7	26.7		26.3	56.0	56.0
Actuated g/C Ratio	0.31			0.31	0.31	0.30	0.30		0.29	0.62	0.62
v/c Ratio	0.45			1.03	1.74	0.67	0.71		1.07	0.27	0.33
Control Delay	25.6			63.2	356.8	31.4	38.4		68.2	3.7	4.8
Queue Delay	0.0			0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	25.6			63.2	356.8	31.4	38.4		68.2	3.7	4.8
LOS	C			E	F	C	D		E	A	A
Approach Delay	25.6			181.7						42.0	
Approach LOS	C			F						D	
Queue Length 50th (ft)	115			~341	~731	155	120		~348	30	21
Queue Length 95th (ft)	151			#434	#971	207	#232		m#397	m35	m28
Internal Link Dist (ft)	246			307						534	
Turn Bay Length (ft)											50
Base Capacity (vph)	1562			1470	590	1071	363		1012	2026	590



Lane Group	EBT	EBR	WBL	WBT	WBR2	NBR	NBR2	SBL2	SBL	SBT	SBR
Starvation Cap Reductn	0			0	0	0	0		0	0	0
Spillback Cap Reductn	0			0	0	0	0		0	0	0
Storage Cap Reductn	0			0	0	0	0		0	0	0
Reduced v/c Ratio	0.45			1.03	1.74	0.67	0.71		1.07	0.27	0.33

**Intersection Summary**

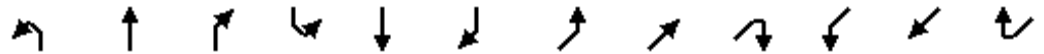
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 1:SBL and 6:SBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.74
Intersection Signal Delay:	97.2
Intersection LOS:	F
Intersection Capacity Utilization	123.1%
ICU Level of Service	H
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 18: Duboce St. &**

ø2	ø1	ø4
29.7 s	29.3 s	31 s
ø6	ø8	
59 s	31 s	



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑			↑↑	↑		↑			↑	
Ideal Flow (vphpl)	1900	1800	1900	1900	1800	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		65	0		115	0		0	0		0
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.97				0.47		0.98			0.98	
Frt		0.985				0.850		0.991			0.993	
Flt Protected												
Satd. Flow (prot)	0	3187	0	0	3353	1583	0	1611	0	0	1628	0
Flt Permitted												
Satd. Flow (perm)	0	3187	0	0	3353	748	0	1611	0	0	1628	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				1		1			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.16	1.00	1.00	1.15	1.00
Link Speed (mph)		25				25		25			25	
Link Distance (ft)		386				117		343			186	
Travel Time (s)		10.5				3.2		9.4			5.1	
Volume (vph)	0	1166	133	0	1183	193	0	527	39	0	594	31
Confl. Peds. (#/hr)			554			404			496			823
Peak Hour Factor	0.99	0.99	0.99	0.91	0.91	0.91	0.89	0.89	0.89	0.91	0.91	0.91
Bus Blockages (#/hr)	0	0	0	0	0	0	0	27	0	0	26	0
Parking (#/hr)			23									
Adj. Flow (vph)	0	1178	134	0	1300	212	0	592	44	0	653	34
Lane Group Flow (vph)	0	1312	0	0	1300	212	0	636	0	0	687	0
Turn Type						Perm						
Protected Phases		4			4			2			2	
Permitted Phases						4						
Minimum Split (s)		43.0			43.0	43.0		47.0			47.0	
Total Split (s)	0.0	43.0	0.0	0.0	43.0	43.0	0.0	47.0	0.0	0.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	0.0%	47.8%	47.8%	0.0%	52.2%	0.0%	0.0%	52.2%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5			3.5	
All-Red Time (s)		2.7			2.7	2.7		3.8			3.8	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		40.0			40.0	40.0		44.0			44.0	
Actuated g/C Ratio		0.44			0.44	0.44		0.49			0.49	
v/c Ratio		0.92			0.87	0.64		0.81			0.86	
Control Delay		35.8			35.5	33.7		36.2			15.6	
Queue Delay		0.0			1.1	0.0		0.0			0.0	
Total Delay		35.8			36.6	33.7		36.2			15.6	
LOS		D			D	C		D			B	
Approach Delay		35.8			36.2			36.2			15.6	
Approach LOS		D			D			D			B	
Queue Length 50th (ft)		356			277	84		391			40	
Queue Length 95th (ft)		#508			#323	m112		m384			#535	
Internal Link Dist (ft)		306			37			263			106	
Turn Bay Length (ft)						115						

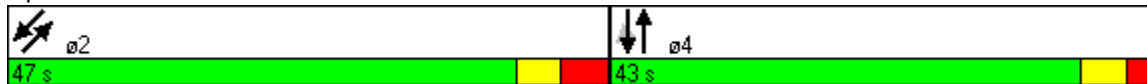


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Base Capacity (vph)		1421			1490	333		788			796	
Starvation Cap Reductn		0			61	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.92			0.91	0.64		0.81			0.86	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	82 (91%), Referenced to phase 2: NESW, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	32.6
Intersection LOS:	C
Intersection Capacity Utilization	79.9%
ICU Level of Service	D
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 101: Van Ness Avenue & Market St.



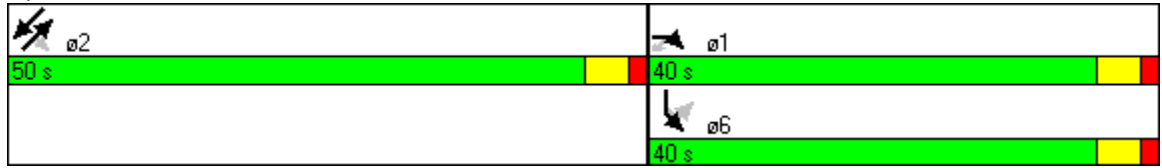
Lane Group	EBR	EBR2	SBL	NET	NER	SWT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	9	15		9	
Lane Util. Factor	*1.00	1.00	*1.00	1.00	1.00	*1.00
Fr <sub>t</sub>	0.850				0.850	
Fl <sub>t</sub> Protected			0.950			
Satd. Flow (prot)	4750	1863	3539	1863	1583	1801
Fl <sub>t</sub> Permitted			0.950			
Satd. Flow (perm)	4750	1863	3539	1863	1583	1801
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)					2	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.04
Link Speed (mph)			25	25		25
Link Distance (ft)			380	470		535
Travel Time (s)			10.4	12.8		14.6
Volume (vph)	796	0	985	634	123	625
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	838	0	1037	667	129	658
Lane Group Flow (vph)	838	0	1037	667	129	658
Turn Type	custom	custom			Perm	
Protected Phases	1!		6!	2		2
Permitted Phases	1	1			2	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	50.0	50.0	50.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5	1.5	1.5	1.5	1.5
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	37.0		37.0	47.0	47.0	47.0
Actuated g/C Ratio	0.41		0.41	0.52	0.52	0.52
v/c Ratio	0.43		0.71	0.69	0.16	0.70
Control Delay	3.3		25.4	22.9	15.8	21.2
Queue Delay	0.0		4.4	0.0	0.0	1.5
Total Delay	3.3		29.8	22.9	15.8	22.7
LOS	A		C	C	B	C
Approach Delay			29.8	21.8		22.7
Approach LOS			C	C		C
Queue Length 50th (ft)	11		239	249	40	267
Queue Length 95th (ft)	13		310	m351	m59	399
Internal Link Dist (ft)			300	390		455
Turn Bay Length (ft)						
Base Capacity (vph)	1953		1455	973	828	941
Starvation Cap Reductn	0		337	0	0	131
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.43		0.93	0.69	0.16	0.81



**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 2:NESW, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 19.8                      Intersection LOS: B  
 Intersection Capacity Utilization 68.1%              ICU Level of Service C  
 Analysis Period (min) 15  
 \* User Entered Value  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 102: Fell St. & Market St.





Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Lane Configurations		<del>577</del>	<del>778</del>		↑	↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11	11	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	9			9	9
Lane Util. Factor	0.91	*0.91	*0.91	0.91	1.00	1.00	1.00	1.00
Frt			*0.950			0.963		
Flt Protected		0.950						
Satd. Flow (prot)	0	4831	4831	0	1635	1540	0	0
Flt Permitted		0.950						
Satd. Flow (perm)	0	4831	4831	0	1635	1540	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			32			2		
Headway Factor	1.00	1.00	1.00	1.00	1.18	1.21	1.04	1.00
Link Speed (mph)		25			25	25		
Link Distance (ft)		352			535	604		
Travel Time (s)		9.6			14.6	16.5		
Volume (vph)	109	1161	2218	185	634	516	88	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	23	28	0	0
Parking (#/hr)	20			15				
Adj. Flow (vph)	115	1222	2335	195	667	543	93	115
Lane Group Flow (vph)	0	1337	2530	0	667	751	0	0
Turn Type	Perm	Split						
Protected Phases		4	4		2	2		
Permitted Phases	4							
Minimum Split (s)	33.0	33.0	33.0		27.0	27.0		
Total Split (s)	33.0	33.0	33.0	0.0	27.0	27.0	0.0	0.0
Total Split (%)	55.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5		
Lead/Lag								
Lead-Lag Optimize?								
Act Effct Green (s)		30.0	30.0		24.0	24.0		
Actuated g/C Ratio		0.50	0.50		0.40	0.40		
v/c Ratio		0.55	1.04		1.02	1.22		
Control Delay		11.5	47.0		62.2	127.7		
Queue Delay		0.0	0.0		0.0	1.7		
Total Delay		11.5	47.0		62.2	129.4		
LOS		B	D		E	F		
Approach Delay		34.7			62.2	129.4		
Approach LOS		C			E	F		
Queue Length 50th (ft)		112	~373		~243	~357		
Queue Length 95th (ft)		149	#468		#443	m#486		
Internal Link Dist (ft)		272			455	524		
Turn Bay Length (ft)								
Base Capacity (vph)		2416	2432		654	617		
Starvation Cap Reductn		0	0		0	0		
Spillback Cap Reductn		7	0		0	2		



Lane Group	NWL2	NWL	NWR	NWR2	NET	SWT	SWR	SWR2
Storage Cap Reductn		0	0		0	0		
Reduced v/c Ratio		0.56	1.04		1.02	1.22		

**Intersection Summary**

- Area Type: Other
- Cycle Length: 60
- Actuated Cycle Length: 60
- Offset: 39 (65%), Referenced to phase 2: NESW, Start of Green
- Natural Cycle: 60
- Control Type: Pretimed
- Maximum v/c Ratio: 1.22
- Intersection Signal Delay: 51.6
- Intersection LOS: D
- Intersection Capacity Utilization 101.9%
- ICU Level of Service G
- Analysis Period (min) 15
- \* User Entered Value
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 103: Hayes St. & Market St.





Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑						↑	↑		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.989							0.850			
Flt Protected		0.999										
Satd. Flow (prot)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Flt Permitted		0.999										
Satd. Flow (perm)	0	5024	0	0	0	0	0	1572	1583	0	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28							1			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.24	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25			25	
Link Distance (ft)		100				334		604			477	
Travel Time (s)		2.7				9.1		16.5			13.0	
Volume (vph)	48	2224	183	0	0	0	0	485	334	0	530	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	39	0	0	0	33
Adj. Flow (vph)	51	2341	193	0	0	0	0	511	352	0	558	0
Lane Group Flow (vph)	0	2585	0	0	0	0	0	511	352	0	558	0
Turn Type	Split								Perm			
Protected Phases	4	4						2			2	
Permitted Phases									2			
Minimum Split (s)	30.5	30.5						29.5	29.5		29.5	
Total Split (s)	30.5	30.5	0.0	0.0	0.0	0.0	0.0	29.5	29.5	0.0	29.5	0.0
Total Split (%)	50.8%	50.8%	0.0%	0.0%	0.0%	0.0%	0.0%	49.2%	49.2%	0.0%	49.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5		3.5	
All-Red Time (s)	2.0	2.0						1.0	1.0		1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.5						26.5	26.5		26.5	
Actuated g/C Ratio		0.46						0.44	0.44		0.44	
v/c Ratio		1.12						0.74	0.50		0.68	
Control Delay		71.1						15.9	12.2		18.5	
Queue Delay		0.0						0.0	0.0		0.0	
Total Delay		71.1						15.9	12.2		18.5	
LOS		E						B	B		B	
Approach Delay		71.1						14.4			18.5	
Approach LOS		E						B			B	
Queue Length 50th (ft)		~391						189	108		153	
Queue Length 95th (ft)		#493						m185	m104		253	
Internal Link Dist (ft)		20				254		524			397	
Turn Bay Length (ft)												
Base Capacity (vph)		2318						694	700		823	
Starvation Cap Reductn		0						0	0		0	
Spillback Cap Reductn		0						0	0		0	
Storage Cap Reductn		0						0	0		0	
Reduced v/c Ratio		1.12						0.74	0.50		0.68	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 11 (18%), Referenced to phase 2:NESW, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 51.5

Intersection LOS: D

Intersection Capacity Utilization 82.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

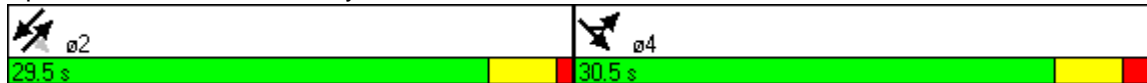
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 104: Hyde St. & Market St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.53	1.00
Frt		0.975										
Flt Protected											0.998	
Satd. Flow (prot)	0	4899	0	0	0	0	0	0	0	0	3764	0
Flt Permitted											0.998	
Satd. Flow (perm)	0	4899	0	0	0	0	0	0	0	0	3764	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7										4
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		376			245			364			200	
Travel Time (s)		10.3			6.7			9.9			5.5	
Volume (vph)	0	1380	272	0	0	0	0	0	0	64	1969	0
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										16	16	
Adj. Flow (vph)	0	1484	292	0	0	0	0	0	0	67	2051	0
Lane Group Flow (vph)	0	1776	0	0	0	0	0	0	0	0	2118	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	54.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		33.0									51.0	
Actuated g/C Ratio		0.37									0.57	
v/c Ratio		0.99									0.99	
Control Delay		47.3									21.2	
Queue Delay		0.0									0.0	
Total Delay		47.3									21.2	
LOS		D									C	
Approach Delay		47.3									21.2	
Approach LOS		D									C	
Queue Length 50th (ft)		359									293	
Queue Length 95th (ft)		#479									m#671	
Internal Link Dist (ft)		296			165			284			120	
Turn Bay Length (ft)												
Base Capacity (vph)		1801									2135	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.99						0.99					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 72 (80%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 33.1                      Intersection LOS: C  
 Intersection Capacity Utilization 68.9%                      ICU Level of Service C  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

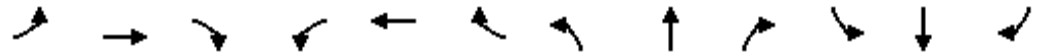
Splits and Phases: 403: Oak St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔↔↔					↗		↕↕↕					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	
Frt	0.865												
Flt Protected	0.950												
Satd. Flow (prot)	4491	0	0	0	0	1450	0	4577	0	0	0	0	
Flt Permitted	0.950												
Satd. Flow (perm)	4491	0	0	0	0	1450	0	4577	0	0	0	0	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)	12	4											
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	
Link Speed (mph)	25			25			25			25			
Link Distance (ft)	226			221			408			169			
Travel Time (s)	6.2			6.0			11.1			4.6			
Volume (vph)	1444	0	0	0	0	46	0	2118	0	0	0	0	
Peak Hour Factor	0.94	0.94	0.94	0.85	0.85	0.85	0.97	0.97	0.97	0.95	0.95	0.95	
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)							13	13					
Adj. Flow (vph)	1536	0	0	0	0	54	0	2184	0	0	0	0	
Lane Group Flow (vph)	1536	0	0	0	0	54	0	2184	0	0	0	0	
Turn Type	custom					custom							
Protected Phases									2				
Permitted Phases	4					4							
Minimum Split (s)	21.0					21.0			20.0				
Total Split (s)	38.0	0.0	0.0	0.0	0.0	38.0	0.0	52.0	0.0	0.0	0.0	0.0	
Total Split (%)	42.2%	0.0%	0.0%	0.0%	0.0%	42.2%	0.0%	57.8%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)	3.5					3.5							
All-Red Time (s)	1.5					1.5			1.5				
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)	35.0					35.0			49.0				
Actuated g/C Ratio	0.39					0.39			0.54				
v/c Ratio	0.88					0.10			0.88				
Control Delay	5.0					17.1			6.3				
Queue Delay	1.3					0.0			4.3				
Total Delay	6.4					17.1			10.6				
LOS	A					B			B				
Approach Delay									10.6				
Approach LOS									B				
Queue Length 50th (ft)	18					18			45				
Queue Length 95th (ft)	m23					39			m8				
Internal Link Dist (ft)	146			141			328			89			
Turn Bay Length (ft)													
Base Capacity (vph)	1754					566			2492				
Starvation Cap Reductn	0					0			247				
Spillback Cap Reductn	85					28			154				
Storage Cap Reductn	0					0			0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.92			0.10			0.97					

**Intersection Summary**

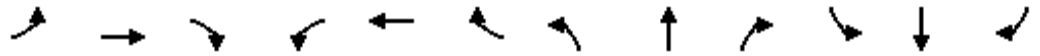
Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	84 (93%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization	86.7%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 405: Oak St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.91	*0.75	0.86
Frt											0.976	0.850
Flt Protected					0.992						0.996	
Satd. Flow (prot)	0	0	0	0	3448	0	0	0	0	0	4074	1117
Flt Permitted					0.992						0.996	
Satd. Flow (perm)	0	0	0	0	3448	0	0	0	0	0	4074	1117
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)											31	31
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.29
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		369			451			192			308	
Travel Time (s)		10.1			12.3			5.2			8.4	
Volume (vph)	0	0	0	96	481	0	0	0	0	197	1973	1116
Peak Hour Factor	0.95	0.95	0.95	0.78	0.78	0.78	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										16		16
Adj. Flow (vph)	0	0	0	123	617	0	0	0	0	203	2034	1151
Lane Group Flow (vph)	0	0	0	0	740	0	0	0	0	0	2667	721
Turn Type				Perm						Split		Perm
Protected Phases					8					6	6	
Permitted Phases				8								6
Minimum Split (s)				20.0	20.0					20.0	20.0	20.0
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	66.0	66.0	66.0
Total Split (%)	0.0%	0.0%	0.0%	26.7%	26.7%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	73.3%
Yellow Time (s)				3.5	3.5					3.5	3.5	3.5
All-Red Time (s)				1.5	1.5					1.5	1.5	1.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					21.0						63.0	63.0
Actuated g/C Ratio					0.23						0.70	0.70
v/c Ratio					0.92						0.93	0.91
Control Delay					45.0						7.2	10.0
Queue Delay					0.0						18.5	8.9
Total Delay					45.0						25.7	18.9
LOS					D						C	B
Approach Delay					45.0						24.3	
Approach LOS					D						C	
Queue Length 50th (ft)					213						163	100
Queue Length 95th (ft)					232						m108	m69
Internal Link Dist (ft)		289			371			112			228	
Turn Bay Length (ft)												
Base Capacity (vph)					805						2861	791
Starvation Cap Reductn					0						287	59
Spillback Cap Reductn					0						0	0
Storage Cap Reductn					0						0	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.92						1.04	0.98

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	52 (58%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	28.0
Intersection LOS:	C
Intersection Capacity Utilization	73.2%
ICU Level of Service	D
Analysis Period (min)	15
* User Entered Value	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 406: Fell St. & Gough St.



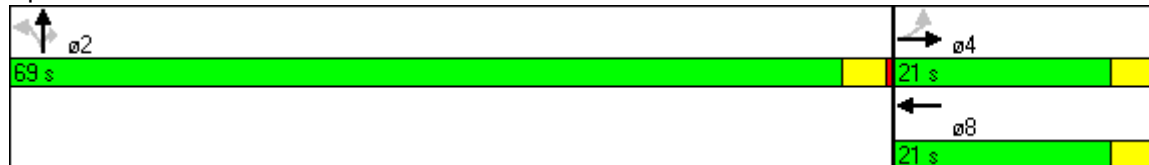


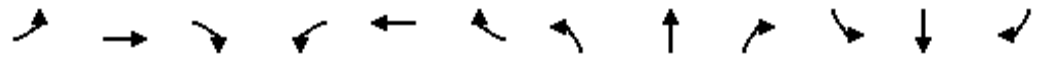
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↔			↕↕↕	↔			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.86	0.86	1.00	1.00	1.00
Frt									0.850			
Flt Protected		0.990						0.990				
Satd. Flow (prot)	0	3504	0	0	1863	0	0	4758	1137	0	0	0
Flt Permitted		0.897						0.990				
Satd. Flow (perm)	0	3175	0	0	1863	0	0	4758	1137	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)									349			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.26	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		451			486			195			323	
Travel Time (s)		12.3			13.3			5.3			8.8	
Volume (vph)	39	158	0	0	39	0	538	2198	688	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95
Parking (#/hr)							13		13			
Adj. Flow (vph)	43	176	0	0	41	0	560	2290	717	0	0	0
Lane Group Flow (vph)	0	219	0	0	41	0	0	2850	717	0	0	0
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0	20.0			
Total Split (s)	21.0	21.0	0.0	0.0	21.0	0.0	69.0	69.0	69.0	0.0	0.0	0.0
Total Split (%)	23.3%	23.3%	0.0%	0.0%	23.3%	0.0%	76.7%	76.7%	76.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		18.0			18.0			66.0	66.0			
Actuated g/C Ratio		0.20			0.20			0.73	0.73			
v/c Ratio		0.34			0.11			0.82	0.77			
Control Delay		41.1			41.9			8.8	6.8			
Queue Delay		3.3			0.0			5.8	1.8			
Total Delay		44.4			41.9			14.6	8.6			
LOS		D			D			B	A			
Approach Delay		44.4			41.9			13.4				
Approach LOS		D			D			B				
Queue Length 50th (ft)		64			20			325	89			
Queue Length 95th (ft)		m72			m27			350	m181			
Internal Link Dist (ft)		371			406			115			243	
Turn Bay Length (ft)												
Base Capacity (vph)		635			373			3489	927			
Starvation Cap Reductn		0			0			599	92			
Spillback Cap Reductn		318			0			366	0			
Storage Cap Reductn		0			0			0	0			
Reduced v/c Ratio		0.69			0.11			0.99	0.86			

**Intersection Summary**

Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 73 (81%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 74.0%	ICU Level of Service D
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 407: Fell St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	110		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99						0.98				
Frt		0.995						0.993			0.995	
Flt Protected		0.996										
Satd. Flow (prot)	0	3480	0	0	0	0	0	3044	0	0	3153	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3480	0	0	0	0	0	3044	0	0	3153	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						8			6	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			525			174			149	
Travel Time (s)		13.3			14.3			4.7			4.1	
Volume (vph)	72	743	31	0	0	0	0	1144	53	0	1246	39
Confl. Peds. (#/hr)			224			224			449			
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97	0.96	0.96	0.96
Parking (#/hr)								8	8		2	
Adj. Flow (vph)	79	816	34	0	0	0	0	1179	55	0	1298	41
Lane Group Flow (vph)	0	929	0	0	0	0	0	1234	0	0	1339	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Minimum Split (s)	35.0	35.0						42.0			50.0	
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.1	2.1						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0						50.0			50.0	
Actuated g/C Ratio		0.38						0.56			0.56	
v/c Ratio		0.70						0.73			0.76	
Control Delay		29.1						2.5			9.6	
Queue Delay		0.0						1.3			0.7	
Total Delay		29.1						3.8			10.3	
LOS		C						A			B	
Approach Delay		29.1						3.8			10.3	
Approach LOS		C						A			B	
Queue Length 50th (ft)		245						15			108	
Queue Length 95th (ft)		301						m16			m128	
Internal Link Dist (ft)		406			445			94			69	
Turn Bay Length (ft)												
Base Capacity (vph)		1318						1695			1754	



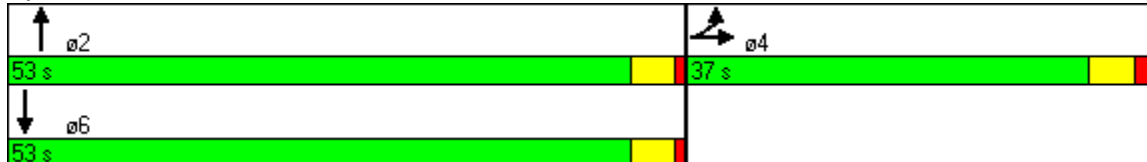
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0						252			156	
Spillback Cap Reductn		0						0			84	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.70						0.86			0.84	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	48 (53%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization	71.6%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

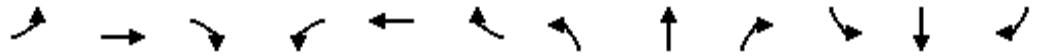
**Splits and Phases: 408: Fell St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.914									0.998	
Fl <sub>t</sub> Protected				0.950							0.997	
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	4756	0
Fl <sub>t</sub> Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	4756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17									3	
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	86	153	643	424	0	0	0	0	170	2490	43
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	112	199	670	442	0	0	0	0	175	2567	44
Lane Group Flow (vph)	0	311	0	670	442	0	0	0	0	0	2786	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		19.0		8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	0.0	25.0	44.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	27.8%	48.9%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Act Effct Green (s)		16.0		41.0	41.0						43.0	
Actuated g/C Ratio		0.18		0.46	0.46						0.48	
v/c Ratio		1.02		1.30	0.54						1.23	
Control Delay		92.7		171.6	16.3						123.1	
Queue Delay		23.5		4.5	0.4						9.6	
Total Delay		116.3		176.1	16.7						132.7	
LOS		F		F	B						F	
Approach Delay		116.3			112.8						132.7	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~175		~430	119						~712	
Queue Length 95th (ft)		#265		m#461	m128						#810	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												
Base Capacity (vph)		306		516	818						2274	
Starvation Cap Reductn		0		0	101						39	
Spillback Cap Reductn		20		4	0						26	
Storage Cap Reductn		0		0	0						0	



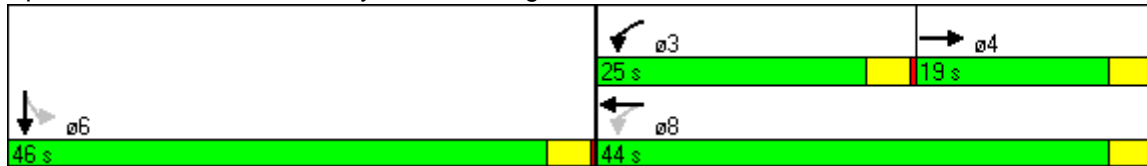


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		1.09		1.31	0.62						1.25	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	64 (71%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	130
Control Type:	Pretimed
Maximum v/c Ratio:	1.30
Intersection Signal Delay:	126.2
Intersection LOS:	F
Intersection Capacity Utilization	112.1%
ICU Level of Service	H
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 412: Hayes St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.964	0.850						
Flt Protected								0.995				
Satd. Flow (prot)	0	1796	0	0	3209	1441	0	4765	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	1796	0	0	3209	1441	0	4765	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4	4						
Headway Factor	1.00	1.05	1.00	1.00	1.02	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		458			481			323				175
Travel Time (s)		12.5			13.1			8.8				4.8
Volume (vph)	0	256	0	0	842	750	225	2012	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.90	0.90	0.90	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15	15				
Adj. Flow (vph)	0	269	0	0	915	815	250	2236	0	0	0	0
Lane Group Flow (vph)	0	269	0	0	1206	524	0	2486	0	0	0	0
Turn Type						Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases						4						
Minimum Split (s)		18.0			18.0	18.0	22.0	22.0				
Total Split (s)	0.0	38.0	0.0	0.0	38.0	38.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	42.2%	0.0%	0.0%	42.2%	42.2%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)		3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)		1.0			1.0	1.0	4.0	4.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		35.0			35.0	35.0		49.0				
Actuated g/C Ratio		0.39			0.39	0.39		0.54				
v/c Ratio		0.39			0.96	0.93		0.96				
Control Delay		31.2			16.9	19.9		26.7				
Queue Delay		0.0			0.0	0.0		25.8				
Total Delay		31.2			16.9	19.9		52.5				
LOS		C			B	B		D				
Approach Delay		31.3			17.8			52.5				
Approach LOS		C			B			D				
Queue Length 50th (ft)		153			47	40		279				
Queue Length 95th (ft)		m135			m55	m47		#606				
Internal Link Dist (ft)		378			401			243			95	
Turn Bay Length (ft)												
Base Capacity (vph)		698			1250	563		2594				
Starvation Cap Reductn		0			0	0		244				
Spillback Cap Reductn		0			0	0		174				
Storage Cap Reductn		0			0	0		0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.39			0.96	0.93		1.06				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 37.9                      Intersection LOS: D  
 Intersection Capacity Utilization 112.1%                      ICU Level of Service H  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 413: Hayes St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑			↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor					0.98						0.96	
Frt		0.979			0.987			0.997			0.985	
Flt Protected					0.999							
Satd. Flow (prot)	0	1824	0	0	4659	0	0	3352	0	0	2932	0
Flt Permitted					0.932							
Satd. Flow (perm)	0	1824	0	0	4347	0	0	3352	0	0	2932	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			21			3			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.11	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	216	40	24	1459	145	0	1240	24	0	1221	133
Confl. Peds. (#/hr)						224						449
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0			10	10
Adj. Flow (vph)	0	227	42	25	1536	153	0	1292	25	0	1272	139
Lane Group Flow (vph)	0	269	0	0	1714	0	0	1317	0	0	1411	0
Turn Type				Perm								
Protected Phases		4			4			2			6	
Permitted Phases				4								
Minimum Split (s)		35.0		35.0	35.0			51.0			39.0	
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.37			0.98			0.74			0.90	
Control Delay		17.1			44.3			4.7			17.2	
Queue Delay		0.0			0.0			0.4			4.1	
Total Delay		17.1			44.3			5.0			21.3	
LOS		B			D			A			C	
Approach Delay		17.1			44.3			5.0			21.3	
Approach LOS		B			D			A			C	
Queue Length 50th (ft)		30			341			38			131	
Queue Length 95th (ft)		125			#460			72			m#193	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)												
Base Capacity (vph)		731			1751			1789			1564	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0			118			102	
Spillback Cap Reductn		0			0			6			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.37			0.98			0.79			0.97	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 52 (58%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 24.9      Intersection LOS: C  
 Intersection Capacity Utilization 99.2%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖						↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	9	9	12	12	12	12	12	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt			0.865									0.850
Flt Protected					0.997							
Satd. Flow (prot)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	1611	0	5556	0	0	0	0	0	3539	1425
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			81		34							22
Headway Factor	1.00	1.00	1.00	1.00	1.19	1.14	1.00	1.00	1.00	1.00	1.00	1.14
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		233			150			380			162	
Travel Time (s)		6.4			4.1			10.4			4.4	
Volume (vph)	0	0	210	95	1456	0	0	0	0	0	680	172
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)					0	0						0
Adj. Flow (vph)	0	0	221	100	1533	0	0	0	0	0	716	181
Lane Group Flow (vph)	0	0	221	0	1633	0	0	0	0	0	716	181
Turn Type			custom	Perm								Perm
Protected Phases					8						6	
Permitted Phases			4	8								6
Minimum Split (s)			33.0	20.0	20.0						24.0	24.0
Total Split (s)	0.0	0.0	35.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	0.0%	58.3%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%
Yellow Time (s)			3.5	3.5	3.5						3.5	3.5
All-Red Time (s)			0.5	0.5	0.5						0.5	0.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			32.0		32.0						22.0	22.0
Actuated g/C Ratio			0.53		0.53						0.37	0.37
v/c Ratio			0.25		0.55						0.55	0.34
Control Delay			5.5		4.9						11.4	9.5
Queue Delay			0.0		0.0						0.2	0.0
Total Delay			5.5		4.9						11.6	9.5
LOS			A		A						B	A
Approach Delay					4.9						11.2	
Approach LOS					A						B	
Queue Length 50th (ft)			24		27						54	20
Queue Length 95th (ft)			54		m32						92	51
Internal Link Dist (ft)		153			70			300			82	
Turn Bay Length (ft)												
Base Capacity (vph)			897		2979						1298	536
Starvation Cap Reductn			0		0						0	0
Spillback Cap Reductn			33		26						97	0



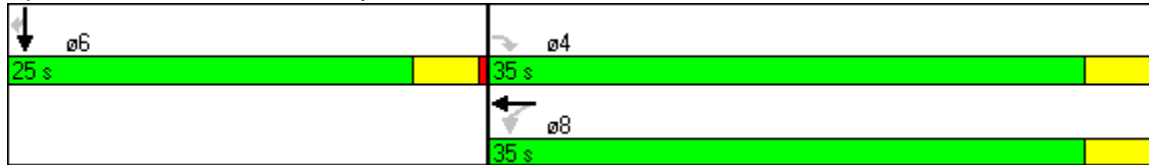
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn			0		0						0	0
Reduced v/c Ratio			0.26		0.55						0.60	0.34

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	55 (92%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	7.0
Intersection LOS:	A
Intersection Capacity Utilization	64.3%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

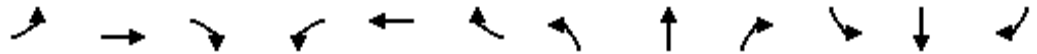
**Splits and Phases: 415: Hayes St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.974									0.996	
Fl <sub>t</sub> Protected					0.970						0.997	
Satd. Flow (prot)	0	1749	0	0	3371	0	0	0	0	0	5050	0
Fl <sub>t</sub> Permitted					0.590						0.997	
Satd. Flow (perm)	0	1749	0	0	2051	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6									9	
Headway Factor	1.00	1.05	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		372			209			345			352	
Travel Time (s)		10.1			5.7			9.4			9.6	
Volume (vph)	0	300	71	255	157	0	0	0	0	150	2377	69
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	323	76	283	174	0	0	0	0	155	2451	71
Lane Group Flow (vph)	0	399	0	0	457	0	0	0	0	0	2677	0
Turn Type			Perm								Split	
Protected Phases		4			8					6		6
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					17.0	17.0	
Total Split (s)	0.0	28.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0
Total Split (%)	0.0%	31.1%	0.0%	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.0			25.0						59.0	
Actuated g/C Ratio		0.28			0.28						0.66	
v/c Ratio		0.81			2.83dl						0.81	
Control Delay		45.0			41.1						2.4	
Queue Delay		3.5			1.0						37.4	
Total Delay		48.5			42.1						39.8	
LOS		D			D						D	
Approach Delay		48.5			42.1						39.8	
Approach LOS		D			D						D	
Queue Length 50th (ft)		209			94						40	
Queue Length 95th (ft)		#359			m#151						m40	
Internal Link Dist (ft)		292			129			265			272	
Turn Bay Length (ft)												
Base Capacity (vph)		490			570						3314	
Starvation Cap Reductn		0			0						518	
Spillback Cap Reductn		40			23						832	
Storage Cap Reductn		0			0						0	



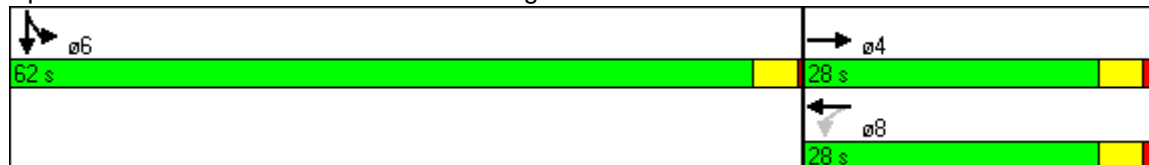


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.89			0.84						1.08		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 60 (67%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 41.1      Intersection LOS: D  
 Intersection Capacity Utilization 94.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 416: Grove St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.925			0.994				
Fl <sub>t</sub> Protected		0.993						0.998				
Satd. Flow (prot)	0	3451	0	0	3215	0	0	5045	0	0	0	0
Fl <sub>t</sub> Permitted		0.659						0.998				
Satd. Flow (perm)	0	2290	0	0	3215	0	0	5045	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			13				
Headway Factor	1.00	1.02	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			477			177				345
Travel Time (s)		6.8			13.0			4.8				9.4
Volume (vph)	68	382	0	0	311	307	101	2588	106	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Adj. Flow (vph)	76	429	0	0	324	320	104	2668	109	0	0	0
Lane Group Flow (vph)	0	505	0	0	644	0	0	2881	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	21.0	21.0			21.0		20.0	20.0				
Total Split (s)	28.0	28.0	0.0	0.0	28.0	0.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	31.1%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lead-Lag Optimize?											
Act Effct Green (s)		25.0			25.0			59.0				
Actuated g/C Ratio		0.28			0.28			0.66				
v/c Ratio		0.79			0.72			0.87				
Control Delay		29.0			16.3			7.3				
Queue Delay		0.0			0.0			16.4				
Total Delay		29.0			16.3			23.7				
LOS		C			B			C				
Approach Delay		29.0			16.3			23.7				
Approach LOS		C			B			C				
Queue Length 50th (ft)		78			47			175				
Queue Length 95th (ft)		m117			m57			m184				
Internal Link Dist (ft)		169			397			97			265	
Turn Bay Length (ft)												
Base Capacity (vph)		636			896			3312				
Starvation Cap Reductn		0			0			443				
Spillback Cap Reductn		0			0			508				
Storage Cap Reductn		0			0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.79			0.72			1.03					

**Intersection Summary**

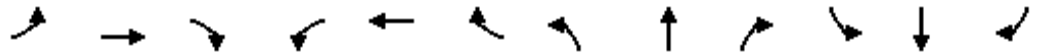
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	64 (71%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	23.2
Intersection LOS:	C
Intersection Capacity Utilization	95.4%
ICU Level of Service	F
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 417: Grove St. & Franklin St.

ø2	ø4
62 s	28 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	130		0	125		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.98			0.99			0.96			0.97	
Frt		0.992			0.997			0.982			0.987	
Flt Protected		0.999			0.997							
Satd. Flow (prot)	0	3376	0	0	3495	0	0	2970	0	0	2795	0
Flt Permitted		0.946			0.884							
Satd. Flow (perm)	0	3196	0	0	3099	0	0	2970	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			2						3	
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.19	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		477			486			170			672	
Travel Time (s)		13.0			13.3			4.6			18.3	
Volume (vph)	7	454	27	36	494	11	0	1237	172	0	1291	124
Confl. Peds. (#/hr)			631			409			414			414
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.94	0.94	0.94	0.96	0.96	0.96
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								4	4		32	32
Adj. Flow (vph)	8	528	31	40	549	12	0	1316	183	0	1345	129
Lane Group Flow (vph)	0	567	0	0	601	0	0	1499	0	0	1474	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Minimum Split (s)	34.0	34.0		34.0	34.0			31.0			31.0	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.7			1.7	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0			31.0			53.0			53.0	
Actuated g/C Ratio		0.34			0.34			0.59			0.59	
v/c Ratio		0.51			0.56			0.86			0.89	
Control Delay		40.9			26.4			7.5			30.7	
Queue Delay		0.0			0.0			0.0			1.5	
Total Delay		40.9			26.4			7.5			32.2	
LOS		D			C			A			C	
Approach Delay		40.9			26.4			7.5			32.2	
Approach LOS		D			C			A			C	
Queue Length 50th (ft)		152			144			58			372	
Queue Length 95th (ft)		m192			197			m74			m#430	
Internal Link Dist (ft)		397			406			90			592	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		1105			1069			1749			1647	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			67	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.51			0.56			0.86			0.93	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	55 (61%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	23.6
Intersection LOS:	C
Intersection Capacity Utilization	91.2%
ICU Level of Service	F
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 418: Grove St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗		↕↕						↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	11	11	11	12	12	12	11	11	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.990						0.984	
Flt Protected		0.997			0.996						0.996	
Satd. Flow (prot)	0	3182	1377	0	3147	0	0	0	0	0	3128	0
Flt Permitted		0.907			0.906						0.996	
Satd. Flow (perm)	0	2895	1377	0	2863	0	0	0	0	0	3128	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			183		16						27	
Headway Factor	1.09	1.14	1.19	1.04	1.14	1.04	1.00	1.00	1.00	1.04	1.14	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		486			481			175			672	
Travel Time (s)		13.3			13.1			4.8			18.3	
Volume (vph)	26	350	251	41	465	36	0	0	0	63	581	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	9	0
Parking (#/hr)		0	0		0	0				0	0	0
Adj. Flow (vph)	27	368	264	43	489	38	0	0	0	66	612	80
Lane Group Flow (vph)	0	395	264	0	570	0	0	0	0	0	758	0
Turn Type	Perm		Perm	Perm							Split	
Protected Phases		4			4					2	2	
Permitted Phases	4		4	4								
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0					29.0	29.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0					0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0	27.0		27.0						27.0	
Actuated g/C Ratio		0.45	0.45		0.45						0.45	
v/c Ratio		0.30	0.37		0.44						0.53	
Control Delay		11.3	5.4		11.0						10.1	
Queue Delay		0.0	0.0		0.0						0.0	
Total Delay		11.3	5.4		11.0						10.1	
LOS		B	A		B						B	
Approach Delay		8.9			11.0						10.1	
Approach LOS		A			B						B	
Queue Length 50th (ft)		45	16		55						67	
Queue Length 95th (ft)		72	55		m65						91	
Internal Link Dist (ft)		406			401			95			592	
Turn Bay Length (ft)												
Base Capacity (vph)		1303	720		1297						1422	
Starvation Cap Reductn		0	0		0						0	
Spillback Cap Reductn		0	0		0						0	



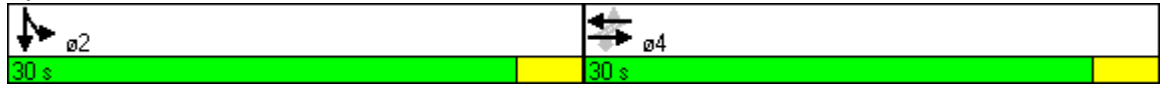
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.30	0.37		0.44						0.53	

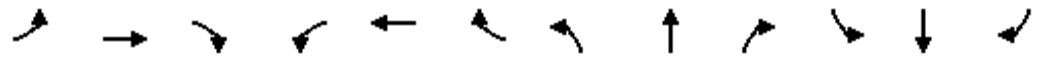
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	53 (88%), Referenced to phase 2:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	9.9
Intersection LOS:	A
Intersection Capacity Utilization	61.0%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 419: Grove St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	11	12	12	12	12	11	12	12	12	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.950			0.993				0.850
Flt Protected	0.950							0.993		0.950		
Satd. Flow (prot)	1652	1863	0	0	1770	0	0	4847	0	1770	0	1267
Flt Permitted	0.565							0.993		0.133		
Satd. Flow (perm)	982	1863	0	0	1770	0	0	4847	0	248	0	1267
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			18				93
Headway Factor	1.09	1.00	1.04	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.32
Link Speed (mph)		25			25			25				25
Link Distance (ft)		481			198			210				358
Travel Time (s)		13.1			5.4			5.7				9.8
Volume (vph)	178	235	0	0	133	79	321	1840	109	15	0	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)									5			20
Adj. Flow (vph)	187	247	0	0	140	83	338	1937	115	16	0	93
Lane Group Flow (vph)	187	247	0	0	223	0	0	2390	0	16	0	93
Turn Type	Perm						Perm		custom		custom	
Protected Phases		4			8			2				
Permitted Phases	4						2			6		6
Minimum Split (s)	27.0	27.0			27.0		33.0	33.0		33.0		33.0
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	33.0	33.0	0.0	33.0	0.0	33.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	0.0%	55.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5		0.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	24.0	24.0			24.0		30.0	30.0		30.0		30.0
Actuated g/C Ratio	0.40	0.40			0.40		0.50	0.50		0.50		0.50
v/c Ratio	0.48	0.33			0.31		0.98	0.98		0.13		0.14
Control Delay	17.1	12.3			9.7		7.4	7.4		7.8		2.3
Queue Delay	0.0	0.0			0.0		4.7	4.7		0.0		0.0
Total Delay	17.1	12.3			9.7		12.2	12.2		7.8		2.3
LOS	B	B			A		B	B		A		A
Approach Delay		14.4			9.7		12.2	12.2				
Approach LOS		B			A		B	B				
Queue Length 50th (ft)	60	74			24		24	24		2		0
Queue Length 95th (ft)	125	136			m37		m23	m23		9		0
Internal Link Dist (ft)		401			118		130	130				278
Turn Bay Length (ft)												
Base Capacity (vph)	393	745			711		2433	2433		124		680
Starvation Cap Reductn	0	0			0		27	27		0		0
Spillback Cap Reductn	0	0			0		56	56		0		0
Storage Cap Reductn	0	0			0		0	0		0		0







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.965									0.994	
Fl <sub>t</sub> Protected					0.985						0.999	
Satd. Flow (prot)	0	1798	0	0	1835	0	0	0	0	0	5050	0
Fl <sub>t</sub> Permitted					0.454						0.999	
Satd. Flow (perm)	0	1798	0	0	846	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		487			220			352			333	
Travel Time (s)		13.3			6.0			9.6			9.1	
Volume (vph)	0	361	128	76	172	0	0	0	0	44	2392	99
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										17		17
Adj. Flow (vph)	0	401	142	87	198	0	0	0	0	46	2518	104
Lane Group Flow (vph)	0	543	0	0	285	0	0	0	0	0	2668	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					20.0	20.0	
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0
Total Split (%)	0.0%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		36.0			36.0						48.0	
Actuated g/C Ratio		0.40			0.40						0.53	
v/c Ratio		0.75			0.84						0.99	
Control Delay		31.2			25.2						17.9	
Queue Delay		0.0			0.0						17.1	
Total Delay		31.2			25.2						35.0	
LOS		C			C						D	
Approach Delay		31.2			25.2						35.0	
Approach LOS		C			C						D	
Queue Length 50th (ft)		259			106						68	
Queue Length 95th (ft)		388			m115						#657	
Internal Link Dist (ft)		407			140			272			253	
Turn Bay Length (ft)												
Base Capacity (vph)		720			338						2698	
Starvation Cap Reductn		0			0						145	
Spillback Cap Reductn		0			0						24	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.75			0.84						1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 54 (60%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 33.6 Intersection LOS: C  
 Intersection Capacity Utilization 99.4% ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 428: Fulton St. & Gough St.





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘			↕↕↕		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
<b>Fr</b>						
Flt Protected	0.950			0.996		
Satd. Flow (prot)	1770	0	0	4803	0	0
Flt Permitted	0.950			0.996		
Satd. Flow (perm)	1770	0	0	4803	0	0
Right Turn on Red		Yes				Yes
<b>Satd. Flow (RTOR)</b>						
Headway Factor	1.00	1.00	1.00	1.07	1.00	1.00
Link Speed (mph)	25			25	25	
Link Distance (ft)	243			345	334	
Travel Time (s)	6.6			9.4	9.1	
Volume (vph)	405	0	248	2715	0	0
Peak Hour Factor	0.76	0.76	0.97	0.97	0.95	0.95
Parking (#/hr)			11	11		
Adj. Flow (vph)	533	0	256	2799	0	0
Lane Group Flow (vph)	533	0	0	3055	0	0
<b>Turn Type</b>						
Protected Phases	4		2	2		
<b>Permitted Phases</b>						
Minimum Split (s)	21.0		20.0	20.0		
Total Split (s)	30.0	0.0	60.0	60.0	0.0	0.0
Total Split (%)	33.3%	0.0%	66.7%	66.7%	0.0%	0.0%
Yellow Time (s)	3.5		3.5	3.5		
All-Red Time (s)	0.0		0.0	0.0		
<b>Lead/Lag</b>						
<b>Lead-Lag Optimize?</b>						
Act Effct Green (s)	27.0			57.0		
Actuated g/C Ratio	0.30			0.63		
v/c Ratio	1.00			1.00		
Control Delay	60.3			22.8		
Queue Delay	2.5			9.1		
Total Delay	62.8			31.9		
LOS	E			C		
Approach Delay	62.8			31.9		
Approach LOS	E			C		
Queue Length 50th (ft)	~326			~557		
Queue Length 95th (ft) m#391				#756		
Internal Link Dist (ft)	163			265	254	
<b>Turn Bay Length (ft)</b>						
Base Capacity (vph)	531			3042		
Starvation Cap Reductn	0			56		
Spillback Cap Reductn	5			83		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	1.01			1.03		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 75 (83%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.00  
 Intersection Signal Delay: 36.5                      Intersection LOS: D  
 Intersection Capacity Utilization 96.5%                      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 429: Fulton St. & Franklin St.





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↑↑			↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	11	11	11	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	9		9	15	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	1.00
Frt	0.916		0.996			
Flt Protected	0.982					0.987
Satd. Flow (prot)	1899	0	4896	0	0	1749
Flt Permitted	0.982					0.567
Satd. Flow (perm)	1899	0	4896	0	0	1005
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	3		11			
Headway Factor	0.85	0.85	1.04	1.04	1.04	1.07
Link Speed (mph)	25		25			25
Link Distance (ft)	232		358			335
Travel Time (s)	6.3		9.8			9.1
Volume (vph)	36	60	2034	63	24	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	4
Parking (#/hr)				5	20	
Adj. Flow (vph)	38	63	2141	66	25	71
Lane Group Flow (vph)	101	0	2207	0	0	96
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	26.0		34.0		34.0	34.0
Total Split (s)	26.0	0.0	34.0	0.0	34.0	34.0
Total Split (%)	43.3%	0.0%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	23.0		31.0			31.0
Actuated g/C Ratio	0.38		0.52			0.52
v/c Ratio	0.14		0.87			0.18
Control Delay	12.4		7.8			3.6
Queue Delay	0.0		0.8			0.0
Total Delay	12.4		8.6			3.6
LOS	B		A			A
Approach Delay	12.4		8.6			3.6
Approach LOS	B		A			A
Queue Length 50th (ft)	22		75			9
Queue Length 95th (ft)	49		m80			m13
Internal Link Dist (ft)	152		278			255
Turn Bay Length (ft)						
Base Capacity (vph)	730		2535			519
Starvation Cap Reductn	0		107			0
Spillback Cap Reductn	0		111			0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.14		0.91			0.18

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	21 (35%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	8.6
Intersection LOS:	A
Intersection Capacity Utilization	53.0%
ICU Level of Service	A
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 430: Fulton St. & Larkin St.**

 34 s	 26 s
 34 s	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗			↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	9	15			9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91
Frt		0.865			0.993	
Flt Protected						
Satd. Flow (prot)	0	1611	0	0	4430	0
Flt Permitted						
Satd. Flow (perm)	0	1611	0	0	4430	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		11			23	
Headway Factor	1.00	1.00	1.00	1.00	1.18	1.04
Link Speed (mph)	25			25	25	
Link Distance (ft)	230			333	333	
Travel Time (s)	6.3			9.1	9.1	
Volume (vph)	0	33	0	0	2032	96
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)					16	5
Adj. Flow (vph)	0	35	0	0	2139	101
Lane Group Flow (vph)	0	35	0	0	2240	0
Turn Type	custom					
Protected Phases					2	
Permitted Phases	4					
Minimum Split (s)	19.0			39.5		
Total Split (s)	0.0	19.0	0.0	0.0	41.0	0.0
Total Split (%)	0.0%	31.7%	0.0%	0.0%	68.3%	0.0%
Yellow Time (s)	3.5			3.5		
All-Red Time (s)	0.0			0.0		
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	16.0			38.0		
Actuated g/C Ratio	0.27			0.63		
v/c Ratio	0.08			0.80		
Control Delay	13.4			4.7		
Queue Delay	0.0			0.0		
Total Delay	13.4			4.7		
LOS	B			A		
Approach Delay				4.7		
Approach LOS				A		
Queue Length 50th (ft)	6			54		
Queue Length 95th (ft)	25			83		
Internal Link Dist (ft)	150			253	253	
Turn Bay Length (ft)						
Base Capacity (vph)	438			2814		
Starvation Cap Reductn	0			14		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Reduced v/c Ratio		0.08			0.80	

**Intersection Summary**

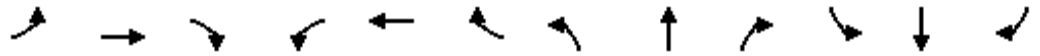
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	27 (45%), Referenced to phase 2:SBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	4.8
Intersection LOS:	A
Intersection Capacity Utilization	51.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 431: Fulton St. & Hyde St.

↓ ø2	↘ ø4
41 s	19 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖↖						↖↖↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.982									0.994	
Fl <sub>t</sub> Protected					0.987						0.998	
Satd. Flow (prot)	0	1719	0	0	3493	0	0	0	0	0	5045	0
Fl <sub>t</sub> Permitted					0.556						0.998	
Satd. Flow (perm)	0	1719	0	0	1968	0	0	0	0	0	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3									13	
Headway Factor	1.00	1.08	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			287			333			348	
Travel Time (s)		12.0			7.8			9.1			9.5	
Volume (vph)	0	336	51	125	363	0	0	0	0	110	2359	110
Peak Hour Factor	0.84	0.84	0.84	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Bus Blockages (#/hr)	0	15	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	400	61	132	382	0	0	0	0	117	2510	117
Lane Group Flow (vph)	0	461	0	0	514	0	0	0	0	0	2744	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					18.0	18.0	
Total Split (s)	0.0	33.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0						54.0	
Actuated g/C Ratio		0.33			0.33						0.60	
v/c Ratio		0.80			1.04dl						0.91	
Control Delay		39.6			41.5						10.2	
Queue Delay		0.0			0.0						10.5	
Total Delay		39.6			41.5						20.7	
LOS		D			D						C	
Approach Delay		39.6			41.5						20.7	
Approach LOS		D			D						C	
Queue Length 50th (ft)		235			164						269	
Queue Length 95th (ft)		322			m210						355	
Internal Link Dist (ft)		361			207			253			268	
Turn Bay Length (ft)												
Base Capacity (vph)		575			656						3032	
Starvation Cap Reductn		0			0						316	
Spillback Cap Reductn		0			0						297	
Storage Cap Reductn		0			0						0	

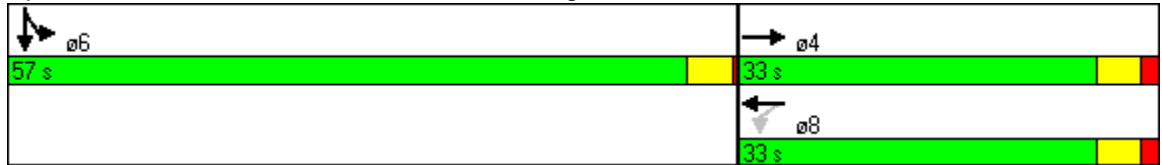


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.80			0.78							1.01

**Intersection Summary**

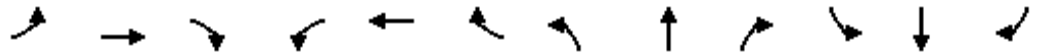
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 45 (50%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 25.9      Intersection LOS: C  
 Intersection Capacity Utilization 94.7%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 435: McAllister St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.925			0.988				
Fl <sub>t</sub> Protected		0.997						0.999				
Satd. Flow (prot)	0	1746	0	0	3176	0	0	5019	0	0	0	0
Fl <sub>t</sub> Permitted		0.839						0.999				
Satd. Flow (perm)	0	1469	0	0	3176	0	0	5019	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								22				
Headway Factor	1.00	1.08	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	418	0	0	440	441	48	2829	243	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Adj. Flow (vph)	30	454	0	0	500	501	51	2978	256	0	0	0
Lane Group Flow (vph)	0	484	0	0	1001	0	0	3285	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	42.0	42.0	0.0	0.0	42.0	0.0	48.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		39.0			39.0			45.0				
Actuated g/C Ratio		0.43			0.43			0.50				
v/c Ratio		0.76			0.73			1.30				
Control Delay		27.6			7.4			156.2				
Queue Delay		0.0			0.0			45.2				
Total Delay		27.6			7.4			201.5				
LOS		C			A			F				
Approach Delay		27.6			7.4			201.5				
Approach LOS		C			A			F				
Queue Length 50th (ft)		276			44			~880				
Queue Length 95th (ft)		m351			m75			m#874				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												
Base Capacity (vph)		637			1376			2521				
Starvation Cap Reductn		0			6			181				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.76			0.73			1.40					

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 87 (97%), Referenced to phase 2:NBTL, Start of Green
- Natural Cycle: 55
- Control Type: Pretimed
- Maximum v/c Ratio: 1.30
- Intersection Signal Delay: 143.1      Intersection LOS: F
- Intersection Capacity Utilization 112.7%      ICU Level of Service H
- Analysis Period (min) 15
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕	↗		↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	125		70
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.98			1.00	0.80		0.98			0.98	
Frt		0.989				0.850		0.993			0.991	
Flt Protected		0.999			0.998							
Satd. Flow (prot)	0	3445	0	0	3532	1425	0	2924	0	0	3036	0
Flt Permitted		0.925			0.858							
Satd. Flow (perm)	0	3188	0	0	3030	1142	0	2924	0	0	3036	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				6		9			10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.16	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			461			672			184	
Travel Time (s)		13.6			12.6			18.3			5.0	
Volume (vph)	14	598	49	37	800	99	0	1194	61	0	1329	81
Confl. Peds. (#/hr)	200		200	200		200			399			399
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.96	0.96	0.96	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	16	0	0	0
Parking (#/hr)				0		0		23			7	7
Adj. Flow (vph)	16	672	55	40	860	106	0	1244	64	0	1399	85
Lane Group Flow (vph)	0	743	0	0	900	106	0	1308	0	0	1484	0
Turn Type	Perm			Perm		Perm						
Protected Phases		4			4			2			6	
Permitted Phases	4			4		4						
Minimum Split (s)	34.0	34.0		34.0	34.0	34.0		32.0			30.0	
Total Split (s)	37.0	37.0	0.0	37.0	37.0	37.0	0.0	53.0	0.0	0.0	53.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	41.1%	41.1%	41.1%	0.0%	58.9%	0.0%	0.0%	58.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1	2.1		1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0			34.0	34.0		50.0			50.0	
Actuated g/C Ratio		0.38			0.38	0.38		0.56			0.56	
v/c Ratio		0.62			0.79	0.24		0.80			0.88	
Control Delay		22.4			30.7	19.9		3.6			15.0	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		22.4			30.7	19.9		3.7			15.0	
LOS		C			C	B		A			B	
Approach Delay		22.4			29.6			3.7			15.0	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		145			234	38		5			97	
Queue Length 95th (ft)		m182			311	77		5			#190	
Internal Link Dist (ft)		417			381			592			104	
Turn Bay Length (ft)												

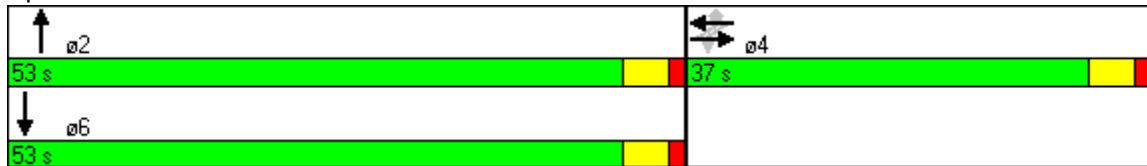


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		1207			1145	435		1628			1691	
Starvation Cap Reductn		0			0	0		0			1	
Spillback Cap Reductn		0			0	0		9			0	
Storage Cap Reductn		0			0	0		0			0	
Reduced v/c Ratio		0.62			0.79	0.24		0.81			0.88	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	77 (86%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	16.2
Intersection LOS:	B
Intersection Capacity Utilization	98.1%
ICU Level of Service	F
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 437: McAllister St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↖	↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	10	10	12	12	12	12	10	10	10
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.962			0.986			0.952			0.964	
Flt Protected		0.998		0.950				0.998			0.997	
Satd. Flow (prot)	0	3027	0	1652	3001	0	0	1593	0	0	3175	0
Flt Permitted		0.908		0.319				0.977			0.938	
Satd. Flow (perm)	0	2754	0	555	3001	0	0	1559	0	0	2987	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		104			24			23			89	
Headway Factor	1.04	1.16	1.04	1.09	1.21	1.00	1.00	1.14	1.00	1.09	1.09	1.09
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			255			672			184	
Travel Time (s)		12.6			7.0			18.3			5.0	
Volume (vph)	25	469	165	107	778	79	3	37	22	38	448	155
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)		0	0		0	0	0	0	0		0	0
Adj. Flow (vph)	26	494	174	113	819	83	3	39	23	40	472	163
Lane Group Flow (vph)	0	694	0	113	902	0	0	65	0	0	675	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Split (s)	21.0	21.0		21.0	21.0		28.5	28.5		28.5	28.5	
Total Split (s)	31.5	31.5	0.0	31.5	31.5	0.0	28.5	28.5	0.0	28.5	28.5	0.0
Total Split (%)	52.5%	52.5%	0.0%	52.5%	52.5%	0.0%	47.5%	47.5%	0.0%	47.5%	47.5%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.5		28.5	28.5			25.5			25.5	
Actuated g/C Ratio		0.48		0.48	0.48			0.42			0.42	
v/c Ratio		0.51		0.43	0.63			0.10			0.51	
Control Delay		10.7		12.3	10.2			1.1			10.0	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		10.7		12.3	10.3			1.1			10.0	
LOS		B		B	B			A			A	
Approach Delay		10.7			10.5			1.1			10.0	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		70		19	80			0			72	
Queue Length 95th (ft)		112		m20	m85			m0			139	
Internal Link Dist (ft)		381			175			592			104	
Turn Bay Length (ft)												
Base Capacity (vph)		1363		264	1438			676			1321	
Starvation Cap Reductn		0		0	0			0			0	
Spillback Cap Reductn		0		0	22			4			7	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.51		0.43	0.64			0.10			0.51	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	8 (13%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	10.2
Intersection LOS:	B
Intersection Capacity Utilization	74.8%
ICU Level of Service	D
Analysis Period (min)	15

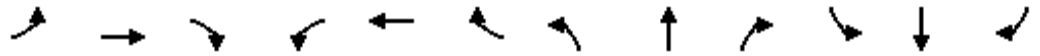
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 438: McAllister St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>		0.972			0.966			0.997				
Fl <sub>t</sub> Protected	0.950				0.999			0.996				
Satd. Flow (prot)	1770	1811	0	0	3415	0	0	5016	0	0	0	0
Fl <sub>t</sub> Permitted	0.154				0.948			0.996				
Satd. Flow (perm)	287	1811	0	0	3241	0	0	5016	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			3			6				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		249			491			335				198
Travel Time (s)		6.8			13.4			9.1				5.4
Volume (vph)	109	337	76	15	818	246	153	1902	39	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							10		4			
Adj. Flow (vph)	115	355	80	16	861	259	161	2002	41	0	0	0
Lane Group Flow (vph)	115	435	0	0	1136	0	0	2204	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		2			6		8	8				
Permitted Phases	2			6								
Minimum Split (s)	29.0	29.0		29.0	29.0		31.0	31.0				
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	31.0	31.0	0.0	0.0	0.0	0.0
Total Split (%)	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	26.0	26.0			26.0			28.0				
Actuated g/C Ratio	0.43	0.43			0.43			0.47				
v/c Ratio	0.93	0.55			0.81			0.94				
Control Delay	86.4	14.6			11.2			9.5				
Queue Delay	0.0	0.0			0.0			0.7				
Total Delay	86.4	14.6			11.2			10.2				
LOS	F	B			B			B				
Approach Delay		29.6			11.2			10.2				
Approach LOS		C			B			B				
Queue Length 50th (ft)	30	74			48			10				
Queue Length 95th (ft) m#120		156			#108			#364				
Internal Link Dist (ft)		169			411			255			118	
Turn Bay Length (ft)												
Base Capacity (vph)	124	798			1406			2344				
Starvation Cap Reductn	0	0			0			29				
Spillback Cap Reductn	0	0			0			0				
Storage Cap Reductn	0	0			0			0				

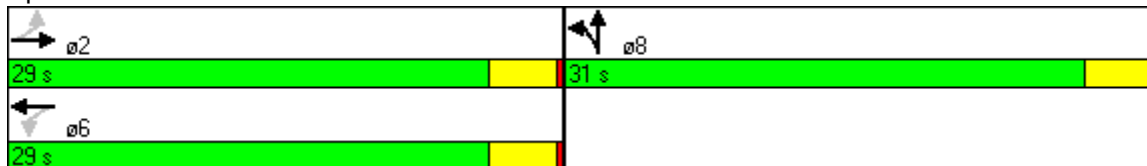


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.93	0.55			0.81			0.95				

**Intersection Summary**

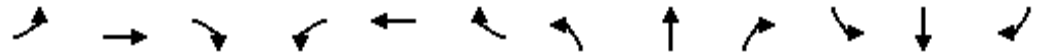
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	13.2
Intersection LOS:	B
Intersection Capacity Utilization	104.0%
ICU Level of Service	G
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 439: McAllister St. & Larkin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>			0.865								0.989	
Fl <sub>t</sub> Protected				0.950								
Satd. Flow (prot)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Fl <sub>t</sub> Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3539	0	0	0	0	0	4748	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			11	11							32	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		491			337			333			346	
Travel Time (s)		13.4			9.2			9.1			9.4	
Volume (vph)	0	0	376	98	943	0	0	0	0	0	1658	136
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	6	0
Parking (#/hr)											9	9
Adj. Flow (vph)	0	0	396	103	993	0	0	0	0	0	1745	143
Lane Group Flow (vph)	0	0	396	103	993	0	0	0	0	0	1888	0
Turn Type			custom		Perm							
Protected Phases					6						4	
Permitted Phases			2	6								
Minimum Split (s)			26.0	26.0	26.0						34.0	
Total Split (s)	0.0	0.0	26.0	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Total Split (%)	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			23.0	23.0	23.0						31.0	
Actuated g/C Ratio			0.38	0.38	0.38						0.52	
v/c Ratio			0.63	0.15	0.73						0.76	
Control Delay			21.8	11.8	19.8						5.3	
Queue Delay			0.0	0.0	0.0						0.1	
Total Delay			21.8	11.8	19.8						5.4	
LOS			C	B	B						A	
Approach Delay					19.0						5.4	
Approach LOS					B						A	
Queue Length 50th (ft)			96	21	156						51	
Queue Length 95th (ft)			m172	48	220						88	
Internal Link Dist (ft)		411			257			253			266	
Turn Bay Length (ft)												
Base Capacity (vph)			624	685	1357						2469	
Starvation Cap Reductn			0	0	0						59	
Spillback Cap Reductn			0	0	0						5	
Storage Cap Reductn			0	0	0						0	

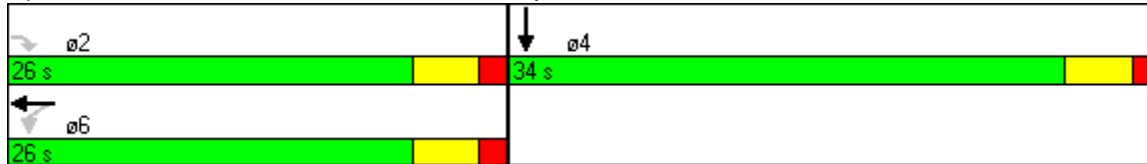


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.63	0.15	0.73						0.78	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:EBR, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization	73.8%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 440: McAllister St. & Hyde St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.959										
Flt Protected											0.993	
Satd. Flow (prot)	0	4877	0	0	0	0	0	0	0	0	4738	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4877	0	0	0	0	0	0	0	0	4738	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		9										30
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		496			174			348			327	
Travel Time (s)		13.5			4.7			9.5			8.9	
Volume (vph)	0	578	219	0	0	0	0	0	0	357	2360	0
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.25	0.25	0.25	0.96	0.96	0.96
Parking (#/hr)										17	17	
Adj. Flow (vph)	0	622	235	0	0	0	0	0	0	372	2458	0
Lane Group Flow (vph)	0	857	0	0	0	0	0	0	0	0	2830	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.0	66.0	0.0
Total Split (%)	0.0%	26.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	73.3%	73.3%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		21.0									63.0	
Actuated g/C Ratio		0.23									0.70	
v/c Ratio		0.75									0.85	
Control Delay		36.5									3.1	
Queue Delay		0.0									2.6	
Total Delay		36.5									5.7	
LOS		D									A	
Approach Delay		36.5									5.7	
Approach LOS		D									A	
Queue Length 50th (ft)		164									47	
Queue Length 95th (ft)		211									m50	
Internal Link Dist (ft)		416			94			268			247	
Turn Bay Length (ft)												
Base Capacity (vph)		1145									3326	
Starvation Cap Reductn		0									314	
Spillback Cap Reductn		0									371	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.75									0.96	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 27 (30%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 12.8

Intersection LOS: B

Intersection Capacity Utilization 75.6%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

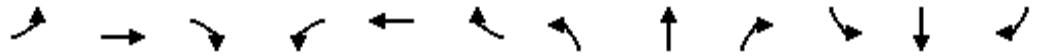
Splits and Phases: 450: Golden Gate Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	*0.80	0.86	1.00	1.00	1.00
Frt								0.991				
Flt Protected		0.994										
Satd. Flow (prot)	0	4994	0	0	0	0	0	5907	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	4994	0	0	0	0	0	5907	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						10				
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25				25
Link Distance (ft)		296				242		151				320
Travel Time (s)		8.1				6.6		4.1				8.7
Volume (vph)	113	822	0	0	0	0	0	3195	212	0	0	0
Peak Hour Factor	0.98	0.98	0.98	0.95	0.95	0.95	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									11			
Adj. Flow (vph)	115	839	0	0	0	0	0	3294	219	0	0	0
Lane Group Flow (vph)	0	954	0	0	0	0	0	3513	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.0	22.0						21.0				
Total Split (s)	25.0	25.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	0.0%	0.0%	0.0%	0.0%	72.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		22.0						62.0				
Actuated g/C Ratio		0.24						0.69				
v/c Ratio		0.78						0.86				
Control Delay		38.8						3.9				
Queue Delay		0.0						10.9				
Total Delay		38.8						14.8				
LOS		D						B				
Approach Delay		38.8						14.8				
Approach LOS		D						B				
Queue Length 50th (ft)		200						81				
Queue Length 95th (ft)		m246						m56				
Internal Link Dist (ft)		216				162		71			240	
Turn Bay Length (ft)												
Base Capacity (vph)		1222						4072				
Starvation Cap Reductn		0						603				
Spillback Cap Reductn		0						41				
Storage Cap Reductn		0						0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.78						1.01					

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	80 (89%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	19.9
Intersection LOS:	B
Intersection Capacity Utilization	74.7%
ICU Level of Service	D
Analysis Period (min)	15
* User Entered Value	

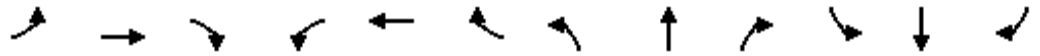
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 451: Golden Gate Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.97						0.98				
Frt		0.984						0.993				
Flt Protected		0.998										
Satd. Flow (prot)	0	4892	0	0	0	0	0	3023	0	0	3177	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	4849	0	0	0	0	0	3023	0	0	3177	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						7				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.00	1.00	1.07	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		239			467			178			158	
Travel Time (s)		6.5			12.7			4.9			4.3	
Volume (vph)	50	875	109	0	0	0	0	1242	65	0	1301	0
Confl. Peds. (#/hr)	193		193						387			387
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)			0					10	10		1	
Adj. Flow (vph)	53	921	115	0	0	0	0	1307	68	0	1369	0
Lane Group Flow (vph)	0	1089	0	0	0	0	0	1375	0	0	1369	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Minimum Split (s)	34.0	34.0						38.0			48.0	
Total Split (s)	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0	0.0	54.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.2	2.2						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		33.0						51.0			51.0	
Actuated g/C Ratio		0.37						0.57			0.57	
v/c Ratio		0.61						0.80			0.76	
Control Delay		16.7						5.8			5.3	
Queue Delay		0.0						0.3			0.7	
Total Delay		16.7						6.2			6.0	
LOS		B						A			A	
Approach Delay		16.7						6.2			6.0	
Approach LOS		B						A			A	
Queue Length 50th (ft)		86						44			20	
Queue Length 95th (ft)		m144						57			22	
Internal Link Dist (ft)		159			387			98			78	
Turn Bay Length (ft)												
Base Capacity (vph)		1797						1716			1800	

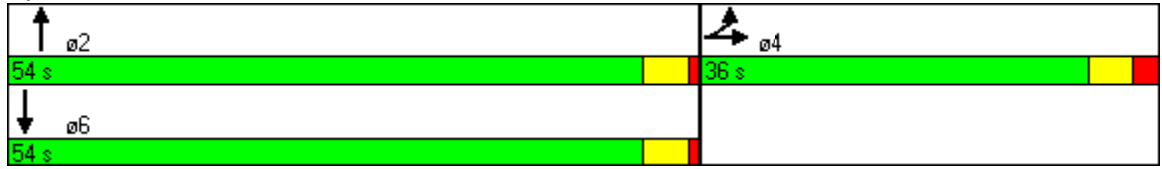


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0						65			161	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.61						0.83			0.84	

**Intersection Summary**

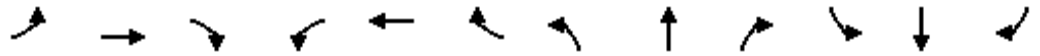
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 9.1                      Intersection LOS: A  
 Intersection Capacity Utilization 69.1%                      ICU Level of Service C  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 452: Golden Gate Ave. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	12	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.974						0.968				
Flt Protected		0.997									0.987	
Satd. Flow (prot)	0	4716	0	0	0	0	0	1623	0	0	3319	0
Flt Permitted		0.997									0.808	
Satd. Flow (perm)	0	4716	0	0	0	0	0	1623	0	0	2717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91						37				
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.07	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		467			499			180			155	
Travel Time (s)		12.7			13.6			4.9			4.2	
Volume (vph)	66	711	163	0	0	0	0	166	51	162	478	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	9	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0		0					0	0		0	0
Adj. Flow (vph)	69	748	172	0	0	0	0	175	54	171	503	0
Lane Group Flow (vph)	0	989	0	0	0	0	0	229	0	0	674	0
Turn Type	Split									Perm		
Protected Phases	2	2						8				4
Permitted Phases										4		
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	27.1	27.1	0.0	0.0	0.0	0.0	0.0	32.9	0.0	32.9	32.9	0.0
Total Split (%)	45.2%	45.2%	0.0%	0.0%	0.0%	0.0%	0.0%	54.8%	0.0%	54.8%	54.8%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		24.1						29.9			29.9	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.51						0.28			0.50	
Control Delay		13.2						6.0			14.7	
Queue Delay		0.0						0.0			0.0	
Total Delay		13.2						6.0			14.7	
LOS		B						A			B	
Approach Delay		13.2						6.0			14.7	
Approach LOS		B						A			B	
Queue Length 50th (ft)		84						25			86	
Queue Length 95th (ft)		118						m47			139	
Internal Link Dist (ft)		387			419			100			75	
Turn Bay Length (ft)												
Base Capacity (vph)		1949						827			1354	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.51						0.28			0.50	

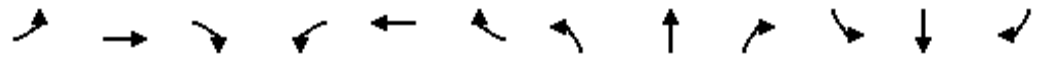
**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	48 (80%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	12.9
Intersection LOS:	B
Intersection Capacity Utilization	58.5%
ICU Level of Service	B
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 453: Golden Gate Ave. & Polk St.**

02	04
27.1 s	32.9 s
	08
	32.9 s




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑						↑↑↑					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	
Frt	0.983												
Flt Protected	0.990												
Satd. Flow (prot)	0	5034	0	0	0	0	0	4766	0	0	0	0	
Flt Permitted	0.990												
Satd. Flow (perm)	0	5034	0	0	0	0	0	4766	0	0	0	0	
Right Turn on Red	Yes		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)	6												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00	1.00	
Link Speed (mph)	25												
Link Distance (ft)	499				484				158		313		
Travel Time (s)	13.6				13.2				4.3		8.5		
Volume (vph)	183	741	0	0	0	0	0	2004	253	0	0	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Parking (#/hr)	8												
Adj. Flow (vph)	193	780	0	0	0	0	0	2109	266	0	0	0	
Lane Group Flow (vph)	0	973	0	0	0	0	0	2375	0	0	0	0	
Turn Type	Split												
Protected Phases	2	2											
Permitted Phases	8												
Minimum Split (s)	23.5	23.5											
Total Split (s)	23.5	23.5	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0	0.0	
Total Split (%)	39.2%	39.2%	0.0%	0.0%	0.0%	0.0%	0.0%	60.8%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)	3.5	3.5											
All-Red Time (s)	0.0	0.0											
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)	20.5												
Actuated g/C Ratio	0.34												
v/c Ratio	0.56												
Control Delay	9.9												
Queue Delay	0.0												
Total Delay	9.9												
LOS	A												
Approach Delay	9.9												
Approach LOS	A												
Queue Length 50th (ft)	48												
Queue Length 95th (ft)	63												
Internal Link Dist (ft)	419				404				78		233		
Turn Bay Length (ft)													
Base Capacity (vph)	1724												
Starvation Cap Reductn	0												
Spillback Cap Reductn	0												
Storage Cap Reductn	0												
Reduced v/c Ratio	0.56												

**Intersection Summary**

Area Type: Other  
Cycle Length: 60  
Actuated Cycle Length: 60  
Offset: 58 (97%), Referenced to phase 2:EBTL, Start of Green  
Natural Cycle: 60  
Control Type: Pretimed  
Maximum v/c Ratio: 0.88  
Intersection Signal Delay: 13.8 Intersection LOS: B  
Intersection Capacity Utilization 69.1% ICU Level of Service C  
Analysis Period (min) 15  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 454: Golden Gate Ave. & Larkin St.

 02	 08
23.5 s	36.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.951										
Flt Protected											0.995	
Satd. Flow (prot)	0	4836	0	0	0	0	0	0	0	0	4782	0
Flt Permitted											0.995	
Satd. Flow (perm)	0	4836	0	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		34									47	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		484			471			346			354	
Travel Time (s)		13.2			12.8			9.4			9.7	
Volume (vph)	0	669	325	0	0	0	0	0	0	156	1469	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										18	13	
Adj. Flow (vph)	0	704	342	0	0	0	0	0	0	164	1546	0
Lane Group Flow (vph)	0	1046	0	0	0	0	0	0	0	0	1710	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Minimum Split (s)		21.0								39.0	39.0	
Total Split (s)	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	39.0	0.0
Total Split (%)	0.0%	35.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		18.0									36.0	
Actuated g/C Ratio		0.30									0.60	
v/c Ratio		0.71									0.59	
Control Delay		12.4									4.6	
Queue Delay		0.0									0.2	
Total Delay		12.4									4.8	
LOS		B									A	
Approach Delay		12.4									4.8	
Approach LOS		B									A	
Queue Length 50th (ft)		39									42	
Queue Length 95th (ft)		m86									50	
Internal Link Dist (ft)		404			391			266			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1475									2888	
Starvation Cap Reductn		0									337	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.71									0.67	



Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 4 (7%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 7.7

Intersection LOS: A

Intersection Capacity Utilization 58.4%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 455: Golden Gate Ave. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕						↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt											0.991	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1610	3329	0	0	0	0	0	4729	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				2							11	
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		983			291			327			402	
Travel Time (s)		26.8			7.9			8.9			11.0	
Volume (vph)	0	0	0	215	1041	0	0	0	0	0	2502	155
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Adj. Flow (vph)	0	0	0	236	1144	0	0	0	0	0	2579	160
Lane Group Flow (vph)	0	0	0	236	1144	0	0	0	0	0	2739	0
Turn Type				Split								
Protected Phases				8	8							6
Permitted Phases												
Minimum Split (s)				20.0	20.0							18.0
Total Split (s)	0.0	0.0	0.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)				31.0	31.0						53.0	
Actuated g/C Ratio				0.34	0.34						0.59	
v/c Ratio				0.42	1.00						0.98	
Control Delay				11.2	40.0						9.4	
Queue Delay				0.0	0.0						7.4	
Total Delay				11.2	40.0						16.8	
LOS				B	D						B	
Approach Delay					35.1						16.8	
Approach LOS					D						B	
Queue Length 50th (ft)				40	379						92	
Queue Length 95th (ft)				m67	m#512						m48	
Internal Link Dist (ft)		903			211			247			322	
Turn Bay Length (ft)												
Base Capacity (vph)				556	1147						2789	
Starvation Cap Reductn				0	0						90	
Spillback Cap Reductn				0	0						31	
Storage Cap Reductn				0	0						0	



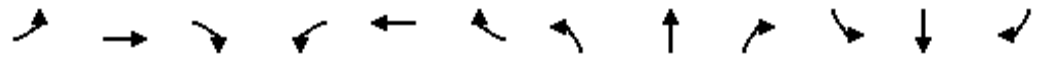
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio				0.42	1.00						1.01	

**Intersection Summary**

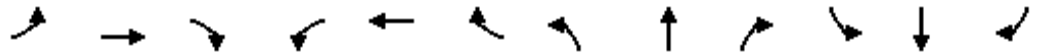
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	24 (27%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	1.00
Intersection Signal Delay:	22.9
Intersection LOS:	C
Intersection Capacity Utilization:	81.8%
ICU Level of Service:	D
Analysis Period (min):	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 466: Turk St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	0.86	*0.80	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.995				
Satd. Flow (prot)	0	0	0	0	5024	1583	0	5709	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	5024	1583	0	5709	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						2		5				
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		181			233			320			205	
Travel Time (s)		4.9			6.4			8.7			5.6	
Volume (vph)	0	0	0	0	942	274	314	2994	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)								10				
Adj. Flow (vph)	0	0	0	0	981	285	327	3119	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	981	285	0	3446	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					21.0	21.0	18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	26.0	26.0	64.0	64.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	28.9%	28.9%	71.1%	71.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.0	1.0	1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					23.0	23.0		61.0				
Actuated g/C Ratio					0.26	0.26		0.68				
v/c Ratio					0.76	0.70		0.89				
Control Delay					14.6	17.9		3.4				
Queue Delay					0.4	0.0		40.8				
Total Delay					15.0	17.9		44.2				
LOS					B	B		D				
Approach Delay					15.6			44.2				
Approach LOS					B			D				
Queue Length 50th (ft)					204	154		24				
Queue Length 95th (ft)					228	m188		26				
Internal Link Dist (ft)		101			153			240			125	
Turn Bay Length (ft)												
Base Capacity (vph)					1284	406		3871				
Starvation Cap Reductn					0	0		73				
Spillback Cap Reductn					55	0		706				
Storage Cap Reductn					0	0		0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.80	0.70		1.09				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 36.5      Intersection LOS: D  
 Intersection Capacity Utilization 73.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value

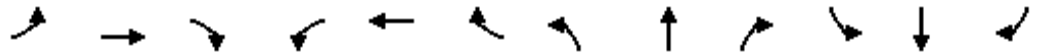
m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 467: Turk St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↑↑			↑↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	90		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.98	
Frt					0.993						0.991	
Flt Protected					0.998							
Satd. Flow (prot)	0	0	0	0	4997	0	0	3135	0	0	2971	0
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	4966	0	0	3135	0	0	2971	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7						1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		252			469			156			200	
Travel Time (s)		6.9			12.8			4.3			5.5	
Volume (vph)	0	0	0	41	1134	53	0	1292	0	0	1260	82
Confl. Peds. (#/hr)				187		187	374		374			374
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95	0.98	0.98	0.98
Parking (#/hr)								6			14	14
Adj. Flow (vph)	0	0	0	45	1233	58	0	1360	0	0	1286	84
Lane Group Flow (vph)	0	0	0	0	1336	0	0	1360	0	0	1370	0
Turn Type				Split								
Protected Phases				4	4			2			6	
Permitted Phases												
Minimum Split (s)				33.0	33.0			48.0			38.0	
Total Split (s)	0.0	0.0	0.0	34.0	34.0	0.0	0.0	56.0	0.0	0.0	56.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	37.8%	37.8%	0.0%	0.0%	62.2%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					31.0			53.0			53.0	
Actuated g/C Ratio					0.34			0.59			0.59	
v/c Ratio					0.77			0.74			0.78	
Control Delay					30.0			10.4			4.7	
Queue Delay					0.0			0.2			2.4	
Total Delay					30.0			10.6			7.1	
LOS					C			B			A	
Approach Delay					30.0			10.6			7.1	
Approach LOS					C			B			A	
Queue Length 50th (ft)					244			110			38	
Queue Length 95th (ft)					300			188			m43	
Internal Link Dist (ft)		172			389			76			120	
Turn Bay Length (ft)												
Base Capacity (vph)					1726			1846			1750	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn					0			93			250	
Spillback Cap Reductn					0			0			97	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.77			0.78			0.91	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	15.8
Intersection LOS:	B
Intersection Capacity Utilization	71.0%
ICU Level of Service	C
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

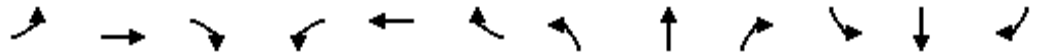
**Splits and Phases: 468: Turk St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.990						0.977	
Flt Protected					0.994			0.984				
Satd. Flow (prot)	0	0	0	0	4944	0	0	2077	0	0	2063	0
Flt Permitted					0.994			0.711				
Satd. Flow (perm)	0	0	0	0	4944	0	0	1501	0	0	2063	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						24	
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	0.85	1.00	1.00	0.85	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		469			272			161			376	
Travel Time (s)		12.8			7.4			4.4			10.3	
Volume (vph)	0	0	0	168	1078	91	51	105	0	0	472	99
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	9	0	0	0	0	0	0	0
Adj. Flow (vph)	0	0	0	177	1135	96	54	111	0	0	497	104
Lane Group Flow (vph)	0	0	0	0	1408	0	0	165	0	0	601	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Minimum Split (s)				20.5	20.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	27.8	27.8	0.0	32.2	32.2	0.0	0.0	32.2	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.3%	46.3%	0.0%	53.7%	53.7%	0.0%	0.0%	53.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					24.8			29.2			29.2	
Actuated g/C Ratio					0.41			0.49			0.49	
v/c Ratio					0.68			0.23			0.59	
Control Delay					9.4			9.3			7.9	
Queue Delay					0.0			0.0			1.3	
Total Delay					9.4			9.3			9.2	
LOS					A			A			A	
Approach Delay					9.4			9.3			9.2	
Approach LOS					A			A			A	
Queue Length 50th (ft)					67			34			66	
Queue Length 95th (ft)					120			72			m76	
Internal Link Dist (ft)		389			192			81			296	
Turn Bay Length (ft)												
Base Capacity (vph)					2057			730			1016	
Starvation Cap Reductn					0			0			224	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	



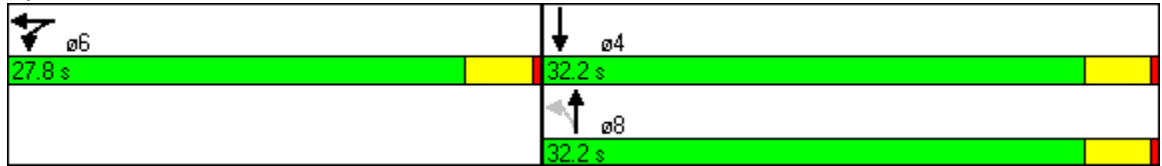


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.68			0.23			0.76	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	3 (5%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	9.3
Intersection LOS:	A
Intersection Capacity Utilization	75.5%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

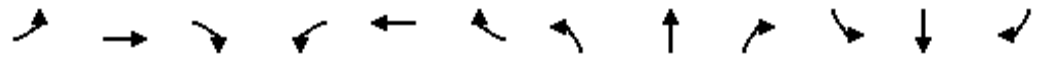
Splits and Phases: 469: Turk St. & Polk St.



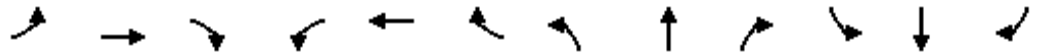


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.981							
Flt Protected								0.989				
Satd. Flow (prot)	0	0	0	0	4869	0	0	4795	0	0	0	0
Flt Permitted								0.989				
Satd. Flow (perm)	0	0	0	0	4869	0	0	4795	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					19			19				
Headway Factor	1.00	1.00	1.00	1.00	1.03	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		222			273			313				233
Travel Time (s)		6.1			7.4			8.5				6.4
Volume (vph)	0	0	0	0	857	124	480	1707	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.98	0.98	0.98	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13	8				
Adj. Flow (vph)	0	0	0	0	942	136	490	1742	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1078	0	0	2232	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Minimum Split (s)					19.0		18.0	18.0				
Total Split (s)	0.0	0.0	0.0	0.0	22.0	0.0	38.0	38.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.0		0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					19.0			35.0				
Actuated g/C Ratio					0.32			0.58				
v/c Ratio					0.69			0.80				
Control Delay					12.3			5.9				
Queue Delay					0.0			0.4				
Total Delay					12.3			6.2				
LOS					B			A				
Approach Delay					12.3			6.2				
Approach LOS					B			A				
Queue Length 50th (ft)					59			73				
Queue Length 95th (ft)					75			m79				
Internal Link Dist (ft)		142			193			233			153	
Turn Bay Length (ft)												
Base Capacity (vph)					1555			2805				
Starvation Cap Reductn					0			167				
Spillback Cap Reductn					0			109				
Storage Cap Reductn					0			0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.974
Flt Protected					0.987							
Satd. Flow (prot)	0	0	0	0	4979	0	0	0	0	0	4681	0
Flt Permitted					0.987							
Satd. Flow (perm)	0	0	0	0	4979	0	0	0	0	0	4681	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					36						70	
Headway Factor	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		208			477				354		335	
Travel Time (s)		5.7			13.0				9.7		9.1	
Volume (vph)	0	0	0	257	693	0	0	0	0	0	1368	288
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.95	0.95	0.95	0.98	0.98	0.98
Bus Blockages (#/hr)	0	0	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Adj. Flow (vph)	0	0	0	268	722	0	0	0	0	0	1396	294
Lane Group Flow (vph)	0	0	0	0	990	0	0	0	0	0	1690	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Minimum Split (s)				24.0	24.0						36.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					21.0						33.0	
Actuated g/C Ratio					0.35						0.55	
v/c Ratio					0.56						0.65	
Control Delay					16.6						13.0	
Queue Delay					0.0						0.9	
Total Delay					16.6						13.9	
LOS					B						B	
Approach Delay					16.6						13.9	
Approach LOS					B						B	
Queue Length 50th (ft)					99						204	
Queue Length 95th (ft)					135						261	
Internal Link Dist (ft)		128			397			274			255	
Turn Bay Length (ft)												
Base Capacity (vph)					1766						2606	
Starvation Cap Reductn					0						568	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	

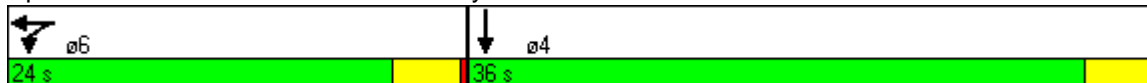


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.56						0.83					

**Intersection Summary**

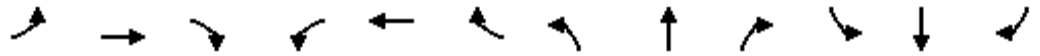
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	52 (87%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization	58.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 471: Turk St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.962									0.995	
Fl <sub>t</sub> Protected					0.987						0.996	
Satd. Flow (prot)	0	1749	0	0	1794	0	0	0	0	0	5040	0
Fl <sub>t</sub> Permitted					0.583						0.996	
Satd. Flow (perm)	0	1749	0	0	1060	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1									8	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25		25		25
Link Distance (ft)		970			476			402		329		
Travel Time (s)		26.5			13.0			11.0		9.0		
Volume (vph)	0	323	125	70	190	0	0	0	0	206	2462	97
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	367	142	82	224	0	0	0	0	215	2565	101
Lane Group Flow (vph)	0	509	0	0	306	0	0	0	0	0	2881	0
Turn Type				Perm							Split	
Protected Phases		4			8					6	6	
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					17.0	17.0	
Total Split (s)	0.0	42.0	0.0	42.0	42.0	0.0	0.0	0.0	0.0	48.0	48.0	0.0
Total Split (%)	0.0%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	53.3%	53.3%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		39.0			39.0						45.0	
Actuated g/C Ratio		0.43			0.43						0.50	
v/c Ratio		0.67			0.67						1.14	
Control Delay		25.7			19.3						86.8	
Queue Delay		13.6			0.0						41.8	
Total Delay		39.4			19.3						128.7	
LOS		D			B						F	
Approach Delay		39.4			19.3						128.7	
Approach LOS		D			B						F	
Queue Length 50th (ft)		224			37						-696	
Queue Length 95th (ft)		327			m82						#796	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)												
Base Capacity (vph)		758			459						2524	
Starvation Cap Reductn		0			0						192	
Spillback Cap Reductn		232			0						0	
Storage Cap Reductn		0			0						0	



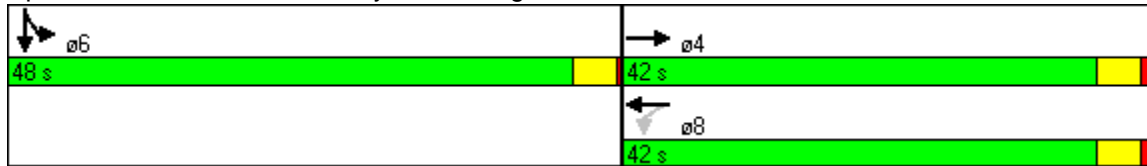
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.97			0.67						1.24	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 22 (24%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.14  
 Intersection Signal Delay: 107.3      Intersection LOS: F  
 Intersection Capacity Utilization 102.4%      ICU Level of Service G  
 Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

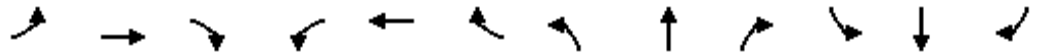
Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.80	0.86	1.00	1.00	1.00
Frt					0.981			0.992				
Flt Protected		0.993						0.999				
Satd. Flow (prot)	0	1805	0	0	1783	0	0	5907	0	0	0	0
Flt Permitted		0.815						0.999				
Satd. Flow (perm)	0	1482	0	0	1783	0	0	5907	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								18				
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	73	456	0	0	223	36	37	3065	185	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Adj. Flow (vph)	92	577	0	0	282	46	38	3160	191	0	0	0
Lane Group Flow (vph)	0	669	0	0	328	0	0	3389	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	40.0	40.0	0.0	0.0	40.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	44.4%	0.0%	55.6%	55.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		37.0			37.0			47.0				
Actuated g/C Ratio		0.41			0.41			0.52				
v/c Ratio		1.10			0.45			1.10				
Control Delay		82.2			30.0			59.6				
Queue Delay		94.2			0.0			49.0				
Total Delay		176.4			30.0			108.7				
LOS		F			C			F				
Approach Delay		176.4			30.0			108.7				
Approach LOS		F			C			F				
Queue Length 50th (ft)		~444			164			~676				
Queue Length 95th (ft)		m#454			m205			#756				
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)												
Base Capacity (vph)		609			733			3093				
Starvation Cap Reductn		1			0			154				
Spillback Cap Reductn		101			0			284				
Storage Cap Reductn		0			0			0				



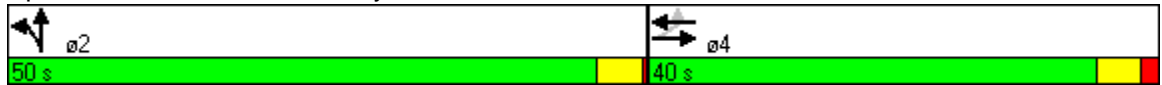


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		1.32			0.45			1.21				

**Intersection Summary**

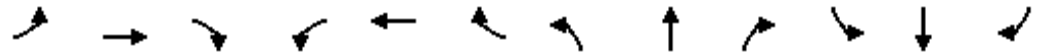
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 113.1      Intersection LOS: F  
 Intersection Capacity Utilization 100.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 \* User Entered Value  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	140		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.98			0.95			0.96	
Frt		0.983			0.985			0.987			0.991	
Flt Protected		0.997			0.997							
Satd. Flow (prot)	0	1783	0	0	1791	0	0	2909	0	0	2914	0
Flt Permitted		0.971			0.949							
Satd. Flow (perm)	0	1726	0	0	1701	0	0	2909	0	0	2914	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			15			10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			471			185			160	
Travel Time (s)		13.1			12.8			5.0			4.4	
Volume (vph)	35	526	80	14	180	25	0	1232	113	0	1248	79
Confl. Peds. (#/hr)	187		187	187		187			374	374		374
Peak Hour Factor	0.81	0.81	0.81	0.85	0.85	0.85	0.99	0.99	0.99	1.00	1.00	1.00
Bus Blockages (#/hr)	0	0	0	0	0	6	0	0	0	0	0	0
Parking (#/hr)								8	8		15	15
Adj. Flow (vph)	43	649	99	16	212	29	0	1244	114	0	1248	79
Lane Group Flow (vph)	0	791	0	0	257	0	0	1358	0	0	1327	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	34.0	34.0		34.0	34.0			48.0			48.0	
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	0.0	48.0	0.0	0.0	48.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	0.0%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.2	2.2		2.2	2.2			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		39.0			39.0			45.0			45.0	
Actuated g/C Ratio		0.43			0.43			0.50			0.50	
v/c Ratio		1.05			0.35			0.93			0.91	
Control Delay		55.3			18.4			36.8			25.7	
Queue Delay		54.8			0.0			1.0			12.3	
Total Delay		110.1			18.4			37.8			38.0	
LOS		F			B			D			D	
Approach Delay		110.1			18.4			37.8			38.0	
Approach LOS		F			B			D			D	
Queue Length 50th (ft)		~508			93			278			215	
Queue Length 95th (ft)		m429			141			#309			m#286	
Internal Link Dist (ft)		402			391			105			80	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		750			739			1462			1462	
Starvation Cap Reductn		84			0			0			146	
Spillback Cap Reductn		0			0			23			34	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		1.19			0.35			0.94			1.01	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 63 (70%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.05  
 Intersection Signal Delay: 51.9      Intersection LOS: D  
 Intersection Capacity Utilization 91.0%      ICU Level of Service F  
 Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 480: Eddy St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.975			0.947			0.978	
Flt Protected		0.993			0.986			0.993			0.988	
Satd. Flow (prot)	0	1758	0	0	1748	0	0	1953	0	0	2007	0
Flt Permitted		0.929			0.809			0.898			0.873	
Satd. Flow (perm)	0	1645	0	0	1434	0	0	1767	0	0	1774	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			26			68			20	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		471			286			376			171	
Travel Time (s)		12.8			7.8			10.3			4.7	
Volume (vph)	96	420	124	46	82	29	29	90	77	164	401	108
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Adj. Flow (vph)	101	442	131	48	86	31	31	95	81	173	422	114
Lane Group Flow (vph)	0	674	0	0	165	0	0	207	0	0	709	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Split (s)	20.0	20.0		20.0	20.0		17.0	17.0		17.0	17.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0			26.0			26.0	
Actuated g/C Ratio		0.47			0.47			0.43			0.43	
v/c Ratio		0.86			0.24			0.26			0.91	
Control Delay		27.9			5.1			5.0			27.1	
Queue Delay		0.0			0.0			0.0			2.2	
Total Delay		27.9			5.1			5.0			29.3	
LOS		C			A			A			C	
Approach Delay		27.9			5.1			5.0			29.3	
Approach LOS		C			A			A			C	
Queue Length 50th (ft)		196			0			4			139	
Queue Length 95th (ft)		#398			m0			m27			#422	
Internal Link Dist (ft)		391			206			296			91	
Turn Bay Length (ft)												
Base Capacity (vph)		782			683			804			780	
Starvation Cap Reductn		0			0			0			23	
Spillback Cap Reductn		0			0			0			9	
Storage Cap Reductn		0			0			0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>								0.983				
Flt Protected		0.992						0.996				
Satd. Flow (prot)	0	1848	0	0	0	0	0	4946	0	0	0	0
Flt Permitted		0.992						0.996				
Satd. Flow (perm)	0	1848	0	0	0	0	0	4946	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								46				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		211			283			134			161	
Travel Time (s)		5.8			7.7			3.7			4.4	
Volume (vph)	99	551	0	0	0	0	144	1484	203	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)							13		8			
Adj. Flow (vph)	104	580	0	0	0	0	152	1562	214	0	0	0
Lane Group Flow (vph)	0	684	0	0	0	0	0	1928	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		2					4	4				
Permitted Phases	2											
Minimum Split (s)	19.0	19.0					19.0	19.0				
Total Split (s)	31.0	31.0	0.0	0.0	0.0	0.0	29.0	29.0	0.0	0.0	0.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	0.0%	0.0%	0.0%	48.3%	48.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5					3.5	3.5				
All-Red Time (s)	0.0	0.0					0.0	0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.0						26.0				
Actuated g/C Ratio		0.47						0.43				
v/c Ratio		0.79						0.89				
Control Delay		18.2						11.9				
Queue Delay		0.0						0.4				
Total Delay		18.2						12.3				
LOS		B						B				
Approach Delay		18.2						12.3				
Approach LOS		B						B				
Queue Length 50th (ft)		239						164				
Queue Length 95th (ft)		m262						#234				
Internal Link Dist (ft)		131			203			54			81	
Turn Bay Length (ft)												
Base Capacity (vph)		862						2169				
Starvation Cap Reductn		0						37				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				

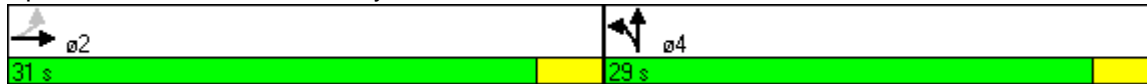


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.79						0.90					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	12 (20%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	13.8
Intersection LOS:	B
Intersection Capacity Utilization	77.3%
ICU Level of Service	D
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 482: Eddy St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.957										
Flt Protected											0.996	
Satd. Flow (prot)	0	4828	0	0	0	0	0	0	0	0	4719	0
Flt Permitted											0.996	
Satd. Flow (perm)	0	4828	0	0	0	0	0	0	0	0	4719	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		48										52
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			479			335			339	
Travel Time (s)		5.2			13.1			9.1			9.2	
Volume (vph)	0	539	215	0	0	0	0	0	0	141	1441	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	0	0	0	0	0	0	4	0
Parking (#/hr)										18	18	
Adj. Flow (vph)	0	567	226	0	0	0	0	0	0	148	1517	0
Lane Group Flow (vph)	0	793	0	0	0	0	0	0	0	0	1665	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Minimum Split (s)		18.0								42.0	42.0	
Total Split (s)	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	70.0%	70.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		15.0									39.0	
Actuated g/C Ratio		0.25									0.65	
v/c Ratio		0.64									0.54	
Control Delay		13.8									2.6	
Queue Delay		0.0									0.7	
Total Delay		13.8									3.3	
LOS		B									A	
Approach Delay		13.8									3.3	
Approach LOS		B									A	
Queue Length 50th (ft)		58									8	
Queue Length 95th (ft)		m89									16	
Internal Link Dist (ft)		112			399			255			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1243									3086	
Starvation Cap Reductn		0									956	
Spillback Cap Reductn		0									188	
Storage Cap Reductn		0									0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.64						0.78					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	34 (57%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	6.7
Intersection LOS:	A
Intersection Capacity Utilization	52.6%
ICU Level of Service	A
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 483: Eddy St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↗						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>			0.865								0.998	
Fl <sub>t</sub> Protected				0.950								
Satd. Flow (prot)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Fl <sub>t</sub> Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	1863	0	0	0	0	0	4601	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			4	4							4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			478			329			242	
Travel Time (s)		4.3			13.0			9.0			6.6	
Volume (vph)	0	0	51	241	334	0	0	0	0	0	2473	33
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)											36	36
Adj. Flow (vph)	0	0	91	301	418	0	0	0	0	0	2603	35
Lane Group Flow (vph)	0	0	91	301	418	0	0	0	0	0	2638	0
Turn Type			custom		Perm							
Protected Phases					8						6	
Permitted Phases			4		8							
Minimum Split (s)			20.0	20.0	20.0						18.0	
Total Split (s)	0.0	0.0	29.0	29.0	29.0	0.0	0.0	0.0	0.0	0.0	61.0	0.0
Total Split (%)	0.0%	0.0%	32.2%	32.2%	32.2%	0.0%	0.0%	0.0%	0.0%	0.0%	67.8%	0.0%
Yellow Time (s)			5.0	3.5	3.5						3.5	
All-Red Time (s)			0.0	1.5	1.5						5.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			26.0	26.0	26.0						58.0	
Actuated g/C Ratio			0.29	0.29	0.29						0.64	
v/c Ratio			0.19	0.59	0.78						0.89	
Control Delay			24.4	14.8	23.5						5.8	
Queue Delay			2.8	247.3	0.0						26.5	
Total Delay			27.3	262.1	23.5						32.3	
LOS			C	F	C						C	
Approach Delay					123.4						32.3	
Approach LOS					F						C	
Queue Length 50th (ft)			37	53	78						56	
Queue Length 95th (ft)			44	m76	m105						m64	
Internal Link Dist (ft)		79			398			249			162	
Turn Bay Length (ft)												
Base Capacity (vph)			468	514	538						2967	
Starvation Cap Reductn			0	0	0						57	
Spillback Cap Reductn			290	318	0						464	
Storage Cap Reductn			0	0	0						0	
Reduced v/c Ratio			0.51	1.54	0.78						1.05	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 51.2 Intersection LOS: D  
 Intersection Capacity Utilization 76.5% ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 488: Ellis St. & Gough St.

↓ ø6	↘ ø4
61 s	29 s
	← ø8
	29 s

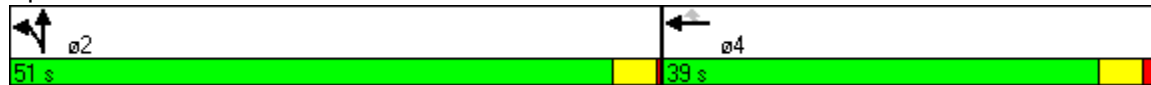


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.81	*0.73	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.998				
Satd. Flow (prot)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3539	1583	0	6785	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								13				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		478			479			171			185	
Travel Time (s)		13.0			13.1			4.7			5.0	
Volume (vph)	0	0	0	0	461	533	111	3064	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	0	501	579	118	3260	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	501	579	0	3378	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					22.5	22.5	18.5	18.5				
Total Split (s)	0.0	0.0	0.0	0.0	39.0	39.0	51.0	51.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.3%	43.3%	56.7%	56.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					36.0	36.0		48.0				
Actuated g/C Ratio					0.40	0.40		0.53				
v/c Ratio					0.35	0.91		0.93				
Control Delay					24.6	49.3		3.1				
Queue Delay					0.0	4.6		13.4				
Total Delay					24.6	53.8		16.5				
LOS					C	D		B				
Approach Delay					40.3			16.5				
Approach LOS					D			B				
Queue Length 50th (ft)					143	346		30				
Queue Length 95th (ft)					m187	m#504		m28				
Internal Link Dist (ft)		398			399			91			105	
Turn Bay Length (ft)												
Base Capacity (vph)					1416	633		3625				
Starvation Cap Reductn					0	28		323				
Spillback Cap Reductn					0	0		80				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.35	0.96		1.02				

Intersection Summary

Area Type:	Other		
Cycle Length:	90		
Actuated Cycle Length:	90		
Offset:	32 (36%), Referenced to phase 2:NBTL, Start of Green		
Natural Cycle:	55		
Control Type:	Pretimed		
Maximum v/c Ratio:	0.93		
Intersection Signal Delay:	22.2	Intersection LOS:	C
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
* User Entered Value			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 489: Ellis St. & Franklin St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97						0.94	
Frt					0.982						0.978	
Flt Protected					0.997							
Satd. Flow (prot)	0	0	0	0	4867	0	0	3135	0	0	2834	0
Flt Permitted					0.997							
Satd. Flow (perm)	0	0	0	0	4813	0	0	3135	0	0	2834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						6	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			479			168			179	
Travel Time (s)		13.1			13.1			4.6			4.9	
Volume (vph)	0	0	0	57	783	111	0	1247	0	0	1244	211
Confl. Peds. (#/hr)				187		187	374		374			374
Peak Hour Factor	0.95	0.95	0.95	0.91	0.91	0.91	0.93	0.93	0.93	0.95	0.95	0.95
Parking (#/hr)								6			14	14
Adj. Flow (vph)	0	0	0	63	860	122	0	1341	0	0	1309	222
Lane Group Flow (vph)	0	0	0	0	1045	0	0	1341	0	0	1531	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Minimum Split (s)				33.0	33.0			48.0			48.0	
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0			54.0			54.0	
Actuated g/C Ratio					0.33			0.60			0.60	
v/c Ratio					0.64			0.71			0.90	
Control Delay					27.4			3.2			6.6	
Queue Delay					0.4			3.1			3.6	
Total Delay					27.8			6.3			10.2	
LOS					C			A			B	
Approach Delay					27.8			6.3			10.2	
Approach LOS					C			A			B	
Queue Length 50th (ft)					181			26			29	
Queue Length 95th (ft)					227			m30			m31	
Internal Link Dist (ft)		399			399			88			99	
Turn Bay Length (ft)												
Base Capacity (vph)					1628			1881			1703	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn					0			421			112	
Spillback Cap Reductn					177			0			112	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.72			0.92			0.96	

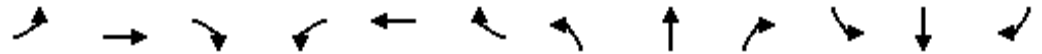
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	13.6
Intersection LOS:	B
Intersection Capacity Utilization	74.2%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 490: Ellis St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔↔			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.977						0.966	
Flt Protected					0.993			0.990				
Satd. Flow (prot)	0	0	0	0	4934	0	0	2057	0	0	2007	0
Flt Permitted					0.993			0.760				
Satd. Flow (perm)	0	0	0	0	4934	0	0	1579	0	0	2007	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					69						44	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		479			495			165			168	
Travel Time (s)		13.1			13.5			4.5			4.6	
Volume (vph)	0	0	0	154	737	165	45	170	0	0	508	169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	162	776	174	47	179	0	0	535	178
Lane Group Flow (vph)	0	0	0	0	1112	0	0	226	0	0	713	0
Turn Type				Split			Perm					
Protected Phases				6	6			8			4	
Permitted Phases							8					
Minimum Split (s)				19.5	19.5		19.5	19.5			19.5	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.63			0.26			0.63	
Control Delay					6.2			5.5			6.9	
Queue Delay					0.0			0.0			0.7	
Total Delay					6.2			5.5			7.6	
LOS					A			A			A	
Approach Delay					6.2			5.5			7.6	
Approach LOS					A			A			A	
Queue Length 50th (ft)					23			31			56	
Queue Length 95th (ft)					27			m36			m106	
Internal Link Dist (ft)		399			415			85			88	
Turn Bay Length (ft)												
Base Capacity (vph)					1772			868			1124	
Starvation Cap Reductn					0			0			148	
Spillback Cap Reductn					2			0			154	
Storage Cap Reductn					0			0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.63			0.26			0.74	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	40 (67%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization	75.6%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 491: Ellis St. & Polk St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.965							
Flt Protected								0.994				
Satd. Flow (prot)	0	0	0	0	4907	0	0	4743	0	0	0	0
Flt Permitted								0.994				
Satd. Flow (perm)	0	0	0	0	4907	0	0	4743	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					23			42				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		495			479			180				163
Travel Time (s)		13.5			13.1			4.9				4.4
Volume (vph)	0	0	0	0	881	272	175	1397	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17	17				
Adj. Flow (vph)	0	0	0	0	927	286	184	1471	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1213	0	0	1655	0	0	0	0
Turn Type							Split					
Protected Phases					6		8	8				
Permitted Phases												
Minimum Split (s)					20.5		20.5	20.5				
Total Split (s)	0.0	0.0	0.0	0.0	25.9	0.0	34.1	34.1	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.2%	0.0%	56.8%	56.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					22.9			31.1				
Actuated g/C Ratio					0.38			0.52				
v/c Ratio					0.64			0.67				
Control Delay					10.3			1.7				
Queue Delay					0.1			0.4				
Total Delay					10.4			2.2				
LOS					B			A				
Approach Delay					10.4			2.2				
Approach LOS					B			A				
Queue Length 50th (ft)					49			13				
Queue Length 95th (ft)					95			m13				
Internal Link Dist (ft)		415			399			100			83	
Turn Bay Length (ft)												
Base Capacity (vph)					1887			2479				
Starvation Cap Reductn					0			343				
Spillback Cap Reductn					71			1				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.67			0.77				

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 25 (42%), Referenced to phase 6:WBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 5.7

Intersection LOS: A

Intersection Capacity Utilization 60.3%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 492: Ellis St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations					↑↑↑						↑↑↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Turning Speed (mph)	15		9	15		9	15		9	15		9		
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91		
Fr <sub>t</sub>	0.972													
Flt Protected					0.989									
Satd. Flow (prot)	0	0	0	0	5029	0	0	0	0	0	4630	0		
Flt Permitted					0.989									
Satd. Flow (perm)	0	0	0	0	5029	0	0	0	0	0	4630	0		
Right Turn on Red			Yes	Yes			Yes			Yes				
Satd. Flow (RTOR)					20				65					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00		
Link Speed (mph)					25				25					
Link Distance (ft)					479				482					
Travel Time (s)					13.1				9.2					
Volume (vph)	0	0	0	237	838	0	0	0	0	0	1345	315		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Parking (#/hr)												18	13	
Adj. Flow (vph)	0	0	0	249	882	0	0	0	0	0	1416	332		
Lane Group Flow (vph)	0	0	0	0	1131	0	0	0	0	0	1748	0		
Turn Type												Split		
Protected Phases					6				6				4	
Permitted Phases														
Minimum Split (s)					28.0				28.0				32.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	0.0	0.0	0.0	0.0	32.0	0.0		
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%		
Yellow Time (s)					3.5				3.5					
All-Red Time (s)					0.5				0.5					
Lead/Lag														
Lead-Lag Optimize?														
Act Effct Green (s)					25.0				29.0					
Actuated g/C Ratio					0.42				0.48					
v/c Ratio					0.54				0.77					
Control Delay					14.1				4.9					
Queue Delay					0.0				0.1					
Total Delay					14.1				4.9					
LOS					B				A					
Approach Delay					14.1				4.9					
Approach LOS					B				A					
Queue Length 50th (ft)					105				47					
Queue Length 95th (ft)					141				m54					
Internal Link Dist (ft)			399				402				259		292	
Turn Bay Length (ft)														
Base Capacity (vph)					2107				2271					
Starvation Cap Reductn					0				41					
Spillback Cap Reductn					0				0					
Storage Cap Reductn					0				0					
Reduced v/c Ratio					0.54				0.78					

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 10 (17%), Referenced to phase 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 8.5

Intersection LOS: A

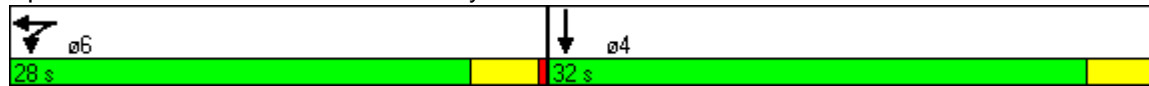
Intersection Capacity Utilization 60.7%

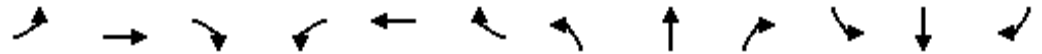
ICU Level of Service B

Analysis Period (min) 15

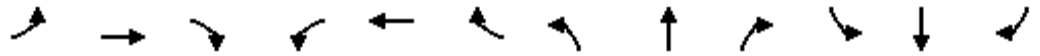
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 493: Ellis St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	*0.73	0.81	1.00	1.00	1.00
Frt								0.987				
Flt Protected		0.987										
Satd. Flow (prot)	0	3305	0	0	0	0	0	6489	0	0	0	0
Flt Permitted		0.987										
Satd. Flow (perm)	0	3305	0	0	0	0	0	6489	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								21				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	398	1140	0	0	0	0	0	3282	315	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	437	1253	0	0	0	0	0	3455	332	0	0	0
Lane Group Flow (vph)	0	1690	0	0	0	0	0	3787	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		39.0						45.0				
Actuated g/C Ratio		0.43						0.50				
v/c Ratio		1.18						1.16				
Control Delay		109.6						89.3				
Queue Delay		56.9						3.2				
Total Delay		166.5						92.5				
LOS		F						F				
Approach Delay		166.5						92.5				
Approach LOS		F						F				
Queue Length 50th (ft)		~636						~694				
Queue Length 95th (ft)		m#685						#757				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												
Base Capacity (vph)		1432						3255				
Starvation Cap Reductn		0						8				
Spillback Cap Reductn		140						20				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		1.31						1.17				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 44 (49%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 115.3      Intersection LOS: F  
 Intersection Capacity Utilization 93.3%      ICU Level of Service F  
 Analysis Period (min) 15  
 \* User Entered Value  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 500: Starr King & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		0	70		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.99	0.85					0.97				
Frt			0.850					0.988				
Flt Protected		0.996										
Satd. Flow (prot)	0	3525	1583	0	0	0	0	2969	0	0	3135	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3500	1339	0	0	0	0	2969	0	0	3135	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16					4				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		483			322			185			354	
Travel Time (s)		13.2			8.8			5.0			9.7	
Volume (vph)	98	1237	120	0	0	0	0	1237	110	0	1402	0
Confl. Peds. (#/hr)	101		153						458	458		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.99	0.99	0.87	0.87	0.87
Parking (#/hr)								9	9		6	
Adj. Flow (vph)	103	1302	126	0	0	0	0	1249	111	0	1611	0
Lane Group Flow (vph)	0	1405	126	0	0	0	0	1360	0	0	1611	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			6	
Permitted Phases			4									
Minimum Split (s)	34.0	34.0	34.0					42.0			48.0	
Total Split (s)	40.0	40.0	40.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0
Total Split (%)	44.4%	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	55.6%	0.0%	0.0%	55.6%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.1	2.1	2.1					0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		37.0	37.0					47.0			47.0	
Actuated g/C Ratio		0.41	0.41					0.52			0.52	
v/c Ratio		0.97	0.22					0.88			0.98	
Control Delay		20.8	6.2					17.1			33.8	
Queue Delay		31.6	0.0					0.2			22.3	
Total Delay		52.4	6.2					17.3			56.2	
LOS		D	A					B			E	
Approach Delay		48.6						17.3			56.2	
Approach LOS		D						B			E	
Queue Length 50th (ft)		449	15					138			272	
Queue Length 95th (ft)		m286	m12					#208			m#544	
Internal Link Dist (ft)		403			242			105			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1449	560					1552			1637	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		143	0					13			114	
Spillback Cap Reductn		0	0					14			0	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		1.08	0.23					0.88			1.06	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 66 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 41.8      Intersection LOS: D  
 Intersection Capacity Utilization 84.6%      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

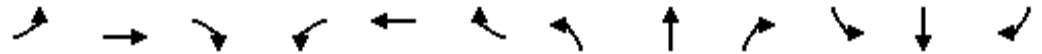
Splits and Phases: 501: O'Farrell St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frts			0.850					0.920				
Flt Protected		0.993									0.988	
Satd. Flow (prot)	0	3325	1583	0	0	0	0	1911	0	0	2052	0
Flt Permitted		0.993									0.846	
Satd. Flow (perm)	0	3325	1583	0	0	0	0	1911	0	0	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213					38				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		159			125			184			180	
Travel Time (s)		4.3			3.4			5.0			4.9	
Volume (vph)	170	1065	202	0	0	0	0	98	141	157	475	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	179	1121	213	0	0	0	0	103	148	165	500	0
Lane Group Flow (vph)	0	1300	213	0	0	0	0	251	0	0	665	0
Turn Type	Split		Perm							Perm		
Protected Phases	2	2						4				8
Permitted Phases			2								8	
Minimum Split (s)	21.0	21.0	21.0					19.0		19.0	19.0	
Total Split (s)	30.0	30.0	30.0	0.0	0.0	0.0	0.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0	0.0					0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0	27.0					27.0			27.0	
Actuated g/C Ratio		0.45	0.45					0.45			0.45	
v/c Ratio		0.87	0.26					0.28			0.84	
Control Delay		23.3	2.7					7.7			15.0	
Queue Delay		0.0	0.0					0.0			3.6	
Total Delay		23.3	2.7					7.7			18.6	
LOS		C	A					A			B	
Approach Delay		20.4						7.7			18.6	
Approach LOS		C						A			B	
Queue Length 50th (ft)		210	0					47			87	
Queue Length 95th (ft)		#342	30					m94			m98	
Internal Link Dist (ft)		79			45			104			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1496	830					881			791	
Starvation Cap Reductn		0	0					0			67	
Spillback Cap Reductn		0	0					0			0	
Storage Cap Reductn		0	0					0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.971				
Flt Protected		0.994										
Satd. Flow (prot)	0	5055	0	0	0	0	0	4635	0	0	0	0
Flt Permitted		0.994										
Satd. Flow (perm)	0	5055	0	0	0	0	0	4635	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23						11				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		368			190			196			179	
Travel Time (s)		10.0			5.2			5.3			4.9	
Volume (vph)	167	1212	0	0	0	0	0	1401	341	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	18	0	0	0	0	5	0	0	0	0
Parking (#/hr)								13	13			
Adj. Flow (vph)	176	1276	0	0	0	0	0	1475	359	0	0	0
Lane Group Flow (vph)	0	1452	0	0	0	0	0	1834	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Minimum Split (s)	19.0	19.0						19.0				
Total Split (s)	26.0	26.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0	0.0	0.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.0	0.0						0.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		23.0						31.0				
Actuated g/C Ratio		0.38						0.52				
v/c Ratio		0.74						0.76				
Control Delay		9.7						16.2				
Queue Delay		0.0						1.0				
Total Delay		9.7						17.2				
LOS		A						B				
Approach Delay		9.7						17.2				
Approach LOS		A						B				
Queue Length 50th (ft)		83						235				
Queue Length 95th (ft)		m104						288				
Internal Link Dist (ft)		288			110			116			99	
Turn Bay Length (ft)												
Base Capacity (vph)		1952						2400				
Starvation Cap Reductn		0						303				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				





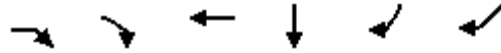
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Fr <sub>t</sub>			0.850									
Fl <sub>t</sub> Protected											0.991	
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Fl <sub>t</sub> Permitted											0.991	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4720	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			9								33	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		266			489			372			337	
Travel Time (s)		7.3			13.3			10.1			9.2	
Volume (vph)	0	1229	324	0	0	0	0	0	0	284	1336	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										13	18	
Adj. Flow (vph)	0	1294	341	0	0	0	0	0	0	299	1406	0
Lane Group Flow (vph)	0	1294	341	0	0	0	0	0	0	0	1705	0
Turn Type			Perm								Split	
Protected Phases		2								4	4	
Permitted Phases			2									
Minimum Split (s)		33.0	33.0							27.0	27.0	
Total Split (s)	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	27.0	0.0
Total Split (%)	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							1.5	1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0	30.0								24.0	
Actuated g/C Ratio		0.50	0.50								0.40	
v/c Ratio		0.73	0.43								0.89	
Control Delay		6.1	4.8								12.4	
Queue Delay		0.0	0.0								0.2	
Total Delay		6.1	4.8								12.6	
LOS		A	A								B	
Approach Delay		5.8									12.6	
Approach LOS		A									B	
Queue Length 50th (ft)		62	29								46	
Queue Length 95th (ft)		75	m36								m#151	
Internal Link Dist (ft)		186			409			292			257	
Turn Bay Length (ft)												
Base Capacity (vph)		1770	796								1908	
Starvation Cap Reductn		0	0								14	
Spillback Cap Reductn		0	0								0	
Storage Cap Reductn		0	0								0	
Reduced v/c Ratio		0.73	0.43								0.90	

Intersection Summary

Area Type: Other  
Cycle Length: 60  
Actuated Cycle Length: 60  
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green  
Natural Cycle: 60  
Control Type: Pretimed  
Maximum v/c Ratio: 0.89  
Intersection Signal Delay: 9.3 Intersection LOS: A  
Intersection Capacity Utilization 72.2% ICU Level of Service C  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 504: O'Farrell St. & Hyde St.

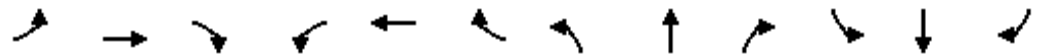




Lane Group	EBR	EBR2	WBT	SBT	SBR	SWR
Lane Configurations	↑↑↑	↑	↑↑↑	↑↑↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	9			9	9
Lane Util. Factor	0.64	1.00	0.91	0.91	0.91	1.00
Fr <sub>t</sub>	0.850	0.850		0.980		
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	3040	1583	4902	4984	0	1863
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	3040	1583	4902	4984	0	1863
Right Turn on Red		Yes			Yes	
Satd. Flow (RTOR)		1		6		
Headway Factor	1.00	1.00	1.05	1.00	1.00	1.00
Link Speed (mph)			25	25		
Link Distance (ft)			485	345		
Travel Time (s)			13.2	9.4		
Volume (vph)	1314	385	1676	2113	322	0
Peak Hour Factor	0.95	0.95	0.95	0.96	0.95	0.95
Bus Blockages (#/hr)	0	0	27	0	0	0
Parking (#/hr)					11	
Adj. Flow (vph)	1383	405	1764	2201	339	0
Lane Group Flow (vph)	1383	405	1764	2540	0	0
Turn Type	custom	custom				custom
Protected Phases			4	6		
Permitted Phases	4	4				4
Minimum Split (s)	20.0	20.0	20.0	33.5		20.0
Total Split (s)	45.0	45.0	45.0	45.0	0.0	45.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5
All-Red Time (s)	1.5	1.5	1.5	2.0		1.5
Lead/Lag						
Lead-Lag Optimize?						
Act Effct Green (s)	42.0	42.0	42.0	42.0		
Actuated g/C Ratio	0.47	0.47	0.47	0.47		
v/c Ratio	0.97	0.55	0.77	1.09		
Control Delay	43.2	20.7	29.6	60.9		
Queue Delay	0.0	0.0	1.2	22.7		
Total Delay	43.2	20.7	30.8	83.5		
LOS	D	C	C	F		
Approach Delay			30.8	83.5		
Approach LOS			C	F		
Queue Length 50th (ft)	385	158	357	~598		
Queue Length 95th (ft)	#550	248	m400	#686		
Internal Link Dist (ft)			405	265		
Turn Bay Length (ft)						
Base Capacity (vph)	1419	739	2288	2329		
Starvation Cap Reductn	0	0	292	106		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	0.81	*0.73	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.993				
Satd. Flow (prot)	0	0	0	0	4902	1583	0	6751	0	0	0	0
Flt Permitted								0.993				
Satd. Flow (perm)	0	0	0	0	4902	1583	0	6751	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)								9				
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		485			274			170				322
Travel Time (s)		13.2			7.5			4.6				8.8
Volume (vph)	0	0	0	0	1140	214	536	3229	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.99	0.99	0.99	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	27	0	0	0	0	0	0	0
Adj. Flow (vph)	0	0	0	0	1226	230	541	3262	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1226	230	0	3803	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					22.0	22.0	22.0	22.0				
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	38.9%	38.9%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					3.0	3.0	3.0	3.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					32.0	32.0		52.0				
Actuated g/C Ratio					0.36	0.36		0.58				
v/c Ratio					0.70	0.41		0.97				
Control Delay					45.1	40.9		5.5				
Queue Delay					0.0	0.0		21.6				
Total Delay					45.1	40.9		27.1				
LOS					D	D		C				
Approach Delay					44.4			27.1				
Approach LOS					D			C				
Queue Length 50th (ft)					267	134		70				
Queue Length 95th (ft)					m311	m185		m58				
Internal Link Dist (ft)		405			194			90			242	
Turn Bay Length (ft)												
Base Capacity (vph)					1743	563		3904				
Starvation Cap Reductn					0	0		284				
Spillback Cap Reductn					0	0		41				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.70	0.41		1.05				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 46 (51%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 31.9

Intersection LOS: C

Intersection Capacity Utilization 72.7%

ICU Level of Service C

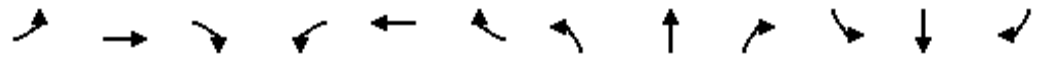
Analysis Period (min) 15

\* User Entered Value

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 514: Geary St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑	↑		↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	120		0	0		80
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	*0.91	0.95
Ped Bike Factor					0.99	0.78					0.96	
Frt						0.850					0.983	
Flt Protected					0.995							
Satd. Flow (prot)	0	0	0	0	5060	1469	0	3152	0	0	2866	0
Flt Permitted					0.995							
Satd. Flow (perm)	0	0	0	0	4990	1152	0	3152	0	0	2866	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						39						2
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.08	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		195			474			354			159	
Travel Time (s)		5.3			12.9			9.7			4.3	
Volume (vph)	0	0	0	127	1245	127	0	1335	0	0	1275	167
Confl. Peds. (#/hr)				155		218	329					329
Peak Hour Factor	0.95	0.95	0.95	0.98	0.98	0.98	0.99	0.99	0.99	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	0	18	0	0	0	0	0	0
Parking (#/hr)								4			2	
Adj. Flow (vph)	0	0	0	130	1270	130	0	1348	0	0	1314	172
Lane Group Flow (vph)	0	0	0	0	1400	130	0	1348	0	0	1486	0
Turn Type				Split		Perm						
Protected Phases				4	4			2				6
Permitted Phases						4						
Minimum Split (s)				38.0	38.0	38.0		48.0			42.0	
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	42.2%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					35.0	35.0		49.0			49.0	
Actuated g/C Ratio					0.39	0.39		0.54			0.54	
v/c Ratio					0.71	0.28		0.79			0.95	
Control Delay					25.7	14.9		4.1			33.5	
Queue Delay					0.6	0.0		1.6			20.9	
Total Delay					26.4	14.9		5.7			54.4	
LOS					C	B		A			D	
Approach Delay					25.4			5.7			54.4	
Approach LOS					C			A			D	
Queue Length 50th (ft)					241	34		34			290	
Queue Length 95th (ft)					294	76		m38			#589	
Internal Link Dist (ft)		115			394			274			79	
Turn Bay Length (ft)												





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕			↖	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	16	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.942	
Flt Protected					0.995			0.989				
Satd. Flow (prot)	0	0	0	0	3331	1583	0	2054	0	0	1957	0
Flt Permitted					0.995			0.288				
Satd. Flow (perm)	0	0	0	0	3331	1583	0	598	0	0	1957	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						112					28	
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.00	1.00	0.87	1.00	1.00	0.87	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		474			212			168			170	
Travel Time (s)		12.9			5.8			4.6			4.6	
Volume (vph)	0	0	0	113	1026	106	59	206	0	0	519	392
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	27	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	119	1080	112	62	217	0	0	546	413
Lane Group Flow (vph)	0	0	0	0	1199	112	0	279	0	0	959	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			8			4	
Permitted Phases						6	8					
Minimum Split (s)				19.5	19.5	19.5	20.5	20.5			20.5	
Total Split (s)	0.0	0.0	0.0	27.0	27.0	27.0	33.0	33.0	0.0	0.0	33.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.0%	45.0%	45.0%	55.0%	55.0%	0.0%	0.0%	55.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				1.5	1.5	1.5	1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					24.0	24.0		30.0			30.0	
Actuated g/C Ratio					0.40	0.40		0.50			0.50	
v/c Ratio					0.90	0.16		0.93			0.97	
Control Delay					26.3	3.0		48.0			35.8	
Queue Delay					0.2	0.0		0.0			20.0	
Total Delay					26.5	3.0		48.0			55.8	
LOS					C	A		D			E	
Approach Delay					24.5			48.0			55.8	
Approach LOS					C			D			E	
Queue Length 50th (ft)					238	5		84			210	
Queue Length 95th (ft)					m#318	m12		m#172			m#544	
Internal Link Dist (ft)		394			132			88			90	
Turn Bay Length (ft)												
Base Capacity (vph)					1332	700		299			993	
Starvation Cap Reductn					0	0		0			75	
Spillback Cap Reductn					9	0		0			69	
Storage Cap Reductn					0	0		0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑	↑		↑↑↑					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00	
Fr <sub>t</sub>	0.850												
Fl <sub>t</sub> Protected	0.989												
Satd. Flow (prot)	0	0	0	0	3539	1583	0	4761	0	0	0	0	
Fl <sub>t</sub> Permitted	0.989												
Satd. Flow (perm)	0	0	0	0	3539	1583	0	4761	0	0	0	0	
Right Turn on Red	Yes							Yes	Yes	Yes		Yes	
Satd. Flow (RTOR)							8	96					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.00	1.00	
Link Speed (mph)					25						25		
Link Distance (ft)					290						167		
Travel Time (s)					7.9						4.6		
Volume (vph)	0	0	0	0	928	307	339	1253	0	0	0	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Parking (#/hr)								15	12				
Adj. Flow (vph)	0	0	0	0	977	323	357	1319	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	977	323	0	1676	0	0	0	0	
Turn Type							Perm	Split					
Protected Phases						6	8	8					
Permitted Phases							6						
Minimum Split (s)					35.0	35.0	25.0	25.0					
Total Split (s)	0.0	0.0	0.0	0.0	35.0	35.0	25.0	25.0	0.0	0.0	0.0	0.0	
Total Split (%)	0.0%	0.0%	0.0%	0.0%	58.3%	58.3%	41.7%	41.7%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)					3.5	3.5	3.5	3.5					
All-Red Time (s)					1.5	1.5	1.5	1.5					
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)					32.0	32.0							22.0
Actuated g/C Ratio					0.53	0.53							0.37
v/c Ratio					0.52	0.38							0.93
Control Delay					3.7	3.6							16.0
Queue Delay					0.0	0.0							0.1
Total Delay					3.7	3.6							16.1
LOS					A	A							B
Approach Delay					3.7							16.1	
Approach LOS					A							B	
Queue Length 50th (ft)					42	25							130
Queue Length 95th (ft)					m43	m25							#282
Internal Link Dist (ft)	210				115			87			88		
Turn Bay Length (ft)													
Base Capacity (vph)					1887	848							1807
Starvation Cap Reductn					0	0							4
Spillback Cap Reductn					0	0							0
Storage Cap Reductn					0	0							0
Reduced v/c Ratio					0.52	0.38							0.93



Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 63.4%

ICU Level of Service B

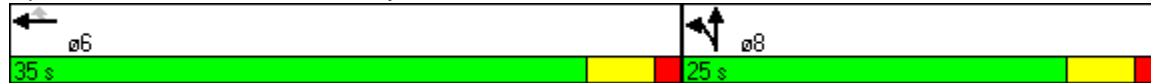
Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 517: Geary St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.976
Flt Protected					0.989							
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4690	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4690	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					15						50	
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		278			479				337		357	
Travel Time (s)		7.6			13.1				9.2		9.7	
Volume (vph)	0	0	0	277	984	0	0	0	0	0	1343	251
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)											13	18
Adj. Flow (vph)	0	0	0	292	1036	0	0	0	0	0	1414	264
Lane Group Flow (vph)	0	0	0	0	1328	0	0	0	0	0	1678	0
Turn Type				Split								
Protected Phases				6	6						4	
Permitted Phases												
Minimum Split (s)				30.0	30.0						30.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					27.0						27.0	
Actuated g/C Ratio					0.45						0.45	
v/c Ratio					0.87						0.78	
Control Delay					23.0						9.8	
Queue Delay					0.0						0.3	
Total Delay					23.0						10.1	
LOS					C						B	
Approach Delay					23.0						10.1	
Approach LOS					C						B	
Queue Length 50th (ft)					213						210	
Queue Length 95th (ft)					#347						m238	
Internal Link Dist (ft)		198			399			257			277	
Turn Bay Length (ft)												
Base Capacity (vph)					1527						2138	
Starvation Cap Reductn					0						102	
Spillback Cap Reductn					0						88	
Storage Cap Reductn					0						0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Fr <sub>t</sub>		0.955									0.997	
Fl <sub>t</sub> Protected											0.996	
Satd. Flow (prot)	0	3258	0	0	0	0	0	0	0	0	5050	0
Fl <sub>t</sub> Permitted											0.996	
Satd. Flow (perm)	0	3258	0	0	0	0	0	0	0	0	5050	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		7									38	
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		482			492			345			334	
Travel Time (s)		13.1			13.4			9.4			9.1	
Volume (vph)	0	456	193	0	0	0	0	0	0	202	2243	56
Peak Hour Factor	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	518	219	0	0	0	0	0	0	210	2336	58
Lane Group Flow (vph)	0	737	0	0	0	0	0	0	0	0	2604	0
Turn Type										Split		
Protected Phases		4								6	6	
Permitted Phases												
Minimum Split (s)		20.0								20.0	20.0	
Total Split (s)	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	0.0
Total Split (%)	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0									57.0	
Actuated g/C Ratio		0.30									0.63	
v/c Ratio		0.75									0.81	
Control Delay		33.9									9.6	
Queue Delay		0.0									7.7	
Total Delay		33.9									17.3	
LOS		C									B	
Approach Delay		33.9									17.3	
Approach LOS		C									B	
Queue Length 50th (ft)		196									101	
Queue Length 95th (ft)		255									135	
Internal Link Dist (ft)		402			412			265			254	
Turn Bay Length (ft)												
Base Capacity (vph)		982									3212	
Starvation Cap Reductn		0									469	
Spillback Cap Reductn		0									593	
Storage Cap Reductn		0									0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.75						0.99					

**Intersection Summary**

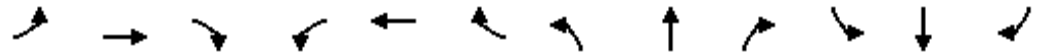
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	20.9
Intersection LOS:	C
Intersection Capacity Utilization	74.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 535: Post St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↑↑↑	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	*0.80	1.00	1.00	1.00	1.00
Fr <sub>t</sub>									0.850			
Flt Protected		0.991										
Satd. Flow (prot)	0	3381	0	0	0	0	0	5730	1338	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	3381	0	0	0	0	0	5730	1338	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1							58			
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.05	1.24	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			306			322			177	
Travel Time (s)		13.4			8.3			8.8			4.8	
Volume (vph)	114	543	0	0	0	0	0	3057	386	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								11	11			
Adj. Flow (vph)	128	610	0	0	0	0	0	3287	415	0	0	0
Lane Group Flow (vph)	0	738	0	0	0	0	0	3287	415	0	0	0
Turn Type	Split								Perm			
Protected Phases	4	4						2				
Permitted Phases									2			
Minimum Split (s)	22.5	22.5						20.5	20.5			
Total Split (s)	28.0	28.0	0.0	0.0	0.0	0.0	0.0	62.0	62.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	0.0%	0.0%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	1.5	1.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.0						59.0	59.0			
Actuated g/C Ratio		0.28						0.66	0.66			
v/c Ratio		0.79						0.88	0.46			
Control Delay		38.2						3.6	1.8			
Queue Delay		0.0						1.4	1.0			
Total Delay		38.2						5.1	2.8			
LOS		D						A	A			
Approach Delay		38.2						4.8				
Approach LOS		D						A				
Queue Length 50th (ft)		222						51	7			
Queue Length 95th (ft)		285						m53	m9			
Internal Link Dist (ft)		412			226			242			97	
Turn Bay Length (ft)												
Base Capacity (vph)		940						3756	897			
Starvation Cap Reductn		0						278	253			
Spillback Cap Reductn		0						67	0			
Storage Cap Reductn		0						0	0			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.79						0.95	0.64			

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 50 (56%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 10.4      Intersection LOS: B  
 Intersection Capacity Utilization 69.3%      ICU Level of Service C  
 Analysis Period (min) 15  
 \* User Entered Value

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 536: Post St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1800	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.99	0.85					0.93				
Frt			0.850					0.971				
Flt Protected		0.996										
Satd. Flow (prot)	0	3525	1583	0	0	0	0	2859	0	0	3076	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	3488	1345	0	0	0	0	2859	0	0	3076	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45					11				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		156			170			171			165	
Travel Time (s)		4.3			4.6			4.7			4.5	
Volume (vph)	64	785	80	0	0	0	0	1140	277	0	1319	0
Confl. Peds. (#/hr)	149		149						297			
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.98	0.98	0.98	0.96	0.96	0.96
Parking (#/hr)								3	3		13	
Adj. Flow (vph)	70	863	88	0	0	0	0	1163	283	0	1374	0
Lane Group Flow (vph)	0	933	88	0	0	0	0	1446	0	0	1374	0
Turn Type	Split		Perm									
Protected Phases	4	4						2			2	
Permitted Phases			4									
Minimum Split (s)	34.0	34.0	34.0					48.0			48.0	
Total Split (s)	35.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5			3.5	
All-Red Time (s)	2.1	2.1	2.1					1.0			1.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0	32.0					52.0			52.0	
Actuated g/C Ratio		0.36	0.36					0.58			0.58	
v/c Ratio		0.74	0.17					0.87			0.77	
Control Delay		27.9	9.2					11.3			17.0	
Queue Delay		0.2	381.3					8.2			0.4	
Total Delay		28.1	390.5					19.5			17.4	
LOS		C	F					B			B	
Approach Delay		59.3						19.5			17.4	
Approach LOS		E						B			B	
Queue Length 50th (ft)		269	21					181			215	
Queue Length 95th (ft)		338	m36					#532			m228	
Internal Link Dist (ft)		76			90			91			85	
Turn Bay Length (ft)												
Base Capacity (vph)		1253	507					1657			1777	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		38	0					193			25	
Spillback Cap Reductn		0	458					10			102	
Storage Cap Reductn		0	0					0			0	
Reduced v/c Ratio		0.77	1.80					0.99			0.82	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 88 (98%), Referenced to phase 2:NBSB, Start of Green  
 Natural Cycle: 85  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 29.3      Intersection LOS: C  
 Intersection Capacity Utilization 74.6%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 537: Post St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕	↗					↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850					0.959				
Flt Protected		0.992									0.987	
Satd. Flow (prot)	0	3385	1583	0	0	0	0	1992	0	0	1930	0
Flt Permitted		0.992									0.778	
Satd. Flow (perm)	0	3385	1583	0	0	0	0	1992	0	0	1521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289					61				
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	0.87	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		306			504			185			168	
Travel Time (s)		8.3			13.7			5.0			4.6	
Volume (vph)	125	662	275	0	0	0	0	247	109	176	479	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	132	697	289	0	0	0	0	260	115	185	504	0
Lane Group Flow (vph)	0	829	289	0	0	0	0	375	0	0	689	0
Turn Type	Split		Perm							Perm		
Protected Phases	2	2						4				4
Permitted Phases			2							4		
Minimum Split (s)	20.0	20.0	20.0					20.0		20.0	20.0	
Total Split (s)	23.0	23.0	23.0	0.0	0.0	0.0	0.0	37.0	0.0	37.0	37.0	0.0
Total Split (%)	38.3%	38.3%	38.3%	0.0%	0.0%	0.0%	0.0%	61.7%	0.0%	61.7%	61.7%	0.0%
Yellow Time (s)	3.5	3.5	3.5					3.5		3.5	3.5	
All-Red Time (s)	0.1	0.1	0.1					0.1		0.1	0.1	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		20.0	20.0					34.0			34.0	
Actuated g/C Ratio		0.33	0.33					0.57			0.57	
v/c Ratio		0.73	0.40					0.32			0.80	
Control Delay		22.3	4.1					3.8			13.1	
Queue Delay		0.0	0.4					0.0			1.7	
Total Delay		22.3	4.6					3.8			14.8	
LOS		C	A					A			B	
Approach Delay		17.7						3.8			14.8	
Approach LOS		B						A			B	
Queue Length 50th (ft)		136	0					21			113	
Queue Length 95th (ft)		196	44					m42			m#164	
Internal Link Dist (ft)		226			424			105			88	
Turn Bay Length (ft)												
Base Capacity (vph)		1128	720					1155			862	
Starvation Cap Reductn		0	0					0			23	
Spillback Cap Reductn		0	142					0			66	
Storage Cap Reductn		0	0					0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.967				
Flt Protected		0.992										
Satd. Flow (prot)	0	3385	0	0	0	0	0	4647	0	0	0	0
Flt Permitted		0.992										
Satd. Flow (perm)	0	3385	0	0	0	0	0	4647	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27						79				
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		504			462			183				171
Travel Time (s)		13.7			12.6			5.0				4.7
Volume (vph)	149	798	0	0	0	0	0	1229	342	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13	17			
Adj. Flow (vph)	157	840	0	0	0	0	0	1294	360	0	0	0
Lane Group Flow (vph)	0	997	0	0	0	0	0	1654	0	0	0	0
Turn Type	Split											
Protected Phases	2	2						8				
Permitted Phases												
Minimum Split (s)	19.9	19.9						20.9				
Total Split (s)	28.6	28.6	0.0	0.0	0.0	0.0	0.0	31.4	0.0	0.0	0.0	0.0
Total Split (%)	47.7%	47.7%	0.0%	0.0%	0.0%	0.0%	0.0%	52.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.6						28.4				
Actuated g/C Ratio		0.43						0.47				
v/c Ratio		0.68						0.74				
Control Delay		17.3						4.8				
Queue Delay		0.0						0.3				
Total Delay		17.3						5.2				
LOS		B						A				
Approach Delay		17.3						5.2				
Approach LOS		B						A				
Queue Length 50th (ft)		181						46				
Queue Length 95th (ft)		m245						m48				
Internal Link Dist (ft)		424			382			103			91	
Turn Bay Length (ft)												
Base Capacity (vph)		1460						2241				
Starvation Cap Reductn		0						161				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				

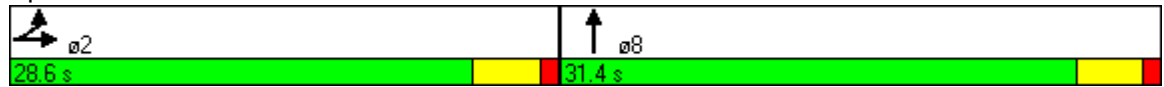


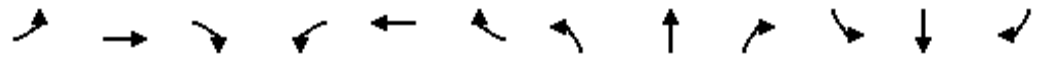
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.68						0.80					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	11 (18%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization	64.4%
ICU Level of Service	C
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 539: Post St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑								↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Fr <sub>t</sub>			0.850									
Fl <sub>t</sub> Protected											0.995	
Satd. Flow (prot)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Fl <sub>t</sub> Permitted											0.995	
Satd. Flow (perm)	0	3539	1583	0	0	0	0	0	0	0	4782	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			4								37	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		462			486			357			352	
Travel Time (s)		12.6			13.3			9.7			9.6	
Volume (vph)	0	837	303	0	0	0	0	0	0	153	1291	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)										18	13	
Adj. Flow (vph)	0	881	319	0	0	0	0	0	0	161	1359	0
Lane Group Flow (vph)	0	881	319	0	0	0	0	0	0	0	1520	0
Turn Type			Perm								Split	
Protected Phases		2								4	4	
Permitted Phases			2									
Minimum Split (s)		37.0	37.0							23.0	23.0	
Total Split (s)	0.0	37.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	23.0	0.0
Total Split (%)	0.0%	61.7%	61.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		0.5	0.5							0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		34.0	34.0								20.0	
Actuated g/C Ratio		0.57	0.57								0.33	
v/c Ratio		0.44	0.35								0.94	
Control Delay		6.3	5.8								25.6	
Queue Delay		0.0	0.0								0.0	
Total Delay		6.3	5.8								25.6	
LOS		A	A								C	
Approach Delay		6.1									25.6	
Approach LOS		A									C	
Queue Length 50th (ft)		45	26								210	
Queue Length 95th (ft)		72	m48								#295	
Internal Link Dist (ft)		382			406			277			272	
Turn Bay Length (ft)												
Base Capacity (vph)		2005	899								1619	
Starvation Cap Reductn		0	0								0	
Spillback Cap Reductn		0	16								0	
Storage Cap Reductn		0	0								0	
Reduced v/c Ratio		0.44	0.36								0.94	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 27 (45%), Referenced to phase 2:EBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 17.0

Intersection LOS: B

Intersection Capacity Utilization 57.9%

ICU Level of Service B

Analysis Period (min) 15

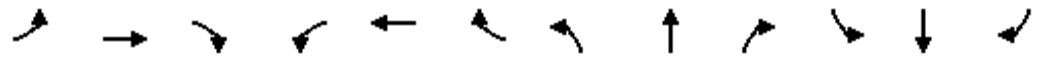
# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 540: Post St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗	↖	↕						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Fr <sub>t</sub>			0.865								0.996	
Fl <sub>t</sub> Protected				0.950								
Satd. Flow (prot)	0	0	1611	1770	3426	0	0	0	0	0	4753	0
Fl <sub>t</sub> Permitted				0.950								
Satd. Flow (perm)	0	0	1611	1770	3426	0	0	0	0	0	4753	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			6	6							8	
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			499			334			155	
Travel Time (s)		4.4			13.6			9.1			4.2	
Volume (vph)	0	0	138	431	595	0	0	0	0	0	1932	58
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)											17	17
Adj. Flow (vph)	0	0	162	454	626	0	0	0	0	0	2034	61
Lane Group Flow (vph)	0	0	162	454	626	0	0	0	0	0	2095	0
Turn Type			custom		Perm							
Protected Phases					8						6	
Permitted Phases			4	8								
Minimum Split (s)			21.5	21.5	21.5						19.0	
Total Split (s)	0.0	0.0	37.7	37.7	37.7	0.0	0.0	0.0	0.0	0.0	52.3	0.0
Total Split (%)	0.0%	0.0%	41.9%	41.9%	41.9%	0.0%	0.0%	0.0%	0.0%	0.0%	58.1%	0.0%
Yellow Time (s)			3.5	3.5	3.5						3.5	
All-Red Time (s)			1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)			34.7	34.7	34.7						49.3	
Actuated g/C Ratio			0.39	0.39	0.39						0.55	
v/c Ratio			0.26	0.66	0.47						0.80	
Control Delay			19.6	6.6	4.8						7.8	
Queue Delay			0.0	0.3	0.0						1.0	
Total Delay			19.6	6.9	4.8						8.8	
LOS			B	A	A						A	
Approach Delay					5.7						8.8	
Approach LOS					A						A	
Queue Length 50th (ft)			59	38	28						86	
Queue Length 95th (ft)			99	m43	m32						99	
Internal Link Dist (ft)		81			419			254			75	
Turn Bay Length (ft)												
Base Capacity (vph)			625	686	1321						2607	
Starvation Cap Reductn			0	30	0						261	
Spillback Cap Reductn			0	0	0						215	
Storage Cap Reductn			0	0	0						0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio			0.26	0.69	0.47						0.89	

**Intersection Summary**

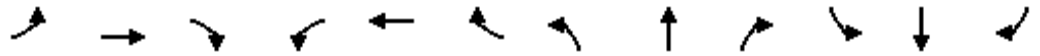
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	79 (88%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	8.3
Intersection LOS:	A
Intersection Capacity Utilization	81.0%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 554: Sutter St. & Gough St.**

 6 52.3 s	 4 37.7 s
	 8 37.7 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.86	*0.80	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.998				
Satd. Flow (prot)	0	0	0	0	3412	1583	0	5726	0	0	0	0
Flt Permitted								0.998				
Satd. Flow (perm)	0	0	0	0	3412	1583	0	5726	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1		19				
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		499			297			178				156
Travel Time (s)		13.6			8.1			4.9				4.3
Volume (vph)	0	0	0	0	876	342	150	2923	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.98	0.98	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							11	10				
Adj. Flow (vph)	0	0	0	0	922	360	153	2983	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	922	360	0	3136	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					21.5	21.5	19.5	19.5				
Total Split (s)	0.0	0.0	0.0	0.0	32.0	32.0	58.0	58.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	35.6%	35.6%	64.4%	64.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.5	1.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					29.0	29.0		55.0				
Actuated g/C Ratio					0.32	0.32		0.61				
v/c Ratio					0.84	0.70		0.89				
Control Delay					43.7	42.0		5.1				
Queue Delay					0.0	0.0		11.7				
Total Delay					43.7	42.0		16.9				
LOS					D	D		B				
Approach Delay					43.2			16.9				
Approach LOS					D			B				
Queue Length 50th (ft)					296	0		21				
Queue Length 95th (ft)					m322	m0		19				
Internal Link Dist (ft)		419			217			98			76	
Turn Bay Length (ft)												
Base Capacity (vph)					1099	511		3507				
Starvation Cap Reductn					0	0		157				
Spillback Cap Reductn					0	0		418				
Storage Cap Reductn					0	0		0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.84	0.70		1.02				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	64 (71%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	24.5
Intersection LOS:	C
Intersection Capacity Utilization	81.0%
ICU Level of Service	D
Analysis Period (min)	15
* User Entered Value	

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 555: Sutter St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		70
Storage Lanes	0		0	0		1	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99	0.86					0.97	
Frt						0.850					0.987	
Flt Protected					0.996							
Satd. Flow (prot)	0	0	0	0	3412	1583	0	3238	0	0	3187	0
Flt Permitted					0.996							
Satd. Flow (perm)	0	0	0	0	3375	1358	0	3238	0	0	3187	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						50					6	
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.12	1.00	1.00	1.08	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		153			490			179			156	
Travel Time (s)		4.2			13.4			4.9			4.3	
Volume (vph)	0	0	0	100	1113	60	0	1162	0	0	1111	105
Confl. Peds. (#/hr)				144		144						287
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	16	0	0	0	0	0	0	0
Parking (#/hr)								14			3	3
Adj. Flow (vph)	0	0	0	105	1172	63	0	1223	0	0	1169	111
Lane Group Flow (vph)	0	0	0	0	1277	63	0	1223	0	0	1280	0
Turn Type				Split		Perm						
Protected Phases				4	4			2			2	
Permitted Phases						4						
Minimum Split (s)				35.0	35.0	35.0		51.0			51.0	
Total Split (s)	0.0	0.0	0.0	39.0	39.0	39.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	43.3%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)				3.5	3.5	3.5		3.5			3.5	
All-Red Time (s)				2.2	2.2	2.2		0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					36.0	36.0		48.0			48.0	
Actuated g/C Ratio					0.40	0.40		0.53			0.53	
v/c Ratio					0.94	0.11		0.71			0.75	
Control Delay					40.0	7.3		4.9			14.8	
Queue Delay					3.4	0.0		1.4			0.1	
Total Delay					43.4	7.3		6.3			14.9	
LOS					D	A		A			B	
Approach Delay					41.7			6.3			14.9	
Approach LOS					D			A			B	
Queue Length 50th (ft)					358	4		55			149	
Queue Length 95th (ft)					#504	29		m68			173	
Internal Link Dist (ft)		73			410			99			76	
Turn Bay Length (ft)												

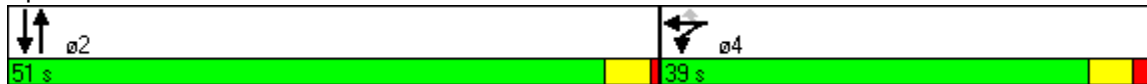


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					1365	573		1727				1703
Starvation Cap Reductn					49	0		293				34
Spillback Cap Reductn					0	0		52				0
Storage Cap Reductn					0	0		0				0
Reduced v/c Ratio					0.97	0.11		0.85				0.77

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	12 (13%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	21.5
Intersection LOS:	C
Intersection Capacity Utilization	75.1%
ICU Level of Service	D
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 556: Sutter St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗		↖			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850					0.965	
Flt Protected					0.991			0.991				
Satd. Flow (prot)	0	0	0	0	3381	1583	0	1938	0	0	1887	0
Flt Permitted					0.991			0.605				
Satd. Flow (perm)	0	0	0	0	3381	1583	0	1183	0	0	1887	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						184						35
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		490			330			177			146	
Travel Time (s)		13.4			9.0			4.8			4.0	
Volume (vph)	0	0	0	252	1068	175	64	305	0	0	403	141
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	265	1124	184	67	321	0	0	424	148
Lane Group Flow (vph)	0	0	0	0	1389	184	0	388	0	0	572	0
Turn Type				Split		Perm	Perm					
Protected Phases				6	6			4				4
Permitted Phases						6	4					
Minimum Split (s)				17.0	17.0	17.0	19.0	19.0				19.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	33.0	27.0	27.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0	30.0		24.0			24.0	
Actuated g/C Ratio					0.50	0.50		0.40			0.40	
v/c Ratio					0.82	0.21		0.82			0.74	
Control Delay					10.6	0.4		31.8			11.4	
Queue Delay					1.2	0.0		0.8			0.9	
Total Delay					11.8	0.4		32.6			12.3	
LOS					B	A		C			B	
Approach Delay					10.5			32.6			12.3	
Approach LOS					B			C			B	
Queue Length 50th (ft)					70	0		111			41	
Queue Length 95th (ft)					92	m1		m#254			m107	
Internal Link Dist (ft)		410			250			97			66	
Turn Bay Length (ft)												
Base Capacity (vph)					1691	884		473			776	
Starvation Cap Reductn					0	0		0			58	
Spillback Cap Reductn					131	0		12			47	
Storage Cap Reductn					0	0		0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↑↑	↑		↑↑↑					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00	
Frt	0.850												
Flt Protected							0.988						
Satd. Flow (prot)	0	0	0	0	3412	1583	0	4748	0	0	0	0	
Flt Permitted							0.988						
Satd. Flow (perm)	0	0	0	0	3412	1583	0	4748	0	0	0	0	
Right Turn on Red	Yes						Yes	Yes	Yes		Yes		
Satd. Flow (RTOR)							25	40					
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.08	1.00	1.00	1.00	1.00	
Link Speed (mph)	25			25			25			25			
Link Distance (ft)	155			270			171			155			
Travel Time (s)	4.2			7.4			4.7			4.2			
Volume (vph)	0	0	0	0	1168	97	327	1058	0	0	0	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0	
Parking (#/hr)							17	13					
Adj. Flow (vph)	0	0	0	0	1229	102	344	1114	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	1229	102	0	1458	0	0	0	0	
Turn Type						Perm	Split						
Protected Phases						6	8	8					
Permitted Phases						6							
Minimum Split (s)					19.0	19.0	19.0	19.0					
Total Split (s)	0.0	0.0	0.0	0.0	33.0	33.0	27.0	27.0	0.0	0.0	0.0	0.0	
Total Split (%)	0.0%	0.0%	0.0%	0.0%	55.0%	55.0%	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	
Yellow Time (s)					3.5	3.5	3.5	3.5					
All-Red Time (s)					0.0	0.0	0.0	0.0					
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)					30.0	30.0	24.0						
Actuated g/C Ratio					0.50	0.50	0.40						
v/c Ratio					0.72	0.13	0.76						
Control Delay					6.3	1.8	6.2						
Queue Delay					0.0	0.0	0.1						
Total Delay					6.3	1.8	6.2						
LOS					A	A	A						
Approach Delay					6.0	6.2							
Approach LOS					A	A							
Queue Length 50th (ft)					43	2	26						
Queue Length 95th (ft)					m61	m3	30						
Internal Link Dist (ft)	75			190			91			75			
Turn Bay Length (ft)													
Base Capacity (vph)					1706	804	1923						
Starvation Cap Reductn					0	0	23						
Spillback Cap Reductn					0	0	0						
Storage Cap Reductn					0	0	0						





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.72	0.13		0.77				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	19 (32%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	6.1
Intersection LOS:	A
Intersection Capacity Utilization:	66.0%
ICU Level of Service:	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 558: Sutter St. & Larkin St.

← ø6	↖ ↗ ø8
33 s	27 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.977
Flt Protected					0.989							
Satd. Flow (prot)	0	0	0	0	3374	0	0	0	0	0	4554	0
Flt Permitted					0.989							
Satd. Flow (perm)	0	0	0	0	3374	0	0	0	0	0	4554	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					13						66	
Headway Factor	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		205			492				352		209	
Travel Time (s)		5.6			13.4				9.6		5.7	
Volume (vph)	0	0	0	311	1063	0	0	0	0	0	1133	202
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)												30
Adj. Flow (vph)	0	0	0	327	1119	0	0	0	0	0	1193	213
Lane Group Flow (vph)	0	0	0	0	1446	0	0	0	0	0	1406	0
Turn Type				Split								
Protected Phases				6	6							4
Permitted Phases												
Minimum Split (s)				30.0	30.0							18.0
Total Split (s)	0.0	0.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					32.0						22.0	
Actuated g/C Ratio					0.53						0.37	
v/c Ratio					0.80						0.82	
Control Delay					15.7						16.6	
Queue Delay					0.0						0.0	
Total Delay					15.7						16.6	
LOS					B						B	
Approach Delay					15.7						16.6	
Approach LOS					B						B	
Queue Length 50th (ft)					202						186	
Queue Length 95th (ft)					286						232	
Internal Link Dist (ft)		125			412			272			129	
Turn Bay Length (ft)												
Base Capacity (vph)					1806						1712	
Starvation Cap Reductn					0						2	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	

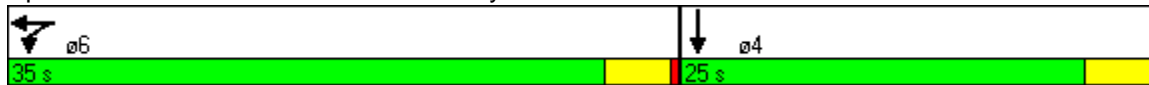


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.80						0.82					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	4 (7%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	16.1
Intersection LOS:	B
Intersection Capacity Utilization	71.5%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 559: Sutter St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑↑									↑↑↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	
Fr <sub>t</sub>		0.968											
Fl <sub>t</sub> Protected											0.991		
Satd. Flow (prot)	0	4719	0	0	0	0	0	0	0	0	4746	0	
Fl <sub>t</sub> Permitted											0.991		
Satd. Flow (perm)	0	4719	0	0	0	0	0	0	0	0	4746	0	
Right Turn on Red			Yes				Yes				Yes	Yes	Yes
Satd. Flow (RTOR)		14											
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	
Link Speed (mph)		25											
Link Distance (ft)		252				497			174			171	
Travel Time (s)		6.9				13.6			4.7			4.7	
Volume (vph)	0	1134	306	0	0	0	0	0	0	360	1597	0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)										15		15	
Adj. Flow (vph)	0	1194	322	0	0	0	0	0	0	383	1699	0	
Lane Group Flow (vph)	0	1516	0	0	0	0	0	0	0	0	2082	0	
Turn Type										Split			
Protected Phases		4									6	6	
Permitted Phases													
Minimum Split (s)		20.0									20.0	20.0	
Total Split (s)	0.0	39.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.0	51.0	0.0	
Total Split (%)	0.0%	43.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	56.7%	56.7%	0.0%	
Yellow Time (s)		3.5									3.5	3.5	
All-Red Time (s)		0.5									0.5	0.5	
Lead/Lag													
Lead-Lag Optimize?													
Act Effct Green (s)		36.0									48.0		
Actuated g/C Ratio		0.40									0.53		
v/c Ratio		0.80									0.82		
Control Delay		27.5									11.0		
Queue Delay		0.0									0.5		
Total Delay		27.5									11.5		
LOS		C									B		
Approach Delay		27.5									11.5		
Approach LOS		C									B		
Queue Length 50th (ft)		270									158		
Queue Length 95th (ft)		330									195		
Internal Link Dist (ft)		172				417			94			91	
Turn Bay Length (ft)													
Base Capacity (vph)		1896									2540		
Starvation Cap Reductn		0									146		
Spillback Cap Reductn		0									116		
Storage Cap Reductn		0									0		

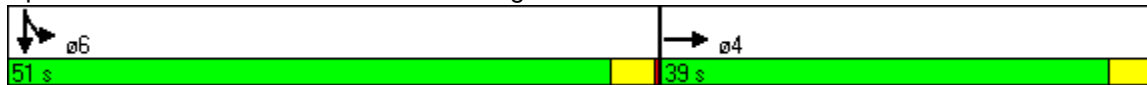


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.80						0.87					

**Intersection Summary**

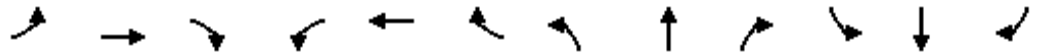
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	18.3
Intersection LOS:	B
Intersection Capacity Utilization	73.6%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 583: Bush St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	*0.80	0.86	1.00	1.00	1.00
Frt								0.981				
Flt Protected		0.991										
Satd. Flow (prot)	0	4831	0	0	0	0	0	5848	0	0	0	0
Flt Permitted		0.991										
Satd. Flow (perm)	0	4831	0	0	0	0	0	5848	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1						7				
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		497			228			184			162	
Travel Time (s)		13.6			6.2			5.0			4.4	
Volume (vph)	283	1211	0	0	0	0	0	2811	419	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)									13			
Adj. Flow (vph)	295	1261	0	0	0	0	0	3055	455	0	0	0
Lane Group Flow (vph)	0	1556	0	0	0	0	0	3510	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	21.0	21.0						20.0				
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	0.5	0.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.0						53.0				
Actuated g/C Ratio		0.34						0.59				
v/c Ratio		0.93						1.02				
Control Delay		28.4						26.2				
Queue Delay		3.1						33.8				
Total Delay		31.5						60.1				
LOS		C						E				
Approach Delay		31.5						60.1				
Approach LOS		C						E				
Queue Length 50th (ft)		165						~401				
Queue Length 95th (ft)		#393						#731				
Internal Link Dist (ft)		417			148			104			82	
Turn Bay Length (ft)												
Base Capacity (vph)		1665						3447				
Starvation Cap Reductn		0						85				
Spillback Cap Reductn		61						260				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.97						1.10					

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	70 (78%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.02
Intersection Signal Delay:	51.3
Intersection LOS:	D
Intersection Capacity Utilization	83.5%
ICU Level of Service	E
Analysis Period (min)	15
* User Entered Value	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

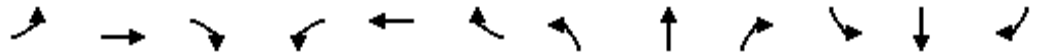
Splits and Phases: 584: Bush St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		70	90		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.99						0.97				
Frt		0.992						0.988				
Flt Protected		0.997										
Satd. Flow (prot)	0	4995	0	0	0	0	0	3223	0	0	3362	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	4957	0	0	0	0	0	3223	0	0	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12						3				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.07	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			305			186			169	
Travel Time (s)		6.0			8.3			5.1			4.6	
Volume (vph)	104	1440	86	0	0	0	0	1083	96	0	1153	0
Confl. Peds. (#/hr)	139		139			139			277	277		
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)								1	1		0	0
Adj. Flow (vph)	114	1582	95	0	0	0	0	1231	109	0	1310	0
Lane Group Flow (vph)	0	1791	0	0	0	0	0	1340	0	0	1310	0
Turn Type	Split											
Protected Phases	4	4						2			6	
Permitted Phases												
Minimum Split (s)	37.0	37.0						33.0			48.0	
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	48.0	0.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	0.0%	0.0%	0.0%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.2	2.2						0.9			0.9	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		39.0						45.0			45.0	
Actuated g/C Ratio		0.43						0.50			0.50	
v/c Ratio		0.82						0.83			0.78	
Control Delay		23.2						8.9			19.2	
Queue Delay		13.6						0.3			0.3	
Total Delay		36.8						9.2			19.5	
LOS		D						A			B	
Approach Delay		36.8						9.2			19.5	
Approach LOS		D						A			B	
Queue Length 50th (ft)		375						38			194	
Queue Length 95th (ft)		m397						65			210	
Internal Link Dist (ft)		141			225			106			89	
Turn Bay Length (ft)												
Base Capacity (vph)		2171						1613			1681	





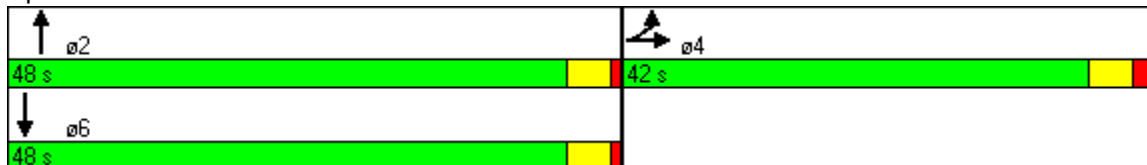
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		401						0			67	
Spillback Cap Reductn		0						36			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		1.01						0.85			0.81	

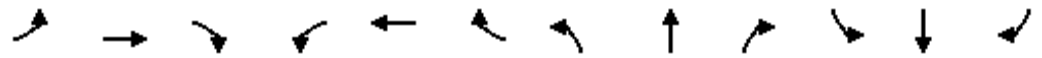
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	20 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	23.4
Intersection LOS:	C
Intersection Capacity Utilization	74.8%
ICU Level of Service	D
Analysis Period (min)	15

m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 585: Bush St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991						0.976				
Flt Protected		0.998									0.991	
Satd. Flow (prot)	0	4822	0	0	0	0	0	1908	0	0	1938	0
Flt Permitted		0.998									0.759	
Satd. Flow (perm)	0	4822	0	0	0	0	0	1908	0	0	1484	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19						6				
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		192			197			186			160	
Travel Time (s)		5.2			5.4			5.1			4.4	
Volume (vph)	63	1380	93	0	0	0	0	393	84	105	451	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	66	1453	98	0	0	0	0	414	88	111	475	0
Lane Group Flow (vph)	0	1617	0	0	0	0	0	502	0	0	586	0
Turn Type	Split									Perm		
Protected Phases	2	2						4				4
Permitted Phases										4		
Minimum Split (s)	20.5	20.5						20.5		20.5	20.5	
Total Split (s)	26.3	26.3	0.0	0.0	0.0	0.0	0.0	33.7	0.0	33.7	33.7	0.0
Total Split (%)	43.8%	43.8%	0.0%	0.0%	0.0%	0.0%	0.0%	56.2%	0.0%	56.2%	56.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		23.3						30.7			30.7	
Actuated g/C Ratio		0.39						0.51			0.51	
v/c Ratio		0.86						0.51			0.77	
Control Delay		22.8						11.1			24.7	
Queue Delay		0.7						0.5			16.4	
Total Delay		23.4						11.7			41.1	
LOS		C						B			D	
Approach Delay		23.4						11.7			41.1	
Approach LOS		C						B			D	
Queue Length 50th (ft)		187						88			214	
Queue Length 95th (ft)		#253						m135			m#331	
Internal Link Dist (ft)		112			117			106			80	
Turn Bay Length (ft)												
Base Capacity (vph)		1884						979			759	
Starvation Cap Reductn		0						172			169	
Spillback Cap Reductn		72						59			0	
Storage Cap Reductn		0						0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑	↑			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.995	0.850			
Flt Protected		0.996										
Satd. Flow (prot)	0	4856	0	0	0	0	0	3061	1203	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	4856	0	0	0	0	0	3061	1203	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37						6	23			
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.13	1.26	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		296			261			183				90
Travel Time (s)		8.1			7.1			5.0				2.5
Volume (vph)	129	1440	0	0	0	0	0	807	365	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								17	13			
Adj. Flow (vph)	136	1516	0	0	0	0	0	849	384	0	0	0
Lane Group Flow (vph)	0	1652	0	0	0	0	0	879	354	0	0	0
Turn Type	Split								Perm			
Protected Phases	2	2						8				
Permitted Phases									8			
Minimum Split (s)	35.0	35.0						25.0	25.0			
Total Split (s)	35.0	35.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0
Total Split (%)	58.3%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	41.7%	41.7%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5	3.5			
All-Red Time (s)	0.5	0.5						0.5	0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0						22.0	22.0			
Actuated g/C Ratio		0.53						0.37	0.37			
v/c Ratio		0.63						0.78	0.78			
Control Delay		3.4						11.2	17.2			
Queue Delay		0.0						0.7	0.0			
Total Delay		3.4						11.9	17.2			
LOS		A						B	B			
Approach Delay		3.4						13.4				
Approach LOS		A						B				
Queue Length 50th (ft)		28						100	7			
Queue Length 95th (ft)		m49						#171	m#215			
Internal Link Dist (ft)		216			181			103			10	
Turn Bay Length (ft)												
Base Capacity (vph)		2607						1126	456			
Starvation Cap Reductn		0						0	0			
Spillback Cap Reductn		0						64	0			
Storage Cap Reductn		0						0	0			





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt		0.969										
Flt Protected											0.993	
Satd. Flow (prot)	0	4724	0	0	0	0	0	0	0	0	4598	0
Flt Permitted											0.993	
Satd. Flow (perm)	0	4724	0	0	0	0	0	0	0	0	4598	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)		21									28	
Headway Factor	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			465			132			317	
Travel Time (s)		6.5			12.7			3.6			8.6	
Volume (vph)	0	1414	371	0	0	0	0	0	0	153	964	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	31	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Adj. Flow (vph)	0	1488	391	0	0	0	0	0	0	161	1015	0
Lane Group Flow (vph)	0	1879	0	0	0	0	0	0	0	0	1176	0
Turn Type										Split		
Protected Phases		2								4	4	
Permitted Phases												
Minimum Split (s)		36.0								24.0	24.0	
Total Split (s)	0.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	24.0	0.0
Total Split (%)	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		0.5								0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		33.0									21.0	
Actuated g/C Ratio		0.55									0.35	
v/c Ratio		0.72									0.72	
Control Delay		5.5									12.0	
Queue Delay		0.0									0.0	
Total Delay		5.5									12.1	
LOS		A									B	
Approach Delay		5.5									12.1	
Approach LOS		A									B	
Queue Length 50th (ft)		58									80	
Queue Length 95th (ft)		72									50	
Internal Link Dist (ft)		160			385			52			237	
Turn Bay Length (ft)												
Base Capacity (vph)		2608									1628	
Starvation Cap Reductn		0									1	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.72						0.72					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	20 (33%), Referenced to phase 4:SBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	64.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 588: Bush St. & Hyde St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.983
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1770	4875	0	0	0	0	0	4691	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	4875	0	0	0	0	0	4691	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				13							8	
Headway Factor	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00	1.00	1.00	1.09	1.00
Link Speed (mph)		25			25				25			25
Link Distance (ft)		249			503				168			353
Travel Time (s)		6.8			13.7				4.6			9.6
Volume (vph)	0	0	0	428	1546	0	0	0	0	0	1464	181
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)												17
Adj. Flow (vph)	0	0	0	451	1627	0	0	0	0	0	1557	193
Lane Group Flow (vph)	0	0	0	451	1627	0	0	0	0	0	1750	0
Turn Type				Split								
Protected Phases				8	8							6
Permitted Phases												
Minimum Split (s)				20.0	20.0							20.0
Total Split (s)	0.0	0.0	0.0	44.0	44.0	0.0	0.0	0.0	0.0	0.0	46.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	48.9%	48.9%	0.0%	0.0%	0.0%	0.0%	0.0%	51.1%	0.0%
Yellow Time (s)				3.5	3.5							3.5
All-Red Time (s)				0.5	0.5							0.5
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)				41.0	41.0							43.0
Actuated g/C Ratio				0.46	0.46							0.48
v/c Ratio				0.55	0.73							0.78
Control Delay				2.9	3.3							7.5
Queue Delay				0.3	0.2							2.2
Total Delay				3.2	3.5							9.7
LOS				A	A							A
Approach Delay					3.4							9.7
Approach LOS					A							A
Queue Length 50th (ft)				28	43							68
Queue Length 95th (ft)				m26	m40							m75
Internal Link Dist (ft)		169			423			88				273
Turn Bay Length (ft)												
Base Capacity (vph)				813	2221							2245
Starvation Cap Reductn				76	101							345
Spillback Cap Reductn				0	0							34
Storage Cap Reductn				0	0							0



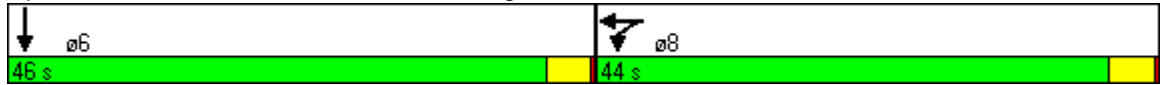


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio				0.61	0.77						0.92	

**Intersection Summary**

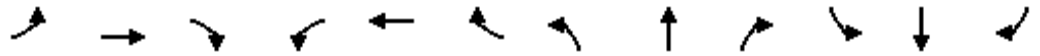
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	6.3
Intersection LOS:	A
Intersection Capacity Utilization	82.3%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 612: Pine St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.86	0.86	0.86	*0.80	1.00	1.00	1.00	1.00
Frt					0.971							
Flt Protected								0.995				
Satd. Flow (prot)	0	0	0	0	6029	0	0	5664	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6029	0	0	5664	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					1			1				
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			452			172				192
Travel Time (s)		13.7			12.3			4.7				5.2
Volume (vph)	0	0	0	0	1689	405	285	2760	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Adj. Flow (vph)	0	0	0	0	2035	488	303	2936	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2523	0	0	3239	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Minimum Split (s)					21.0		20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					35.0			49.0				
Actuated g/C Ratio					0.39			0.54				
v/c Ratio					1.08			1.05				
Control Delay					67.4			42.6				
Queue Delay					17.8			31.1				
Total Delay					85.3			73.7				
LOS					F			E				
Approach Delay					85.3			73.7				
Approach LOS					F			E				
Queue Length 50th (ft)					~487			~620				
Queue Length 95th (ft)					#485			m#608				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												
Base Capacity (vph)					2345			3084				
Starvation Cap Reductn					87			199				
Spillback Cap Reductn					0			188				
Storage Cap Reductn					0			0				



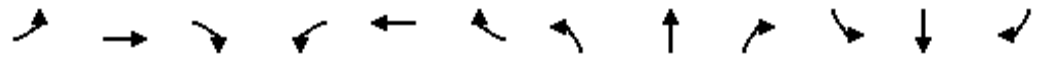
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					1.12			1.12				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 64 (71%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.08  
 Intersection Signal Delay: 78.8      Intersection LOS: E  
 Intersection Capacity Utilization 82.3%      ICU Level of Service E  
 Analysis Period (min) 15  
 \* User Entered Value  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 613: Pine St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ↑ ↑ →			↑↑			↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	115		0	0		70
Storage Lanes	0		0	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor					0.99							0.66
Frt					0.990							0.850
Flt Protected					0.998							
Satd. Flow (prot)	0	0	0	0	6272	0	0	3345	0	0	3193	1280
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	0	0	6242	0	0	3345	0	0	3193	850
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					22							1
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.14	1.31
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			303			158			362	
Travel Time (s)		12.3			8.3			4.3			9.9	
Volume (vph)	0	0	0	80	1839	143	0	1149	0	0	1106	255
Confl. Peds. (#/hr)				139		139	277					277
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	15	15
Parking (#/hr)								2			8	8
Adj. Flow (vph)	0	0	0	84	1936	151	0	1209	0	0	1164	268
Lane Group Flow (vph)	0	0	0	0	2171	0	0	1209	0	0	1164	268
Turn Type				Split								Perm
Protected Phases				8	8			2			6	
Permitted Phases												6
Minimum Split (s)				36.0	36.0			48.0			33.0	33.0
Total Split (s)	0.0	0.0	0.0	41.0	41.0	0.0	0.0	49.0	0.0	0.0	49.0	49.0
Total Split (%)	0.0%	0.0%	0.0%	45.6%	45.6%	0.0%	0.0%	54.4%	0.0%	0.0%	54.4%	54.4%
Yellow Time (s)				3.5	3.5			3.5			3.5	3.5
All-Red Time (s)				2.2	2.2			1.0			1.0	1.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					38.0			46.0			46.0	46.0
Actuated g/C Ratio					0.42			0.51			0.51	0.51
v/c Ratio					0.82			0.71			0.71	0.62
Control Delay					25.8			5.2			17.9	19.7
Queue Delay					2.8			1.4			1.1	17.0
Total Delay					28.6			6.6			19.0	36.7
LOS					C			A			B	D
Approach Delay					28.6			6.6			22.3	
Approach LOS					C			A			C	
Queue Length 50th (ft)					304			33			191	83
Queue Length 95th (ft)					354			39			m211	m92
Internal Link Dist (ft)		372			223			78			282	
Turn Bay Length (ft)												70

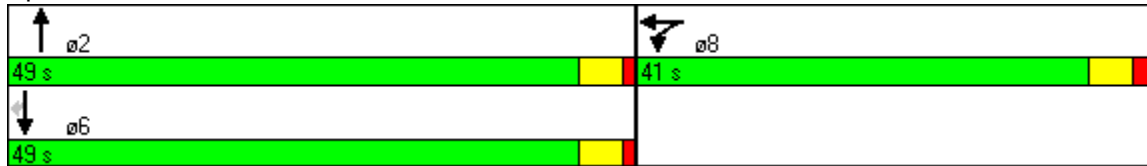


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					2661			1710			1632	435
Starvation Cap Reductn					57			291			235	0
Spillback Cap Reductn					369			67			0	152
Storage Cap Reductn					0			0			0	0
Reduced v/c Ratio					0.95			0.85			0.83	0.95

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	31 (34%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	21.2
Intersection LOS:	C
Intersection Capacity Utilization	69.2%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 614: Pine St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					← ← ← ←			↑			↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.992						0.964	
Flt Protected					0.998			0.993				
Satd. Flow (prot)	0	0	0	0	6147	0	0	1941	0	0	1885	0
Flt Permitted					0.998			0.696				
Satd. Flow (perm)	0	0	0	0	6147	0	0	1361	0	0	1885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23						2	
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		182			490			169			361	
Travel Time (s)		5.0			13.4			4.6			9.8	
Volume (vph)	0	0	0	94	1808	108	67	389	0	0	432	155
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	99	1903	114	71	409	0	0	455	163
Lane Group Flow (vph)	0	0	0	0	2116	0	0	480	0	0	618	0
Turn Type				Split			Perm					
Protected Phases				8	8			2			2	
Permitted Phases							2					
Minimum Split (s)				19.0	19.0		21.0	21.0			21.0	
Total Split (s)	0.0	0.0	0.0	28.0	28.0	0.0	32.0	32.0	0.0	0.0	32.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	0.0%	53.3%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		1.5	1.5			1.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					25.0			29.0			29.0	
Actuated g/C Ratio					0.42			0.48			0.48	
v/c Ratio					0.82			0.73			0.68	
Control Delay					10.0			21.2			14.5	
Queue Delay					0.6			3.2			0.6	
Total Delay					10.5			24.5			15.1	
LOS					B			C			B	
Approach Delay					10.5			24.5			15.1	
Approach LOS					B			C			B	
Queue Length 50th (ft)					103			181			126	
Queue Length 95th (ft)					m125			m#275			191	
Internal Link Dist (ft)		102			410			89			281	
Turn Bay Length (ft)												
Base Capacity (vph)					2575			658			912	
Starvation Cap Reductn					0			99			79	
Spillback Cap Reductn					155			6			76	
Storage Cap Reductn					0			0			0	

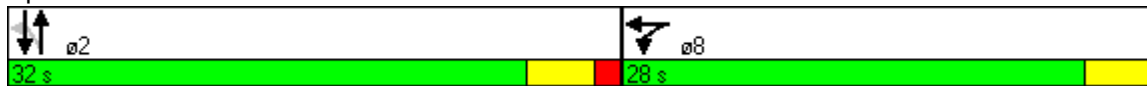


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.87			0.86			0.74	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 55 (92%), Referenced to phase 8:WBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 13.5      Intersection LOS: B  
 Intersection Capacity Utilization 95.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

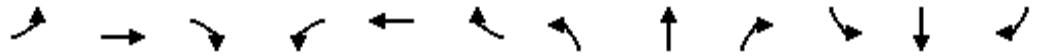
Splits and Phases: 615: Pine St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.86	0.86	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.983							
Flt Protected								0.983				
Satd. Flow (prot)	0	0	0	0	6104	0	0	3157	0	0	0	0
Flt Permitted								0.983				
Satd. Flow (perm)	0	0	0	0	6104	0	0	3157	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					83			13				
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.13	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		490			280			167				363
Travel Time (s)		13.4			7.6			4.6				9.9
Volume (vph)	0	0	0	0	1685	211	325	619	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Adj. Flow (vph)	0	0	0	0	1774	222	342	652	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	1996	0	0	994	0	0	0	0
Turn Type							Split					
Protected Phases					2		8	8				
Permitted Phases												
Minimum Split (s)					36.0		24.0	24.0				
Total Split (s)	0.0	0.0	0.0	0.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					0.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					33.0			21.0				
Actuated g/C Ratio					0.55			0.35				
v/c Ratio					0.59			0.89				
Control Delay					3.9			14.6				
Queue Delay					0.0			0.1				
Total Delay					3.9			14.6				
LOS					A			B				
Approach Delay					3.9			14.6				
Approach LOS					A			B				
Queue Length 50th (ft)					42			32				
Queue Length 95th (ft)					47			#262				
Internal Link Dist (ft)		410			200			87			283	
Turn Bay Length (ft)												
Base Capacity (vph)					3395			1113				
Starvation Cap Reductn					0			2				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.59					0.89						

**Intersection Summary**

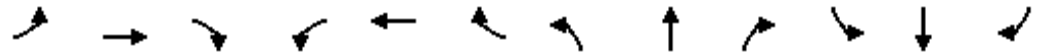
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	40 (67%), Referenced to phase 2:WBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	7.5
Intersection LOS:	A
Intersection Capacity Utilization	61.2%
ICU Level of Service	B
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 616: Pine St. & Larkin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←↑↑↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.86	0.86	1.00	1.00	1.00	1.00	1.00	0.91	0.91
Frt												0.968
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	6363	0	0	0	0	0	4482	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	6363	0	0	0	0	0	4482	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					56						9	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		221			476			317			182	
Travel Time (s)		6.0			13.0			8.6			5.0	
Volume (vph)	0	0	0	272	1671	0	0	0	0	0	845	225
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)											30	
Adj. Flow (vph)	0	0	0	286	1759	0	0	0	0	0	889	237
Lane Group Flow (vph)	0	0	0	0	2045	0	0	0	0	0	1126	0
Turn Type				Split								
Protected Phases				6	6							4
Permitted Phases												
Minimum Split (s)				33.0	33.0							27.0
Total Split (s)	0.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0	0.0	0.0	27.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	55.0%	55.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.0%	0.0%
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				0.5	0.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					30.0						24.0	
Actuated g/C Ratio					0.50						0.40	
v/c Ratio					0.64						0.63	
Control Delay					11.8						16.2	
Queue Delay					0.0						0.0	
Total Delay					11.8						16.2	
LOS					B						B	
Approach Delay					11.8						16.2	
Approach LOS					B						B	
Queue Length 50th (ft)					141						113	
Queue Length 95th (ft)					176						154	
Internal Link Dist (ft)		141			396			237			102	
Turn Bay Length (ft)												
Base Capacity (vph)					3210						1798	
Starvation Cap Reductn					0						0	
Spillback Cap Reductn					0						0	
Storage Cap Reductn					0						0	



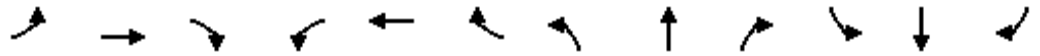
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.64						0.63					

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	35 (58%), Referenced to phase 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	13.4
Intersection LOS:	B
Intersection Capacity Utilization	56.4%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 617: Pine St. & Hyde St.



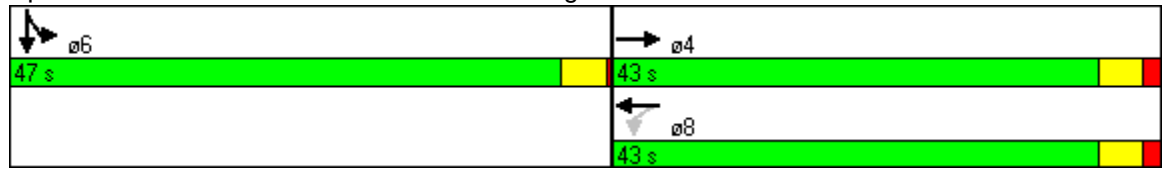


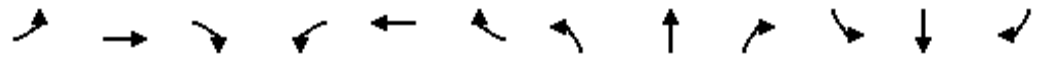
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑						↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Fr <sub>t</sub>		0.977									0.995	
Fl <sub>t</sub> Protected					0.989						0.997	
Satd. Flow (prot)	0	3458	0	0	3500	0	0	0	0	0	3511	0
Fl <sub>t</sub> Permitted					0.597						0.997	
Satd. Flow (perm)	0	3458	0	0	2113	0	0	0	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17									6	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		494			518			353			368	
Travel Time (s)		13.5			14.1			9.6			10.0	
Volume (vph)	0	559	102	162	586	0	0	0	0	77	1381	55
Peak Hour Factor	0.92	0.92	0.92	0.86	0.86	0.86	0.95	0.95	0.95	0.93	0.93	0.93
Parking (#/hr)										14		14
Adj. Flow (vph)	0	608	111	188	681	0	0	0	0	83	1485	59
Lane Group Flow (vph)	0	719	0	0	869	0	0	0	0	0	1627	0
Turn Type			Perm								Split	
Protected Phases		4			8					6		6
Permitted Phases				8								
Minimum Split (s)		20.0		20.0	20.0					25.0	25.0	
Total Split (s)	0.0	43.0	0.0	43.0	43.0	0.0	0.0	0.0	0.0	47.0	47.0	0.0
Total Split (%)	0.0%	47.8%	0.0%	47.8%	47.8%	0.0%	0.0%	0.0%	0.0%	52.2%	52.2%	0.0%
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5		1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		40.0			40.0						44.0	
Actuated g/C Ratio		0.44			0.44						0.49	
v/c Ratio		0.47			0.93						0.95	
Control Delay		18.3			32.3						30.3	
Queue Delay		0.0			0.0						21.8	
Total Delay		18.3			32.3						52.1	
LOS		B			C						D	
Approach Delay		18.3			32.3						52.1	
Approach LOS		B			C						D	
Queue Length 50th (ft)		142			162						522	
Queue Length 95th (ft)		191			m144						m472	
Internal Link Dist (ft)		414			438			273			288	
Turn Bay Length (ft)												
Base Capacity (vph)		1546			939						1720	
Starvation Cap Reductn		0			0						163	
Spillback Cap Reductn		0			0						31	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.47			0.93						1.04	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 68 (76%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 39.2                      Intersection LOS: D  
 Intersection Capacity Utilization 91.8%              ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 639: California St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.86	*0.80	0.86	1.00	1.00	1.00
Flt					0.969			0.993				
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	3539	0	0	3430	0	0	5913	0	0	0	0
Flt Permitted	0.148							0.999				
Satd. Flow (perm)	276	3539	0	0	3430	0	0	5913	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10			17				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		518			441			167				346
Travel Time (s)		14.1			12.0			4.6				9.4
Volume (vph)	99	537	0	0	662	170	86	2930	149	0	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95
Parking (#/hr)									17			
Adj. Flow (vph)	116	632	0	0	779	200	101	3447	175	0	0	0
Lane Group Flow (vph)	116	632	0	0	979	0	0	3723	0	0	0	0
Turn Type	pm+pt						Split					
Protected Phases	7	4			8		2	2				
Permitted Phases	4											
Minimum Split (s)	6.5	30.5			24.0		52.0	52.0				
Total Split (s)	6.5	33.5	0.0	0.0	27.0	0.0	56.5	56.5	0.0	0.0	0.0	0.0
Total Split (%)	7.2%	37.2%	0.0%	0.0%	30.0%	0.0%	62.8%	62.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			4.0		3.5	3.5				
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0				
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?												
Act Effct Green (s)	30.5	30.5			24.0		53.5	53.5				
Actuated g/C Ratio	0.34	0.34			0.27		0.59	0.59				
v/c Ratio	0.76	0.53			1.06		1.06	1.06				
Control Delay	49.9	12.9			66.4		37.5	37.5				
Queue Delay	0.0	0.0			0.0		20.9	20.9				
Total Delay	49.9	12.9			66.4		58.4	58.4				
LOS	D	B			E		E	E				
Approach Delay		18.6			66.4		58.4	58.4				
Approach LOS		B			E		E	E				
Queue Length 50th (ft)	20	60			~333		~716	~716				
Queue Length 95th (ft)	m#88	m70			#419		m#129	m#129				
Internal Link Dist (ft)		438			361		87	87			266	
Turn Bay Length (ft)												
Base Capacity (vph)	152	1199			922		3522	3522				
Starvation Cap Reductn	0	0			0		155	155				
Spillback Cap Reductn	0	0			0		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	0.76	0.53			1.06		1.11	1.11				

**Intersection Summary**

Area Type:	Other	
Cycle Length:	90	
Actuated Cycle Length:	90	
Offset:	69 (77%), Referenced to phase 2:NBTL, Start of Green	
Natural Cycle:	105	
Control Type:	Pretimed	
Maximum v/c Ratio:	1.06	
Intersection Signal Delay:	54.4	Intersection LOS: D
Intersection Capacity Utilization	85.5%	ICU Level of Service E
Analysis Period (min)	15	
* User Entered Value		
~ Volume exceeds capacity, queue is theoretically infinite.	Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.		

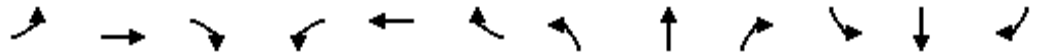
Splits and Phases: 640: California St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		110	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.98			0.96			0.97	
Frt		0.976			0.983			0.984			0.987	
Flt Protected		0.998			0.998							
Satd. Flow (prot)	0	3343	0	0	3361	0	0	3163	0	0	2993	0
Flt Permitted		0.822			0.825							
Satd. Flow (perm)	0	2751	0	0	2772	0	0	3163	0	0	2993	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			8			22			18	
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.08	1.00	1.00	1.18	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		441			243			362			345	
Travel Time (s)		12.0			6.6			9.9			9.4	
Volume (vph)	28	550	108	42	715	96	0	1156	136	0	1211	117
Confl. Peds. (#/hr)	157		186	186		157			357			210
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.97	0.97	0.97	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	7	0	0	0	0	0	0	0
Parking (#/hr)								3	3		28	28
Adj. Flow (vph)	32	632	124	46	786	105	0	1192	140	0	1288	124
Lane Group Flow (vph)	0	788	0	0	937	0	0	1332	0	0	1412	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	33.0	33.0		33.0	33.0			42.5			42.5	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	0.0	52.0	0.0	0.0	52.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	42.2%	42.2%	0.0%	0.0%	57.8%	0.0%	0.0%	57.8%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	2.1	2.1		2.1	2.1			1.2			1.2	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		35.0			35.0			49.0			49.0	
Actuated g/C Ratio		0.39			0.39			0.54			0.54	
v/c Ratio		0.73			0.87			0.77			0.86	
Control Delay		40.1			35.3			5.9			18.0	
Queue Delay		0.0			0.0			0.4			0.8	
Total Delay		40.1			35.3			6.3			18.8	
LOS		D			D			A			B	
Approach Delay		40.1			35.3			6.3			18.8	
Approach LOS		D			D			A			B	
Queue Length 50th (ft)		218			251			44			200	
Queue Length 95th (ft)		m252			#369			52			232	
Internal Link Dist (ft)		361			163			282			265	
Turn Bay Length (ft)												



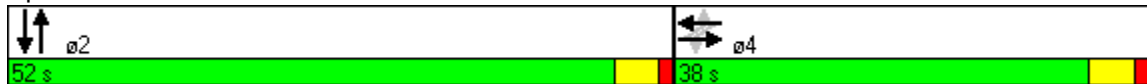


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		1078			1083			1732			1638	
Starvation Cap Reductn		0			0			4			63	
Spillback Cap Reductn		0			0			98			5	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.73			0.87			0.82			0.90	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	38 (42%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	22.3
Intersection LOS:	C
Intersection Capacity Utilization	95.6%
ICU Level of Service	F
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

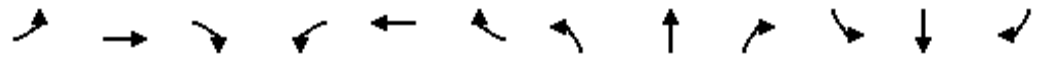
Splits and Phases: 641: California St. & Van Ness Avenue





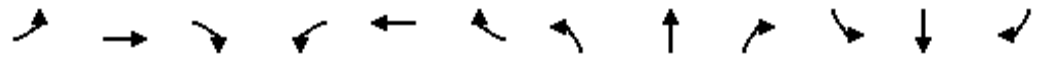
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↓			↑↓			↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.970			0.983			0.983			0.981	
Flt Protected								0.998			0.994	
Satd. Flow (prot)	0	3364	0	0	3409	0	0	1918	0	0	1906	0
Flt Permitted								0.962			0.900	
Satd. Flow (perm)	0	3364	0	0	3409	0	0	1849	0	0	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			25			20			22	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		250			492			361			352	
Travel Time (s)		6.8			13.4			9.8			9.6	
Volume (vph)	0	551	135	0	785	100	25	408	64	72	452	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	10	0	0	10	0	0	4	0	0	4	0
Adj. Flow (vph)	0	580	142	0	826	105	26	429	67	76	476	93
Lane Group Flow (vph)	0	722	0	0	931	0	0	522	0	0	645	0
Turn Type							Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases							2			2		
Minimum Split (s)		19.0			19.0		25.0	25.0		25.0	25.0	
Total Split (s)	0.0	24.0	0.0	0.0	24.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	0.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)		3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		21.0			21.0			33.0			33.0	
Actuated g/C Ratio		0.35			0.35			0.55			0.55	
v/c Ratio		0.60			0.77			0.51			0.67	
Control Delay		17.2			7.6			4.8			7.6	
Queue Delay		0.0			0.0			0.3			0.7	
Total Delay		17.2			7.6			5.1			8.2	
LOS		B			A			A			A	
Approach Delay		17.2			7.6			5.1			8.2	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)		101			28			39			49	
Queue Length 95th (ft)		150			40			m84			93	
Internal Link Dist (ft)		170			412			281			272	
Turn Bay Length (ft)												
Base Capacity (vph)		1213			1209			1026			959	
Starvation Cap Reductn		0			0			135			95	
Spillback Cap Reductn		0			0			0			13	
Storage Cap Reductn		0			0			0			0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕		↕	↕		↕		↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>					0.997			0.968				0.850
Flt Protected		0.998					0.950			0.950		
Satd. Flow (prot)	0	3461	0	0	3458	0	1770	1803	0	1770	0	1290
Flt Permitted		0.828					0.950			0.187		
Satd. Flow (perm)	0	2872	0	0	3458	0	1770	1803	0	348	0	1290
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			38				31
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.30
Link Speed (mph)		25			25			25				25
Link Distance (ft)		492			141			363				667
Travel Time (s)		13.4			3.8			9.9				18.2
Volume (vph)	31	656	0	0	727	17	98	575	157	84	0	60
Peak Hour Factor	0.94	0.94	0.94	0.83	0.83	0.83	0.94	0.94	0.94	0.80	0.80	0.80
Bus Blockages (#/hr)	0	10	0	0	10	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Adj. Flow (vph)	33	698	0	0	876	20	104	612	167	105	0	75
Lane Group Flow (vph)	0	731	0	0	896	0	104	779	0	105	0	75
Turn Type	Perm						Perm		custom		custom	
Protected Phases		6			2			8				
Permitted Phases	6						8			4		4
Minimum Split (s)	17.0	17.0			17.0		25.0	25.0		25.0		25.0
Total Split (s)	23.0	23.0	0.0	0.0	23.0	0.0	37.0	37.0	0.0	37.0	0.0	37.0
Total Split (%)	38.3%	38.3%	0.0%	0.0%	38.3%	0.0%	61.7%	61.7%	0.0%	61.7%	0.0%	61.7%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5		3.5
All-Red Time (s)	0.0	0.0			0.0		0.0	0.0		0.0		0.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		20.0			20.0		34.0	34.0		34.0		34.0
Actuated g/C Ratio		0.33			0.33		0.57	0.57		0.57		0.57
v/c Ratio		0.76			0.78		0.10	0.75		0.53		0.10
Control Delay		33.7			23.7		3.3	8.3		21.2		4.4
Queue Delay		0.0			0.0		0.0	0.0		0.0		0.0
Total Delay		33.7			23.7		3.3	8.3		21.2		4.4
LOS		C			C		A	A		C		A
Approach Delay		33.7			23.7			7.8				
Approach LOS		C			C			A				
Queue Length 50th (ft)		146			149		6	50		21		6
Queue Length 95th (ft)		#206			189		m10	m112		58		18
Internal Link Dist (ft)		412			61			283				587
Turn Bay Length (ft)												
Base Capacity (vph)		957			1155		1003	1038		197		744
Starvation Cap Reductn		0			0		0	0		0		0
Spillback Cap Reductn		0			0		0	0		0		0
Storage Cap Reductn		0			0		0	0		0		0



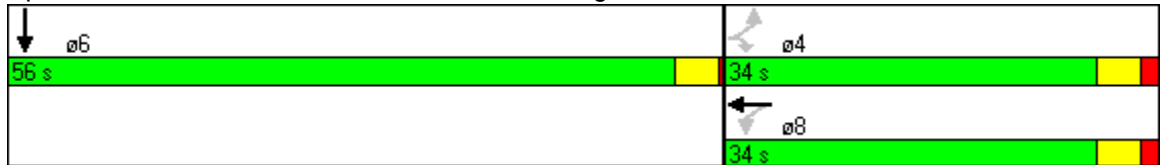


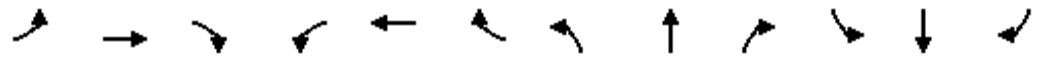
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↗						↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>			0.850		0.988						0.993	
Fl <sub>t</sub> Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1840	0	0	0	0	0	1535	0
Fl <sub>t</sub> Permitted	0.250			0.950								
Satd. Flow (perm)	466	0	1583	1770	1840	0	0	0	0	0	1535	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			134	134	5						5	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.27	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	120	0	177	418	357	30	0	0	0	0	918	51
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Parking (#/hr)											14	14
Adj. Flow (vph)	171	0	253	470	401	34	0	0	0	0	937	52
Lane Group Flow (vph)	171	0	253	470	435	0	0	0	0	0	989	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	34.0	0.0	34.0	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0
Total Split (%)	37.8%	0.0%	37.8%	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	31.0		31.0	31.0	31.0						53.0	
Actuated g/C Ratio	0.34		0.34	0.34	0.34						0.59	
v/c Ratio	1.06		0.40	0.67	0.68						1.09	
Control Delay	121.3		12.5	12.3	18.1						71.5	
Queue Delay	0.0		0.8	8.3	0.0						126.0	
Total Delay	121.3		13.3	20.6	18.1						197.5	
LOS	F		B	C	B						F	
Approach Delay					19.4						197.5	
Approach LOS					B						F	
Queue Length 50th (ft)	~108		47	244	263						~623	
Queue Length 95th (ft)	#161		65	m250	m268						#868	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	161		633	698	637						906	
Starvation Cap Reductn	0		0	3	0						0	
Spillback Cap Reductn	0		171	189	0						189	
Storage Cap Reductn	0		0	0	0						0	
Reduced v/c Ratio	1.06		0.55	0.92	0.68						1.38	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 16 (18%), Referenced to phase 6:SBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 102.2                      Intersection LOS: F  
 Intersection Capacity Utilization 95.5%              ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 659: Sacramento St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00	1.00	1.00	1.00
Frt	0.973											
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3444	0	1770	4789	0	0	0	0
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3444	0	1770	4789	0	0	0	0
Right Turn on Red	Yes						Yes	Yes	Yes			
Satd. Flow (RTOR)				1			21					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)					25				25			
Link Distance (ft)	509				230				346			
Travel Time (s)	13.9				6.3				9.4			
Volume (vph)	0	0	0	0	713	156	92	3107	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.93	0.93	0.93	0.95	0.95	0.95
Parking (#/hr)									15			
Adj. Flow (vph)	0	0	0	0	775	170	99	3341	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	945	0	99	3341	0	0	0	0
Turn Type	Perm											
Protected Phases					4				2			
Permitted Phases	2											
Minimum Split (s)					20.5				17.0			
Total Split (s)	0.0	0.0	0.0	0.0	27.0	0.0	63.0	63.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	70.0%	70.0%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5				3.5			
All-Red Time (s)					1.5				0.5			
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					24.0				60.0			
Actuated g/C Ratio					0.27				0.67			
v/c Ratio					1.03				0.08			
Control Delay					58.6				0.4			
Queue Delay					0.0				0.0			
Total Delay					58.6				0.4			
LOS					E				A			
Approach Delay					58.6				27.7			
Approach LOS					E				C			
Queue Length 50th (ft)					~313				1			
Queue Length 95th (ft)					m#436				m0			
Internal Link Dist (ft)	429			150			266			251		
Turn Bay Length (ft)												
Base Capacity (vph)					919				1187			
Starvation Cap Reductn					0				0			
Spillback Cap Reductn					0				0			
Storage Cap Reductn					0				0			
Reduced v/c Ratio					1.03				0.08			



**Intersection Summary**

Area Type: Other  
Cycle Length: 90  
Actuated Cycle Length: 90  
Offset: 72 (80%), Referenced to phase 2:NBTL, Start of Green  
Natural Cycle: 120  
Control Type: Pretimed  
Maximum v/c Ratio: 1.05  
Intersection Signal Delay: 34.4 Intersection LOS: C  
Intersection Capacity Utilization 91.4% ICU Level of Service F  
Analysis Period (min) 15  
~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 660: Sacramento St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		80
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97						0.98	
Frt					0.983						0.984	
Flt Protected					0.994							
Satd. Flow (prot)	0	0	0	0	3233	0	0	3150	0	0	3072	0
Flt Permitted					0.994							
Satd. Flow (perm)	0	0	0	0	3181	0	0	3150	0	0	3072	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19						22	
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.16	1.00	1.00	1.14	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		224			240			345			327	
Travel Time (s)		6.1			6.5			9.4			8.9	
Volume (vph)	0	0	0	117	725	109	0	1280	0	0	1211	144
Confl. Peds. (#/hr)				143		141	85					85
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	25	25	0	0	0	0	16	16
Parking (#/hr)								24			8	8
Adj. Flow (vph)	0	0	0	122	755	114	0	1320	0	0	1275	152
Lane Group Flow (vph)	0	0	0	0	991	0	0	1320	0	0	1427	0
Turn Type				Split								
Protected Phases				4	4			2			2	
Permitted Phases												
Minimum Split (s)				35.0	35.0			42.5			42.5	
Total Split (s)	0.0	0.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				2.1	2.1			0.7			0.7	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					36.0			48.0			48.0	
Actuated g/C Ratio					0.40			0.53			0.53	
v/c Ratio					0.76			0.79			0.87	
Control Delay					27.4			7.5			18.8	
Queue Delay					0.0			0.5			2.4	
Total Delay					27.5			8.0			21.2	
LOS					C			A			C	
Approach Delay					27.5			8.0			21.2	
Approach LOS					C			A			C	
Queue Length 50th (ft)					245			47			195	
Queue Length 95th (ft)					323			m54			228	
Internal Link Dist (ft)		144			160			265			247	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					1305			1680			1649	
Starvation Cap Reductn					9			94			124	
Spillback Cap Reductn					0			99			36	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.76			0.83			0.94	

**Intersection Summary**

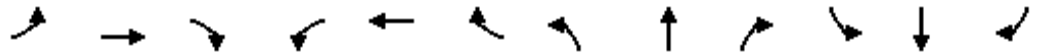
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	48 (53%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	18.2
Intersection LOS:	B
Intersection Capacity Utilization	73.0%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 661: Sacramento St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.993						0.958	
Flt Protected					0.994			0.996				
Satd. Flow (prot)	0	0	0	0	3493	0	0	1947	0	0	1873	0
Flt Permitted					0.994			0.827				
Satd. Flow (perm)	0	0	0	0	3493	0	0	1617	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9						63	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			339			352			317	
Travel Time (s)		7.0			9.2			9.6			8.6	
Volume (vph)	0	0	0	103	675	40	42	466	0	0	509	234
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	108	711	42	44	491	0	0	536	246
Lane Group Flow (vph)	0	0	0	0	861	0	0	535	0	0	782	0
Turn Type				Perm			Perm					
Protected Phases					8			2			2	
Permitted Phases				8			2					
Minimum Split (s)				19.0	19.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	23.0	23.0	0.0	37.0	37.0	0.0	0.0	37.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	38.3%	38.3%	0.0%	61.7%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					20.0			34.0			34.0	
Actuated g/C Ratio					0.33			0.57			0.57	
v/c Ratio					0.74			0.58			0.72	
Control Delay					22.0			13.7			7.6	
Queue Delay					0.2			0.1			0.2	
Total Delay					22.2			13.8			7.7	
LOS					C			B			A	
Approach Delay					22.2			13.8			7.7	
Approach LOS					C			B			A	
Queue Length 50th (ft)					140			131			57	
Queue Length 95th (ft)					201			m168			108	
Internal Link Dist (ft)		175			259			272			237	
Turn Bay Length (ft)												
Base Capacity (vph)					1170			916			1089	
Starvation Cap Reductn					0			18			31	
Spillback Cap Reductn					28			10			23	
Storage Cap Reductn					0			0			0	

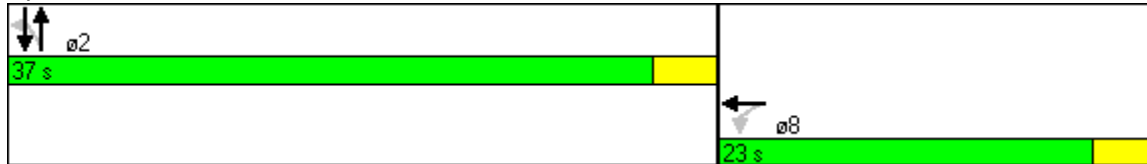


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.75			0.60			0.74	

**Intersection Summary**

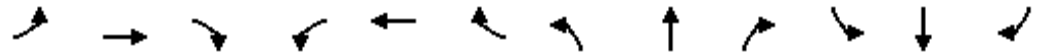
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	13 (22%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization	88.9%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 662: Sacramento St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.871			0.989				
Flt Protected		0.990						0.999				
Satd. Flow (prot)	0	1697	0	0	1493	0	0	5024	0	0	0	0
Flt Permitted		0.932						0.999				
Satd. Flow (perm)	0	1597	0	0	1493	0	0	5024	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			38				
Headway Factor	1.00	1.11	1.00	1.00	1.11	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		516			450			331				296
Travel Time (s)		14.1			12.3			9.0				8.1
Volume (vph)	14	58	0	0	7	146	38	2986	239	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	20	0	0	20	0	0	0	0	0	0	0
Parking (#/hr)							15		15			
Adj. Flow (vph)	15	61	0	0	7	154	40	3143	252	0	0	0
Lane Group Flow (vph)	0	76	0	0	161	0	0	3435	0	0	0	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2				
Permitted Phases	4						2					
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	20.5	20.5	0.0	0.0	20.5	0.0	69.5	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	22.8%	0.0%	77.2%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		17.5			17.5			66.5				
Actuated g/C Ratio		0.19			0.19			0.74				
v/c Ratio		0.24			0.55			0.92				
Control Delay		35.6			50.4			2.5				
Queue Delay		0.0			0.0			4.6				
Total Delay		35.6			50.4			7.0				
LOS		D			D			A				
Approach Delay		35.6			50.4			7.0				
Approach LOS		D			D			A				
Queue Length 50th (ft)		39			87			27				
Queue Length 95th (ft)		m47			m104			m25				
Internal Link Dist (ft)		436			370			251			216	
Turn Bay Length (ft)												
Base Capacity (vph)		311			293			3722				
Starvation Cap Reductn		0			0			249				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.24			0.55			0.99				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	76 (84%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	9.5
Intersection LOS:	A
Intersection Capacity Utilization	85.6%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

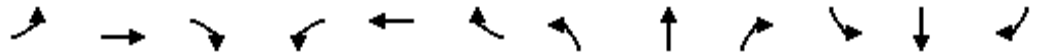
Splits and Phases: 671: Clay St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		70	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.96						0.96			0.94	
Frt		0.980						0.984			0.984	
Flt Protected		0.998										
Satd. Flow (prot)	0	1575	0	0	0	0	0	3010	0	0	2975	0
Flt Permitted		0.998										
Satd. Flow (perm)	0	1569	0	0	0	0	0	3010	0	0	2975	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10						26			25	
Headway Factor	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		450			501			327			156	
Travel Time (s)		12.3			13.7			8.9			4.3	
Volume (vph)	9	244	44	0	0	0	0	1239	150	0	1311	153
Confl. Peds. (#/hr)	132		264	264		132			264	264		264
Peak Hour Factor	0.78	0.78	0.78	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Bus Blockages (#/hr)	0	25	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								20	20		15	15
Adj. Flow (vph)	12	313	56	0	0	0	0	1318	160	0	1380	161
Lane Group Flow (vph)	0	381	0	0	0	0	0	1478	0	0	1541	0
Turn Type	Split											
Protected Phases	4	4						2			2	
Permitted Phases												
Minimum Split (s)	33.0	33.0						48.5			48.5	
Total Split (s)	33.0	33.0	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	2.1	2.1						0.8			0.8	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0						54.0			54.0	
Actuated g/C Ratio		0.33						0.60			0.60	
v/c Ratio		0.72						0.81			0.86	
Control Delay		31.4						6.9			15.1	
Queue Delay		1.1						0.9			0.9	
Total Delay		32.5						7.8			15.9	
LOS		C						A			B	
Approach Delay		32.5						7.8			15.9	
Approach LOS		C						A			B	
Queue Length 50th (ft)		175						37			170	
Queue Length 95th (ft)		m209						43			202	
Internal Link Dist (ft)		370			421			247			76	
Turn Bay Length (ft)												





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		532						1816			1795	
Starvation Cap Reductn		0						130			1	
Spillback Cap Reductn		39						38			80	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.77						0.88			0.90	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	55 (61%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	14.2
Intersection LOS:	B
Intersection Capacity Utilization	72.6%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 672: Clay St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.901						0.962				
Flt Protected		0.992									0.996	
Satd. Flow (prot)	0	3037	0	0	0	0	0	1881	0	0	1947	0
Flt Permitted		0.992									0.937	
Satd. Flow (perm)	0	3037	0	0	0	0	0	1881	0	0	1832	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		275						47				
Headway Factor	1.00	1.05	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		501			243			317			321	
Travel Time (s)		13.7			6.6			8.6			8.8	
Volume (vph)	63	70	261	0	0	0	0	363	143	43	482	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	20	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	66	74	275	0	0	0	0	382	151	45	507	0
Lane Group Flow (vph)	0	415	0	0	0	0	0	533	0	0	552	0
Turn Type	Split						Perm					
Protected Phases	4	4						2				2
Permitted Phases										2		
Minimum Split (s)	26.5	26.5						17.0		17.0	17.0	
Total Split (s)	27.5	27.5	0.0	0.0	0.0	0.0	0.0	32.5	0.0	32.5	32.5	0.0
Total Split (%)	45.8%	45.8%	0.0%	0.0%	0.0%	0.0%	0.0%	54.2%	0.0%	54.2%	54.2%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		24.5						29.5			29.5	
Actuated g/C Ratio		0.41						0.49			0.49	
v/c Ratio		0.30						0.56			0.61	
Control Delay		4.8						9.7			13.1	
Queue Delay		0.0						0.3			0.1	
Total Delay		4.8						10.0			13.2	
LOS		A						B			B	
Approach Delay		4.8						10.0			13.2	
Approach LOS		A						B			B	
Queue Length 50th (ft)		15						62			107	
Queue Length 95th (ft)		40						m114			159	
Internal Link Dist (ft)		421			163			237			241	
Turn Bay Length (ft)												
Base Capacity (vph)		1403						949			901	
Starvation Cap Reductn		0						83			20	
Spillback Cap Reductn		2						0			28	
Storage Cap Reductn		0						0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.30						0.62			0.63		

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	10 (17%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	9.7
Intersection LOS:	A
Intersection Capacity Utilization	77.7%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 673: Clay St. & Polk St.

	ø2		ø4
32.5 s		27.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.947						0.961			0.998	
Flt Protected		0.999									0.999	
Satd. Flow (prot)	0	1741	0	0	0	0	0	1486	0	0	1857	0
Flt Permitted		0.999									0.991	
Satd. Flow (perm)	0	1741	0	0	0	0	0	1486	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38						42			1	
Headway Factor	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.27	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		240			522			291			380	
Travel Time (s)		6.5			14.2			7.9			10.4	
Volume (vph)	8	191	129	0	0	0	0	82	33	24	829	12
Peak Hour Factor	0.78	0.78	0.78	0.25	0.25	0.25	0.74	0.74	0.74	0.97	0.97	0.97
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								14	14			39
Adj. Flow (vph)	10	245	165	0	0	0	0	111	45	25	855	12
Lane Group Flow (vph)	0	420	0	0	0	0	0	156	0	0	892	0
Turn Type	Split									Perm		
Protected Phases	4	4						2			6	
Permitted Phases										6		
Minimum Split (s)	15.5	15.5						17.0		17.0	17.0	
Total Split (s)	32.0	32.0	0.0	0.0	0.0	0.0	0.0	58.0	0.0	58.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	0.0%	64.4%	0.0%	64.4%	64.4%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5						0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0						55.0			55.0	
Actuated g/C Ratio		0.32						0.61			0.61	
v/c Ratio		0.72						0.17			0.79	
Control Delay		32.3						14.5			10.7	
Queue Delay		0.0						0.0			1.6	
Total Delay		32.3						14.5			12.3	
LOS		C						B			B	
Approach Delay		32.3						14.5			12.3	
Approach LOS		C						B			B	
Queue Length 50th (ft)		190						74			106	
Queue Length 95th (ft)		241						m78			207	
Internal Link Dist (ft)		160			442			211			300	
Turn Bay Length (ft)												
Base Capacity (vph)		587						924			1126	
Starvation Cap Reductn		0						0			102	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.72						0.17			0.87		

**Intersection Summary**

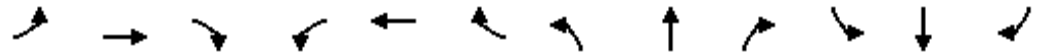
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	25 (28%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	18.2
Intersection LOS:	B
Intersection Capacity Utilization	77.4%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 679: Washington St. & Gough St.

 ø2 58 s	 ø4 32 s
 ø6 58 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Frt								0.990				
Flt Protected		0.993										
Satd. Flow (prot)	0	3493	0	0	0	0	0	4741	0	0	0	0
Flt Permitted		0.993										
Satd. Flow (perm)	0	3493	0	0	0	0	0	4741	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3						35				
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25				25
Link Distance (ft)		522				452		296				369
Travel Time (s)		14.2				12.3		8.1				10.1
Volume (vph)	37	211	0	0	0	0	0	2934	212	0	0	0
Peak Hour Factor	0.64	0.64	0.64	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95
Bus Blockages (#/hr)	0	3	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								15	15			
Adj. Flow (vph)	58	330	0	0	0	0	0	3121	226	0	0	0
Lane Group Flow (vph)	0	388	0	0	0	0	0	3347	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	20.5	20.5						17.0				
Total Split (s)	20.5	20.5	0.0	0.0	0.0	0.0	0.0	69.5	0.0	0.0	0.0	0.0
Total Split (%)	22.8%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%	77.2%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		17.5						66.5				
Actuated g/C Ratio		0.19						0.74				
v/c Ratio		0.57						0.95				
Control Delay		43.0						6.7				
Queue Delay		0.0						1.0				
Total Delay		43.0						7.7				
LOS		D						A				
Approach Delay		43.0						7.7				
Approach LOS		D						A				
Queue Length 50th (ft)		120						45				
Queue Length 95th (ft)		116						#76				
Internal Link Dist (ft)		442				372		216			289	
Turn Bay Length (ft)												
Base Capacity (vph)		682						3512				
Starvation Cap Reductn		0						54				
Spillback Cap Reductn		0						0				
Storage Cap Reductn		0						0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.57						0.97					

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 82 (91%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 11.3      Intersection LOS: B  
 Intersection Capacity Utilization 75.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 680: Washington St. & Franklin St.

↑ ø2	↖ ↗ ø4
69.5 s	20.5 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.959						0.980				
Flt Protected		0.992									0.996	
Satd. Flow (prot)	0	3333	0	0	0	0	0	1916	0	0	1947	0
Flt Permitted		0.992									0.955	
Satd. Flow (perm)	0	3333	0	0	0	0	0	1916	0	0	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		108						20				
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			245			321			342	
Travel Time (s)		13.4			6.7			8.8			9.3	
Volume (vph)	66	239	115	0	0	0	0	364	62	32	410	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	5	0	0	0	0	0	4	0	0	4	0
Adj. Flow (vph)	69	252	121	0	0	0	0	383	65	34	432	0
Lane Group Flow (vph)	0	442	0	0	0	0	0	448	0	0	466	0
Turn Type	Split									Perm		
Protected Phases	4	4						2				2
Permitted Phases										2		
Minimum Split (s)	19.0	19.0						17.0		17.0	17.0	
Total Split (s)	27.0	27.0	0.0	0.0	0.0	0.0	0.0	33.0	0.0	33.0	33.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	0.0%	0.0%	0.0%	0.0%	55.0%	0.0%	55.0%	55.0%	0.0%
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0						0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		24.0						30.0			30.0	
Actuated g/C Ratio		0.40						0.50			0.50	
v/c Ratio		0.32						0.46			0.50	
Control Delay		9.9						3.8			11.9	
Queue Delay		0.0						0.2			0.2	
Total Delay		9.9						4.0			12.2	
LOS		A						A			B	
Approach Delay		9.9						4.0			12.2	
Approach LOS		A						A			B	
Queue Length 50th (ft)		40						19			109	
Queue Length 95th (ft)		69						40			157	
Internal Link Dist (ft)		413			165			241			262	
Turn Bay Length (ft)												
Base Capacity (vph)		1398						968			934	
Starvation Cap Reductn		0						115			99	
Spillback Cap Reductn		0						4			0	
Storage Cap Reductn		0						0			0	





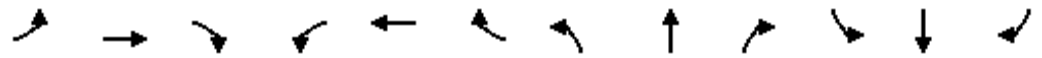
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.32						0.53			0.56		

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	17 (28%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	8.7
Intersection LOS:	A
Intersection Capacity Utilization	66.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 681: Washington St. & Polk St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.917			0.994						0.984	
Fl <sub>t</sub> Protected		0.981		0.950				0.999				
Satd. Flow (prot)	0	1676	0	1770	1829	0	0	1861	0	0	1833	0
Fl <sub>t</sub> Permitted		0.555		0.684				0.987				
Satd. Flow (perm)	0	948	0	1274	1829	0	0	1839	0	0	1833	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66			3							13
Headway Factor	1.00	1.00	1.00	1.00	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		537			487			380			309	
Travel Time (s)		14.6			13.3			10.4			8.4	
Volume (vph)	33	0	52	93	356	15	2	88	0	0	720	96
Peak Hour Factor	0.79	0.79	0.79	0.74	0.74	0.74	0.78	0.78	0.78	0.96	0.96	0.96
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)												14
Adj. Flow (vph)	42	0	66	126	481	20	3	113	0	0	750	100
Lane Group Flow (vph)	0	108	0	126	501	0	0	116	0	0	850	0
Turn Type	Perm			Perm			Perm					
Protected Phases		4			8			2				6
Permitted Phases	4			8			2					
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0			17.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5			0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0		32.0	32.0			52.0			52.0	
Actuated g/C Ratio		0.36		0.36	0.36			0.58			0.58	
v/c Ratio		0.28		0.28	0.77			0.11			0.80	
Control Delay		11.6		12.7	21.6			1.5			13.9	
Queue Delay		0.0		0.0	0.2			0.0			1.0	
Total Delay		11.7		12.7	21.7			1.5			15.0	
LOS		B		B	C			A			B	
Approach Delay		11.7			19.9			1.5			15.0	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		16		28	121			6			143	
Queue Length 95th (ft)		43		m38	132			m7			196	
Internal Link Dist (ft)		457			407			300			229	
Turn Bay Length (ft)												
Base Capacity (vph)		380		453	652			1063			1065	
Starvation Cap Reductn		0		0	8			0			38	
Spillback Cap Reductn		2		0	0			0			68	
Storage Cap Reductn		0		0	0			0			0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.29		0.28	0.78			0.11			0.85	

**Intersection Summary**

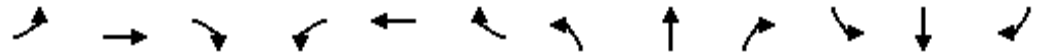
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	18 (20%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization	78.4%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 686: Jackson St. & Gough St.

 ø2 55 s	 ø4 35 s
 ø6 55 s	 ø8 35 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.970							
Flt Protected								0.997				
Satd. Flow (prot)	0	0	0	0	3412	0	0	4757	0	0	0	0
Flt Permitted								0.997				
Satd. Flow (perm)	0	0	0	0	3412	0	0	4757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					5			27				
Headway Factor	1.00	1.00	1.00	1.00	1.01	1.00	1.00	1.09	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		487			475			369				314
Travel Time (s)		13.3			13.0			10.1				8.6
Volume (vph)	0	0	0	0	309	78	155	2816	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)							17	17				
Adj. Flow (vph)	0	0	0	0	325	82	163	2964	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	407	0	0	3127	0	0	0	0
Turn Type							Split					
Protected Phases					4		2	2				
Permitted Phases												
Minimum Split (s)					17.0		17.0	17.0				
Total Split (s)	0.0	0.0	0.0	0.0	19.0	0.0	71.0	71.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	21.1%	0.0%	78.9%	78.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					16.0			68.0				
Actuated g/C Ratio					0.18			0.76				
v/c Ratio					0.67			0.87				
Control Delay					19.1			1.8				
Queue Delay					0.0			0.7				
Total Delay					19.1			2.5				
LOS					B			A				
Approach Delay					19.1			2.5				
Approach LOS					B			A				
Queue Length 50th (ft)					116			29				
Queue Length 95th (ft)					m162			m31				
Internal Link Dist (ft)		407			395			289			234	
Turn Bay Length (ft)												
Base Capacity (vph)					611			3601				
Starvation Cap Reductn					0			192				
Spillback Cap Reductn					0			79				
Storage Cap Reductn					0			0				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.67						0.92					

**Intersection Summary**

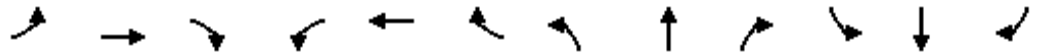
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	89 (99%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	4.4
Intersection LOS:	A
Intersection Capacity Utilization	75.3%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 687: Jackson St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.974						0.961	
Flt Protected					0.987			0.986				
Satd. Flow (prot)	0	0	0	0	3368	0	0	1928	0	0	1879	0
Flt Permitted					0.987			0.710				
Satd. Flow (perm)	0	0	0	0	3368	0	0	1388	0	0	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					45						53	
Headway Factor	1.00	1.00	1.00	1.00	1.01	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		267			239			342			180	
Travel Time (s)		7.3			6.5			9.3			4.9	
Volume (vph)	0	0	0	95	197	61	123	307	0	0	347	139
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	5	0	0	4	0	0	4	0
Adj. Flow (vph)	0	0	0	100	207	64	129	323	0	0	365	146
Lane Group Flow (vph)	0	0	0	0	371	0	0	452	0	0	511	0
Turn Type				Split			Perm					
Protected Phases				4	4			2			2	
Permitted Phases							2					
Minimum Split (s)				21.0	21.0		17.0	17.0			17.0	
Total Split (s)	0.0	0.0	0.0	24.0	24.0	0.0	36.0	36.0	0.0	0.0	36.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	0.0%	60.0%	0.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.0	0.0		0.0	0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					21.0			33.0			33.0	
Actuated g/C Ratio					0.35			0.55			0.55	
v/c Ratio					0.31			0.59			0.48	
Control Delay					13.2			7.7			7.1	
Queue Delay					0.0			0.4			0.2	
Total Delay					13.2			8.1			7.3	
LOS					B			A			A	
Approach Delay					13.2			8.1			7.3	
Approach LOS					B			A			A	
Queue Length 50th (ft)					43			27			81	
Queue Length 95th (ft)					72			40			129	
Internal Link Dist (ft)		187			159			262			100	
Turn Bay Length (ft)												
Base Capacity (vph)					1208			763			1057	
Starvation Cap Reductn					0			61			133	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	



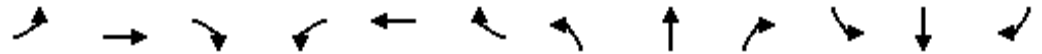
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio					0.31			0.64			0.55	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	26 (43%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	69.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 688: Jackson St. & Polk St.

 ø2	 ø4
36 s	24 s



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.977			0.990			0.975			0.998	
Flt Protected		0.999			0.991						0.999	
Satd. Flow (prot)	0	1818	0	0	1828	0	0	1816	0	0	1857	0
Flt Permitted		0.997			0.929						0.990	
Satd. Flow (perm)	0	1814	0	0	1713	0	0	1816	0	0	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			24			1	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		212			498			309			338	
Travel Time (s)		5.8			13.6			8.4			9.2	
Volume (vph)	2	119	25	42	179	17	0	111	25	22	749	10
Peak Hour Factor	0.81	0.81	0.81	0.91	0.91	0.91	0.73	0.73	0.73	0.95	0.95	0.95
Parking (#/hr)									14			17
Adj. Flow (vph)	2	147	31	46	197	19	0	152	34	23	788	11
Lane Group Flow (vph)	0	180	0	0	262	0	0	186	0	0	822	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0			27.0			57.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.63			0.63	
v/c Ratio		0.33			0.51			0.16			0.70	
Control Delay		24.8			18.9			4.6			8.8	
Queue Delay		0.0			0.0			0.0			1.8	
Total Delay		24.8			18.9			4.6			10.7	
LOS		C			B			A			B	
Approach Delay		24.8			18.9			4.6			10.7	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		73			63			24			137	
Queue Length 95th (ft)		114			m118			35			270	
Internal Link Dist (ft)		132			418			229			258	
Turn Bay Length (ft)												
Base Capacity (vph)		553			517			1159			1166	
Starvation Cap Reductn		0			0			0			193	
Spillback Cap Reductn		0			0			0			8	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.33			0.51			0.16			0.84	



**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 20 (22%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 13.1                      Intersection LOS: B  
 Intersection Capacity Utilization 82.6%                      ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 693: Pacific Ave. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.945			0.991				
Fl <sub>t</sub> Protected		0.991						0.998				
Satd. Flow (prot)	0	1846	0	0	1760	0	0	5029	0	0	0	0
Fl <sub>t</sub> Permitted		0.766						0.998				
Satd. Flow (perm)	0	1427	0	0	1760	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			26				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		498			264			314				330
Travel Time (s)		13.6			7.2			8.6				9.0
Volume (vph)	30	136	0	0	145	101	93	2634	167	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							15		15			
Adj. Flow (vph)	32	143	0	0	153	106	98	2773	176	0	0	0
Lane Group Flow (vph)	0	175	0	0	259	0	0	3047	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	17.0	17.0			17.0		21.0	21.0				
Total Split (s)	23.0	23.0	0.0	0.0	23.0	0.0	67.0	67.0	0.0	0.0	0.0	0.0
Total Split (%)	25.6%	25.6%	0.0%	0.0%	25.6%	0.0%	74.4%	74.4%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		20.0			20.0			64.0				
Actuated g/C Ratio		0.22			0.22			0.71				
v/c Ratio		0.55			0.66			0.85				
Control Delay		36.1			14.7			3.1				
Queue Delay		0.0			0.0			1.9				
Total Delay		36.1			14.7			4.9				
LOS		D			B			A				
Approach Delay		36.1			14.7			4.9				
Approach LOS		D			B			A				
Queue Length 50th (ft)		58			102			18				
Queue Length 95th (ft)		m124			m103			21				
Internal Link Dist (ft)		418			184			234			250	
Turn Bay Length (ft)												
Base Capacity (vph)		317			395			3584				
Starvation Cap Reductn		0			0			275				
Spillback Cap Reductn		0			0			368				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.55			0.66			0.95				

**Intersection Summary**

Area Type: Other  
Cycle Length: 90  
Actuated Cycle Length: 90  
Offset: 12 (13%), Referenced to phase 2:NBTL, Start of Green  
Natural Cycle: 60  
Control Type: Pretimed  
Maximum v/c Ratio: 0.85  
Intersection Signal Delay: 7.2 Intersection LOS: A  
Intersection Capacity Utilization 89.1% ICU Level of Service E  
Analysis Period (min) 15  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 694: Pacific Ave. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	14	12	12	14	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943			0.985			0.954			0.977	
Flt Protected		0.995			0.988			0.990			0.997	
Satd. Flow (prot)	0	1706	0	0	1769	0	0	1847	0	0	1904	0
Flt Permitted		0.951			0.857			0.881			0.970	
Satd. Flow (perm)	0	1630	0	0	1535	0	0	1643	0	0	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		79			14			57			23	
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		493			487			152			155	
Travel Time (s)		13.4			13.3			4.1			4.2	
Volume (vph)	32	151	132	74	190	34	73	169	126	22	280	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	4	0	0	4	0
Adj. Flow (vph)	34	159	139	78	200	36	77	178	133	23	295	66
Lane Group Flow (vph)	0	332	0	0	314	0	0	388	0	0	384	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Minimum Split (s)	19.0	19.0		19.0	19.0		17.0	17.0		17.0	17.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0			27.0			27.0			27.0	
Actuated g/C Ratio		0.45			0.45			0.45			0.45	
v/c Ratio		0.43			0.45			0.50			0.45	
Control Delay		10.4			13.4			5.7			12.8	
Queue Delay		0.0			0.0			0.2			0.0	
Total Delay		10.4			13.4			5.9			12.8	
LOS		B			B			A			B	
Approach Delay		10.4			13.4			5.9			12.8	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)		56			70			18			84	
Queue Length 95th (ft)		112			129			38			148	
Internal Link Dist (ft)		413			407			72			75	
Turn Bay Length (ft)												
Base Capacity (vph)		777			698			771			847	
Starvation Cap Reductn		0			0			59			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	

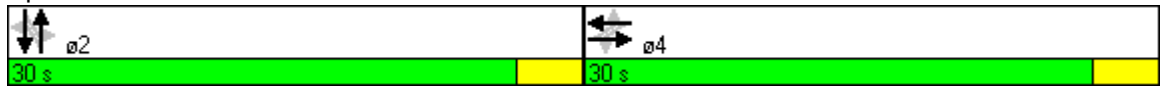


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.43			0.45			0.54			0.45	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	36 (60%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization	80.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 695: Pacific Ave. & Polk St.



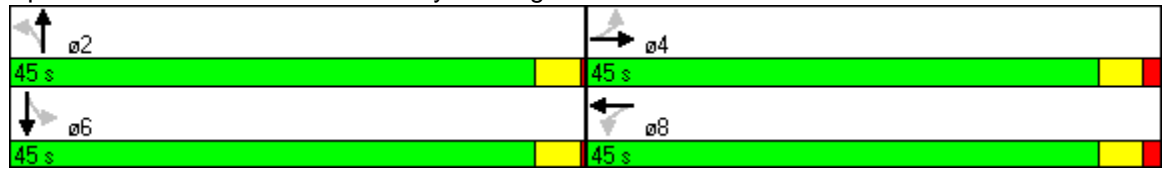


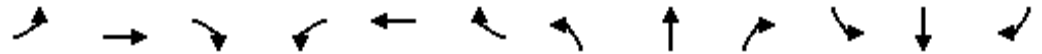
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Flt		0.983			0.995			0.984			0.997	
Flt Protected		0.999			0.986			0.997			0.995	
Satd. Flow (prot)	0	3476	0	0	3472	0	0	1827	0	0	1848	0
Flt Permitted		0.943			0.691			0.959			0.956	
Satd. Flow (perm)	0	3281	0	0	2433	0	0	1758	0	0	1775	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			6			10			2	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		268			500			338			339	
Travel Time (s)		7.3			13.6			9.2			9.2	
Volume (vph)	6	346	45	217	543	29	9	106	15	55	519	14
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.72	0.72	0.72	0.92	0.92	0.92
Parking (#/hr)									17			17
Adj. Flow (vph)	6	364	47	255	639	34	12	147	21	60	564	15
Lane Group Flow (vph)	0	417	0	0	928	0	0	180	0	0	639	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	17.0	17.0		17.0	17.0		42.0	42.0		42.0	42.0	
Total Split (s)	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		0.5	0.5		0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		42.0			42.0			42.0			42.0	
Actuated g/C Ratio		0.47			0.47			0.47			0.47	
v/c Ratio		0.27			0.81			0.22			0.77	
Control Delay		14.5			12.1			6.3			27.7	
Queue Delay		0.0			0.7			0.0			0.0	
Total Delay		14.5			12.7			6.3			27.7	
LOS		B			B			A			C	
Approach Delay		14.5			12.7			6.3			27.7	
Approach LOS		B			B			A			C	
Queue Length 50th (ft)		69			48			20			290	
Queue Length 95th (ft)		101			m68			23			436	
Internal Link Dist (ft)		188			420			258			259	
Turn Bay Length (ft)												
Base Capacity (vph)		1542			1139			826			829	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		63			47			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.85			0.22			0.77	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	33 (37%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	16.9
Intersection LOS:	B
Intersection Capacity Utilization	84.9%
ICU Level of Service	E
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 698: Broadway & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.958			0.988				
Flt Protected		0.998						0.998				
Satd. Flow (prot)	0	3532	0	0	3391	0	0	5014	0	0	0	0
Flt Permitted		0.793						0.998				
Satd. Flow (perm)	0	2807	0	0	3391	0	0	5014	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			30				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		500			455			330				362
Travel Time (s)		13.6			12.4			9.0				9.9
Volume (vph)	13	403	0	0	684	265	105	2434	226	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	14	438	0	0	720	279	114	2646	246	0	0	0
Lane Group Flow (vph)	0	452	0	0	999	0	0	3006	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		25.0	25.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.52			0.95			0.96				
Control Delay		18.9			14.1			14.7				
Queue Delay		0.0			0.0			5.7				
Total Delay		18.9			14.1			20.4				
LOS		B			B			C				
Approach Delay		18.9			14.1			20.4				
Approach LOS		B			B			C				
Queue Length 50th (ft)		63			16			202				
Queue Length 95th (ft)		m82			m#31			#538				
Internal Link Dist (ft)		420			375			250			282	
Turn Bay Length (ft)												
Base Capacity (vph)		873			1057			3131				
Starvation Cap Reductn		0			0			127				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.52			0.95			1.00				



Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 20 (22%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 18.8

Intersection LOS: B

Intersection Capacity Utilization 88.2%

ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 699: Broadway & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕						↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		0.98						0.99				
Frt		0.992						0.995				
Flt Protected		0.997										
Satd. Flow (prot)	0	3442	0	0	0	0	0	3143	0	0	3283	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	3404	0	0	0	0	0	3143	0	0	3283	0
Right Turn on Red			Yes				Yes		Yes			Yes
Satd. Flow (RTOR)		7						8				
Headway Factor	1.00	1.01	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.10	1.00
Link Speed (mph)		25				25		25			25	
Link Distance (ft)		452				493		145			354	
Travel Time (s)		12.3				13.4		4.0			9.7	
Volume (vph)	26	373	24	0	0	0	0	1265	47	0	1440	0
Confl. Peds. (#/hr)	135		135						270	270		
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96
Bus Blockages (#/hr)	0	3	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								7	7		9	
Adj. Flow (vph)	28	405	26	0	0	0	0	1375	51	0	1500	0
Lane Group Flow (vph)	0	459	0	0	0	0	0	1426	0	0	1500	0
Turn Type	custom											
Protected Phases	4	4						2			6	
Permitted Phases	4											
Minimum Split (s)	25.0	25.0						48.0			24.0	
Total Split (s)	30.0	30.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	1.0	1.0						0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		27.0						57.0			57.0	
Actuated g/C Ratio		0.30						0.63			0.63	
v/c Ratio		0.44						0.72			0.72	
Control Delay		38.3						3.1			12.3	
Queue Delay		0.1						0.9			0.7	
Total Delay		38.4						4.1			13.0	
LOS		D						A			B	
Approach Delay		38.4						4.1			13.0	
Approach LOS		D						A			B	
Queue Length 50th (ft)		128						16			182	
Queue Length 95th (ft)		m159						18			224	
Internal Link Dist (ft)		372			413			65			274	
Turn Bay Length (ft)												
Base Capacity (vph)		1038						1994			2079	
Starvation Cap Reductn		0						294			265	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		90						59			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.48						0.84			0.83	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	65 (72%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization	63.1%
ICU Level of Service	B
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

**Splits and Phases: 700: Washington St. & Van Ness Avenue**

φ2 60 s	φ4 30 s
φ6 60 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.960			0.995				
Flt Protected		0.970						0.997				
Satd. Flow (prot)	0	1807	0	0	1788	0	0	5045	0	0	0	0
Flt Permitted		0.645						0.997				
Satd. Flow (perm)	0	1201	0	0	1788	0	0	5045	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			12				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			461			337				345
Travel Time (s)		13.8			12.6			9.2				9.4
Volume (vph)	124	80	0	0	117	48	162	2379	93	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	131	84	0	0	123	51	171	2504	98	0	0	0
Lane Group Flow (vph)	0	215	0	0	174	0	0	2773	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	29.0	29.0	0.0	0.0	29.0	0.0	61.0	61.0	0.0	0.0	0.0	0.0
Total Split (%)	32.2%	32.2%	0.0%	0.0%	32.2%	0.0%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		26.0			26.0			58.0				
Actuated g/C Ratio		0.29			0.29			0.64				
v/c Ratio		0.62			0.33			0.85				
Control Delay		36.8			29.4			5.1				
Queue Delay		0.0			0.0			0.5				
Total Delay		36.8			29.4			5.6				
LOS		D			C			A				
Approach Delay		36.8			29.4			5.6				
Approach LOS		D			C			A				
Queue Length 50th (ft)		106			98			83				
Queue Length 95th (ft)		184			m157			124				
Internal Link Dist (ft)		425			381			257			265	
Turn Bay Length (ft)												
Base Capacity (vph)		347			520			3255				
Starvation Cap Reductn		0			0			122				
Spillback Cap Reductn		0			0			156				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.62			0.33			0.89				

**Intersection Summary**

Area Type: Other  
Cycle Length: 90  
Actuated Cycle Length: 90  
Offset: 39 (43%), Referenced to phase 2:NBTL, Start of Green  
Natural Cycle: 60  
Control Type: Pretimed  
Maximum v/c Ratio: 0.85  
Intersection Signal Delay: 9.1                      Intersection LOS: A  
Intersection Capacity Utilization 81.5%                      ICU Level of Service D  
Analysis Period (min) 15  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 701: Green St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.973			0.991			0.983			0.992	
Fl <sub>t</sub> Protected		0.998			0.993			0.993			0.996	
Satd. Flow (prot)	0	1679	0	0	1701	0	0	1818	0	0	1840	0
Fl <sub>t</sub> Permitted		0.975			0.891			0.914			0.963	
Satd. Flow (perm)	0	1640	0	0	1526	0	0	1674	0	0	1779	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			9			15			7	
Headway Factor	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			503			347			342	
Travel Time (s)		13.0			13.7			9.5			9.3	
Volume (vph)	18	361	93	65	391	32	23	123	21	35	404	29
Peak Hour Factor	0.82	0.82	0.82	0.85	0.85	0.85	0.59	0.59	0.59	0.88	0.88	0.88
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)									17			17
Adj. Flow (vph)	22	440	113	76	460	38	39	208	36	40	459	33
Lane Group Flow (vph)	0	575	0	0	574	0	0	283	0	0	532	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	17.0	17.0		17.0	17.0		17.0	17.0		17.0	17.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0			24.0			24.0	
Actuated g/C Ratio		0.50			0.50			0.40			0.40	
v/c Ratio		0.69			0.75			0.42			0.74	
Control Delay		16.1			19.7			14.6			23.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.1			19.7			14.6			23.3	
LOS		B			B			B			C	
Approach Delay		16.1			19.7			14.6			23.3	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)		138			151			67			156	
Queue Length 95th (ft)		204			241			70			#262	
Internal Link Dist (ft)		395			423			267			262	
Turn Bay Length (ft)												
Base Capacity (vph)		835			768			679			716	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	

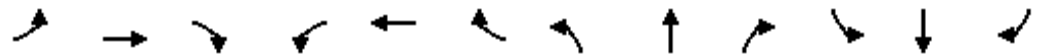




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt						0.850		0.994				
Flt Protected		0.995						0.995				
Satd. Flow (prot)	0	1720	0	0	1729	1583	0	5030	0	0	0	0
Flt Permitted		0.948						0.995				
Satd. Flow (perm)	0	1639	0	0	1729	1583	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						5		12				
Headway Factor	1.00	1.10	1.00	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			449			345				341
Travel Time (s)		13.7			12.2			9.4				9.3
Volume (vph)	42	375	0	0	231	84	257	2192	102	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	18	0	0	18	0	0	0	0	0	0	0
Parking (#/hr)							13		13			
Adj. Flow (vph)	44	395	0	0	243	88	271	2307	107	0	0	0
Lane Group Flow (vph)	0	439	0	0	243	88	0	2685	0	0	0	0
Turn Type	Perm					Perm	Split					
Protected Phases		4			4		2	2				
Permitted Phases	4					4						
Minimum Split (s)	21.0	21.0			21.0	21.0	19.0	19.0				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	33.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	36.7%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0	30.0		54.0				
Actuated g/C Ratio		0.33			0.33	0.33		0.60				
v/c Ratio		0.80			0.42	0.17		0.89				
Control Delay		40.5			38.0	32.2		7.3				
Queue Delay		1.9			0.0	0.0		1.4				
Total Delay		42.4			38.0	32.2		8.7				
LOS		D			D	C		A				
Approach Delay		42.4			36.5			8.7				
Approach LOS		D			D			A				
Queue Length 50th (ft)		225			134	45		41				
Queue Length 95th (ft)		#380			m201	m81		47				
Internal Link Dist (ft)		423			369			265			261	
Turn Bay Length (ft)												
Base Capacity (vph)		546			576	531		3023				
Starvation Cap Reductn		0			0	0		170				
Spillback Cap Reductn		33			0	0		105				
Storage Cap Reductn		0			0	0		0				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.971			0.988				
Fl <sub>t</sub> Protected		0.993						0.997				
Satd. Flow (prot)	0	1850	0	0	1809	0	0	5009	0	0	0	0
Fl <sub>t</sub> Permitted		0.959						0.997				
Satd. Flow (perm)	0	1786	0	0	1809	0	0	5009	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14			32				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		505			460			341				351
Travel Time (s)		13.8			12.5			9.3				9.6
Volume (vph)	21	119	0	0	53	14	148	1989	181	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	22	125	0	0	56	15	156	2094	191	0	0	0
Lane Group Flow (vph)	0	147	0	0	71	0	0	2441	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	28.0	28.0	0.0	0.0	28.0	0.0	62.0	62.0	0.0	0.0	0.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	0.0%	31.1%	0.0%	68.9%	68.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		25.0			25.0			59.0				
Actuated g/C Ratio		0.28			0.28			0.66				
v/c Ratio		0.30			0.14			0.74				
Control Delay		27.6			32.9			1.8				
Queue Delay		0.0			0.0			0.7				
Total Delay		27.6			32.9			2.5				
LOS		C			C			A				
Approach Delay		27.6			32.9			2.5				
Approach LOS		C			C			A				
Queue Length 50th (ft)		66			29			24				
Queue Length 95th (ft)		117			m63			27				
Internal Link Dist (ft)		425			380			261			271	
Turn Bay Length (ft)												
Base Capacity (vph)		496			513			3295				
Starvation Cap Reductn		0			0			454				
Spillback Cap Reductn		0			0			118				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.30			0.14			0.86				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 59 (66%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 4.7

Intersection LOS: A

Intersection Capacity Utilization 66.2%

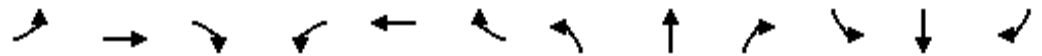
ICU Level of Service C

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 705: Filbert St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.961			0.994				
Flt Protected		0.989						0.995				
Satd. Flow (prot)	0	1842	0	0	1790	0	0	5030	0	0	0	0
Flt Permitted		0.923						0.995				
Satd. Flow (perm)	0	1719	0	0	1790	0	0	5030	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19			13				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		247			452			351				315
Travel Time (s)		6.7			12.3			9.6				8.6
Volume (vph)	32	111	0	0	82	33	185	1760	79	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	34	117	0	0	86	35	195	1853	83	0	0	0
Lane Group Flow (vph)	0	151	0	0	121	0	0	2131	0	0	0	0
Turn Type		Perm						Split				
Protected Phases		4			4		2	2				
Permitted Phases		4										
Minimum Split (s)	21.0	21.0			21.0		17.0	17.0				
Total Split (s)	31.0	31.0	0.0	0.0	31.0	0.0	59.0	59.0	0.0	0.0	0.0	0.0
Total Split (%)	34.4%	34.4%	0.0%	0.0%	34.4%	0.0%	65.6%	65.6%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		1.5	1.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0			56.0				
Actuated g/C Ratio		0.31			0.31			0.62				
v/c Ratio		0.28			0.21			0.68				
Control Delay		25.2			12.9			4.0				
Queue Delay		0.0			0.0			0.5				
Total Delay		25.2			12.9			4.4				
LOS		C			B			A				
Approach Delay		25.2			12.9			4.4				
Approach LOS		C			B			A				
Queue Length 50th (ft)		64			19			111				
Queue Length 95th (ft)		114			m40			122				
Internal Link Dist (ft)		167			372			271			235	
Turn Bay Length (ft)												
Base Capacity (vph)		535			570			3135				
Starvation Cap Reductn		0			0			481				
Spillback Cap Reductn		0			1			181				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.28			0.21			0.80				

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 76 (84%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 6.2

Intersection LOS: A

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 706: Greenwich St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Fr <sub>t</sub>					0.951			0.995				
Fl <sub>t</sub> Protected		0.992						0.999				
Satd. Flow (prot)	0	1848	0	0	1771	0	0	5055	0	0	0	0
Fl <sub>t</sub> Permitted		0.945						0.999				
Satd. Flow (perm)	0	1760	0	0	1771	0	0	5055	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			14				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			435			362				337
Travel Time (s)		13.7			11.9			9.9				9.2
Volume (vph)	15	78	0	0	96	55	53	2564	95	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)							17		17			
Adj. Flow (vph)	16	82	0	0	101	58	56	2699	100	0	0	0
Lane Group Flow (vph)	0	98	0	0	159	0	0	2855	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	20.5	20.5			20.5		17.0	17.0				
Total Split (s)	23.5	23.5	0.0	0.0	23.5	0.0	66.5	66.5	0.0	0.0	0.0	0.0
Total Split (%)	26.1%	26.1%	0.0%	0.0%	26.1%	0.0%	73.9%	73.9%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		20.5			20.5			63.5				
Actuated g/C Ratio		0.23			0.23			0.71				
v/c Ratio		0.24			0.39			0.80				
Control Delay		30.4			18.7			2.1				
Queue Delay		0.0			0.0			1.0				
Total Delay		30.4			18.7			3.1				
LOS		C			B			A				
Approach Delay		30.4			18.7			3.1				
Approach LOS		C			B			A				
Queue Length 50th (ft)		46			86			59				
Queue Length 95th (ft)		89			m137			m58				
Internal Link Dist (ft)		423			355			282			257	
Turn Bay Length (ft)												
Base Capacity (vph)		401			407			3571				
Starvation Cap Reductn		0			0			415				
Spillback Cap Reductn		0			0			196				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.24			0.39			0.90				

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 24 (27%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 4.8

Intersection LOS: A

Intersection Capacity Utilization 76.1%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 901: Vallejo St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕			↕↕			↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			3%	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.93						0.99	
Frt					0.988						0.994	
Flt Protected					0.990							
Satd. Flow (prot)	0	0	0	0	3318	0	0	3014	0	0	2936	0
Flt Permitted					0.990							
Satd. Flow (perm)	0	0	0	0	3163	0	0	3014	0	0	2936	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10						9	
Headway Factor	1.00	1.00	1.00	1.00	1.03	1.00	1.09	1.23	1.00	1.02	1.25	1.02
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		475			228			354			333	
Travel Time (s)		13.0			6.2			9.7			9.1	
Volume (vph)	0	0	0	90	332	37	0	1291	0	0	1350	55
Confl. Peds. (#/hr)				130		130	260					260
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.95	0.95	0.95	0.88	0.88	0.88
Bus Blockages (#/hr)	0	0	0	0	11	0	0	0	0	0	0	0
Parking (#/hr)								15			15	15
Adj. Flow (vph)	0	0	0	97	357	40	0	1359	0	0	1534	62
Lane Group Flow (vph)	0	0	0	0	494	0	0	1359	0	0	1596	0
Turn Type				Perm								
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				30.0	30.0			50.0			50.0	
Total Split (s)	0.0	0.0	0.0	30.0	30.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)				3.5	3.5			3.5			3.5	
All-Red Time (s)				1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)					27.0			57.0			57.0	
Actuated g/C Ratio					0.30			0.63			0.63	
v/c Ratio					0.52			0.71			0.86	
Control Delay					27.9			3.4			12.7	
Queue Delay					0.0			0.3			0.2	
Total Delay					27.9			3.7			12.8	
LOS					C			A			B	
Approach Delay					27.9			3.7			12.8	
Approach LOS					C			A			B	
Queue Length 50th (ft)					119			9			159	
Queue Length 95th (ft)					168			11			m191	
Internal Link Dist (ft)		395			148			274			253	
Turn Bay Length (ft)												





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					956			1909			1863	
Starvation Cap Reductn					0			69			21	
Spillback Cap Reductn					0			126			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.52			0.76			0.87	

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 76 (84%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.86

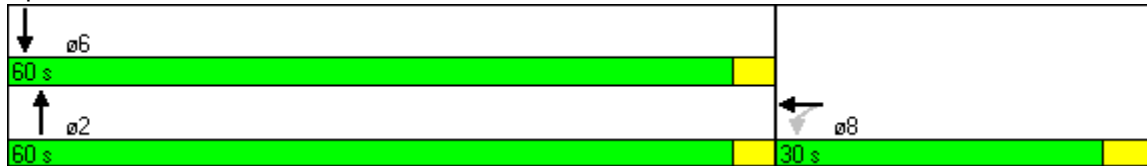
Intersection Signal Delay: 11.4      Intersection LOS: B

Intersection Capacity Utilization 63.1%      ICU Level of Service B

Analysis Period (min) 15

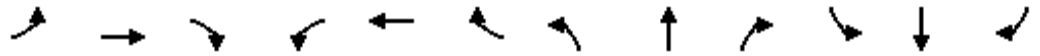
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 902: Jackson St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	10	10	12	12	10	12
Grade (%)		0%			0%			0%			4%	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.94			0.95			0.98			1.00	
Frt		0.964			0.980			0.989			0.997	
Flt Protected		0.998			0.992							
Satd. Flow (prot)	0	1622	0	0	1689	0	0	2971	0	0	2885	0
Flt Permitted		0.983			0.855							
Satd. Flow (perm)	0	1598	0	0	1435	0	0	2971	0	0	2885	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			10			14			3	
Headway Factor	1.00	1.04	1.00	1.00	1.04	1.00	1.09	1.20	1.00	1.03	1.28	1.03
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		199			493			333			333	
Travel Time (s)		5.4			13.4			9.1			9.1	
Volume (vph)	9	214	80	54	224	48	0	1227	101	0	1271	22
Confl. Peds. (#/hr)	130		130	130		130	260		260			260
Peak Hour Factor	0.84	0.84	0.84	0.63	0.63	0.63	0.96	0.96	0.96	0.93	0.93	0.93
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	16	0
Parking (#/hr)								9	9		9	9
Adj. Flow (vph)	11	255	95	86	356	76	0	1278	105	0	1367	24
Lane Group Flow (vph)	0	361	0	0	518	0	0	1383	0	0	1391	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			48.5	
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	0.0	51.0	0.0	0.0	51.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	0.0%	56.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		36.0			36.0			48.0			48.0	
Actuated g/C Ratio		0.40			0.40			0.53			0.53	
v/c Ratio		0.56			0.89			0.87			0.90	
Control Delay		29.5			45.2			9.8			22.6	
Queue Delay		0.0			0.0			0.1			0.3	
Total Delay		29.5			45.2			9.9			22.9	
LOS		C			D			A			C	
Approach Delay		29.5			45.2			9.9			22.9	
Approach LOS		C			D			A			C	
Queue Length 50th (ft)		174			265			13			190	
Queue Length 95th (ft)		m223			232			#16			#507	
Internal Link Dist (ft)		119			413			253			253	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		644			580			1591			1540	
Starvation Cap Reductn		0			0			1			15	
Spillback Cap Reductn		0			0			6			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.56			0.89			0.87			0.91	

**Intersection Summary**

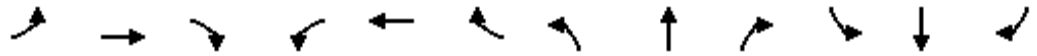
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	21.8
Intersection LOS:	C
Intersection Capacity Utilization	84.9%
ICU Level of Service	E
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 903: Pacific Ave. & Van Ness Avenue

 ø2 51 s	 ø4 39 s
 ø6 51 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↓			↑↑	↑		↑↓		↑↓	↑↓	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Grade (%)		0%			0%			0%			3%	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor		0.99				0.90		0.99		0.98	1.00	
Frt		0.980				0.850		0.980			0.994	
Flt Protected										0.950		
Satd. Flow (prot)	0	3444	0	0	3539	1583	0	2925	0	3156	2944	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	3444	0	0	3539	1431	0	2925	0	3104	2944	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19				308		23			5	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.23	1.00	1.11	1.25	1.02
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		455			247			333			358	
Travel Time (s)		12.4			6.7			9.1			9.8	
Volume (vph)	0	546	83	0	901	274	0	1115	169	287	1210	48
Confl. Peds. (#/hr)	83		40	40		83			79	79		77
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93
Parking (#/hr)								15	15		15	15
Adj. Flow (vph)	0	607	92	0	1012	308	0	1174	178	309	1301	52
Lane Group Flow (vph)	0	699	0	0	1012	308	0	1352	0	309	1353	0
Turn Type						Perm					Prot	
Protected Phases		4			8			2		1	6	
Permitted Phases						8						
Minimum Split (s)		30.5			31.0	31.0		39.0		11.0	50.0	
Total Split (s)	0.0	31.0	0.0	0.0	31.0	31.0	0.0	41.0	0.0	18.0	59.0	0.0
Total Split (%)	0.0%	34.4%	0.0%	0.0%	34.4%	34.4%	0.0%	45.6%	0.0%	20.0%	65.6%	0.0%
Yellow Time (s)		3.5			3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)		1.0			1.0	1.0		0.0		0.0	0.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Act Effct Green (s)		28.0			28.0	28.0		38.0		15.0	56.0	
Actuated g/C Ratio		0.31			0.31	0.31		0.42		0.17	0.62	
v/c Ratio		0.64			0.92	0.47		1.08		0.59	0.74	
Control Delay		35.5			44.4	5.5		60.0		28.7	5.9	
Queue Delay		0.0			0.0	0.0		11.6		0.0	0.1	
Total Delay		35.5			44.4	5.5		71.6		28.7	6.0	
LOS		D			D	A		E		C	A	
Approach Delay		35.5			35.3			71.6			10.2	
Approach LOS		D			D			E			B	
Queue Length 50th (ft)		171			290	0		~164		80	52	
Queue Length 95th (ft)		m218			#405	55		m#567		121	67	
Internal Link Dist (ft)		375			167			253			278	
Turn Bay Length (ft)												
Base Capacity (vph)		1085			1101	657		1248		526	1834	

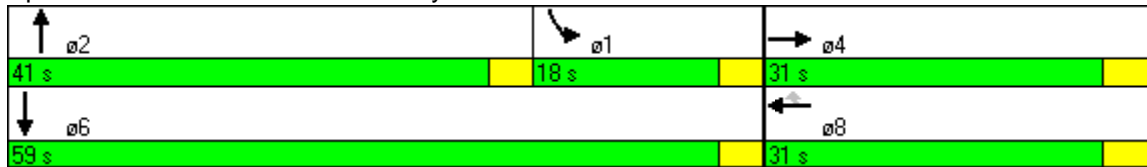


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0	0		31		0	0	
Spillback Cap Reductn		0			0	0		0		0	59	
Storage Cap Reductn		0			0	0		0		0	0	
Reduced v/c Ratio		0.64			0.92	0.47		1.11		0.59	0.76	

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 8 (9%), Referenced to phase 2:NBT and 6:SBT, Start of Green
- Natural Cycle: 85
- Control Type: Pretimed
- Maximum v/c Ratio: 1.08
- Intersection Signal Delay: 36.8
- Intersection LOS: D
- Intersection Capacity Utilization 80.0%
- ICU Level of Service D
- Analysis Period (min) 15
- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 904: Broadway & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Ped Bike Factor		0.95			0.96			0.99			1.00	
Frt		0.950			0.990			0.994			0.997	
Flt Protected		0.998			0.983							
Satd. Flow (prot)	0	1681	0	0	1795	0	0	3018	0	0	4437	0
Flt Permitted		0.986			0.796							
Satd. Flow (perm)	0	1656	0	0	1415	0	0	3018	0	0	4437	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			5			8			5	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.20	1.00	1.00	1.18	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		435			246			358			354	
Travel Time (s)		11.9			6.7			9.8			9.7	
Volume (vph)	7	102	64	73	124	16	0	1334	55	0	1408	27
Confl. Peds. (#/hr)	130		130	130		130			260			260
Peak Hour Factor	0.85	0.85	0.85	0.72	0.72	0.72	0.98	0.98	0.98	0.95	0.95	0.95
Parking (#/hr)								9	9		15	15
Adj. Flow (vph)	8	120	75	101	172	22	0	1361	56	0	1482	28
Lane Group Flow (vph)	0	203	0	0	295	0	0	1417	0	0	1510	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	30.0	30.0		30.0	30.0			50.0			50.0	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	0.0	58.0	0.0	0.0	58.0	0.0
Total Split (%)	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0			29.0			55.0			55.0	
Actuated g/C Ratio		0.32			0.32			0.61			0.61	
v/c Ratio		0.37			0.64			0.77			0.56	
Control Delay		29.3			33.2			4.7			5.3	
Queue Delay		0.0			0.0			0.4			0.3	
Total Delay		29.3			33.2			5.1			5.6	
LOS		C			C			A			A	
Approach Delay		29.3			33.2			5.1			5.6	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		89			140			36			65	
Queue Length 95th (ft)		m131			169			m50			67	
Internal Link Dist (ft)		355			166			278			274	
Turn Bay Length (ft)												
Base Capacity (vph)		542			459			1847			2713	
Starvation Cap Reductn		0			0			112			495	



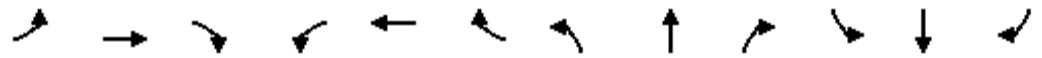
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0			0			11			17	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.37			0.64			0.82			0.68	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	1 (1%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	80
Control Type:	Pretimed
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	75.6%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

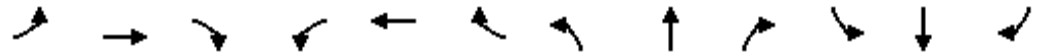
Splits and Phases: 907: Vallejo St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	12	12	10	12
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.94			0.98			0.99			1.00	
Frt		0.938			0.984			0.996			0.997	
Flt Protected		0.999			0.994							
Satd. Flow (prot)	0	1650	0	0	1797	0	0	2985	0	0	3008	0
Flt Permitted		0.996			0.949							
Satd. Flow (perm)	0	1643	0	0	1701	0	0	2985	0	0	3008	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			8			5			4	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.09	1.23	1.00	1.00	1.22	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		461			495			354			322	
Travel Time (s)		12.6			13.5			9.7			8.8	
Volume (vph)	3	90	80	23	136	21	0	1321	36	0	1332	29
Confl. Peds. (#/hr)	120		120	120		120	240		240			240
Peak Hour Factor	0.81	0.81	0.81	0.84	0.84	0.84	0.99	0.99	0.99	0.99	0.99	0.99
Parking (#/hr)								15	15		13	13
Adj. Flow (vph)	4	111	99	27	162	25	0	1334	36	0	1345	29
Lane Group Flow (vph)	0	214	0	0	214	0	0	1370	0	0	1374	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	31.0	31.0		31.0	31.0			50.0			50.0	
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	0.0	57.0	0.0	0.0	57.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	36.7%	36.7%	0.0%	0.0%	63.3%	0.0%	0.0%	63.3%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0			30.0			54.0			54.0	
Actuated g/C Ratio		0.33			0.33			0.60			0.60	
v/c Ratio		0.38			0.37			0.76			0.76	
Control Delay		23.0			24.3			12.3			5.7	
Queue Delay		0.0			0.0			0.2			0.4	
Total Delay		23.0			24.3			12.5			6.1	
LOS		C			C			B			A	
Approach Delay		23.0			24.3			12.5			6.1	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		85			88			146			71	
Queue Length 95th (ft)		m123			136			146			m75	
Internal Link Dist (ft)		381			415			274			242	
Turn Bay Length (ft)												
Base Capacity (vph)		559			572			1793			1806	
Starvation Cap Reductn		0			0			43			105	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0			0			58			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.38			0.37			0.79			0.81	

**Intersection Summary**

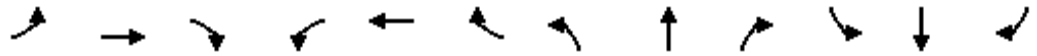
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.76
Intersection Signal Delay:	11.2
Intersection LOS:	B
Intersection Capacity Utilization	67.3%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 908: Green St. & Van Ness Avenue





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	12	12	10	10	12	12	10	11
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.98			0.97			0.99			1.00	
Frt		0.984			0.982			0.992			0.990	
Flt Protected		0.999			0.991							
Satd. Flow (prot)	0	1644	0	0	3380	0	0	2921	0	0	2969	0
Flt Permitted		0.987			0.679							
Satd. Flow (perm)	0	1622	0	0	2299	0	0	2921	0	0	2969	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			18			11			13	
Headway Factor	1.04	1.12	1.00	1.00	1.00	1.00	1.09	1.25	1.00	1.00	1.23	1.04
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		449			742			322			339	
Travel Time (s)		12.2			20.2			8.8			9.2	
Volume (vph)	12	408	57	63	231	40	0	1271	74	0	1241	84
Confl. Peds. (#/hr)	149		123	123		149	80		78			80
Peak Hour Factor	0.89	0.89	0.89	0.81	0.81	0.81	0.99	0.99	0.99	0.98	0.98	0.98
Bus Blockages (#/hr)	0	14	0	0	0	0	0	16	0	0	0	0
Parking (#/hr)								9	9		15	15
Adj. Flow (vph)	13	458	64	78	285	49	0	1284	75	0	1266	86
Lane Group Flow (vph)	0	535	0	0	412	0	0	1359	0	0	1352	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			6	
Permitted Phases	4			4								
Minimum Split (s)	31.5	31.5		31.5	31.5			55.0			45.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	0.0	55.0	0.0	0.0	55.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	61.1%	0.0%	0.0%	61.1%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0			32.0			52.0			52.0	
Actuated g/C Ratio		0.36			0.36			0.58			0.58	
v/c Ratio		0.92			0.50			0.80			0.79	
Control Delay		40.4			24.2			15.7			12.3	
Queue Delay		2.1			0.0			0.3			0.0	
Total Delay		42.5			24.2			16.0			12.4	
LOS		D			C			B			B	
Approach Delay		42.5			24.2			16.0			12.4	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		315			91			154			130	
Queue Length 95th (ft)		m#444			117			152			237	
Internal Link Dist (ft)		369			662			242			259	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		582			829			1692			1721	
Starvation Cap Reductn		13			0			7			5	
Spillback Cap Reductn		0			0			61			12	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.94			0.50			0.83			0.79	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 84 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 19.5                      Intersection LOS: B  
 Intersection Capacity Utilization 84.3%                      ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 909: Union St. & Van Ness Avenue**

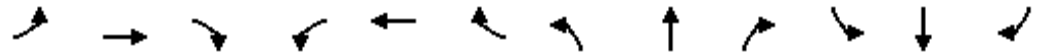




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	10	10	12
Storage Length (ft)	0		0	0		0	0		0	145		0
Storage Lanes	0		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.96			0.96			1.00			1.00	
Frt		0.965			0.981			0.998			0.998	
Flt Protected		0.999			0.980							
Satd. Flow (prot)	0	1736	0	0	1758	0	0	2997	0	0	3016	0
Flt Permitted		0.995			0.691							
Satd. Flow (perm)	0	1725	0	0	1213	0	0	2997	0	0	3016	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			9			3			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.23	1.00	1.09	1.22	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			469			339			361	
Travel Time (s)		12.5			12.8			9.2			9.8	
Volume (vph)	7	216	77	43	49	15	0	1302	21	0	1205	18
Confl. Peds. (#/hr)	120		120	120		120			240	240		240
Peak Hour Factor	0.83	0.83	0.83	0.84	0.84	0.84	0.96	0.96	0.96	0.99	0.99	0.99
Parking (#/hr)								15	15		13	13
Adj. Flow (vph)	8	260	93	51	58	18	0	1356	22	0	1217	18
Lane Group Flow (vph)	0	361	0	0	127	0	0	1378	0	0	1235	0
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Minimum Split (s)	21.0	21.0		21.0	21.0			18.0			18.0	
Total Split (s)	30.0	30.0	0.0	30.0	30.0	0.0	0.0	54.0	0.0	0.0	60.0	0.0
Total Split (%)	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%	0.0%	60.0%	0.0%	0.0%	66.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag								Lag				
Lead-Lag Optimize?												
Act Effct Green (s)		27.0			27.0			51.0			57.0	
Actuated g/C Ratio		0.30			0.30			0.57			0.63	
v/c Ratio		0.68			0.34			0.81			0.65	
Control Delay		33.7			26.0			5.8			2.1	
Queue Delay		0.0			0.0			0.4			0.1	
Total Delay		33.7			26.0			6.2			2.2	
LOS		C			C			A			A	
Approach Delay		33.7			26.0			6.2			2.2	
Approach LOS		C			C			A			A	
Queue Length 50th (ft)		176			52			26			17	
Queue Length 95th (ft)		238			93			m31			24	
Internal Link Dist (ft)		380			389			259			281	
Turn Bay Length (ft)												



Lane Group	ø1
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Turning Speed (mph)	
Lane Util. Factor	
Ped Bike Factor	
Fr <sub>t</sub>	
Fl <sub>t</sub> Protected	
Satd. Flow (prot)	
Fl <sub>t</sub> Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Headway Factor	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Parking (#/hr)	
Adj. Flow (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Minimum Split (s)	6.0
Total Split (s)	6.0
Total Split (%)	7%
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lead/Lag	Lead
Lead-Lag Optimize?	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	

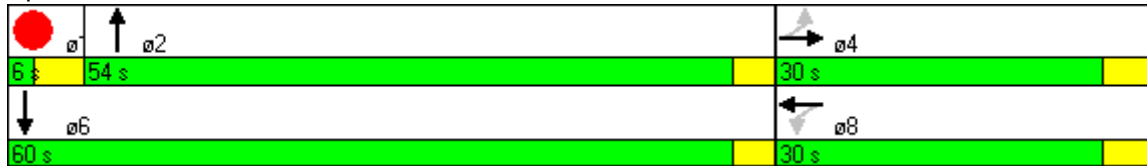


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		532			370			1700			1911	
Starvation Cap Reductn		0			0			60			78	
Spillback Cap Reductn		0			0			0			1	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.68			0.34			0.84			0.67	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	4 (4%), Referenced to phase 2:NBT, Start of Green
Natural Cycle:	60
Control Type:	Pretimed
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	8.6
Intersection LOS:	A
Intersection Capacity Utilization	73.9%
ICU Level of Service	D
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 910: Filbert St. & Van Ness Avenue**

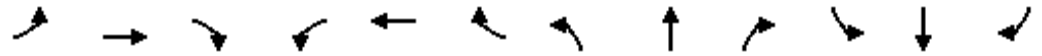


Lane Group	ø1
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Storage Length (ft)	0		0	0		0	120		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	0.95
Ped Bike Factor		0.97			0.99			1.00			1.00	
Frt		0.971			0.989			0.999			0.997	
Flt Protected		0.998			0.996							
Satd. Flow (prot)	0	1761	0	0	1818	0	0	4513	0	0	3035	0
Flt Permitted		0.993			0.978							
Satd. Flow (perm)	0	1748	0	0	1778	0	0	4513	0	0	3035	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			5			2			3	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.16	1.00	1.00	1.21	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		452			487			361			326	
Travel Time (s)		12.3			13.3			9.8			8.9	
Volume (vph)	6	143	41	8	95	9	0	1314	10	0	1174	20
Confl. Peds. (#/hr)	120		120	120		120	240		240	240		240
Peak Hour Factor	0.77	0.77	0.77	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Parking (#/hr)								8	8		10	10
Adj. Flow (vph)	8	186	53	9	106	10	0	1460	11	0	1262	22
Lane Group Flow (vph)	0	247	0	0	125	0	0	1471	0	0	1284	0
Turn Type	Perm			Perm								
Protected Phases		4			4			2			2	
Permitted Phases	4			4								
Minimum Split (s)	30.5	30.5		30.5	30.5			50.0			50.0	
Total Split (s)	34.5	34.5	0.0	34.5	34.5	0.0	0.0	55.5	0.0	0.0	55.5	0.0
Total Split (%)	38.3%	38.3%	0.0%	38.3%	38.3%	0.0%	0.0%	61.7%	0.0%	0.0%	61.7%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0			0.0			0.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		31.5			31.5			52.5			52.5	
Actuated g/C Ratio		0.35			0.35			0.58			0.58	
v/c Ratio		0.40			0.20			0.56			0.72	
Control Delay		17.6			20.7			11.1			15.9	
Queue Delay		0.0			0.0			0.2			0.5	
Total Delay		17.6			20.7			11.3			16.4	
LOS		B			C			B			B	
Approach Delay		17.6			20.7			11.3			16.4	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		64			47			110			374	
Queue Length 95th (ft)		84			88			113			450	
Internal Link Dist (ft)		372			407			281			246	
Turn Bay Length (ft)												



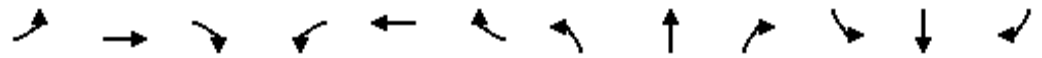
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		623			626			2633			1772	
Starvation Cap Reductn		0			0			429			160	
Spillback Cap Reductn		0			0			55			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.40			0.20			0.67			0.80	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	88 (98%), Referenced to phase 2:NBSB, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.72
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization	53.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 911: Greenwich St. & Van Ness Avenue





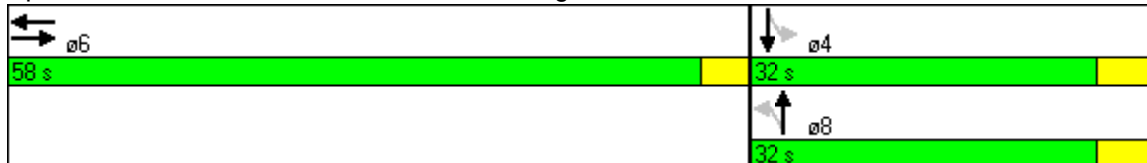
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)		50			50		50	50		50	50	
Trailing Detector (ft)		0			0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.997			0.992			0.983	
Flt Protected								0.987			0.998	
Satd. Flow (prot)	0	4823	0	0	4881	0	0	1763	0	0	1767	0
Flt Permitted								0.746			0.988	
Satd. Flow (perm)	0	4823	0	0	4881	0	0	1333	0	0	1749	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			6			4			7	
Headway Factor	1.04	1.05	1.04	1.04	1.05	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		246			509			315			179	
Travel Time (s)		6.7			13.9			8.6			4.9	
Volume (vph)	0	1202	133	0	2190	42	38	101	9	12	293	44
Peak Hour Factor	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71	0.86	0.86	0.86
Bus Blockages (#/hr)	0	3	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)									14			
Adj. Flow (vph)	0	1307	145	0	2258	43	54	142	13	14	341	51
Lane Group Flow (vph)	0	1452	0	0	2301	0	0	209	0	0	406	0
Turn Type							Perm			Perm		
Protected Phases		6			6			8			4	
Permitted Phases							8			4		
Detector Phases		6			6		8	8		4	4	
Minimum Initial (s)		10.0			10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)		58.0			58.0		32.0	32.0		32.0	32.0	
Total Split (s)	0.0	58.0	0.0	0.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Split (%)	0.0%	64.4%	0.0%	0.0%	64.4%	0.0%	35.6%	35.6%	0.0%	35.6%	35.6%	0.0%
Yellow Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		0.0			0.0		1.0	1.0		1.0	1.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max			C-Max		Max	Max		Max	Max	
Act Effct Green (s)		55.0			55.0			29.0			29.0	
Actuated g/C Ratio		0.61			0.61			0.32			0.32	
v/c Ratio		0.49			0.77			0.48			0.71	
Control Delay		10.1			11.6			28.6			34.6	
Queue Delay		0.0			0.1			0.0			0.0	
Total Delay		10.1			11.7			28.6			34.6	
LOS		B			B			C			C	
Approach Delay		10.1			11.7			28.6			34.6	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		147			243			93			198	
Queue Length 95th (ft)		182			301			118			286	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		166			429			235			99	
Turn Bay Length (ft)												
Base Capacity (vph)		2963			2985			432			568	
Starvation Cap Reductn		0			74			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.79			0.48			0.71	

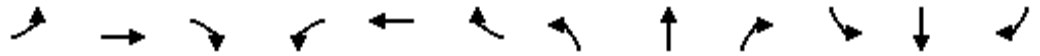
Intersection Summary	
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	40 (44%), Referenced to phase 6:EBWB, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	14.1
Intersection LOS:	B
Intersection Capacity Utilization	74.2%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 922: Lombard St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑↑		↖	↖				↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50			50		50	50				50
Trailing Detector (ft)	0	0			0		0	0				0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	0.91	0.91	1.00	1.00	0.91	0.91	0.91	0.91	0.95	1.00	1.00	1.00
Frt					0.996			0.994				0.865
Flt Protected							0.950	0.984				
Satd. Flow (prot)	0	5085	0	0	5065	0	1610	3316	0	0	0	1611
Flt Permitted		0.916					0.950	0.984				
Satd. Flow (perm)	0	4658	0	0	5065	0	1610	3316	0	0	0	1611
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			6				33
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		509			470			315				180
Travel Time (s)		13.9			12.8			8.6				4.9
Volume (vph)	2	1221	0	0	1176	36	1002	776	47	0	0	54
Peak Hour Factor	0.85	0.85	0.85	0.93	0.93	0.93	0.87	0.87	0.87	0.75	0.75	0.75
Parking (#/hr)									16			
Adj. Flow (vph)	2	1436	0	0	1265	39	1152	892	54	0	0	72
Lane Group Flow (vph)	0	1438	0	0	1304	0	679	1419	0	0	0	72
Turn Type	Perm						Perm					custom
Protected Phases		2			6			8				
Permitted Phases	2						8					5
Detector Phases	2	2			6		8	8				5
Minimum Initial (s)	10.0	10.0			10.0		10.0	10.0				5.0
Minimum Split (s)	21.0	21.0			21.0		42.0	42.0				12.0
Total Split (s)	42.0	42.0	0.0	0.0	29.0	0.0	48.0	48.0	0.0	0.0	0.0	13.0
Total Split (%)	46.7%	46.7%	0.0%	0.0%	32.2%	0.0%	53.3%	53.3%	0.0%	0.0%	0.0%	14.4%
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				3.0
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				0.0
Lead/Lag					Lag							Lead
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max			Max		None	None				C-Max
Act Effct Green (s)		39.8			26.0		44.2	44.2				10.8
Actuated g/C Ratio		0.44			0.29		0.49	0.49				0.12
v/c Ratio		0.70			0.89		0.86	0.87				0.33
Control Delay		14.5			21.7		16.9	12.1				27.3
Queue Delay		0.0			0.0		0.8	0.6				0.0
Total Delay		14.5			21.7		17.8	12.7				27.3
LOS		B			C		B	B				C
Approach Delay		14.5			21.7			14.3				
Approach LOS		B			C			B				
Queue Length 50th (ft)		105			273		40	41				21
Queue Length 95th (ft)		114			#343		#449	53				47
Internal Link Dist (ft)		429			390			235			100	
Turn Bay Length (ft)												

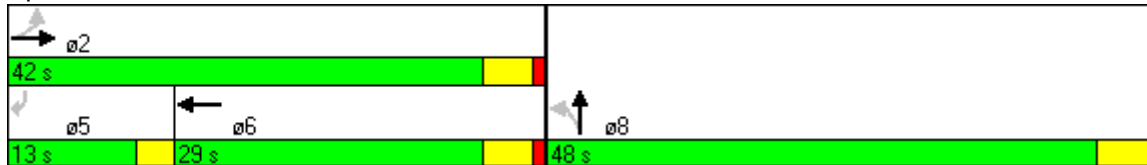


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		2057			1467		805	1661				221
Starvation Cap Reductn		0			0		24	56				0
Spillback Cap Reductn		0			0		0	0				0
Storage Cap Reductn		0			0		0	0				0
Reduced v/c Ratio		0.70			0.89		0.87	0.88				0.33

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	45 (50%), Referenced to phase 2:EBTL and 5:SBR, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization	72.4%
ICU Level of Service	C
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

**Splits and Phases: 923: Lombard St. & Franklin St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↖		↗	↖			↕	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	10	12	12	12	10	11	12	12	12	12
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		2	0		0	0		0	0		1
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	0.94	1.00	1.00	1.00	0.95	1.00
Ped Bike Factor		0.95			0.97		0.76	0.96				0.72
Frt			0.850		0.984			0.979				0.850
Flt Protected		0.987					0.950					
Satd. Flow (prot)	0	1777	2601	0	1780	0	4658	1437	0	0	3539	1346
Flt Permitted		0.835					0.950					
Satd. Flow (perm)	0	1434	2601	0	1780	0	3547	1437	0	0	3539	967
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			18		8			17				102
Headway Factor	1.04	1.04	1.09	1.00	1.00	1.00	1.09	1.28	1.00	1.00	1.00	1.23
Link Speed (mph)		25			25			25				25
Link Distance (ft)		470			483			326				171
Travel Time (s)		12.8			13.2			8.9				4.7
Volume (vph)	128	370	770	0	110	15	973	306	50	0	424	129
Confl. Peds. (#/hr)	135		135			135	270		270			270
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.94	0.94	0.94	0.90	0.90	0.90
Parking (#/hr)								10	10			10
Adj. Flow (vph)	135	389	811	0	126	17	1035	326	53	0	471	143
Lane Group Flow (vph)	0	524	811	0	143	0	1035	379	0	0	471	143
Turn Type	Perm		pt+ov				Prot					Perm
Protected Phases		4	4 5		4		5	2			6	
Permitted Phases	4											6
Minimum Split (s)	31.0	31.0			31.0		29.0	59.0			30.0	30.0
Total Split (s)	31.0	31.0	60.0	0.0	31.0	0.0	29.0	59.0	0.0	0.0	30.0	30.0
Total Split (%)	34.4%	34.4%	66.7%	0.0%	34.4%	0.0%	32.2%	65.6%	0.0%	0.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5			3.5	3.5
All-Red Time (s)	1.0	1.0			1.0		0.0	0.0			0.0	0.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?												
Act Effct Green (s)		28.0	57.0		28.0		26.0	56.0			27.0	27.0
Actuated g/C Ratio		0.31	0.63		0.31		0.29	0.62			0.30	0.30
v/c Ratio		1.17	0.49		0.26		0.77	0.42			0.44	0.40
Control Delay		111.5	2.9		23.4		15.6	1.3			27.1	12.4
Queue Delay		0.0	0.1		0.0		0.8	0.2			0.5	0.0
Total Delay		111.5	3.0		23.4		16.4	1.4			27.6	12.4
LOS		F	A		C		B	A			C	B
Approach Delay		45.6			23.4			12.4			24.0	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)		~362	18		57		133	1			113	17
Queue Length 95th (ft)		m#546	m22		100		203	1			158	67
Internal Link Dist (ft)		390			403			246			91	
Turn Bay Length (ft)							300					



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		446	1654		559		1346	901			1062	362
Starvation Cap Reductn		0	0		0		105	91			0	0
Spillback Cap Reductn		0	117		0		0	0			252	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.17	0.53		0.26		0.83	0.47			0.58	0.40

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 4 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.17  
 Intersection Signal Delay: 27.5                      Intersection LOS: C  
 Intersection Capacity Utilization 102.6%                      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 924: Lombard St. & Van Ness Avenue**





Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Lane Configurations	↑↑		↑↑	↑	↙	↙	↗	↗		↙	↗↗	
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1800	1800	1800	1900	1900	1900	
Lane Width (ft)	12	10	11	12	12	10	10	10	10	12	12	
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Turning Speed (mph)		9		9	15	15			9	15	9	9
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	0.91	0.91	0.95	1.00	0.76	1.00	
Ped Bike Factor	0.96			0.68			0.98					
Frt	0.984			0.850			0.990			0.850		
Flt Protected					0.950	0.950	0.987		0.950			
Satd. Flow (prot)	3173	0	3241	1330	1770	1424	2612	0	1652	3610	0	
Flt Permitted					0.950	0.950	0.987		0.950			
Satd. Flow (perm)	3173	0	3241	899	1770	1424	2612	0	1652	3610	0	
Right Turn on Red		Yes		Yes	Yes			Yes			Yes	
Satd. Flow (RTOR)	11			88	404		6			23		
Headway Factor	1.00	1.09	1.04	1.25	1.00	1.09	1.23	1.09	1.09	1.00	1.00	
Link Speed (mph)	25		25				25					
Link Distance (ft)	258		442				1192					
Travel Time (s)	7.0		12.1				32.5					
Volume (vph)	578	68	1133	111	633	582	482	48	143	790	147	
Confl. Peds. (#/hr)		327		247				167			140	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Parking (#/hr)				12			16	16				
Adj. Flow (vph)	608	72	1193	117	666	613	507	51	151	832	155	
Lane Group Flow (vph)	680	0	1193	117	666	411	760	0	151	987	0	
Turn Type				Perm	Prot	Prot				Prot custom		
Protected Phases	2		6		7	7	4		8	8		3
Permitted Phases				6								
Minimum Split (s)	38.0		38.0	38.0	31.0	31.0	38.0		35.0	35.0		8.0
Total Split (s)	39.0	0.0	39.0	39.0	38.0	38.0	38.0	0.0	35.0	35.0	0.0	8.0
Total Split (%)	32.5%	0.0%	32.5%	32.5%	31.7%	31.7%	31.7%	0.0%	29.2%	29.2%	0.0%	7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5		4.0
All-Red Time (s)	3.8		3.8	3.8	3.3	3.3	3.3		3.3	3.3		0.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	36.0		36.0	36.0	35.0	35.0	35.0		32.0	32.0		
Actuated g/C Ratio	0.30		0.30	0.30	0.29	0.29	0.29		0.27	0.27		
v/c Ratio	0.71		1.23	0.35	0.83	0.99	0.99		0.34	1.01		
Control Delay	41.5		148.4	13.8	25.3	84.8	73.1		38.2	73.5		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	41.5		148.4	13.8	25.3	84.8	73.1		38.2	73.5		
LOS	D		F	B	C	F	E		D	E		
Approach Delay	41.5		136.4				58.4					
Approach LOS	D		F				E					
Queue Length 50th (ft)	242		~599	16	203	348	320		95	~334		
Queue Length 95th (ft)	312		#736	68	#389	#580	#464		157	#457		
Internal Link Dist (ft)	178		362				1112					
Turn Bay Length (ft)												
Base Capacity (vph)	960		972	331	802	415	766		441	980		
Starvation Cap Reductn	0		0	0	0	0	0		0	0		



Lane Group	NBT	NBR	SBT	SBR2	NEL2	NEL	NET	NER	SWL	SWR	SWR2	ø3
Spillback Cap Reductn	0		0	0	0	0	0		0	0		
Storage Cap Reductn	0		0	0	0	0	0		0	0		
Reduced v/c Ratio	0.71		1.23	0.35	0.83	0.99	0.99		0.34	1.01		

**Intersection Summary**

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle:	130
Control Type:	Pretimed
Maximum v/c Ratio:	1.23
Intersection Signal Delay:	79.0
Intersection LOS:	E
Intersection Capacity Utilization	100.0%
ICU Level of Service	F
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

**Splits and Phases:** 1237: Otis St. & Mission St.

ø2	ø1	ø4	ø8
39 s	8 s	38 s	35 s
ø6		ø7	
39 s		38 s	



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations											
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	9	9	15		9		9	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor		0.98			0.81		0.95		0.96		
Frt		0.991			0.865		0.988		0.985		
Flt Protected		0.956				0.950					
Satd. Flow (prot)	0	1730	0	0	1611	3433	1749	0	3335	0	0
Flt Permitted		0.956				0.950					
Satd. Flow (perm)	0	1730	0	0	1299	3433	1749	0	3335	0	0
Right Turn on Red				Yes	Yes			Yes			Yes
Satd. Flow (RTOR)		3			212		5		7		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25					25		25		
Link Distance (ft)		484					584		250		
Travel Time (s)		13.2					15.9		6.8		
Volume (vph)	41	75	2	7	13	2033	531	47	707	36	44
Confl. Peds. (#/hr)				150	150			300		300	
Confl. Bikes (#/hr)								160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	43	79	2	7	14	2140	559	49	744	38	46
Lane Group Flow (vph)	0	131	0	0	14	2140	608	0	828	0	0
Turn Type	Perm			custom		Prot					
Protected Phases		10				7	4		8		
Permitted Phases	10				3						
Minimum Split (s)	14.5	14.5			38.0	24.0	29.5		29.5		
Total Split (s)	17.5	17.5	0.0	0.0	41.0	42.0	31.5	0.0	30.5	0.0	0.0
Total Split (%)	19.4%	19.4%	0.0%	0.0%	45.6%	46.7%	35.0%	0.0%	33.9%	0.0%	0.0%
Yellow Time (s)	3.5	3.5			3.5	3.5	3.5		3.5		
All-Red Time (s)	0.0	0.0			30.5	2.0	2.0		2.0		
Lead/Lag					Lead	Lead	Lag		Lag		
Lead-Lag Optimize?											
Act Effct Green (s)		14.5			38.0	39.0	28.5		27.5		
Actuated g/C Ratio		0.16			0.42	0.43	0.32		0.31		
v/c Ratio		0.47			0.02	1.44	1.09		0.81		
Control Delay		38.3			0.1	220.1	87.7		27.1		
Queue Delay		0.6			0.0	0.0	0.0		0.0		
Total Delay		38.9			0.1	220.1	87.7		27.1		
LOS		D			A	F	F		C		
Approach Delay		38.9					190.8		27.1		
Approach LOS		D					F		C		
Queue Length 50th (ft)		76			0	~884	~378		244		
Queue Length 95th (ft)		m94			0	m#910	m#396		m304		
Internal Link Dist (ft)		404					504		170		
Turn Bay Length (ft)											
Base Capacity (vph)		281			671	1488	557		1024		
Starvation Cap Reductn		0			0	0	0		0		
Spillback Cap Reductn		28			144	0	0		0		



Lane Group	EBL2	EBL	EBR	EBR2	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Storage Cap Reductn		0			0	0	0		0		
Reduced v/c Ratio		0.52			0.03	1.44	1.09		0.81		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 34 (38%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 145  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.44  
 Intersection Signal Delay: 148.3      Intersection LOS: F  
 Intersection Capacity Utilization 120.9%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1350: Page St & Market St.

ø3	ø4	ø10
41 s	31.5 s	17.5 s
ø7	ø8	
42 s	30.5 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Frt												0.991
Flt Protected												0.998
Satd. Flow (prot)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Flt Permitted												0.998
Satd. Flow (perm)	0	1863	0	0	1863	0	0	0	0	0	6337	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												25
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		401			484			341			364	
Travel Time (s)		10.9			13.2			9.3			9.9	
Volume (vph)	0	39	0	0	36	0	0	0	0	86	2020	135
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	41	0	0	38	0	0	0	0	91	2126	142
Lane Group Flow (vph)	0	41	0	0	38	0	0	0	0	0	2359	0
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Minimum Split (s)		24.0		24.0	24.0					24.5	24.5	
Total Split (s)	0.0	35.0	0.0	35.0	35.0	0.0	0.0	0.0	0.0	55.0	55.0	0.0
Total Split (%)	0.0%	38.9%	0.0%	38.9%	38.9%	0.0%	0.0%	0.0%	0.0%	61.1%	61.1%	0.0%
Yellow Time (s)		3.5		3.5	3.5					4.0	4.0	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		32.0			32.0						52.0	
Actuated g/C Ratio		0.36			0.36						0.58	
v/c Ratio		0.06			0.06						0.64	
Control Delay		19.6			0.2						3.1	
Queue Delay		0.0			0.0						0.6	
Total Delay		19.6			0.2						3.7	
LOS		B			A						A	
Approach Delay		19.6			0.2						3.7	
Approach LOS		B			A						A	
Queue Length 50th (ft)		15			0						50	
Queue Length 95th (ft)		37			m0						m49	
Internal Link Dist (ft)		321			404			261			284	
Turn Bay Length (ft)												
Base Capacity (vph)		662			662						3672	
Starvation Cap Reductn		0			0						809	
Spillback Cap Reductn		0			0						151	
Storage Cap Reductn		0			0						0	
Reduced v/c Ratio		0.06			0.06						0.82	

Intersection Summary

Area Type:	Other		
Cycle Length:	90		
Actuated Cycle Length:	90		
Offset:	81 (90%), Referenced to phase 6:SBTL, Start of Green		
Natural Cycle:	50		
Control Type:	Pretimed		
Maximum v/c Ratio:	0.64		
Intersection Signal Delay:	3.9	Intersection LOS:	A
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		
m	Volume for 95th percentile queue is metered by upstream signal.		

Splits and Phases: 1351: Page St & Gough St.





Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Lane Configurations		↔↔	↔↔			↔↔↔		↔↔	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15	15	9	9	9		9		9
Lane Util. Factor	0.95	*0.70	0.88	0.95	1.00	0.91	0.91	0.95	0.95
Ped Bike Factor		0.84			0.78	0.99		0.94	
Frt			0.850		0.865	0.993		0.984	
Flt Protected		0.950							
Satd. Flow (prot)	0	2477	2787	0	1611	4978	0	3268	0
Flt Permitted		0.950							
Satd. Flow (perm)	0	2092	2787	0	1257	4978	0	3268	0
Right Turn on Red				Yes	Yes		Yes		
Satd. Flow (RTOR)			12			10			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25				25		25	
Link Distance (ft)		341				649		584	
Travel Time (s)		9.3				17.7		15.9	
Volume (vph)	28	877	1030	85	575	2008	96	639	75
Confl. Peds. (#/hr)	150				150		300		300
Confl. Bikes (#/hr)					160				160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	29	923	1084	89	605	2114	101	673	79
Lane Group Flow (vph)	0	952	1173	0	605	2215	0	752	0
Turn Type	Perm		Perm		custom				
Protected Phases		6				4		8	
Permitted Phases	6		6		2				
Minimum Split (s)	43.0	43.0	43.0		30.5	44.0		44.0	
Total Split (s)	46.0	46.0	46.0	0.0	46.0	44.0	0.0	44.0	0.0
Total Split (%)	51.1%	51.1%	51.1%	0.0%	51.1%	48.9%	0.0%	48.9%	0.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	
All-Red Time (s)	1.0	1.0	1.0		1.0	2.0		2.0	
Lead/Lag									
Lead-Lag Optimize?									
Act Effct Green (s)		43.0	43.0		43.0	41.0		41.0	
Actuated g/C Ratio		0.48	0.48		0.48	0.46		0.46	
v/c Ratio		0.95	0.88		1.01	0.97		0.51	
Control Delay		24.9	13.0		36.6	38.5		4.0	
Queue Delay		0.0	0.0		0.0	0.0		0.0	
Total Delay		24.9	13.0		36.6	38.5		4.0	
LOS		C	B		D	D		A	
Approach Delay		18.3				38.5		4.0	
Approach LOS		B				D		A	
Queue Length 50th (ft)		234	187		~254	435		1	
Queue Length 95th (ft)		#542	#377		m#379	#568		m1	
Internal Link Dist (ft)		261				569		504	
Turn Bay Length (ft)									
Base Capacity (vph)		1000	1338		601	2273		1489	
Starvation Cap Reductn		0	0		0	0		0	
Spillback Cap Reductn		0	0		0	0		0	



Lane Group	SBL2	SBL	SBR	SBR2	NWR2	NET	NER	SWT	SWR
Storage Cap Reductn		0	0		0	0		0	
Reduced v/c Ratio		0.95	0.88		1.01	0.97		0.51	

**Intersection Summary**

- Area Type: Other
- Cycle Length: 90
- Actuated Cycle Length: 90
- Offset: 9 (10%), Referenced to phase 6:SBL, Start of Green
- Natural Cycle: 90
- Control Type: Pretimed
- Maximum v/c Ratio: 1.01
- Intersection Signal Delay: 26.2
- Intersection LOS: C
- Intersection Capacity Utilization 90.7%
- ICU Level of Service E
- Analysis Period (min) 15
- \* User Entered Value
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1390: Haight St & Market St.**

ø2	ø4
46 s	44 s
ø6	ø8
46 s	44 s





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	62	21	31	98	20	5	127	9	22	536	23
Peak Hour Factor	0.87	0.87	0.87	0.95	0.95	0.95	0.74	0.74	0.74	0.91	0.91	0.91
Hourly flow rate (vph)	6	71	24	33	103	21	7	172	12	24	589	25
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	101	157	191	638								
Volume Left (vph)	6	33	7	24								
Volume Right (vph)	24	21	12	25								
Hadj (s)	-0.10	0.00	0.00	0.02								
Departure Headway (s)	6.4	6.3	5.7	5.1								
Degree Utilization, x	0.18	0.28	0.30	0.90								
Capacity (veh/h)	525	534	599	700								
Control Delay (s)	10.8	11.7	11.1	36.3								
Approach Delay (s)	10.8	11.7	11.1	36.3								
Approach LOS	B	B	B	E								
Intersection Summary												
Delay			25.9									
HCM Level of Service			D									
Intersection Capacity Utilization			59.9%	ICU Level of Service	B							
Analysis Period (min)			15									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	178	47	38	222	19	14	133	5	21	496	45
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.76	0.76	0.76	0.88	0.88	0.88
Hourly flow rate (vph)	17	202	53	49	288	25	18	175	7	24	564	51

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	273	362	200	639
Volume Left (vph)	17	49	18	24
Volume Right (vph)	53	25	7	51
Hadj (s)	-0.07	0.02	0.03	-0.01
Departure Headway (s)	7.6	7.3	7.9	6.9
Degree Utilization, x	0.57	0.74	0.44	1.23
Capacity (veh/h)	449	468	419	512
Control Delay (s)	20.2	28.4	16.8	142.7
Approach Delay (s)	20.2	28.4	16.8	142.7
Approach LOS	C	D	C	F

Intersection Summary			
Delay		74.9	
HCM Level of Service		F	
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	45	15	112	38	34	924
Peak Hour Factor	0.84	0.84	0.79	0.79	0.95	0.95
Hourly flow rate (vph)	54	18	142	48	36	973
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)			321			291
pX, platoon unblocked	0.63	0.95			0.95	
vC, conflicting volume	1210	166			190	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1223	125			150	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	56	98			97	
cM capacity (veh/h)	121	882			1364	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	54	18	190	1008
Volume Left	54	0	0	36
Volume Right	0	18	48	0
cSH	121	882	1700	1364
Volume to Capacity	0.44	0.02	0.11	0.03
Queue Length 95th (ft)	48	2	0	2
Control Delay (s)	56.2	9.2	0.0	0.7
Lane LOS	F	A		A
Approach Delay (s)	44.4		0.0	0.7
Approach LOS	E			

Intersection Summary			
Average Delay		3.1	
Intersection Capacity Utilization		72.1%	ICU Level of Service C
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	112	51	17	241	9	23	124	8	23	378	25
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.82	0.82	0.82
Hourly flow rate (vph)	17	130	59	18	262	10	29	159	10	28	461	30

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	207	290	199	520
Volume Left (vph)	17	18	29	28
Volume Right (vph)	59	10	10	30
Hadj (s)	-0.12	0.03	0.03	0.01
Departure Headway (s)	6.9	6.8	6.9	6.1
Degree Utilization, x	0.40	0.55	0.38	0.88
Capacity (veh/h)	471	496	474	566
Control Delay (s)	14.4	17.8	14.0	38.9
Approach Delay (s)	14.4	17.8	14.0	38.9
Approach LOS	B	C	B	E

Intersection Summary			
Delay		25.6	
HCM Level of Service		D	
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	97	65	32	152	17	23	130	20	23	371	52
Peak Hour Factor	0.79	0.79	0.79	0.70	0.70	0.70	0.76	0.76	0.76	0.90	0.90	0.90
Hourly flow rate (vph)	10	123	82	46	217	24	30	171	26	26	412	58

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	215	287	228	496
Volume Left (vph)	10	46	30	26
Volume Right (vph)	82	24	26	58
Hadj (s)	-0.19	0.02	-0.01	-0.03
Departure Headway (s)	6.9	6.8	6.8	6.2
Degree Utilization, x	0.41	0.55	0.43	0.85
Capacity (veh/h)	466	486	476	559
Control Delay (s)	14.6	17.7	14.9	34.7
Approach Delay (s)	14.6	17.7	14.9	34.7
Approach LOS	B	C	B	D

Intersection Summary			
Delay		23.5	
HCM Level of Service		C	
Intersection Capacity Utilization	54.9%		ICU Level of Service A
Analysis Period (min)		15	

# Appendix 11

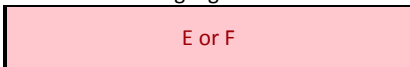
## LOS Comparison for All Scenarios



Synchro Int ID	Intersection Name	Signalized/Unsignalized	Existing Condition	2015 No Build	2015 Side	2015 Center A	2015 Center B	2015 LPA	2035 No Build	2035 Side	2035 Center A	2035 Center B	2035 LPA
922	Gough & Lombard	S	B	B	B	B	B	B	B	B	B	B	B
1109	Gough & Greenwich	U	C	C	C	C	D	D	C	C	C	D	D
1112	Gough & Filbert	U	C	C	C	C	C	C	C	C	C	C	C
702	Gough & Union	S	B	B	B	B	B	B	B	B	B	B	B
42	Gough & Green	U	E	E	E	E	F	F	F	F	F	F	F
5	Gough & Vallejo	U	C	C	C	C	C	C	C	C	C	D	D
698	Gough & Broadway	S	D	B	C	B	B	B	C	B	B	B	B
693	Gough & Pacific	S	C	B	B	B	B	B	B	B	B	B	B
686	Gough & Jackson	S	B	B	B	B	B	B	B	C	B	B	B
679	Gough & Washington	S	B	B	B	B	B	B	B	B	B	B	B
73	Gough & Clay	U	D	D	D	D	D	D	D	E	D	E	E
659	Gough & Sacramento	S	C	C	C	C	D	D	C	D	F	F	F
639	Gough & California	S	C	C	C	C	D	D	D	D	C	D	D
612	Gough & Pine	S	B	A	A	A	A	A	A	A	A	A	A
583	Gough & Bush	S	B	C	B	B	B	B	B	C	B	B	B
554	Gough & Sutter	S	A	A	A	A	A	A	A	A	A	A	A
535	Gough & Post	S	B	B	B	B	B	B	B	C	C	C	C
513	Gough & Geary	S	B	C	C	C	C	C	C	D	D	D	D
488	Gough & Ellis	S	B	A	B	A	A	A	A	B	B	D	D
478	Gough & Eddy	S	A	B	B	B	B	B	B	D	E	F	F
466	Gough & Turk	S	B	B	B	B	B	B	B	B	C	C	C
450	Gough & Golden Gate	S	B	B	B	B	B	B	B	B	B	B	B
435	Gough & McAllister	S	B	B	B	B	B	B	B	C	C	C	C
428	Gough & Fulton	S	A	B	A	A	B	B	B	C	C	C	C
416	Gough & Grove	S	A	B	B	B	B	B	D	D	D	D	D
412	Gough & Hayes	S	D	F	E	E	E	E	F	F	F	F	F
406	Gough & Fell	S	C	B	B	B	B	B	B	D	C	C	C
403	Gough & Oak	S	C	C	C	C	C	C	C	C	C	C	C
1351	Gough & Page	S	A	A	A	A	B	B	A	A	A	A	A
1390	Gough & Market & Haight	S	B	B	B	B	C	C	B	C	C	C	C
12	Gough & McCoppin & Otis	S	C	A	A	A	B	B	A	B	A	C	C
18	Mission & Duboce & US101 Off-Ramp	S	D	E	D	D	D	D	F	F	F	F	F
923	Franklin & Lombard	S	C	B	B	B	B	B	B	B	B	B	B
706	Franklin & Greenwich	S	A	A	A	A	A	A	A	A	A	A	A
705	Franklin & Filbert	S	A	A	A	A	A	A	A	A	A	A	A
703	Franklin & Union	S	A	A	B	B	B	B	B	B	B	B	B
701	Franklin & Green	S	A	A	A	A	A	A	A	A	A	A	A
901	Franklin & Vallejo	S	A	A	A	A	A	A	A	A	A	A	A
699	Franklin & Broadway	S	A	A	B	A	A	A	B	B	B	B	B
694	Franklin & Pacific	S	A	A	A	A	A	A	A	A	A	A	A
687	Franklin & Jackson	S	A	A	A	A	A	A	A	A	A	A	A
680	Franklin & Washington	S	A	A	A	A	A	A	A	A	A	B	B
671	Franklin & Clay	S	A	A	A	A	A	A	A	A	A	A	A
660	Franklin & Sacramento	S	B	A	A	A	A	A	B	C	B	C	C
640	Franklin & California	S	C	B	B	B	C	C	B	D	D	D	D
613	Franklin & Pine	S	D	C	D	C	C	C	E	F	E	E	E
584	Franklin & Bush	S	B	B	B	B	C	C	B	D	D	D	D
555	Franklin & Sutter	S	A	A	B	A	A	A	B	B	B	C	C
536	Franklin & Post	S	B	A	B	B	B	B	B	B	A	B	B
514	Franklin & Geary	S	B	A	B	B	A	A	B	C	C	C	C
500	Franklin & O'Farrell	S	D	D	E	E	E	E	E	F	F	F	F
489	Franklin & Ellis	S	A	A	B	B	B	B	A	C	C	C	C
479	Franklin & Eddy	S	B	B	B	B	C	C	C	F	F	F	F
467	Franklin & Turk	S	B	A	B	B	A	A	B	D	C	D	D
451	Franklin & Golden Gate	S	B	B	B	B	B	B	B	B	B	B	B
436	Franklin & McAllister	S	B	B	C	B	C	C	C	F	F	F	F
429	Franklin & Fulton	S	A	A	B	B	B	B	B	C	C	D	D
417	Franklin & Grove	S	B	B	B	B	B	B	B	B	B	C	C
413	Franklin & Hayes	S	B	B	B	B	B	B	B	C	C	D	D
407	Franklin & Fell	S	A	A	A	A	B	B	A	A	A	B	B
405	Franklin & Oak	S	A	A	A	A	A	A	A	A	A	A	A
1350	Franklin & Market & Page	S	C	C	C	C	F	F	C	D	C	F	F
924	Van Ness & Lombard	S	C	C	C	C	C	C	C	C	C	C	C
911	Van Ness & Greenwich	S	A	B	B	B	B	B	B	B	B	B	B
910	Van Ness & Filbert	S	A	A	A	B	B	B	A	A	B	A	A
909	Van Ness & Union	S	B	B	B	B	B	B	B	C	C	B	B
908	Van Ness & Green	S	A	A	B	B	B	B	A	A	B	B	B
907	Van Ness & Vallejo	S	A	B	A	A	A	A	B	B	B	B	A
904	Van Ness & Broadway	S	C	D	B	C	C	C	D	C	C	D	D
903	Van Ness & Pacific	S	C	C	B	B	B	B	D	C	C	C	C
902	Van Ness & Jackson	S	A	A	B	A	A	A	A	B	B	B	B
700	Van Ness & Washington	S	A	A	B	B	B	B	A	B	B	B	B
672	Van Ness & Clay	S	B	B	B	A	A	A	B	A	B	B	B
661	Van Ness & Sacramento	S	A	B	B	B	B	B	B	B	B	B	B
641	Van Ness & California	S	B	B	C	B	B	B	B	C	C	C	C
614	Van Ness & Pine	S	C	C	C	C	C	C	E	D	E	C	C
585	Van Ness & Bush	S	C	C	C	C	B	B	C	C	D	C	C
556	Van Ness & Sutter	S	B	B	B	C	C	C	C	C	C	C	C
537	Van Ness & Post	S	B	A	B	B	B	B	B	B	B	B	C
515	Van Ness & Geary	S	B	B	B	B	B	B	C	B	B	B	C
501	Van Ness & O'Farrell	S	B	B	C	C	C	C	C	D	D	C	D
490	Van Ness & Ellis	S	B	B	B	B	B	B	B	B	C	B	B
480	Van Ness & Eddy	S	B	B	B	C	B	B	B	D	D	D	D
468	Van Ness & Turk	S	C	B	B	B	B	B	B	B	C	B	B
452	Van Ness & Golden Gate	S	B	A	C	C	A	A	C	C	D	A	A
437	Van Ness & McAllister	S	B	B	B	B	B	B	B	B	B	B	B
418	Van Ness & Grove	S	B	C	C	C	B	B	C	D	D	C	C
414	Van Ness & Hayes	S	B	D	C	D	C	C	D	D	E	C	C
408	Van Ness & Fell	S	B	A	A	B	A	A	B	C	D	B	B
101	Van Ness & Oak & Market	S	B	C	C	C	C	C	C	D	D	C	C
1237	S Van Ness & Otis & Mission	S	D	E	D	E	D	D	E	E	F	E	E
695	Polk & Pacific	S	B	A	A	A	A	A	B	B	B	B	B

Synchro Int ID	Intersection Name	Signalized/Unsignalized	Existing Condition	2015 No Build	2015 Side	2015 Center A	2015 Center B	2015 LPA	2035 No Build	2035 Side	2035 Center A	2035 Center B	2035 LPA
688	Polk & Jackson	S	A	A	A	A	A	A	B	A	A	A	A
681	Polk & Washington	S	B	A	A	A	A	A	A	A	A	A	A
673	Polk & Clay	S	A	A	A	A	A	A	A	B	A	A	A
662	Polk & Sacramento	S	B	B	B	B	B	B	B	B	B	B	B
642	Polk & California	S	B	B	B	B	B	B	B	B	A	A	A
615	Polk & Pine	S	A	A	A	A	A	A	B	B	B	B	B
586	Polk & Bush	S	B	B	B	B	B	B	B	C	C	C	C
557	Polk & Sutter	S	B	A	A	A	A	A	B	B	B	B	B
538	Polk & Post	S	B	B	B	B	B	B	B	B	B	B	B
516	Polk & Geary	S	B	B	B	B	B	B	C	D	D	D	D
502	Polk & O'Farrell	S	B	B	B	B	B	B	B	B	B	B	B
491	Polk & Ellis	S	A	A	A	A	A	A	A	A	A	A	A
481	Polk & Eddy	S	B	B	B	B	B	B	B	C	C	C	C
469	Polk & Turk	S	A	A	A	A	A	A	A	A	A	A	A
453	Polk & Golden Gate	S	A	B	B	B	B	B	B	B	B	B	B
438	Polk & McAllister	S	B	A	A	A	A	A	A	A	A	B	B
419	Polk & Grove	S	B	A	A	A	A	A	A	B	A	A	A
415	Polk & Hayes	S	A	A	A	A	A	A	A	A	A	A	A
102	Polk & Fell & Market	S	B	B	B	B	B	B	B	B	B	C	B
643	Larkin & California	S	A	B	B	B	B	B	B	B	C	C	C
616	Larkin & Pine	S	A	A	A	A	A	A	A	A	A	A	A
587	Larkin & Bush	S	A	A	A	A	A	A	A	A	A	A	A
558	Larkin & Sutter	S	B	A	A	A	A	A	A	A	A	A	A
539	Larkin & Post	S	A	A	A	A	A	A	A	B	B	A	A
517	Larkin & Geary	S	A	A	A	A	A	A	A	A	B	B	B
503	Larkin & O'Farrell	S	B	B	A	A	A	A	B	A	B	B	B
492	Larkin & Ellis	S	A	A	A	A	A	A	A	A	A	A	A
482	Larkin & Eddy	S	A	A	A	A	A	A	A	B	B	B	B
470	Larkin & Turk	S	B	A	A	A	A	A	A	A	B	A	A
454	Larkin & Golden Gate	S	A	A	A	A	A	A	A	A	B	B	B
439	Larkin & McAllister	S	B	B	B	B	B	B	B	B	B	B	B
430	Larkin & Fulton	S	A	A	A	A	A	A	A	B	B	A	A
420	Larkin & Grove	S	A	A	A	A	A	A	A	A	A	B	B
103	Hayes & Market	S	C	C	C	C	C	C	D	D	D	D	D
617	Hyde & Pine	S	B	B	B	B	B	B	B	B	B	B	B
588	Hyde & Bush	S	A	A	A	A	A	A	A	A	A	A	A
559	Hyde & Sutter	S	B	B	B	B	B	B	B	B	B	B	B
540	Hyde & Post	S	B	B	B	B	B	B	B	B	B	B	B
518	Hyde & Geary	S	B	B	B	B	B	B	B	B	B	B	B
504	Hyde & O'Farrell	S	A	A	A	A	A	A	A	A	A	A	A
493	Hyde & Ellis	S	A	A	B	B	B	B	B	B	A	A	A
483	Hyde & Eddy	S	A	A	A	A	A	A	A	A	A	A	A
471	Hyde & Turk	S	B	B	B	B	B	B	B	B	B	B	B
455	Hyde & Golden Gate	S	A	A	A	A	A	A	A	A	A	A	A
440	Hyde & McAllister	S	A	B	B	B	B	B	B	B	B	B	B
431	Hyde & Fulton	S	A	A	A	A	A	A	A	A	A	A	A
104	Hyde & Grove & Market	S	B	C	C	C	C	C	D	D	D	D	D

Highlighted



LOS E or LOS F



# Appendix 12

## Signal Warrant Analysis and Significant Impact Calculations



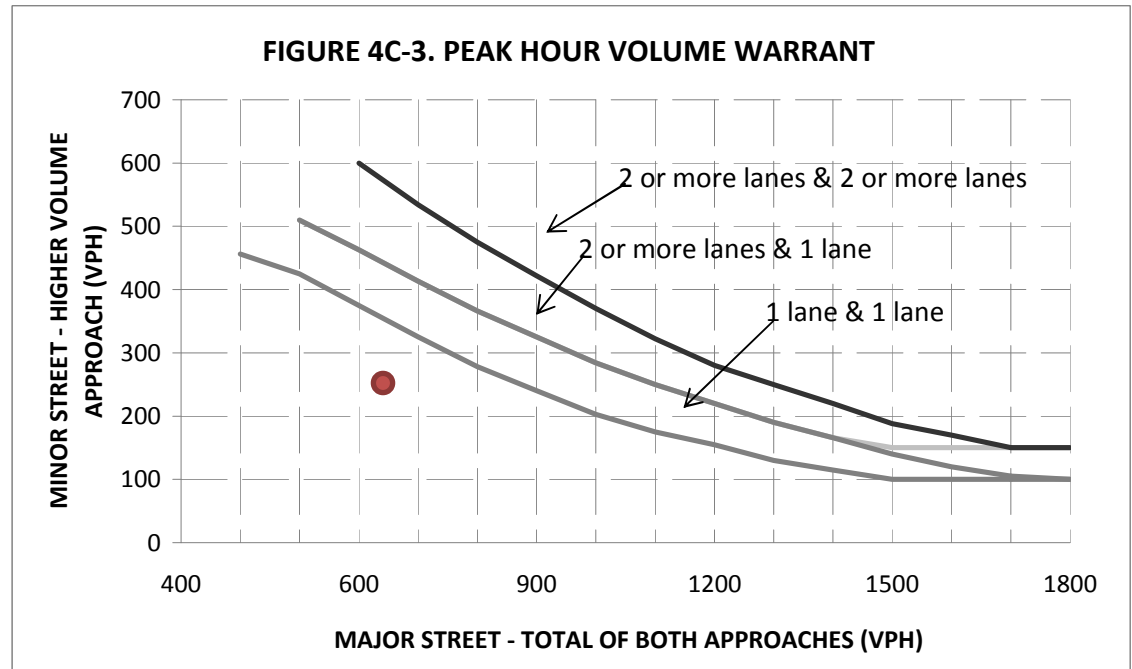
### Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	613	271



**Warrant Not Met**

### Warrant 3B: Peak Hour Volume

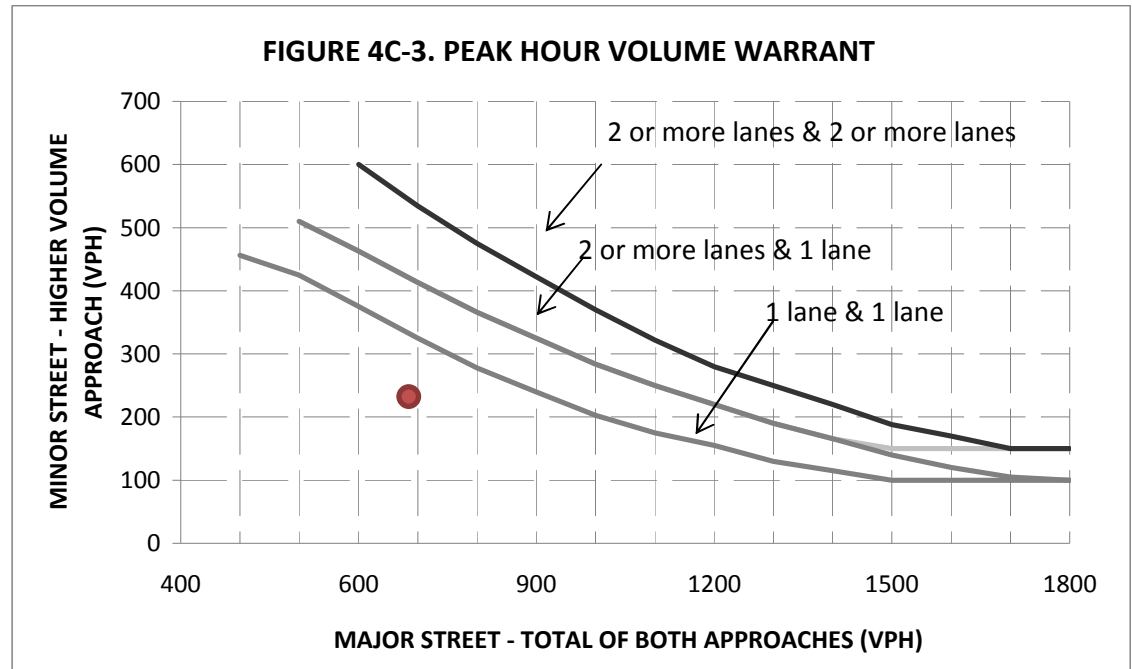
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	660	246

**Warrant Not Met**



### Warrant 3B: Peak Hour Volume

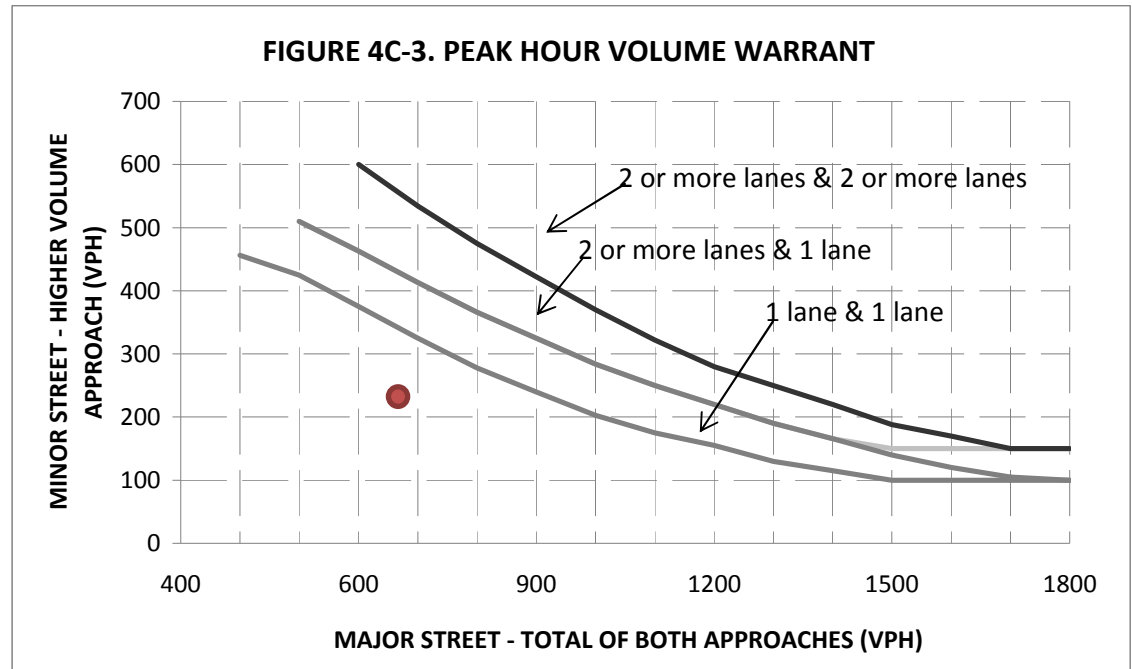
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	644	242

**Warrant Not Met**



### Warrant 3B: Peak Hour Volume

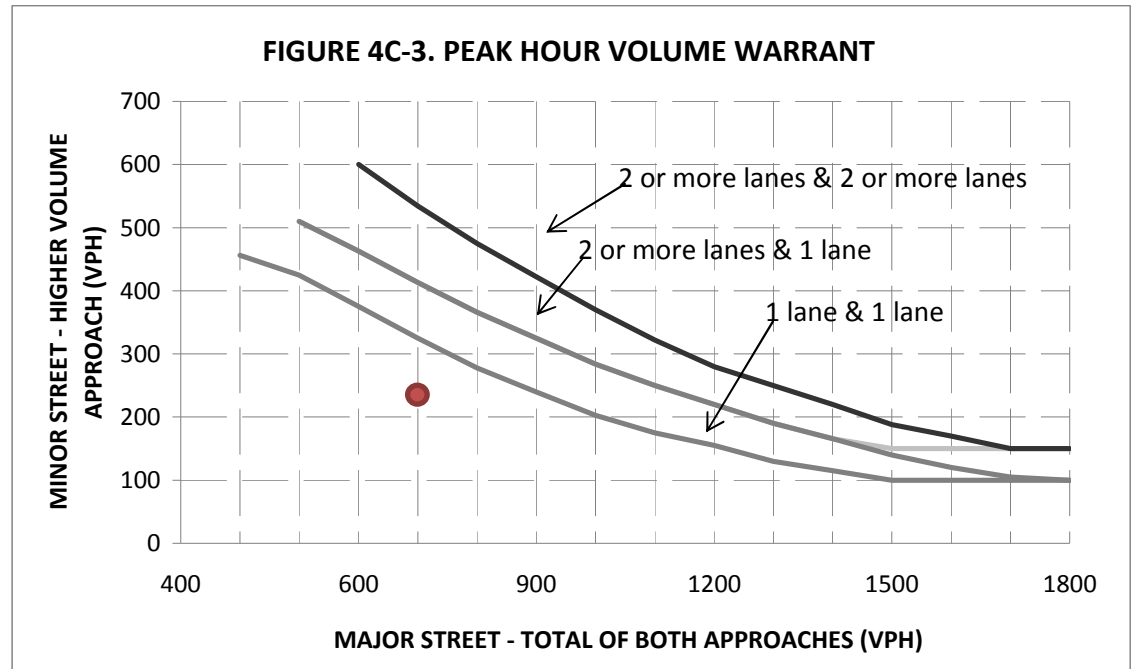
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	685	242

**Warrant Not Met**



**Warrant 3B: Peak Hour Volume**

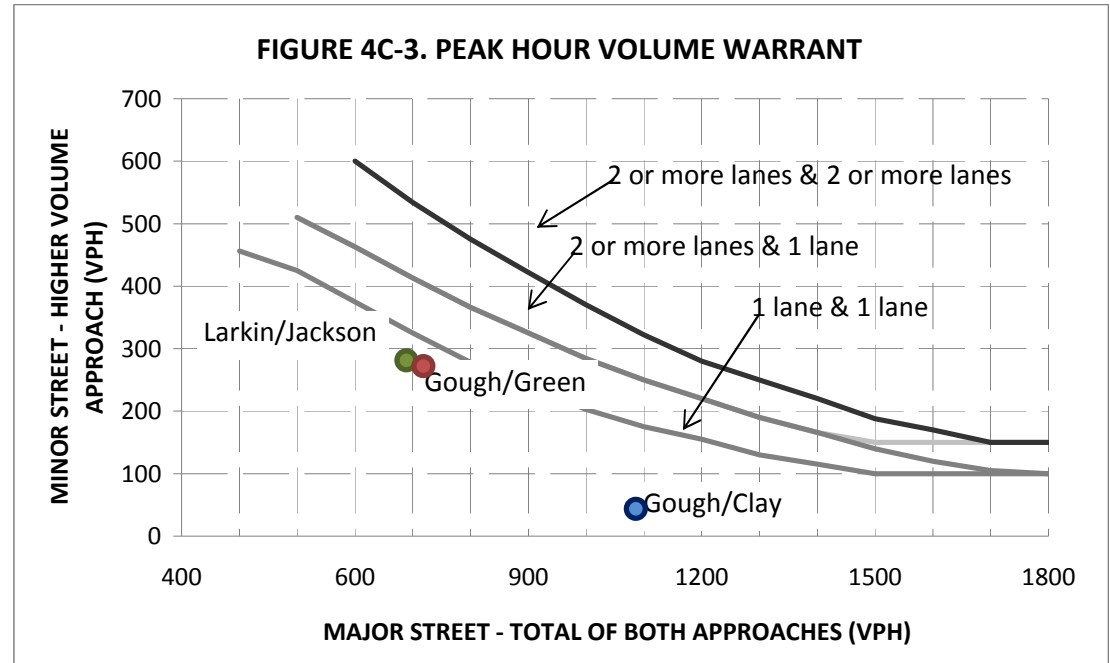
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes		
	Gough/Green	Gough/Clay	Jackson/Larkin
Major Street	2	2	2
Minor Street	1	2	1

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	700	284
Gough/Clay	5:00 PM	1,083	60
Larkin/Jackson	5:00 PM	694	291

**Warrant Not Met**



**Warrant 3B: Peak Hour Volume**

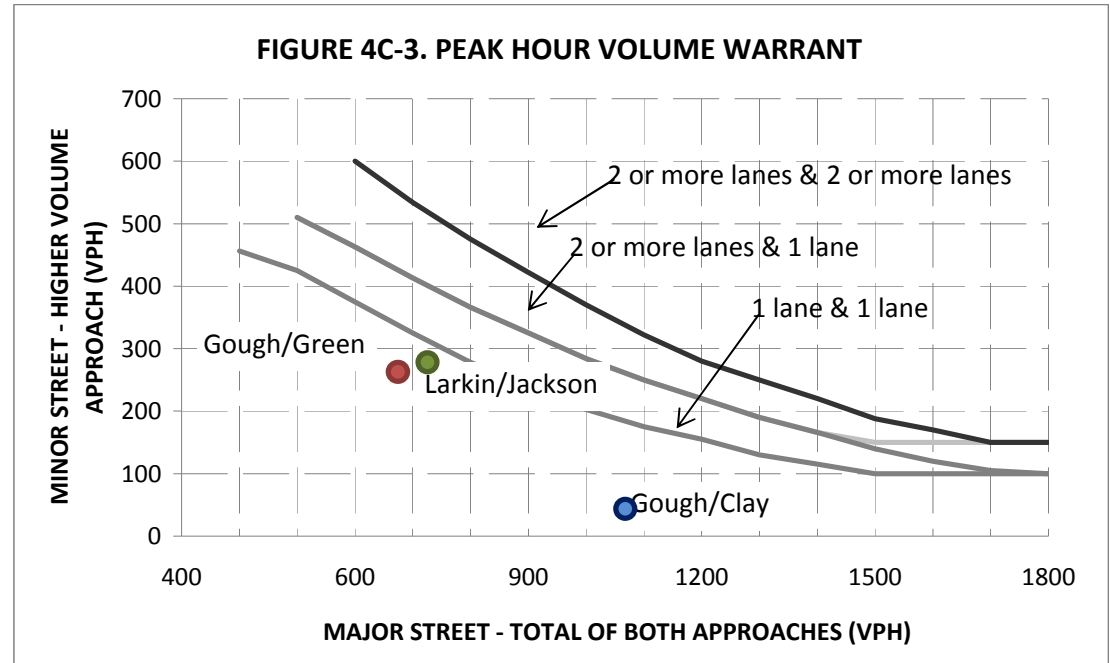
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes		
	Gough/Green	Gough/Clay	Jackson/Larkin
Major Street	2	2	2
Minor Street	1	2	1

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	668	279
Gough/Clay	5:00 PM	1,062	60
Larkin/Jackson	5:00 PM	703	290

**Warrant Not Met**



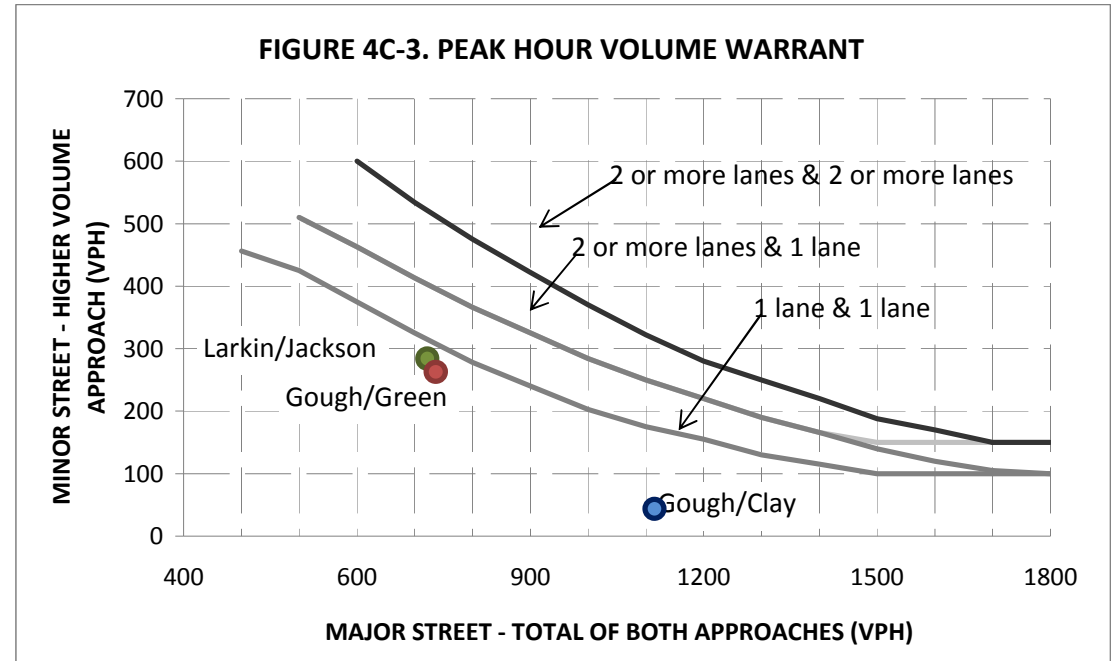
**Warrant 3B: Peak Hour Volume**

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes		
	Gough/Green	Gough/Clay	Jackson/Larkin
Major Street	2	2	2
Minor Street	1	2	1

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	714	279
Gough/Clay	5:00 PM	1,108	60
Larkin/Jackson	5:00 PM	703	290



**Warrant Not Met**



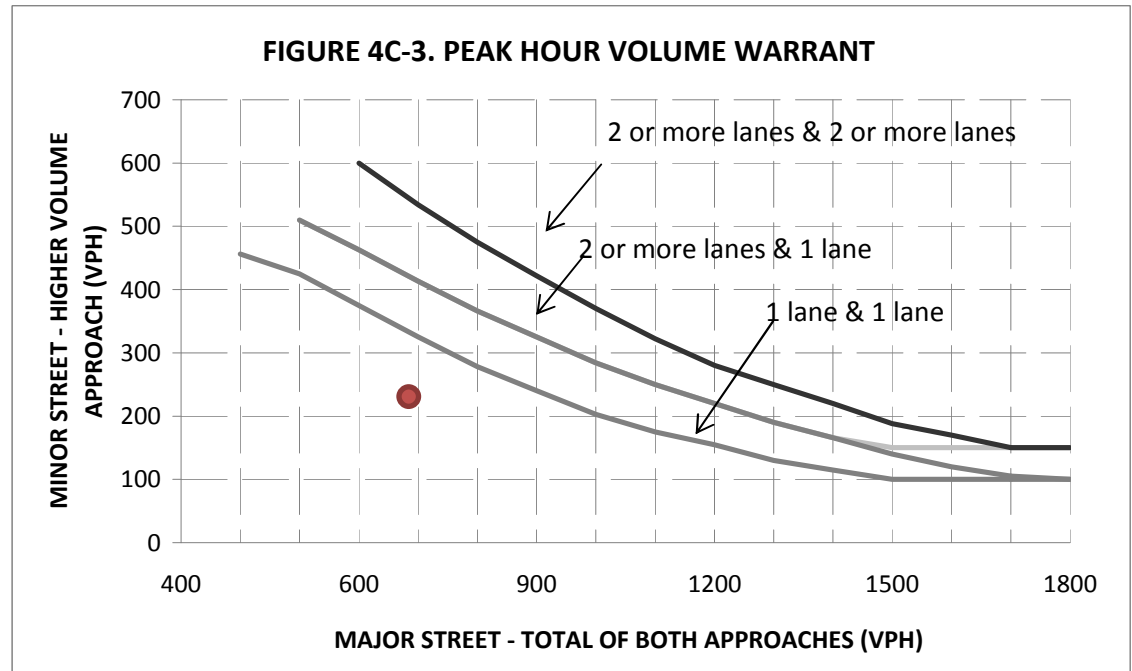
### Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	660	246



**Warrant Not Met**

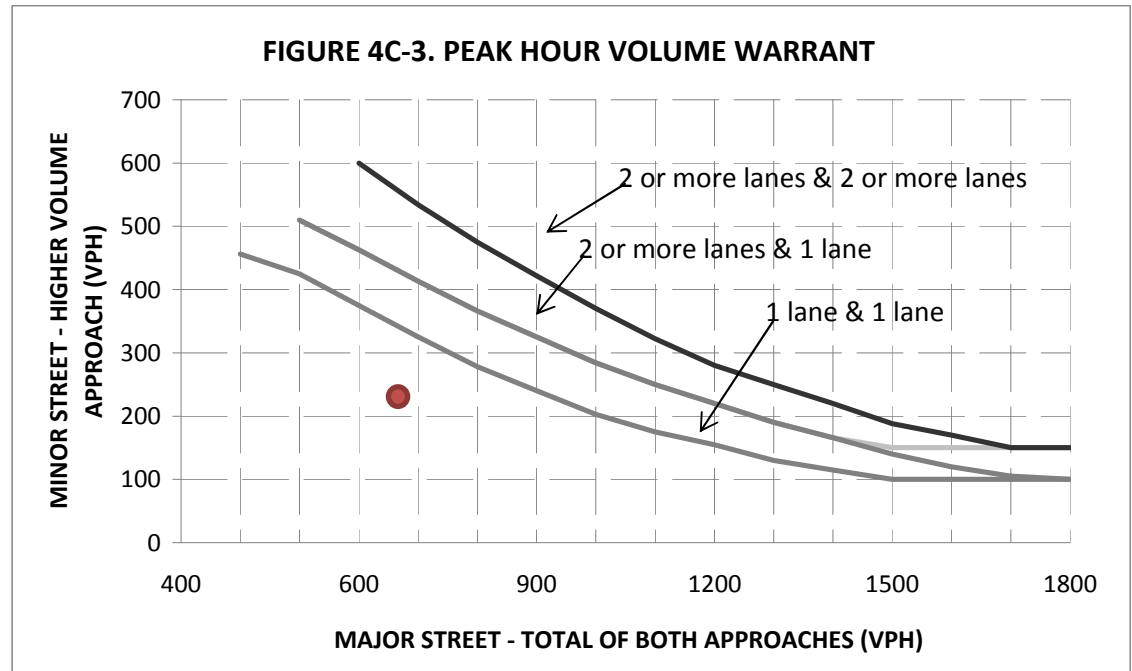
### Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	644	242



**Warrant Not Met**

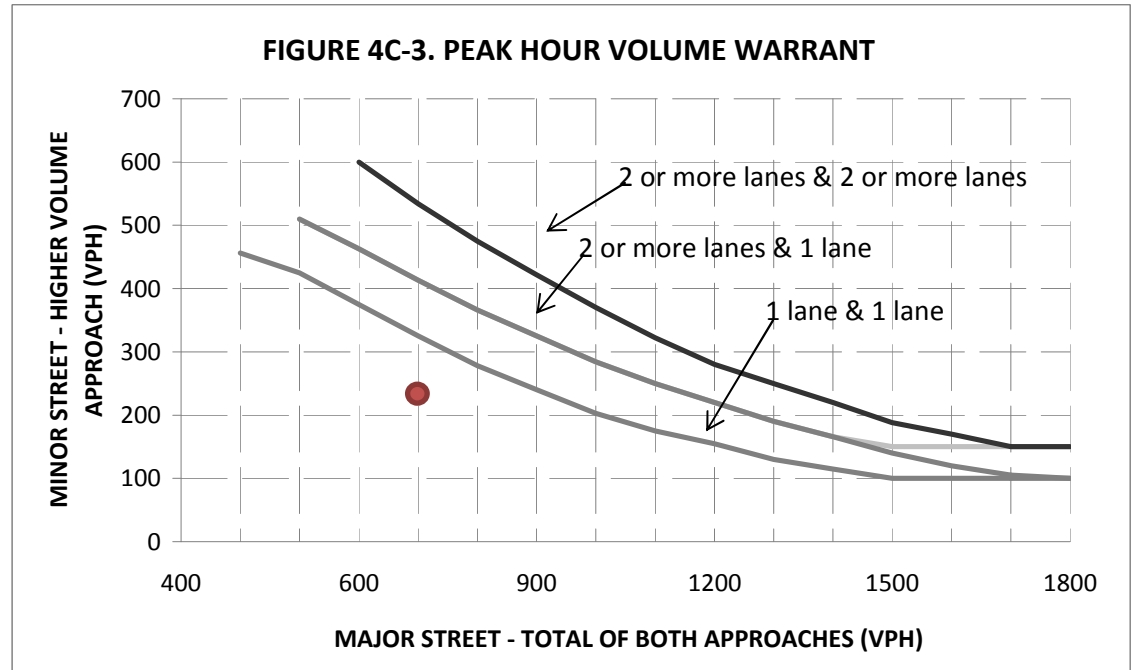
### Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	685	242



**Warrant Not Met**

### Warrant 3B: Peak Hour Volume

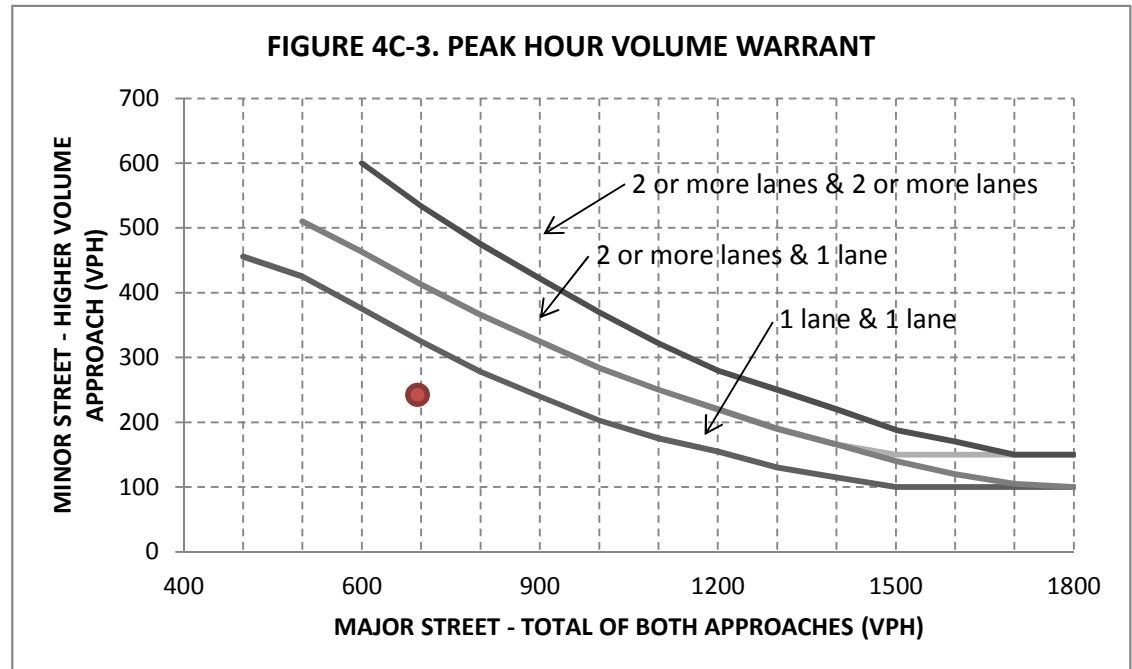
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

### Analysis

	No. of Lanes
Major Street	2
Minor Street	1

Time	Vehicles per Hour	
	Major Street (Sum of both approaches)	Minor Street (High volume approach)
5:00 PM	685	242

**Warrant Not Met**



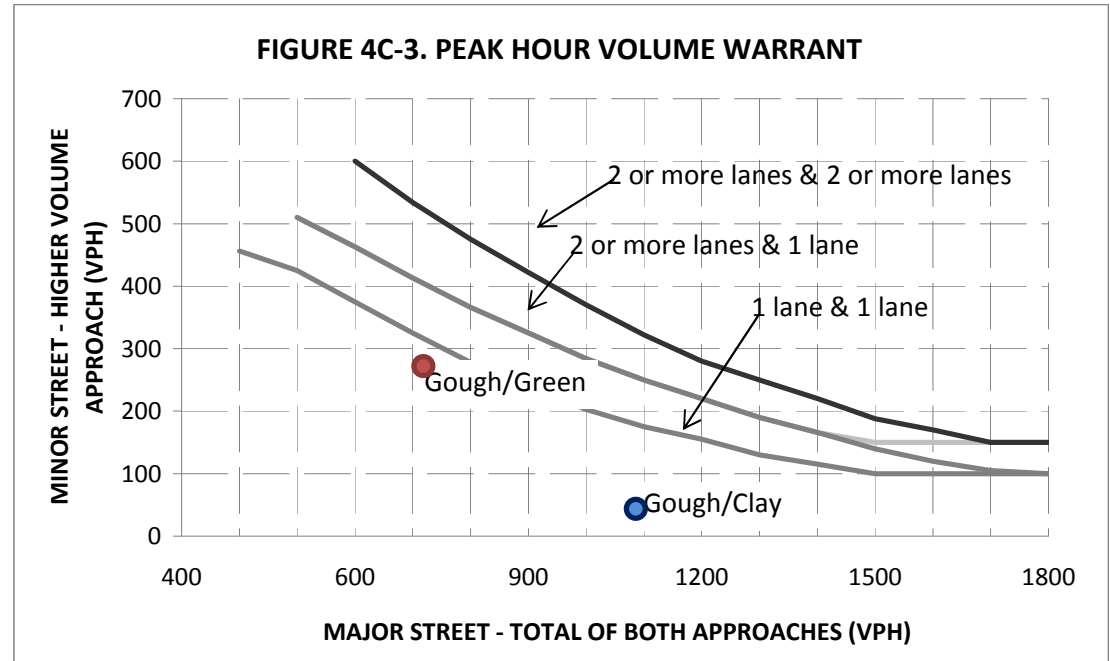
**Warrant 3B: Peak Hour Volume**

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes	
	Gough/Green	Gough/Clay
Major Street	2	2
Minor Street	1	2

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	700	284
Gough/Clay	5:00 PM	1,083	60



**Warrant Not Met**

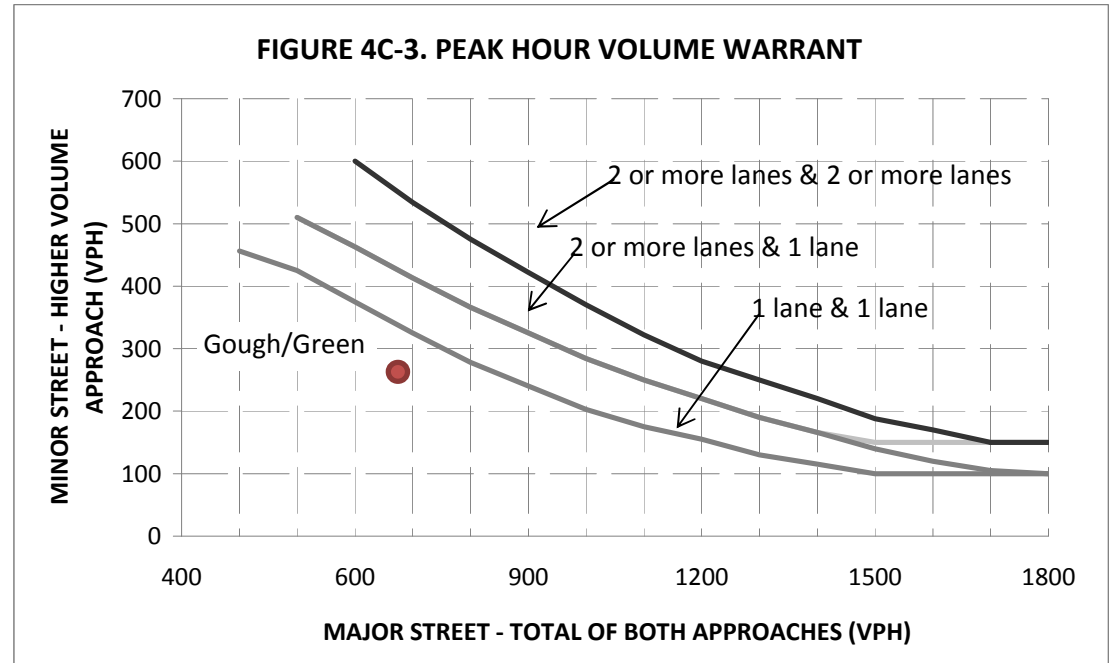
**Warrant 3B: Peak Hour Volume**

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes
	Gough/Green
Major Street	2
Minor Street	1

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	668	279
Gough/Clay	5:00 PM	1,062	60



**Warrant Not Met**

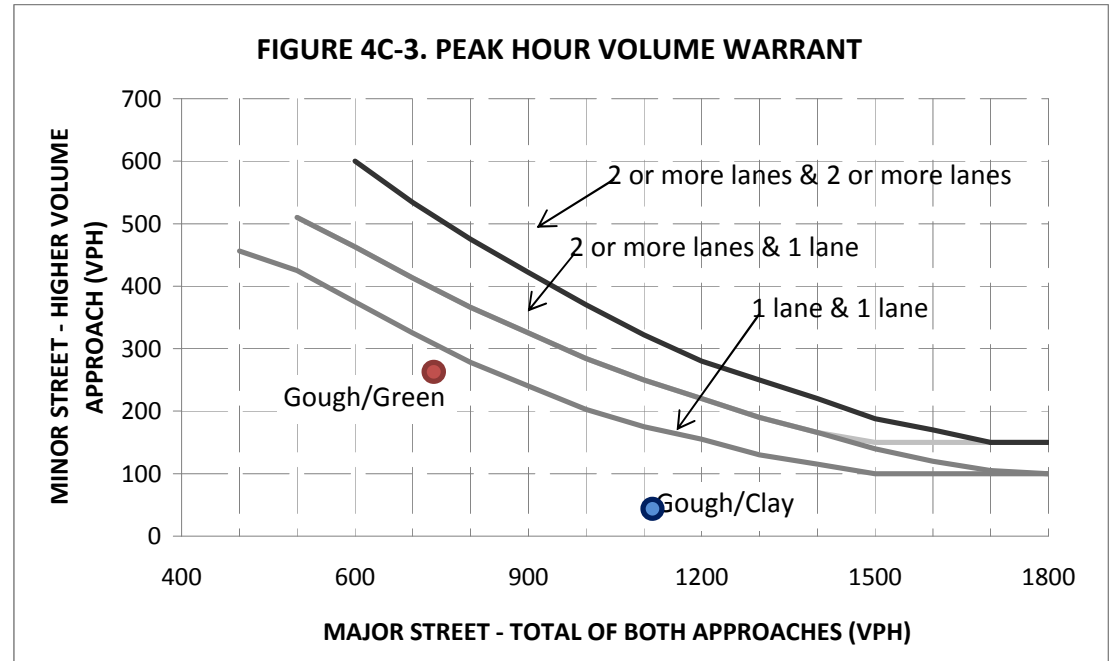
**Warrant 3B: Peak Hour Volume**

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes	
	Gough/Green	Gough/Clay
Major Street	2	2
Minor Street	1	2

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	714	279
Gough/Clay	5:00 PM	1,108	60



**Warrant Not Met**

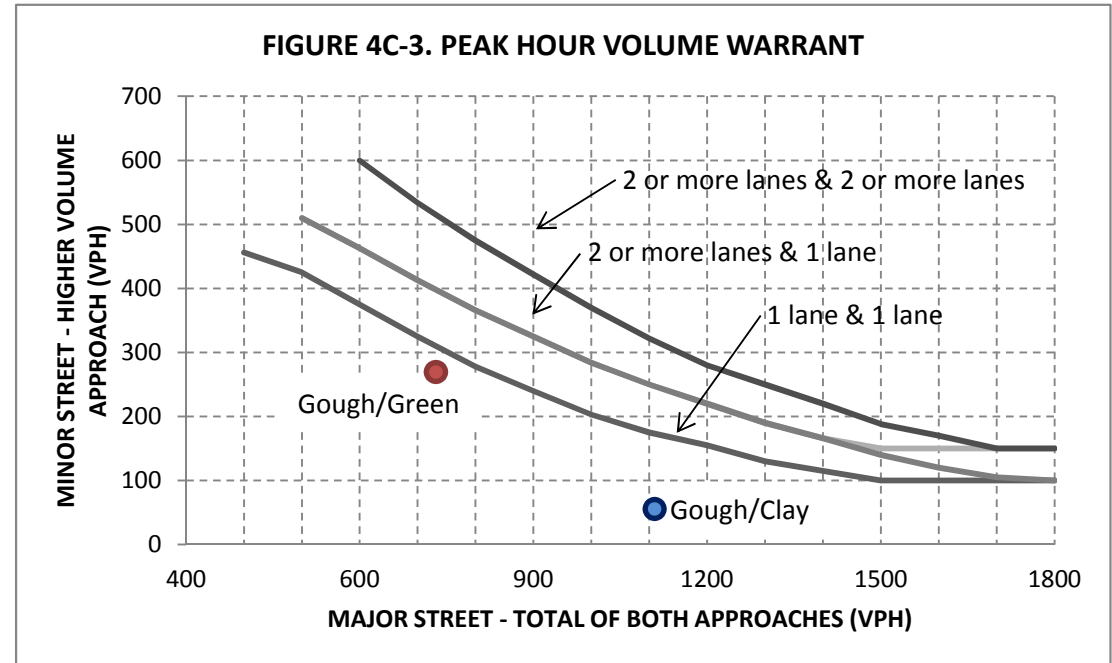
**Warrant 3B: Peak Hour Volume**

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any consecutive 15-minute periods) of an average day falls above the curve in Figure 4C-3 for the existing combination of approach lanes.

**Analysis**

	No. of Lanes	
	Gough/Green	Gough/Clay
Major Street	2	2
Minor Street	1	2

Street Name	Time	Vehicles per Hour	
		Major Street (Sum of both approaches)	Minor Street (High volume approach)
Gough/Green	5:00 PM	714	279
Gough/Clay	5:00 PM	1,108	60



**Warrant Not Met**



Van Ness Avenue BRT Significant Impact Calculations

6/7/2013

2035 Side Lane BRT

Critical Movements	Total Vol Future Base	Total Vol Future w Project	Project Traffic Growth	LOS	Critical Movement %	Significant Impact?
Otis/Mission						
SBT	1419	1109	-310			
NEL	1222	964	-258			
SWR+SWR2	907	939	32	E	3.4%	No
Duboce/Mission						
WBR2	1092	947	-145			
NBR2	235	243	8	D		

2035 Center Lane BRT

Critical Movements	Total Vol Future Base	Total Vol Future w Project	Project Traffic Growth	LOS	Critical Movement %	Significant Impact?
Franklin/Pine						
WBT+WBR	2076	2123	47	D	2.2%	
NBL+NBT	2704	2901	197	C	6.8%	No
Van Ness /Pine						
WBT	2083	2041	-42			
NBL	200	148	-52			
SBT	1728	1295	-433			
Duboce/Mission						
WBR2	1092	973	-119			
NBR2	235	244	9	D	3.7%	No

2035 Center Lane BRT with Design Option B

Critical Movements	Total Vol Future Base	Total Vol Future w Project	Project Traffic Growth	LOS	Critical Movement %	Significant Impact?
Otis/Mission						
SBT	1419	1133	-286			
NEL	1222	582	-640			
NET+NER	446	530	84	E	15.8%	
SWR+SWR2	907	937	30	E	3.2%	Yes
Franklin/Pine						
WBT+WBR	2076	2094	18	E	0.9%	
NBL+NBT	2704	3045	341	D		No
Duboce/Mission						
WBR2	1092	973	-119			
NBR2	235	244	9	D		No

2035 Locally Preferred Alternative (LPA)

Critical Movements	Total Vol Future Base	Total Vol Future w Project	Project Traffic Growth	LOS	Critical Movement %	Significant Impact?
Otis/Mission						
SBT	1419	1133	-286			
NEL	1222	582	-640			
NET+NER	446	530	84	E	15.8%	
SWR+SWR2	907	937	30	E	3.2%	Yes
Franklin/Pine						
WBT+WBR	2076	2094	18	E	0.9%	
NBL+NBT	2704	3045	341	D		No
Duboce/Mission						
WBR2	1092	973	-119			
NBR2	235	244	9	D		No

# Appendix 13

## Mitigations – Synchro Model Inputs and Outputs





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Fr <sub>t</sub>		0.914									0.998	
Fl <sub>t</sub> Protected				0.950							0.997	
Satd. Flow (prot)	0	1641	0	1770	1796	0	0	0	0	0	6089	0
Fl <sub>t</sub> Permitted				0.211							0.997	
Satd. Flow (perm)	0	1641	0	393	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41									4	
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	77	136	605	410	0	0	0	0	152	2230	39
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	100	177	630	427	0	0	0	0	157	2299	40
Lane Group Flow (vph)	0	277	0	630	427	0	0	0	0	0	2496	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Minimum Split (s)		19.0		8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	0.0	30.0	49.0	0.0	0.0	0.0	0.0	41.0	41.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	33.3%	54.4%	0.0%	0.0%	0.0%	0.0%	45.6%	45.6%	0.0%
Maximum Green (s)		15.0		26.0	45.0					37.0	37.0	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0			5.0					5.0	5.0	
Flash Dont Walk (s)		5.0			15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0			0					0	0	
Act Effct Green (s)		16.0		46.0	46.0						38.0	
Actuated g/C Ratio		0.18		0.51	0.51						0.42	
v/c Ratio		0.85		1.03	0.47						0.97	
Control Delay		55.7		54.7	3.5						23.6	
Queue Delay		0.0		1.0	0.3						30.1	
Total Delay		55.7		55.7	3.8						53.7	
LOS		E		E	A						D	
Approach Delay		55.7			34.7						53.7	
Approach LOS		E			C						D	
Queue Length 50th (ft)		132		~241	26						197	
Queue Length 95th (ft)		#200		m#505	m32						#484	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												

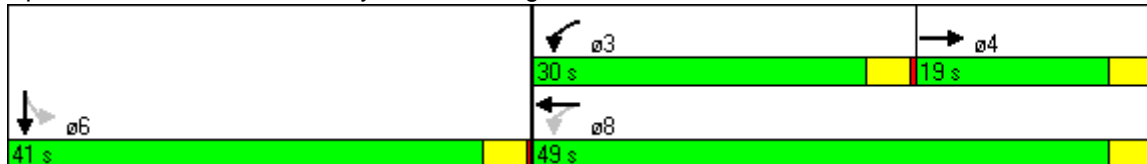


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		325		614	918							2573
Starvation Cap Reductn		0		2	133							242
Spillback Cap Reductn		0		0	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		0.85		1.03	0.54							1.07

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	74 (82%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.03
Intersection Signal Delay:	48.6
Intersection LOS:	D
Intersection Capacity Utilization	91.2%
ICU Level of Service	F
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

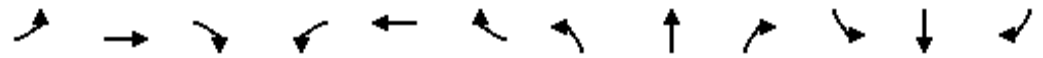
Splits and Phases: 412: Hayes St. & Gough St.



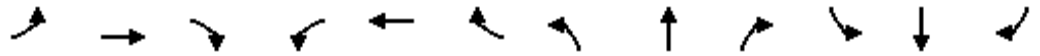


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.71	0.81	1.00	1.00	1.00
Fr <sub>t</sub>								0.986				
Fl <sub>t</sub> Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Fl <sub>t</sub> Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	1							17				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		310			483			190				163
Travel Time (s)		8.5			13.2			5.2				4.4
Volume (vph)	358	1050	0	0	0	0	0	2826	295	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	393	1154	0	0	0	0	0	2975	311	0	0	0
Lane Group Flow (vph)	393	1154	0	0	0	0	0	3286	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0						49.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	34.0	34.0						50.0				
Actuated g/C Ratio	0.38	0.38						0.56				
v/c Ratio	0.59	0.91						0.94				
Control Delay	27.5	39.5						9.8				
Queue Delay	0.0	1.0						1.8				
Total Delay	27.5	40.4						11.6				
LOS	C	D						B				
Approach Delay		37.2						11.6				
Approach LOS		D						B				
Queue Length 50th (ft)	231	369						87				
Queue Length 95th (ft)	m294	#471						94				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Fr <sub>t</sub>		0.913									0.998	
Fl <sub>t</sub> Protected				0.950							0.997	
Satd. Flow (prot)	0	1639	0	1770	1796	0	0	0	0	0	6089	0
Fl <sub>t</sub> Permitted				0.211							0.997	
Satd. Flow (perm)	0	1639	0	393	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36									4	
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	76	136	608	412	0	0	0	0	152	2233	39
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	99	177	633	429	0	0	0	0	157	2302	40
Lane Group Flow (vph)	0	276	0	633	429	0	0	0	0	0	2499	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Minimum Split (s)		19.0		8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	0.0	29.0	48.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	32.2%	53.3%	0.0%	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%
Maximum Green (s)		15.0		25.0	44.0					38.0	38.0	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0			5.0					5.0	5.0	
Flash Dont Walk (s)		5.0			15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0			0					0	0	
Act Effct Green (s)		16.0		45.0	45.0						39.0	
Actuated g/C Ratio		0.18		0.50	0.50						0.43	
v/c Ratio		0.86		1.07	0.48						0.95	
Control Delay		57.6		69.2	3.6						19.4	
Queue Delay		0.0		1.3	0.3						23.0	
Total Delay		57.6		70.6	3.9						42.5	
LOS		E		E	A						D	
Approach Delay		57.6			43.7						42.5	
Approach LOS		E			D						D	
Queue Length 50th (ft)		135		~335	27						213	
Queue Length 95th (ft)		#204		m#516	m32						#400	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												

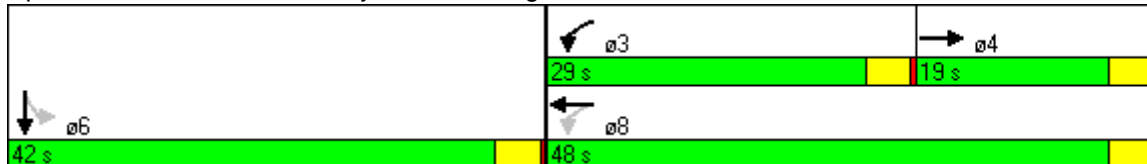


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		321		594	898							2641
Starvation Cap Reductn		0		2	126							259
Spillback Cap Reductn		0		0	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		0.86		1.07	0.56							1.05

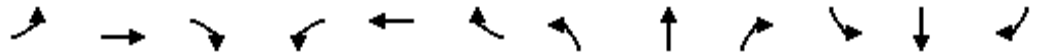
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.07
Intersection Signal Delay:	43.9
Intersection LOS:	D
Intersection Capacity Utilization	91.4%
ICU Level of Service	F
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 412: Hayes St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.71	0.81	1.00	1.00	1.00
Fr <sub>t</sub>								0.986				
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	1							17				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		310			483			190				163
Travel Time (s)		8.5			13.2			5.2				4.4
Volume (vph)	357	1048	0	0	0	0	0	2813	295	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	392	1152	0	0	0	0	0	2961	311	0	0	0
Lane Group Flow (vph)	392	1152	0	0	0	0	0	3272	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	37.0	37.0	0.0	0.0	0.0	0.0	0.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	0.0%	0.0%	0.0%	58.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0						49.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	34.0	34.0						50.0				
Actuated g/C Ratio	0.38	0.38						0.56				
v/c Ratio	0.59	0.91						0.93				
Control Delay	21.6	33.7						9.3				
Queue Delay	0.0	0.8						1.7				
Total Delay	21.6	34.4						11.0				
LOS	C	C						B				
Approach Delay		31.2						11.0				
Approach LOS		C						B				
Queue Length 50th (ft)	219	368						87				
Queue Length 95th (ft)	m295	#470						93				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												



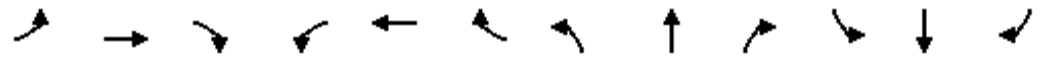
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	669	1265						3510				
Starvation Cap Reductn	0	0						8				
Spillback Cap Reductn	0	20						123				
Storage Cap Reductn	0	0						0				
Reduced v/c Ratio	0.59	0.93						0.97				

**Intersection Summary**

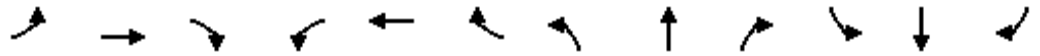
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 39 (43%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 17.4                      Intersection LOS: B  
 Intersection Capacity Utilization 72.2%                      ICU Level of Service C  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖		↗	↖						↖↗↘↙	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Fr <sub>t</sub>		0.913									0.998	
Fl <sub>t</sub> Protected				0.950							0.997	
Satd. Flow (prot)	0	1639	0	1770	1796	0	0	0	0	0	6089	0
Fl <sub>t</sub> Permitted				0.211							0.997	
Satd. Flow (perm)	0	1639	0	393	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39									4	
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25				25		25	
Link Distance (ft)		415			458				308		345	
Travel Time (s)		11.3			12.5				8.4		9.4	
Volume (vph)	0	76	136	589	412	0	0	0	0	152	2216	39
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	99	177	614	429	0	0	0	0	157	2285	40
Lane Group Flow (vph)	0	276	0	614	429	0	0	0	0	0	2482	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Minimum Split (s)		19.0		8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	0.0	29.0	48.0	0.0	0.0	0.0	0.0	42.0	42.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	32.2%	53.3%	0.0%	0.0%	0.0%	0.0%	46.7%	46.7%	0.0%
Maximum Green (s)		15.0		25.0	44.0					38.0	38.0	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0			5.0					5.0	5.0	
Flash Dont Walk (s)		5.0			15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0			0					0	0	
Act Effct Green (s)		16.0		45.0	45.0						39.0	
Actuated g/C Ratio		0.18		0.50	0.50						0.43	
v/c Ratio		0.85		1.03	0.48						0.94	
Control Delay		56.4		56.8	5.5						18.5	
Queue Delay		0.0		1.1	0.3						20.4	
Total Delay		56.4		58.0	5.8						38.9	
LOS		E		E	A						D	
Approach Delay		56.4			36.5						38.9	
Approach LOS		E			D						D	
Queue Length 50th (ft)		133		~167	49						221	
Queue Length 95th (ft)		#201		m#445	m56						#379	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												

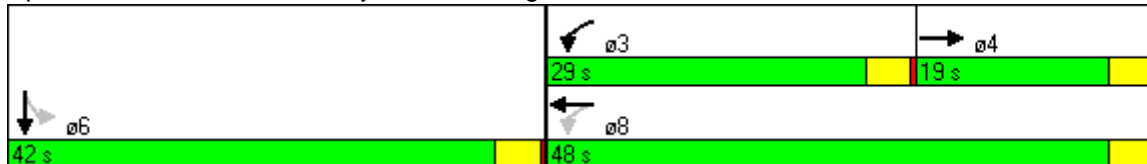


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		323		594	898							2641
Starvation Cap Reductn		0		2	130							258
Spillback Cap Reductn		0		0	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		0.85		1.04	0.56							1.04

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	1.03
Intersection Signal Delay:	39.5
Intersection LOS:	D
Intersection Capacity Utilization	90.1%
ICU Level of Service	E
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 412: Hayes St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.71	0.81	1.00	1.00	1.00
Frt								0.986				
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	1							15				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		310			483			190			163	
Travel Time (s)		8.5			13.2			5.2			4.4	
Volume (vph)	357	1043	0	0	0	0	0	2899	295	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	392	1146	0	0	0	0	0	3052	311	0	0	0
Lane Group Flow (vph)	392	1146	0	0	0	0	0	3363	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	31.0	31.0						50.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	33.0	33.0						51.0				
Actuated g/C Ratio	0.37	0.37						0.57				
v/c Ratio	0.60	0.93						0.94				
Control Delay	20.7	35.0						9.4				
Queue Delay	0.0	1.2						1.3				
Total Delay	20.7	36.2						10.7				
LOS	C	D						B				
Approach Delay		32.3						10.7				
Approach LOS		C						B				
Queue Length 50th (ft)	215	367						100				
Queue Length 95th (ft)	m288	#477						118				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	650	1228						3579				
Starvation Cap Reductn	0	0						7				
Spillback Cap Reductn	0	20						95				
Storage Cap Reductn	0	0						0				
Reduced v/c Ratio	0.60	0.95						0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 36 (40%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 17.5      Intersection LOS: B  
 Intersection Capacity Utilization 73.0%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	15		9		9	9
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor	0.79		0.95		0.96		
Frt	0.865		0.988		0.985		
Flt Protected		0.950					
Satd. Flow (prot)	1611	3433	1752	0	3337	0	0
Flt Permitted		0.950					
Satd. Flow (perm)	1275	3433	1752	0	3337	0	0
Right Turn on Red	Yes			Yes			Yes
Satd. Flow (RTOR)	67		8		7		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)			25		25		
Link Distance (ft)			584		250		
Travel Time (s)			15.9		6.8		
Volume (vph)	12	1866	481	44	645	32	39
Confl. Peds. (#/hr)	150			300		300	
Confl. Bikes (#/hr)				160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	1964	506	46	679	34	41
Lane Group Flow (vph)	13	1964	552	0	754	0	0
Turn Type	custom	Prot					
Protected Phases		7	4		8		
Permitted Phases	3						
Minimum Split (s)	38.0	24.0	29.5		29.5		
Total Split (s)	38.0	60.0	52.0	0.0	30.0	0.0	0.0
Total Split (%)	42.2%	66.7%	57.8%	0.0%	33.3%	0.0%	0.0%
Maximum Green (s)	4.0	54.5	46.5		24.5		
Yellow Time (s)	3.5	3.5	3.5		3.5		
All-Red Time (s)	30.5	2.0	2.0		2.0		
Lead/Lag	Lead	Lead	Lag		Lag		
Lead-Lag Optimize?							
Walk Time (s)			5.0		5.0		
Flash Dont Walk (s)			19.0		19.0		
Pedestrian Calls (#/hr)			0		0		
Act Effct Green (s)	35.0	57.0	49.0		27.0		
Actuated g/C Ratio	0.39	0.63	0.54		0.30		
v/c Ratio	0.02	0.90	0.58		0.75		
Control Delay	0.1	9.4	16.5		42.0		
Queue Delay	0.0	0.1	0.0		0.0		
Total Delay	0.1	9.4	16.5		42.0		
LOS	A	A	B		D		
Approach Delay			11.0		42.0		
Approach LOS			B		D		
Queue Length 50th (ft)	0	128	283		212		
Queue Length 95th (ft)	0	m175	m325		261		
Internal Link Dist (ft)			504		170		

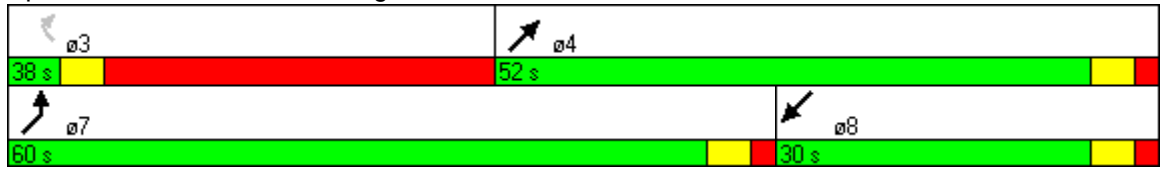


Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Turn Bay Length (ft)							
Base Capacity (vph)	537	2174	958		1006		
Starvation Cap Reductn	0	4	0		0		
Spillback Cap Reductn	0	6	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.02	0.91	0.58		0.75		

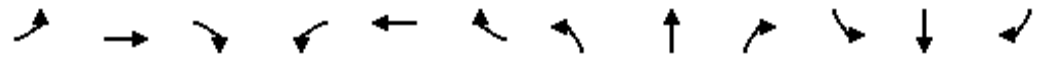
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 18.1                      Intersection LOS: B  
 Intersection Capacity Utilization 114.0%                      ICU Level of Service H  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

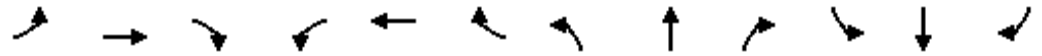
**Splits and Phases: 1350: Page St & Market St.**







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕						↕↕↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Fr <sub>t</sub>		0.913									0.998	
Fl <sub>t</sub> Protected				0.950							0.997	
Satd. Flow (prot)	0	1639	0	1770	1796	0	0	0	0	0	6089	0
Fl <sub>t</sub> Permitted				0.211							0.997	
Satd. Flow (perm)	0	1639	0	393	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		49									4	
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	76	136	589	412	0	0	0	0	152	2216	39
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	99	177	614	429	0	0	0	0	157	2285	40
Lane Group Flow (vph)	0	276	0	614	429	0	0	0	0	0	2482	0
Turn Type				pm+pt							Perm	
Protected Phases		4		3	8							6
Permitted Phases				8							6	
Minimum Split (s)		19.0		8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	0.0	31.0	50.0	0.0	0.0	0.0	0.0	40.0	40.0	0.0
Total Split (%)	0.0%	21.1%	0.0%	34.4%	55.6%	0.0%	0.0%	0.0%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)		15.0		27.0	46.0					36.0	36.0	
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5					0.5	0.5	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0			5.0					5.0	5.0	
Flash Dont Walk (s)		5.0			15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0			0					0	0	
Act Effct Green (s)		16.0		47.0	47.0						37.0	
Actuated g/C Ratio		0.18		0.52	0.52						0.41	
v/c Ratio		0.83		0.97	0.46						0.99	
Control Delay		51.8		39.3	5.0						27.6	
Queue Delay		0.0		0.5	0.3						34.3	
Total Delay		51.8		39.9	5.3						61.9	
LOS		D		D	A						E	
Approach Delay		51.8			25.7						61.9	
Approach LOS		D			C						E	
Queue Length 50th (ft)		127		154	48						248	
Queue Length 95th (ft)		#191		m#421	m53						#491	
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)												

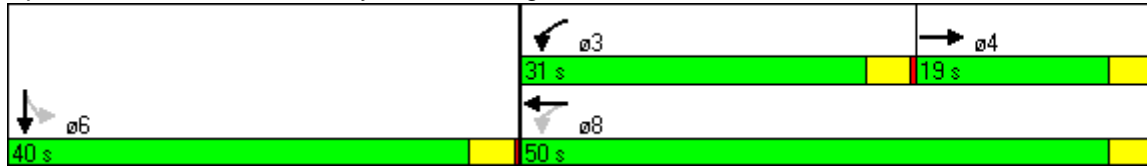


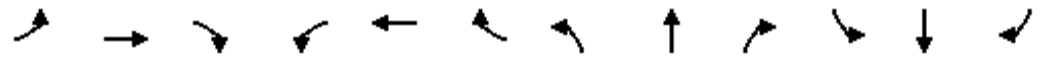
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		332		634	938							2506
Starvation Cap Reductn		0		2	147							224
Spillback Cap Reductn		0		0	0							0
Storage Cap Reductn		0		0	0							0
Reduced v/c Ratio		0.83		0.97	0.54							1.09

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	51.2
Intersection LOS:	D
Intersection Capacity Utilization	90.1%
ICU Level of Service	E
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 412: Hayes St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.71	0.81	1.00	1.00	1.00
Fr <sub>t</sub>	0.986											
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	1											
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)	25				25				25		25	
Link Distance (ft)	310				483				190		163	
Travel Time (s)	8.5				13.2				5.2		4.4	
Volume (vph)	357	1043	0	0	0	0	0	2899	295	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	13											
Adj. Flow (vph)	392	1146	0	0	0	0	0	3052	311	0	0	0
Lane Group Flow (vph)	392	1146	0	0	0	0	0	3363	0	0	0	0
Turn Type	Split											
Protected Phases	4	4										
Permitted Phases												
Minimum Split (s)	22.5	22.5										
Total Split (s)	36.0	36.0	0.0	0.0	0.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	31.0	31.0										
Yellow Time (s)	3.5	3.5										
All-Red Time (s)	1.5	1.5										
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0										
Flash Dont Walk (s)	12.5	12.5										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	33.0	33.0										
Actuated g/C Ratio	0.37	0.37										
v/c Ratio	0.60	0.93										
Control Delay	20.7	35.0										
Queue Delay	0.0	1.2										
Total Delay	20.7	36.2										
LOS	C	D										
Approach Delay	32.3											
Approach LOS	C											
Queue Length 50th (ft)	215	367										
Queue Length 95th (ft)	m288	#477										
Internal Link Dist (ft)	230				403				110		83	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	650	1228						3579				
Starvation Cap Reductn	0	0						7				
Spillback Cap Reductn	0	20						95				
Storage Cap Reductn	0	0						0				
Reduced v/c Ratio	0.60	0.95						0.97				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 36 (40%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 17.5                      Intersection LOS: B  
 Intersection Capacity Utilization 73.0%                      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	15		9		9	9
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor	0.79		0.95		0.96		
Frt	0.865		0.988		0.985		
Flt Protected		0.950					
Satd. Flow (prot)	1611	3433	1752	0	3337	0	0
Flt Permitted		0.950					
Satd. Flow (perm)	1275	3433	1752	0	3337	0	0
Right Turn on Red	Yes			Yes			Yes
Satd. Flow (RTOR)	67		8		7		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)			25		25		
Link Distance (ft)			584		250		
Travel Time (s)			15.9		6.8		
Volume (vph)	12	1866	481	44	645	32	39
Confl. Peds. (#/hr)	150			300		300	
Confl. Bikes (#/hr)				160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	13	1964	506	46	679	34	41
Lane Group Flow (vph)	13	1964	552	0	754	0	0
Turn Type	custom	Prot					
Protected Phases		7	4		8		
Permitted Phases	3						
Minimum Split (s)	38.0	24.0	29.5		29.5		
Total Split (s)	38.0	60.0	52.0	0.0	30.0	0.0	0.0
Total Split (%)	42.2%	66.7%	57.8%	0.0%	33.3%	0.0%	0.0%
Maximum Green (s)	4.0	54.5	46.5		24.5		
Yellow Time (s)	3.5	3.5	3.5		3.5		
All-Red Time (s)	30.5	2.0	2.0		2.0		
Lead/Lag	Lead	Lead	Lag		Lag		
Lead-Lag Optimize?							
Walk Time (s)			5.0		5.0		
Flash Dont Walk (s)			19.0		19.0		
Pedestrian Calls (#/hr)			0		0		
Act Effct Green (s)	35.0	57.0	49.0		27.0		
Actuated g/C Ratio	0.39	0.63	0.54		0.30		
v/c Ratio	0.02	0.90	0.58		0.75		
Control Delay	0.1	9.4	16.5		42.0		
Queue Delay	0.0	0.1	0.0		0.0		
Total Delay	0.1	9.4	16.5		42.0		
LOS	A	A	B		D		
Approach Delay			11.0		42.0		
Approach LOS			B		D		
Queue Length 50th (ft)	0	128	283		212		
Queue Length 95th (ft)	0	m175	m325		261		
Internal Link Dist (ft)			504		170		

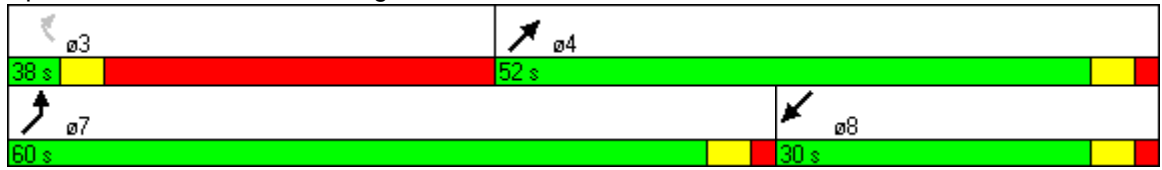


Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Turn Bay Length (ft)							
Base Capacity (vph)	537	2174	958		1006		
Starvation Cap Reductn	0	4	0		0		
Spillback Cap Reductn	0	6	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.02	0.91	0.58		0.75		

**Intersection Summary**

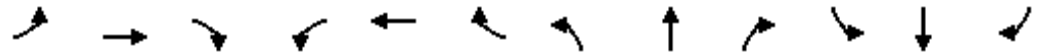
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 48 (53%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 18.1      Intersection LOS: B  
 Intersection Capacity Utilization 114.0%      ICU Level of Service H  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Frt			0.850									0.998
Flt Protected				0.950								0.997
Satd. Flow (prot)	0	1796	1583	1770	1796	0	0	0	0	0	6089	0
Flt Permitted				0.508								0.997
Satd. Flow (perm)	0	1796	1583	946	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			39									4
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	86	153	639	423	0	0	0	0	170	2440	43
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												16
Adj. Flow (vph)	0	112	199	666	441	0	0	0	0	175	2515	44
Lane Group Flow (vph)	0	112	199	666	441	0	0	0	0	0	2734	0
Turn Type			Perm pm+pt								Perm	
Protected Phases		4		3	8							6
Permitted Phases			4	8							6	
Minimum Split (s)		19.0	19.0	8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	19.0	27.0	46.0	0.0	0.0	0.0	0.0	44.0	44.0	0.0
Total Split (%)	0.0%	21.1%	21.1%	30.0%	51.1%	0.0%	0.0%	0.0%	0.0%	48.9%	48.9%	0.0%
Maximum Green (s)		12.0	12.0	23.0	42.0					40.0	40.0	
Yellow Time (s)		7.0	7.0	3.5	3.5					3.5	3.5	
All-Red Time (s)		0.0	0.0	0.5	0.5					0.5	0.5	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0	3.0		5.0					5.0	5.0	
Flash Dont Walk (s)		5.0	5.0		15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0	0		0					0	0	
Act Effct Green (s)		16.0	16.0	43.0	43.0						41.0	
Actuated g/C Ratio		0.18	0.18	0.48	0.48						0.46	
v/c Ratio		0.35	0.64	0.99	0.51						0.98	
Control Delay		36.1	37.6	32.9	3.9						24.3	
Queue Delay		0.0	0.1	1.7	0.4						41.3	
Total Delay		36.1	37.7	34.7	4.3						65.6	
LOS		D	D	C	A						E	
Approach Delay		37.1			22.6						65.6	
Approach LOS		D			C						E	
Queue Length 50th (ft)		56	85	59	30						315	
Queue Length 95th (ft)		89	127	m#365	m33						m#525	

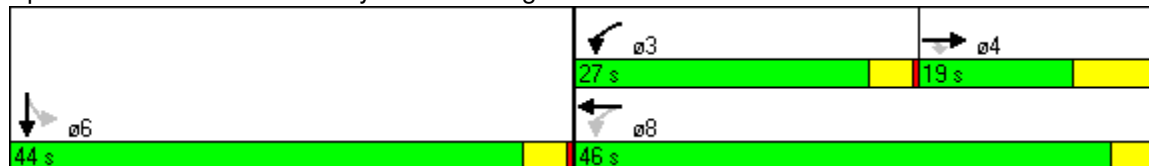


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)			125									
Base Capacity (vph)		319	313	672	858						2776	
Starvation Cap Reductn		0	0	5	115						293	
Spillback Cap Reductn		0	3	1	0						11	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.35	0.64	1.00	0.59						1.10	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	83 (92%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	52.0
Intersection LOS:	D
Intersection Capacity Utilization:	93.5%
ICU Level of Service:	F
Analysis Period (min):	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

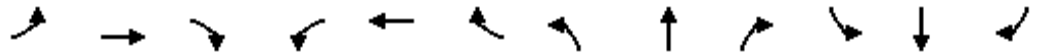
**Splits and Phases:** 412: Hayes St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑↑	↗		↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.86	1.00	0.86	*0.77	1.00	1.00	1.00	1.00
Frt						0.850						
Flt Protected								0.995				
Satd. Flow (prot)	0	0	0	0	6209	1583	0	5452	0	0	0	0
Flt Permitted								0.995				
Satd. Flow (perm)	0	0	0	0	6209	1583	0	5452	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)						1						
Headway Factor	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.06	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		503			452			172				192
Travel Time (s)		13.7			12.3			4.7				5.2
Volume (vph)	0	0	0	0	1793	425	266	2632	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Bus Blockages (#/hr)	0	0	0	0	31	0	0	0	0	0	0	0
Parking (#/hr)								16				
Adj. Flow (vph)	0	0	0	0	2160	512	283	2800	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	2160	512	0	3083	0	0	0	0
Turn Type						Perm	Split					
Protected Phases					4		2	2				
Permitted Phases						4						
Minimum Split (s)					21.0	21.0	20.0	20.0				
Total Split (s)	0.0	0.0	0.0	0.0	39.0	39.0	51.0	51.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	43.3%	43.3%	56.7%	56.7%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)					35.0	35.0	47.0	47.0				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					0.5	0.5	0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)					8.0	8.0	7.0	7.0				
Flash Dont Walk (s)					9.0	9.0	9.0	9.0				
Pedestrian Calls (#/hr)					0	0	0	0				
Act Effct Green (s)					36.0	36.0		48.0				
Actuated g/C Ratio					0.40	0.40		0.53				
v/c Ratio					0.87	0.81		1.06				
Control Delay					25.4	29.4		44.7				
Queue Delay					2.2	3.5		27.7				
Total Delay					27.6	32.9		72.3				
LOS					C	C		E				
Approach Delay					28.6			72.3				
Approach LOS					C			E				
Queue Length 50th (ft)					375	301		~626				
Queue Length 95th (ft)					378	m354		m#701				
Internal Link Dist (ft)		423			372			92			112	
Turn Bay Length (ft)												

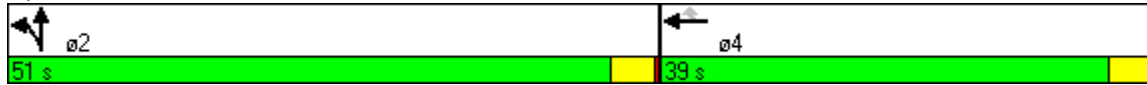


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)					2484	634		2908				
Starvation Cap Reductn					199	61		166				
Spillback Cap Reductn					0	0		129				
Storage Cap Reductn					0	0		0				
Reduced v/c Ratio					0.95	0.89		1.12				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 81 (90%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 52.0 Intersection LOS: D  
 Intersection Capacity Utilization 75.2% ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 613: Pine St. & Franklin St.**



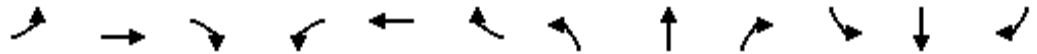


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑						↑↑↑↑				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.71	0.81	1.00	1.00	1.00
Fr <sub>t</sub>								0.986				
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	6305	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								7				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		300			483			190			163	
Travel Time (s)		8.2			13.2			5.2			4.4	
Volume (vph)	398	1149	0	0	0	0	0	3179	314	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	437	1263	0	0	0	0	0	3346	331	0	0	0
Lane Group Flow (vph)	437	1263	0	0	0	0	0	3677	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	34.0	34.0	0.0	0.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	0.0%	0.0%	0.0%	62.2%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	29.0	29.0						52.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	31.0	31.0						53.0				
Actuated g/C Ratio	0.34	0.34						0.59				
v/c Ratio	0.72	1.10						0.99				
Control Delay	27.5	79.4						13.9				
Queue Delay	0.0	18.5						29.2				
Total Delay	27.5	97.9						43.2				
LOS	C	F						D				
Approach Delay		79.8						43.2				
Approach LOS		E						D				
Queue Length 50th (ft)	265	~448						103				
Queue Length 95th (ft)	m286	m#484						#672				
Internal Link Dist (ft)		220			403			110			83	
Turn Bay Length (ft)												





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗			↘			↗	↗			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.77	0.86	1.00	1.00	1.00
Frt					0.981			0.991				
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	1818	0	0	1783	0	0	5680	0	0	0	0
Flt Permitted	0.395							0.999				
Satd. Flow (perm)	736	1818	0	0	1783	0	0	5680	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			21				
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	72	453	0	0	218	36	37	2946	184	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Adj. Flow (vph)	91	573	0	0	276	46	38	3037	190	0	0	0
Lane Group Flow (vph)	91	573	0	0	322	0	0	3265	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	35.0	35.0	0.0	0.0	35.0	0.0	55.0	55.0	0.0	0.0	0.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	0.0%	38.9%	0.0%	61.1%	61.1%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	30.0	30.0			30.0		51.0	51.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		8.5	8.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)	32.0	32.0			32.0			52.0				
Actuated g/C Ratio	0.36	0.36			0.36			0.58				
v/c Ratio	0.35	0.89			0.51			0.99				
Control Delay	21.5	34.0			37.6			18.5				
Queue Delay	0.0	50.2			0.0			32.7				
Total Delay	21.5	84.2			37.6			51.2				
LOS	C	F			D			D				
Approach Delay		75.6			37.6			51.2				
Approach LOS		E			D			D				
Queue Length 50th (ft)	27	195			176			221				
Queue Length 95th (ft)	m40	m281			224			#698				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)	50											
Base Capacity (vph)	262	646			635			3291				
Starvation Cap Reductn	0	16			0			171				
Spillback Cap Reductn	0	127			0			277				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.35	1.10			0.51			1.08				

**Intersection Summary**

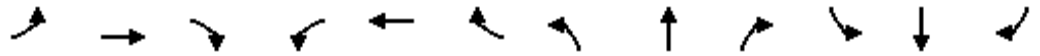
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 25 (28%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 54.0      Intersection LOS: D  
 Intersection Capacity Utilization 76.8%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Fr <sub>t</sub>					0.931			0.988				
Fl <sub>t</sub> Protected		0.997						0.999				
Satd. Flow (prot)	0	1746	0	0	3196	0	0	6325	0	0	0	0
Fl <sub>t</sub> Permitted		0.816						0.999				
Satd. Flow (perm)	0	1429	0	0	3196	0	0	6325	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			34				
Headway Factor	1.00	1.08	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	415	0	0	432	371	48	2676	242	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Adj. Flow (vph)	30	451	0	0	491	422	51	2817	255	0	0	0
Lane Group Flow (vph)	0	481	0	0	913	0	0	3123	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	38.0	38.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	33.0	33.0			33.0		48.0	48.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		9.5	9.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		35.0			35.0			49.0				
Actuated g/C Ratio		0.39			0.39			0.54				
v/c Ratio		0.87			0.73			0.90				
Control Delay		35.9			6.3			11.5				
Queue Delay		0.0			0.0			40.6				
Total Delay		35.9			6.3			52.1				
LOS		D			A			D				
Approach Delay		35.9			6.3			52.1				
Approach LOS		D			A			D				
Queue Length 50th (ft)		282			18			104				
Queue Length 95th (ft)		m#390			23			m139				
Internal Link Dist (ft)		123			417			254				117
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		556			1244			3459				
Starvation Cap Reductn		0			0			590				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.87			0.73			1.09				

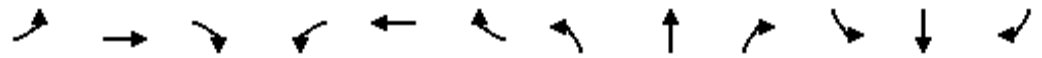
**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	89 (99%), Referenced to phase 2:NBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	41.1
Intersection LOS:	D
Intersection Capacity Utilization	95.0%
ICU Level of Service	F
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





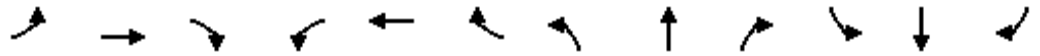


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.988						0.992	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1840	0	0	0	0	0	3212	0
Flt Permitted	0.375			0.950								
Satd. Flow (perm)	699	0	1583	1770	1840	0	0	0	0	0	3212	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			73	73	7						8	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	120	0	177	374	357	30	0	0	0	0	883	51
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Parking (#/hr)											14	14
Adj. Flow (vph)	171	0	253	420	401	34	0	0	0	0	901	52
Lane Group Flow (vph)	171	0	253	420	435	0	0	0	0	0	953	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	47.0	0.0	47.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	52.2%	0.0%	52.2%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Maximum Green (s)	42.0		42.0	42.0	42.0						39.0	
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	44.0		44.0	44.0	44.0						40.0	
Actuated g/C Ratio	0.49		0.49	0.49	0.49						0.44	
v/c Ratio	0.50		0.31	0.47	0.48						0.67	
Control Delay	21.9		10.8	1.6	3.2						19.3	
Queue Delay	0.0		0.1	0.2	0.0						0.0	
Total Delay	21.9		10.9	1.8	3.2						19.3	
LOS	C		B	A	A						B	
Approach Delay					2.5						19.3	
Approach LOS					A						B	
Queue Length 50th (ft)	63		56	4	24						145	
Queue Length 95th (ft)	86		71	m5	m24						211	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	342		811	903	903						1432	
Starvation Cap Reductn	0		0	0	0						0	
Spillback Cap Reductn	0		86	96	0						7	
Storage Cap Reductn	0		0	0	0						0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt			0.850									0.995
Flt Protected					0.989							0.996
Satd. Flow (prot)	0	1818	1583	0	1798	0	0	0	0	0	5040	0
Flt Permitted					0.659							0.996
Satd. Flow (perm)	0	1818	1583	0	1198	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			3									11
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	323	125	53	190	0	0	0	0	206	2438	97
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	367	142	62	224	0	0	0	0	215	2540	101
Lane Group Flow (vph)	0	367	142	0	286	0	0	0	0	0	2856	0
Turn Type			Perm	Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases			4	8								
Minimum Split (s)		20.0	20.0	20.0	20.0					17.0	17.0	
Total Split (s)	0.0	32.0	32.0	32.0	32.0	0.0	0.0	0.0	0.0	58.0	58.0	0.0
Total Split (%)	0.0%	35.6%	35.6%	35.6%	35.6%	0.0%	0.0%	0.0%	0.0%	64.4%	64.4%	0.0%
Maximum Green (s)		27.0	27.0	27.0	27.0					54.0	54.0	
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5	1.5	1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		29.0	29.0		29.0							55.0
Actuated g/C Ratio		0.32	0.32		0.32							0.61
v/c Ratio		0.63	0.28		0.74							0.93
Control Delay		31.6	24.0		21.8							10.4
Queue Delay		0.7	0.0		0.0							11.0
Total Delay		32.3	24.0		21.8							21.4
LOS		C	C		C							C
Approach Delay		30.0			21.8							21.4
Approach LOS		C			C							C
Queue Length 50th (ft)		176	58		31							108
Queue Length 95th (ft)		262	104		m70							339
Internal Link Dist (ft)		890			396			322				249
Turn Bay Length (ft)			50									
Base Capacity (vph)		586	512		386							3084



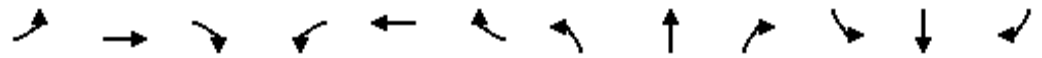
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0						268	
Spillback Cap Reductn		57	0		0						136	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.69	0.28		0.74						1.01	

**Intersection Summary**

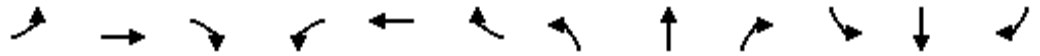
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 25 (28%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 22.7      Intersection LOS: C  
 Intersection Capacity Utilization 93.4%      ICU Level of Service F  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Frt			0.850									0.998
Flt Protected				0.950								0.997
Satd. Flow (prot)	0	1796	1583	1770	1796	0	0	0	0	0	6089	0
Flt Permitted				0.508								0.997
Satd. Flow (perm)	0	1796	1583	946	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41									4
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25				25			25
Link Distance (ft)		415			458				308			345
Travel Time (s)		11.3			12.5				8.4			9.4
Volume (vph)	0	86	153	602	424	0	0	0	0	170	2443	43
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												16
Adj. Flow (vph)	0	112	199	627	442	0	0	0	0	175	2519	44
Lane Group Flow (vph)	0	112	199	627	442	0	0	0	0	0	2738	0
Turn Type			Perm pm+pt								Perm	
Protected Phases		4		3	8							6
Permitted Phases			4	8							6	
Minimum Split (s)		19.0	19.0	8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	19.0	26.1	45.1	0.0	0.0	0.0	0.0	44.9	44.9	0.0
Total Split (%)	0.0%	21.1%	21.1%	29.0%	50.1%	0.0%	0.0%	0.0%	0.0%	49.9%	49.9%	0.0%
Maximum Green (s)		15.0	15.0	22.1	41.1					40.9	40.9	
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5	0.5	0.5	0.5					0.5	0.5	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0	3.0		5.0					5.0	5.0	
Flash Dont Walk (s)		5.0	5.0		15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0	0		0					0	0	
Act Effct Green (s)		16.0	16.0	42.1	42.1						41.9	
Actuated g/C Ratio		0.18	0.18	0.47	0.47						0.47	
v/c Ratio		0.35	0.63	0.96	0.53						0.97	
Control Delay		36.1	37.0	27.9	4.3						19.3	
Queue Delay		0.0	0.1	0.4	0.3						35.1	
Total Delay		36.1	37.2	28.3	4.7						54.4	
LOS		D	D	C	A						D	
Approach Delay		36.8			18.5						54.4	
Approach LOS		D			B						D	
Queue Length 50th (ft)		56	83	81	33						289	
Queue Length 95th (ft)		89	126	m#310	m36						#523	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		335				378			228			265
Turn Bay Length (ft)			100									
Base Capacity (vph)		319	315	654	840							2837
Starvation Cap Reductn		0	0	0	97							305
Spillback Cap Reductn		0	4	2	0							11
Storage Cap Reductn		0	0	0	0							0
Reduced v/c Ratio		0.35	0.64	0.96	0.59							1.08

**Intersection Summary**

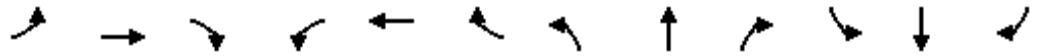
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	72 (80%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.97
Intersection Signal Delay:	43.8
Intersection LOS:	D
Intersection Capacity Utilization	91.5%
ICU Level of Service	F
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 412: Hayes St. & Gough St.**

 ø6 44.9 s	 ø3 26.1 s	 ø4 19 s
	 ø8 45.1 s	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑						↗				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.73	0.76	1.00	1.00	1.00
Fr <sub>t</sub>								0.986				
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	7823	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	7823	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								19				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		587			483			190				163
Travel Time (s)		16.0			13.2			5.2				4.4
Volume (vph)	398	1146	0	0	0	0	0	3183	315	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	437	1259	0	0	0	0	0	3351	332	0	0	0
Lane Group Flow (vph)	437	1259	0	0	0	0	0	3683	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	41.0	41.0	0.0	0.0	0.0	0.0	0.0	49.0	0.0	0.0	0.0	0.0
Total Split (%)	45.6%	45.6%	0.0%	0.0%	0.0%	0.0%	0.0%	54.4%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	36.0	36.0						45.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	38.0	38.0						46.0				
Actuated g/C Ratio	0.42	0.42						0.51				
v/c Ratio	0.59	0.89						0.92				
Control Delay	13.3	19.8						10.0				
Queue Delay	0.0	1.6						2.9				
Total Delay	13.3	21.4						12.9				
LOS	B	C						B				
Approach Delay		19.3						12.9				
Approach LOS		B						B				
Queue Length 50th (ft)	209	412						97				
Queue Length 95th (ft)	m176	m372						104				
Internal Link Dist (ft)		507			403			110			83	
Turn Bay Length (ft)												

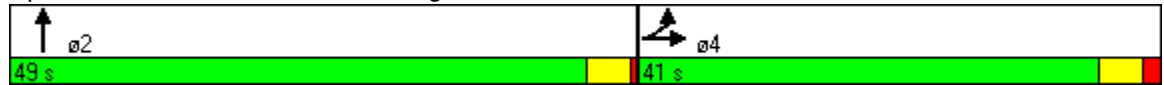


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	747	1414						4008				
Starvation Cap Reductn	0	0						240				
Spillback Cap Reductn	0	58						226				
Storage Cap Reductn	0	0						0				
Reduced v/c Ratio	0.59	0.93						0.98				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 42 (47%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 14.9      Intersection LOS: B  
 Intersection Capacity Utilization 73.9%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 m Volume for 95th percentile queue is metered by upstream signal.

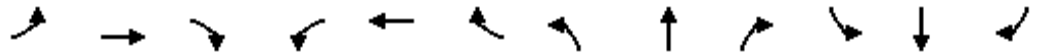
Splits and Phases: 500: Starr King & Franklin St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.80	0.86	1.00	1.00	1.00
Frt					0.980			0.991				
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	1818	0	0	1782	0	0	5901	0	0	0	0
Flt Permitted	0.404							0.999				
Satd. Flow (perm)	753	1818	0	0	1782	0	0	5901	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			22				
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	73	456	0	0	206	36	37	2982	185	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Adj. Flow (vph)	92	577	0	0	261	46	38	3074	191	0	0	0
Lane Group Flow (vph)	92	577	0	0	307	0	0	3303	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	34.0	34.0	0.0	0.0	34.0	0.0	56.0	56.0	0.0	0.0	0.0	0.0
Total Split (%)	37.8%	37.8%	0.0%	0.0%	37.8%	0.0%	62.2%	62.2%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	29.0	29.0			29.0		52.0	52.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		8.5	8.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)	31.0	31.0			31.0			53.0				
Actuated g/C Ratio	0.34	0.34			0.34			0.59				
v/c Ratio	0.36	0.92			0.50			0.95				
Control Delay	22.7	40.4			35.3			12.1				
Queue Delay	0.0	44.1			0.0			22.7				
Total Delay	22.7	84.6			35.3			34.8				
LOS	C	F			D			C				
Approach Delay		76.0			35.3			34.8				
Approach LOS		E			D			C				
Queue Length 50th (ft)	26	191			163			267				
Queue Length 95th (ft)	m50	m#285			m207			#392				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		396			402			108			76	
Turn Bay Length (ft)	50											
Base Capacity (vph)	259	626			614			3484				
Starvation Cap Reductn	0	2			0			193				
Spillback Cap Reductn	0	99			0			335				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.36	1.09			0.50			1.05				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 23 (26%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 41.3      Intersection LOS: D  
 Intersection Capacity Utilization 77.5%      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 479: Eddy St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Fr <sub>t</sub>					0.930			0.988				
Fl <sub>t</sub> Protected		0.997						0.999				
Satd. Flow (prot)	0	1746	0	0	3193	0	0	6325	0	0	0	0
Fl <sub>t</sub> Permitted		0.822						0.999				
Satd. Flow (perm)	0	1439	0	0	3193	0	0	6325	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			34				
Headway Factor	1.00	1.08	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	418	0	0	427	371	48	2683	243	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Adj. Flow (vph)	30	454	0	0	485	422	51	2824	256	0	0	0
Lane Group Flow (vph)	0	484	0	0	907	0	0	3131	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	38.0	38.0	0.0	0.0	38.0	0.0	52.0	52.0	0.0	0.0	0.0	0.0
Total Split (%)	42.2%	42.2%	0.0%	0.0%	42.2%	0.0%	57.8%	57.8%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	33.0	33.0			33.0		48.0	48.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		9.5	9.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		35.0			35.0			49.0				
Actuated g/C Ratio		0.39			0.39			0.54				
v/c Ratio		0.86			0.73			0.91				
Control Delay		34.1			6.4			11.8				
Queue Delay		0.0			0.0			42.0				
Total Delay		34.1			6.4			53.7				
LOS		C			A			D				
Approach Delay		34.1			6.4			53.7				
Approach LOS		C			A			D				
Queue Length 50th (ft)		284			26			93				
Queue Length 95th (ft)		m#382			49			m96				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		560			1242			3459				
Starvation Cap Reductn		0			0			591				
Spillback Cap Reductn		0			0			192				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.86			0.73			1.09				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 80 (89%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 42.1                      Intersection LOS: D  
 Intersection Capacity Utilization 95.3%                      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
     Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 436: McAllister St. & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑↑↑		↑	↑↑			↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1900	1900	1900	1900	1900	1800	1900
Storage Length (ft)	0		0	0		0	172		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor					0.97						0.97	
Frt		0.976			0.979			0.997			0.990	
Flt Protected					0.999		0.950					
Satd. Flow (prot)	0	1818	0	0	4569	0	1770	3352	0	0	2990	0
Flt Permitted					0.932		0.950					
Satd. Flow (perm)	0	1818	0	0	4262	0	1770	3352	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			40			3			10	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.00	1.00	1.11	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		481			275			192			172	
Travel Time (s)		13.1			7.5			5.2			4.7	
Volume (vph)	0	210	46	24	1322	221	224	1310	24	0	1350	92
Confl. Peds. (#/hr)						224						449
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0			10	10
Adj. Flow (vph)	0	221	48	25	1392	233	233	1365	25	0	1406	96
Lane Group Flow (vph)	0	269	0	0	1650	0	233	1390	0	0	1502	0
Turn Type				Perm			Prot					
Protected Phases		4			4		5	2			6	
Permitted Phases				4								
Minimum Split (s)		35.0		35.0	35.0		8.4	51.0			39.0	
Total Split (s)	0.0	36.0	0.0	36.0	36.0	0.0	12.0	54.0	0.0	0.0	42.0	0.0
Total Split (%)	0.0%	40.0%	0.0%	40.0%	40.0%	0.0%	13.3%	60.0%	0.0%	0.0%	46.7%	0.0%
Maximum Green (s)		30.2		30.2	30.2		7.6	49.6			37.6	
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)		2.3		2.3	2.3		0.9	0.9			0.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Walk Time (s)		7.2		7.2	7.2			5.6			5.6	
Flash Dont Walk (s)		22.0		22.0	22.0			10.0			9.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		33.0		33.0	33.0		9.0	51.0			39.0	
Actuated g/C Ratio		0.37		0.37	0.37		0.10	0.57			0.43	
v/c Ratio		0.40		1.04	1.04		1.32	0.73			1.15	
Control Delay		10.8		62.0	62.0		173.3	1.7			88.7	
Queue Delay		0.0		0.0	0.0		0.0	4.2			18.6	
Total Delay		10.8		62.0	62.0		173.3	5.9			107.3	
LOS		B		E	E		F	A			F	
Approach Delay		10.8		62.0	62.0			30.0			107.3	
Approach LOS		B		E	E			C			F	
Queue Length 50th (ft)		0		~369	~369		~180	30			~514	

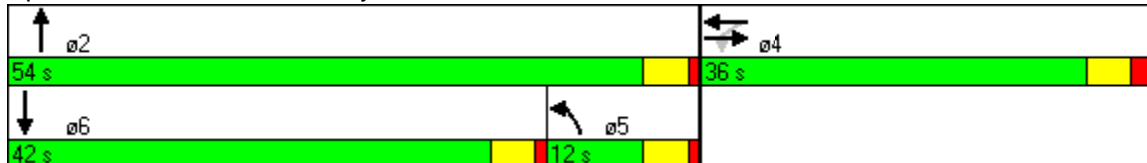


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		88			#466		m#174	m27			m#433	
Internal Link Dist (ft)		401			195			112			92	
Turn Bay Length (ft)							172					
Base Capacity (vph)		675			1588		177	1901			1301	
Starvation Cap Reductn		0			0		0	425			46	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.40			1.04		1.32	0.94			1.20	

**Intersection Summary**

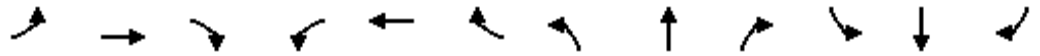
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 47 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.32  
 Intersection Signal Delay: 62.5      Intersection LOS: E  
 Intersection Capacity Utilization 116.5%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 414: Hayes St. & Van Ness Avenue**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.988						0.992	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1840	0	0	0	0	0	3212	0
Flt Permitted	0.375			0.950								
Satd. Flow (perm)	699	0	1583	1770	1840	0	0	0	0	0	3212	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			65	65	7						8	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	120	0	177	418	357	30	0	0	0	0	918	51
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Parking (#/hr)											14	14
Adj. Flow (vph)	171	0	253	470	401	34	0	0	0	0	937	52
Lane Group Flow (vph)	171	0	253	470	435	0	0	0	0	0	989	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	47.0	0.0	47.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	52.2%	0.0%	52.2%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Maximum Green (s)	42.0		42.0	42.0	42.0						39.0	
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	44.0		44.0	44.0	44.0						40.0	
Actuated g/C Ratio	0.49		0.49	0.49	0.49						0.44	
v/c Ratio	0.50		0.31	0.52	0.48						0.69	
Control Delay	21.9		11.3	14.0	14.6						23.6	
Queue Delay	0.0		0.1	0.3	0.0						0.1	
Total Delay	21.9		11.4	14.3	14.6						23.7	
LOS	C		B	B	B						C	
Approach Delay					14.4						23.7	
Approach LOS					B						C	
Queue Length 50th (ft)	63		59	85	96						272	
Queue Length 95th (ft)	86		74	m87	m98						353	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	342		807	899	903						1432	
Starvation Cap Reductn	0		0	26	0						0	
Spillback Cap Reductn	0		82	91	0						31	
Storage Cap Reductn	0		0	0	0						0	

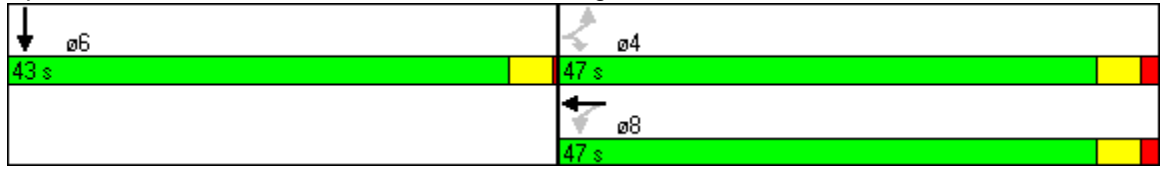


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.50		0.35	0.58	0.48							0.71

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	18.6
Intersection LOS:	B
Intersection Capacity Utilization	71.1%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 659: Sacramento St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt			0.850									0.995
Flt Protected					0.987							0.996
Satd. Flow (prot)	0	1818	1583	0	1794	0	0	0	0	0	5040	0
Flt Permitted					0.604							0.996
Satd. Flow (perm)	0	1818	1583	0	1098	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			3									11
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	323	125	70	190	0	0	0	0	206	2462	97
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	367	142	82	224	0	0	0	0	215	2565	101
Lane Group Flow (vph)	0	367	142	0	306	0	0	0	0	0	2881	0
Turn Type			Perm	Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases			4	8								
Minimum Split (s)		20.0	20.0	20.0	20.0					17.0	17.0	
Total Split (s)	0.0	33.0	33.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	36.7%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Maximum Green (s)		28.0	28.0	28.0	28.0					53.0	53.0	
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5	1.5	1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0	30.0		30.0							54.0
Actuated g/C Ratio		0.33	0.33		0.33							0.60
v/c Ratio		0.61	0.27		0.84							0.95
Control Delay		30.2	23.2		28.8							14.2
Queue Delay		0.7	0.0		0.0							19.5
Total Delay		30.9	23.2		28.8							33.7
LOS		C	C		C							C
Approach Delay		28.7			28.8							33.7
Approach LOS		C			C							C
Queue Length 50th (ft)		172	57		34							157
Queue Length 95th (ft)		257	102		m#241							#502
Internal Link Dist (ft)		890			396			322				249
Turn Bay Length (ft)			50									
Base Capacity (vph)		606	530		366							3028

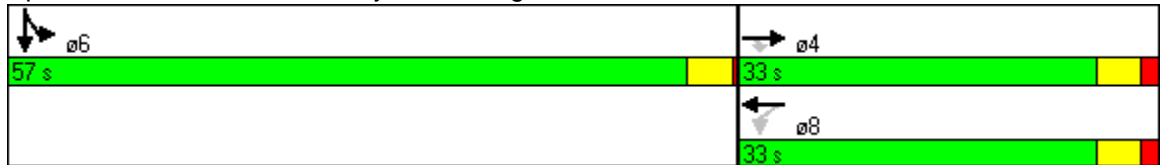


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0						261	
Spillback Cap Reductn		64	0		0						70	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.68	0.27		0.84						1.04	

**Intersection Summary**

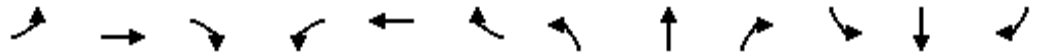
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 32.6      Intersection LOS: C  
 Intersection Capacity Utilization 94.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Frt			0.850									0.998
Flt Protected				0.950								0.997
Satd. Flow (prot)	0	1796	1583	1770	1796	0	0	0	0	0	6089	0
Flt Permitted				0.508								0.997
Satd. Flow (perm)	0	1796	1583	946	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30									4
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		415			458			308			345	
Travel Time (s)		11.3			12.5			8.4			9.4	
Volume (vph)	0	86	153	643	424	0	0	0	0	170	2490	43
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)											16	16
Adj. Flow (vph)	0	112	199	670	442	0	0	0	0	175	2567	44
Lane Group Flow (vph)	0	112	199	670	442	0	0	0	0	0	2786	0
Turn Type			Perm pm+pt								Perm	
Protected Phases		4		3	8							6
Permitted Phases			4	8							6	
Minimum Split (s)		19.0	19.0	8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	19.0	25.0	44.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0
Total Split (%)	0.0%	21.1%	21.1%	27.8%	48.9%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%
Maximum Green (s)		15.0	15.0	21.0	40.0					42.0	42.0	
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5	0.5	0.5	0.5					0.5	0.5	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0	3.0		5.0					5.0	5.0	
Flash Dont Walk (s)		5.0	5.0		15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0	0		0					0	0	
Act Effct Green (s)		16.0	16.0	41.0	41.0						43.0	
Actuated g/C Ratio		0.18	0.18	0.46	0.46						0.48	
v/c Ratio		0.35	0.65	1.06	0.54						0.96	
Control Delay		36.1	40.2	58.4	10.2						19.2	
Queue Delay		0.0	0.0	7.1	0.4						34.0	
Total Delay		36.1	40.2	65.5	10.7						53.2	
LOS		D	D	E	B						D	
Approach Delay		38.7			43.7						53.2	
Approach LOS		D			D						D	
Queue Length 50th (ft)		56	90	~279	81						288	
Queue Length 95th (ft)		89	132	m#310	m88						#465	

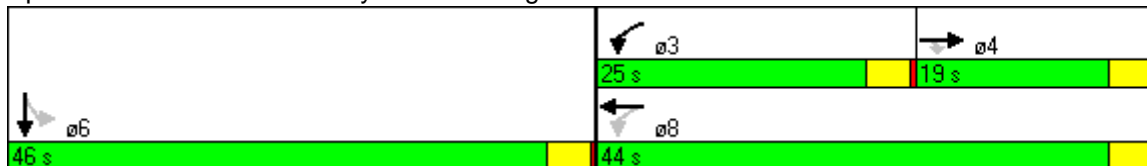


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)			100									
Base Capacity (vph)		319	306	632	818						2911	
Starvation Cap Reductn		0	0	0	101						325	
Spillback Cap Reductn		0	1	11	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.35	0.65	1.08	0.62						1.08	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	100
Control Type:	Pretimed
Maximum v/c Ratio:	1.06
Intersection Signal Delay:	49.6
Intersection LOS:	D
Intersection Capacity Utilization	94.5%
ICU Level of Service	F
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 412: Hayes St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑						↗				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.73	0.76	1.00	1.00	1.00
Fr <sub>t</sub>								0.987				
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	7831	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	7831	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								17				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		310			483			190				163
Travel Time (s)		8.5			13.2			5.2				4.4
Volume (vph)	398	1140	0	0	0	0	0	3282	315	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	437	1253	0	0	0	0	0	3455	332	0	0	0
Lane Group Flow (vph)	437	1253	0	0	0	0	0	3787	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	40.0	40.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	0.0%	55.6%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	35.0	35.0						46.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	37.0	37.0						47.0				
Actuated g/C Ratio	0.41	0.41						0.52				
v/c Ratio	0.60	0.91						0.92				
Control Delay	18.1	28.4						9.6				
Queue Delay	0.0	25.2						3.8				
Total Delay	18.1	53.5						13.4				
LOS	B	D						B				
Approach Delay		44.4						13.4				
Approach LOS		D						B				
Queue Length 50th (ft)	233	404						81				
Queue Length 95th (ft)	m262	m425						87				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												



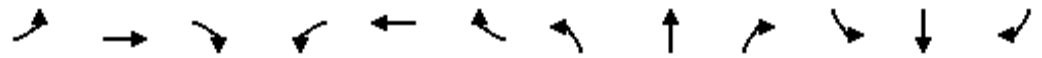
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)	728	1376						4098				
Starvation Cap Reductn	0	0						257				
Spillback Cap Reductn	0	180						58				
Storage Cap Reductn	0	0						0				
Reduced v/c Ratio	0.60	1.05						0.99				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 43 (48%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 23.0                      Intersection LOS: C  
 Intersection Capacity Utilization 74.7%                      ICU Level of Service D  
 Analysis Period (min) 15  
 \* User Entered Value  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 500: Starr King & Franklin St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.80	0.86	1.00	1.00	1.00
Frt					0.981			0.992				
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	1818	0	0	1783	0	0	5907	0	0	0	0
Flt Permitted	0.368							0.999				
Satd. Flow (perm)	685	1818	0	0	1783	0	0	5907	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			22				
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	73	456	0	0	223	36	37	3065	185	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Adj. Flow (vph)	92	577	0	0	282	46	38	3160	191	0	0	0
Lane Group Flow (vph)	92	577	0	0	328	0	0	3389	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	28.0	28.0			28.0		53.0	53.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		8.5	8.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)	30.0	30.0			30.0			54.0				
Actuated g/C Ratio	0.33	0.33			0.33			0.60				
v/c Ratio	0.40	0.95			0.55			0.95				
Control Delay	27.7	49.1			35.0			12.1				
Queue Delay	0.0	47.6			0.0			30.8				
Total Delay	27.7	96.7			35.0			42.9				
LOS	C	F			C			D				
Approach Delay		87.2			35.0			42.9				
Approach LOS		F			C			D				
Queue Length 50th (ft)	31	222			172			279				
Queue Length 95th (ft)	m56	m#383			m218			#455				







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Frt					0.925			0.988				
Flt Protected		0.997						0.999				
Satd. Flow (prot)	0	1746	0	0	3176	0	0	6325	0	0	0	0
Flt Permitted		0.715						0.999				
Satd. Flow (perm)	0	1252	0	0	3176	0	0	6325	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			33				
Headway Factor	1.00	1.08	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	418	0	0	440	441	48	2829	243	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Adj. Flow (vph)	30	454	0	0	500	501	51	2978	256	0	0	0
Lane Group Flow (vph)	0	484	0	0	1001	0	0	3285	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		49.0	49.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		9.5	9.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		1.02			0.87dr			0.93				
Control Delay		69.3			10.9			11.1				
Queue Delay		0.0			0.0			55.1				
Total Delay		69.3			10.9			66.2				
LOS		E			B			E				
Approach Delay		69.3			10.9			66.2				
Approach LOS		E			B			E				
Queue Length 50th (ft)		~304			38			102				
Queue Length 95th (ft)		m#435			50			m102				
Internal Link Dist (ft)		123			417			254				117
Turn Bay Length (ft)												





Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	15		9		9	9
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor	0.79		0.95		0.96		
Frt	0.865		0.988		0.985		
Flt Protected		0.950					
Satd. Flow (prot)	1611	3433	1755	0	3334	0	0
Flt Permitted		0.950					
Satd. Flow (perm)	1275	3433	1755	0	3334	0	0
Right Turn on Red	Yes			Yes			Yes
Satd. Flow (RTOR)	58		8		7		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)			25		25		
Link Distance (ft)			584		250		
Travel Time (s)			15.9		6.8		
Volume (vph)	13	2033	531	47	707	36	44
Confl. Peds. (#/hr)	150			300		300	
Confl. Bikes (#/hr)				160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	2140	559	49	744	38	46
Lane Group Flow (vph)	14	2140	608	0	828	0	0
Turn Type	custom	Prot					
Protected Phases		7	4		8		
Permitted Phases	3						
Minimum Split (s)	38.0	24.0	29.5		29.5		
Total Split (s)	38.0	60.0	52.0	0.0	30.0	0.0	0.0
Total Split (%)	42.2%	66.7%	57.8%	0.0%	33.3%	0.0%	0.0%
Maximum Green (s)	4.0	54.5	46.5		24.5		
Yellow Time (s)	3.5	3.5	3.5		3.5		
All-Red Time (s)	30.5	2.0	2.0		2.0		
Lead/Lag	Lead	Lead	Lag		Lag		
Lead-Lag Optimize?							
Walk Time (s)			5.0		5.0		
Flash Dont Walk (s)			19.0		19.0		
Pedestrian Calls (#/hr)			0		0		
Act Effct Green (s)	35.0	57.0	49.0		27.0		
Actuated g/C Ratio	0.39	0.63	0.54		0.30		
v/c Ratio	0.03	0.98	0.63		0.82		
Control Delay	0.1	16.7	21.2		27.9		
Queue Delay	0.0	46.1	0.8		0.0		
Total Delay	0.1	62.8	22.0		27.9		
LOS	A	E	C		C		
Approach Delay			53.8		27.9		
Approach LOS			D		C		
Queue Length 50th (ft)	0	666	318		246		
Queue Length 95th (ft)	0	m#685	m326		m309		
Internal Link Dist (ft)			504		170		

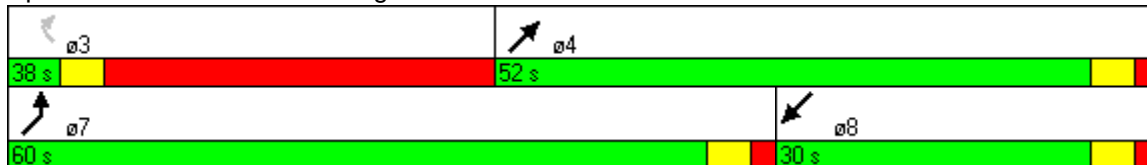


Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Turn Bay Length (ft)							
Base Capacity (vph)	531	2174	959		1005		
Starvation Cap Reductn	0	252	130		0		
Spillback Cap Reductn	0	88	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.03	1.11	0.73		0.82		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 47.6      Intersection LOS: D  
 Intersection Capacity Utilization 120.8%      ICU Level of Service H  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↗						↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.988						0.992	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1840	0	0	0	0	0	3212	0
Flt Permitted	0.375			0.950								
Satd. Flow (perm)	699	0	1583	1770	1840	0	0	0	0	0	3212	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			65	65	7						8	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.12	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		200			509			368			321	
Travel Time (s)		5.5			13.9			10.0			8.8	
Volume (vph)	120	0	177	418	357	30	0	0	0	0	918	51
Peak Hour Factor	0.70	0.70	0.70	0.89	0.89	0.89	0.25	0.25	0.25	0.98	0.98	0.98
Parking (#/hr)											14	14
Adj. Flow (vph)	171	0	253	470	401	34	0	0	0	0	937	52
Lane Group Flow (vph)	171	0	253	470	435	0	0	0	0	0	989	0
Turn Type	custom		custom	Perm								
Protected Phases					8						6	
Permitted Phases	4		4	8								
Minimum Split (s)	17.0		17.0	17.0	17.0						17.0	
Total Split (s)	47.0	0.0	47.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0
Total Split (%)	52.2%	0.0%	52.2%	52.2%	52.2%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	0.0%
Maximum Green (s)	42.0		42.0	42.0	42.0						39.0	
Yellow Time (s)	3.5		3.5	3.5	3.5						3.5	
All-Red Time (s)	1.5		1.5	1.5	1.5						0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)	44.0		44.0	44.0	44.0						40.0	
Actuated g/C Ratio	0.49		0.49	0.49	0.49						0.44	
v/c Ratio	0.50		0.31	0.52	0.48						0.69	
Control Delay	21.9		11.3	14.0	14.6						23.6	
Queue Delay	0.0		0.1	0.3	0.0						0.1	
Total Delay	21.9		11.4	14.2	14.6						23.7	
LOS	C		B	B	B						C	
Approach Delay					14.4						23.7	
Approach LOS					B						C	
Queue Length 50th (ft)	63		59	85	96						272	
Queue Length 95th (ft)	86		74	m87	m98						352	
Internal Link Dist (ft)		120			429			288			241	
Turn Bay Length (ft)												
Base Capacity (vph)	342		807	899	903						1432	
Starvation Cap Reductn	0		0	26	0						0	
Spillback Cap Reductn	0		82	91	0						31	
Storage Cap Reductn	0		0	0	0						0	

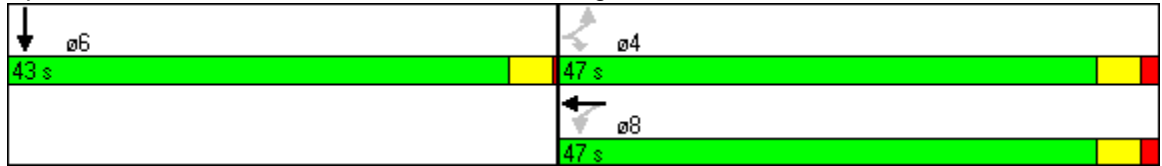


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.50		0.35	0.58	0.48							0.71

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	78 (87%), Referenced to phase 6:SBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	18.6
Intersection LOS:	B
Intersection Capacity Utilization	71.1%
ICU Level of Service	C
Analysis Period (min)	15
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 659: Sacramento St. & Gough St.**





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Frt			0.850									0.995
Flt Protected					0.987							0.996
Satd. Flow (prot)	0	1818	1583	0	1794	0	0	0	0	0	5040	0
Flt Permitted					0.604							0.996
Satd. Flow (perm)	0	1818	1583	0	1098	0	0	0	0	0	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			3									11
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		970			476			402			329	
Travel Time (s)		26.5			13.0			11.0			9.0	
Volume (vph)	0	323	125	70	190	0	0	0	0	206	2462	97
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)										17		17
Adj. Flow (vph)	0	367	142	82	224	0	0	0	0	215	2565	101
Lane Group Flow (vph)	0	367	142	0	306	0	0	0	0	0	2881	0
Turn Type			Perm	Perm							Split	
Protected Phases		4			8						6	6
Permitted Phases			4	8								
Minimum Split (s)		20.0	20.0	20.0	20.0					17.0	17.0	
Total Split (s)	0.0	33.0	33.0	33.0	33.0	0.0	0.0	0.0	0.0	57.0	57.0	0.0
Total Split (%)	0.0%	36.7%	36.7%	36.7%	36.7%	0.0%	0.0%	0.0%	0.0%	63.3%	63.3%	0.0%
Maximum Green (s)		28.0	28.0	28.0	28.0					53.0	53.0	
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)		1.5	1.5	1.5	1.5					0.5	0.5	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		30.0	30.0		30.0						54.0	
Actuated g/C Ratio		0.33	0.33		0.33						0.60	
v/c Ratio		0.61	0.27		0.84						0.95	
Control Delay		30.2	23.2		28.8						14.2	
Queue Delay		0.7	0.0		0.0						19.5	
Total Delay		30.9	23.2		28.8						33.7	
LOS		C	C		C						C	
Approach Delay		28.7			28.8						33.7	
Approach LOS		C			C						C	
Queue Length 50th (ft)		172	57		34						157	
Queue Length 95th (ft)		257	102		m#241						#502	
Internal Link Dist (ft)		890			396			322			249	
Turn Bay Length (ft)			50									
Base Capacity (vph)		606	530		366						3028	

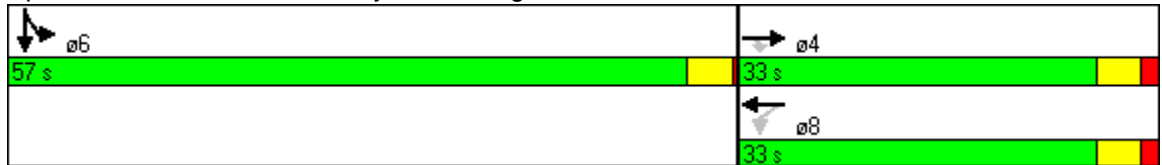


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0		0						261	
Spillback Cap Reductn		64	0		0						70	
Storage Cap Reductn		0	0		0						0	
Reduced v/c Ratio		0.68	0.27		0.84						1.04	

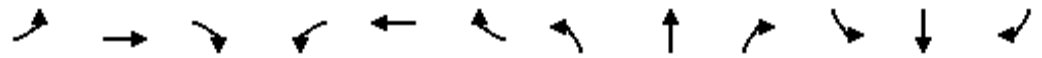
**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 24 (27%), Referenced to phase 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 32.6      Intersection LOS: C  
 Intersection Capacity Utilization 94.8%      ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 478: Eddy St. & Gough St.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↑↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Frt			0.850									0.998
Flt Protected				0.950								0.997
Satd. Flow (prot)	0	1796	1583	1770	1796	0	0	0	0	0	6089	0
Flt Permitted				0.508								0.997
Satd. Flow (perm)	0	1796	1583	946	1796	0	0	0	0	0	6089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30									4
Headway Factor	1.00	1.05	1.00	1.00	1.05	1.00	1.00	1.00	1.00	1.00	1.06	1.00
Link Speed (mph)		25			25				25			25
Link Distance (ft)		415			458				308			345
Travel Time (s)		11.3			12.5				8.4			9.4
Volume (vph)	0	86	153	643	424	0	0	0	0	170	2490	43
Peak Hour Factor	0.77	0.77	0.77	0.96	0.96	0.96	0.95	0.95	0.95	0.97	0.97	0.97
Bus Blockages (#/hr)	0	9	0	0	9	0	0	0	0	0	0	0
Parking (#/hr)												16
Adj. Flow (vph)	0	112	199	670	442	0	0	0	0	175	2567	44
Lane Group Flow (vph)	0	112	199	670	442	0	0	0	0	0	2786	0
Turn Type			Perm pm+pt								Perm	
Protected Phases		4		3	8							6
Permitted Phases			4	8							6	
Minimum Split (s)		19.0	19.0	8.5	27.0					19.0	19.0	
Total Split (s)	0.0	19.0	19.0	25.0	44.0	0.0	0.0	0.0	0.0	46.0	46.0	0.0
Total Split (%)	0.0%	21.1%	21.1%	27.8%	48.9%	0.0%	0.0%	0.0%	0.0%	51.1%	51.1%	0.0%
Maximum Green (s)		15.0	15.0	21.0	40.0					42.0	42.0	
Yellow Time (s)		3.5	3.5	3.5	3.5					3.5	3.5	
All-Red Time (s)		0.5	0.5	0.5	0.5					0.5	0.5	
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?												
Walk Time (s)		3.0	3.0		5.0					5.0	5.0	
Flash Dont Walk (s)		5.0	5.0		15.0					10.0	10.0	
Pedestrian Calls (#/hr)		0	0		0					0	0	
Act Effct Green (s)		16.0	16.0	41.0	41.0							43.0
Actuated g/C Ratio		0.18	0.18	0.46	0.46							0.48
v/c Ratio		0.35	0.65	1.06	0.54							0.96
Control Delay		36.1	40.2	58.4	10.2							19.2
Queue Delay		0.0	0.0	7.1	0.4							34.0
Total Delay		36.1	40.2	65.5	10.7							53.2
LOS		D	D	E	B							D
Approach Delay		38.7			43.7							53.2
Approach LOS		D			D							D
Queue Length 50th (ft)		56	90	~279	81							288
Queue Length 95th (ft)		89	132	m#310	m88							#465

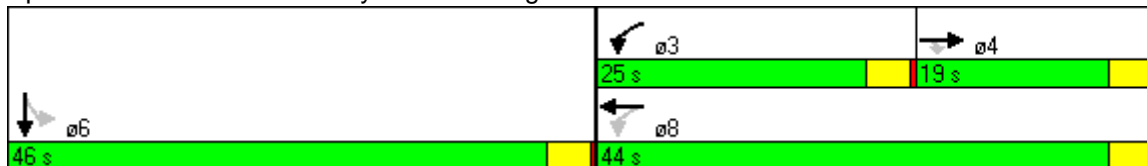


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		335			378			228			265	
Turn Bay Length (ft)			100									
Base Capacity (vph)		319	306	632	818						2911	
Starvation Cap Reductn		0	0	0	101						325	
Spillback Cap Reductn		0	1	11	0						0	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.35	0.65	1.08	0.62						1.08	

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	71 (79%), Referenced to phase 6:SBTL, Start of Green
Natural Cycle:	100
Control Type:	Pretimed
Maximum v/c Ratio:	1.06
Intersection Signal Delay:	49.6
Intersection LOS:	D
Intersection Capacity Utilization	94.5%
ICU Level of Service	F
Analysis Period (min)	15
~	Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m	Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases:** 412: Hayes St. & Gough St.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑						↗				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	*0.73	0.76	1.00	1.00	1.00
Fr <sub>t</sub>								0.987				
Flt Protected	0.950											
Satd. Flow (prot)	1770	3348	0	0	0	0	0	7831	0	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3348	0	0	0	0	0	7831	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								17				
Headway Factor	1.00	1.07	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		310			483			190				163
Travel Time (s)		8.5			13.2			5.2				4.4
Volume (vph)	398	1140	0	0	0	0	0	3282	315	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	27	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)								13				
Adj. Flow (vph)	437	1253	0	0	0	0	0	3455	332	0	0	0
Lane Group Flow (vph)	437	1253	0	0	0	0	0	3787	0	0	0	0
Turn Type	Split											
Protected Phases	4	4						2				
Permitted Phases												
Minimum Split (s)	22.5	22.5						19.5				
Total Split (s)	40.0	40.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	44.4%	44.4%	0.0%	0.0%	0.0%	0.0%	0.0%	55.6%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	35.0	35.0						46.0				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.5	1.5						0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0				
Flash Dont Walk (s)	12.5	12.5						10.5				
Pedestrian Calls (#/hr)	0	0						0				
Act Effct Green (s)	37.0	37.0						47.0				
Actuated g/C Ratio	0.41	0.41						0.52				
v/c Ratio	0.60	0.91						0.92				
Control Delay	18.1	28.4						9.6				
Queue Delay	0.0	25.2						3.8				
Total Delay	18.1	53.5						13.4				
LOS	B	D						B				
Approach Delay		44.4						13.4				
Approach LOS		D						B				
Queue Length 50th (ft)	233	404						81				
Queue Length 95th (ft)	m262	m425						87				
Internal Link Dist (ft)		230			403			110			83	
Turn Bay Length (ft)												



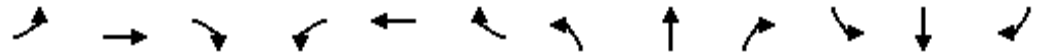


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.86	*0.80	0.86	1.00	1.00	1.00
Frt					0.981			0.992				
Flt Protected	0.950							0.999				
Satd. Flow (prot)	1770	1818	0	0	1783	0	0	5907	0	0	0	0
Flt Permitted	0.368							0.999				
Satd. Flow (perm)	685	1818	0	0	1783	0	0	5907	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			22				
Headway Factor	1.00	1.03	1.00	1.00	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		476			482			188				156
Travel Time (s)		13.0			13.1			5.1				4.3
Volume (vph)	73	456	0	0	223	36	37	3065	185	0	0	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.97	0.97	0.97	0.95	0.95	0.95
Bus Blockages (#/hr)	0	6	0	0	6	0	0	0	0	0	0	0
Parking (#/hr)									16			
Adj. Flow (vph)	92	577	0	0	282	46	38	3160	191	0	0	0
Lane Group Flow (vph)	92	577	0	0	328	0	0	3389	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		17.5	17.5				
Total Split (s)	33.0	33.0	0.0	0.0	33.0	0.0	57.0	57.0	0.0	0.0	0.0	0.0
Total Split (%)	36.7%	36.7%	0.0%	0.0%	36.7%	0.0%	63.3%	63.3%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	28.0	28.0			28.0		53.0	53.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		8.5	8.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)	30.0	30.0			30.0			54.0				
Actuated g/C Ratio	0.33	0.33			0.33			0.60				
v/c Ratio	0.40	0.95			0.55			0.95				
Control Delay	27.7	49.1			35.1			12.1				
Queue Delay	0.0	47.6			0.0			30.8				
Total Delay	27.7	96.7			35.1			42.9				
LOS	C	F			D			D				
Approach Delay		87.2			35.1			42.9				
Approach LOS		F			D			D				
Queue Length 50th (ft)	31	222			173			279				
Queue Length 95th (ft)	m56	m#383			m218			#455				





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕↕			↕↕↕				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.86	0.86	0.86	1.00	1.00	1.00
Fr <sub>t</sub>					0.925			0.988				
Fl <sub>t</sub> Protected		0.997						0.999				
Satd. Flow (prot)	0	1746	0	0	3176	0	0	6325	0	0	0	0
Fl <sub>t</sub> Permitted		0.715						0.999				
Satd. Flow (perm)	0	1252	0	0	3176	0	0	6325	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			33				
Headway Factor	1.00	1.08	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		25			25			25				25
Link Distance (ft)		203			497			334				197
Travel Time (s)		5.5			13.6			9.1				5.4
Volume (vph)	28	418	0	0	440	441	48	2829	243	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.95	0.95	0.95	0.95	0.95	0.95
Bus Blockages (#/hr)	0	15	0	0	15	0	0	0	0	0	0	0
Parking (#/hr)							17		17			
Adj. Flow (vph)	30	454	0	0	500	501	51	2978	256	0	0	0
Lane Group Flow (vph)	0	484	0	0	1001	0	0	3285	0	0	0	0
Turn Type	Perm						Split					
Protected Phases		4			4		2	2				
Permitted Phases	4											
Minimum Split (s)	22.5	22.5			22.5		18.5	18.5				
Total Split (s)	37.0	37.0	0.0	0.0	37.0	0.0	53.0	53.0	0.0	0.0	0.0	0.0
Total Split (%)	41.1%	41.1%	0.0%	0.0%	41.1%	0.0%	58.9%	58.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0	32.0			32.0		49.0	49.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.5	1.5			1.5		0.5	0.5				
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0			5.0		5.0	5.0				
Flash Dont Walk (s)	12.5	12.5			12.5		9.5	9.5				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		34.0			34.0			50.0				
Actuated g/C Ratio		0.38			0.38			0.56				
v/c Ratio		1.02			0.87dr			0.93				
Control Delay		69.3			10.6			11.1				
Queue Delay		0.0			0.0			55.1				
Total Delay		69.3			10.6			66.2				
LOS		E			B			E				
Approach Delay		69.3			10.6			66.2				
Approach LOS		E			B			E				
Queue Length 50th (ft)		~304			40			102				
Queue Length 95th (ft)		m#435			m50			m102				
Internal Link Dist (ft)		123			417			254			117	
Turn Bay Length (ft)												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Base Capacity (vph)		473			1200			3529				
Starvation Cap Reductn		0			0			604				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		1.02			0.83			1.12				

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 54.9                      Intersection LOS: D  
 Intersection Capacity Utilization 97.4%                      ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
   Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
   Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 436: McAllister St. & Franklin St.







Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turning Speed (mph)	9	15		9		9	9
Lane Util. Factor	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor	0.79		0.95		0.96		
Frt	0.865		0.988		0.985		
Flt Protected		0.950					
Satd. Flow (prot)	1611	3433	1755	0	3334	0	0
Flt Permitted		0.950					
Satd. Flow (perm)	1275	3433	1755	0	3334	0	0
Right Turn on Red	Yes			Yes			Yes
Satd. Flow (RTOR)	58		8		7		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)			25		25		
Link Distance (ft)			584		250		
Travel Time (s)			15.9		6.8		
Volume (vph)	13	2033	531	47	707	36	44
Confl. Peds. (#/hr)	150			300		300	
Confl. Bikes (#/hr)				160		160	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	2140	559	49	744	38	46
Lane Group Flow (vph)	14	2140	608	0	828	0	0
Turn Type	custom	Prot					
Protected Phases		7	4		8		
Permitted Phases	3						
Minimum Split (s)	38.0	24.0	29.5		29.5		
Total Split (s)	38.0	60.0	52.0	0.0	30.0	0.0	0.0
Total Split (%)	42.2%	66.7%	57.8%	0.0%	33.3%	0.0%	0.0%
Maximum Green (s)	4.0	54.5	46.5		24.5		
Yellow Time (s)	3.5	3.5	3.5		3.5		
All-Red Time (s)	30.5	2.0	2.0		2.0		
Lead/Lag	Lead	Lead	Lag		Lag		
Lead-Lag Optimize?							
Walk Time (s)			5.0		5.0		
Flash Dont Walk (s)			19.0		19.0		
Pedestrian Calls (#/hr)			0		0		
Act Effct Green (s)	35.0	57.0	49.0		27.0		
Actuated g/C Ratio	0.39	0.63	0.54		0.30		
v/c Ratio	0.03	0.98	0.63		0.82		
Control Delay	0.1	16.7	21.2		27.9		
Queue Delay	0.0	46.1	0.8		0.0		
Total Delay	0.1	62.8	22.0		27.9		
LOS	A	E	C		C		
Approach Delay			53.8		27.9		
Approach LOS			D		C		
Queue Length 50th (ft)	0	666	318		246		
Queue Length 95th (ft)	0	m#685	m326		m309		
Internal Link Dist (ft)			504		170		

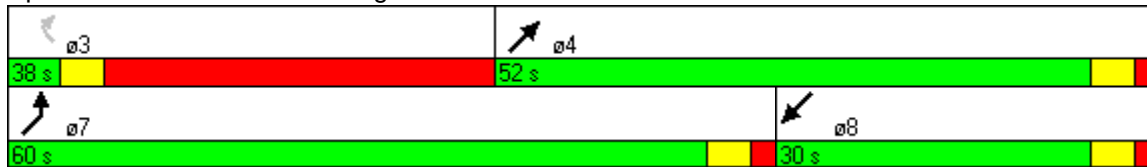


Lane Group	NWR2	NEL	NET	NER	SWT	SWR	SWR2
Turn Bay Length (ft)							
Base Capacity (vph)	531	2174	959		1005		
Starvation Cap Reductn	0	252	130		0		
Spillback Cap Reductn	0	88	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.03	1.11	0.73		0.82		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 11 (12%), Referenced to phase 4:NET, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.98  
 Intersection Signal Delay: 47.6      Intersection LOS: D  
 Intersection Capacity Utilization 120.8%      ICU Level of Service H  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

**Splits and Phases: 1350: Page St & Market St.**



# Appendix 14

## Local Preferred Alternative (LPA) Comparison Memorandum





# MEMORANDUM

DATE: October 10, 2012

TO: Michael Schwartz, Jeffery Bingham and Kim Franchi

FROM: Preethi Narayanan/Chi-Hsin Shao

RE: Van Ness Avenue BRT LPA Traffic Analysis Update – Revised October 10, 2012

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The purpose of this memo is to present the methodology, assumptions and results of the traffic analysis of the LPA for the 2015 and 2035 horizon years. The proposed LPA is a modified version of the Center Lane BRT with Design Option B Alternative analyzed for the DEIR. The proposed modification includes elimination of exclusive right-turn lanes at 11 locations. Right-turns can be made from the shared-through lane at these locations. Exclusive right-turn lanes would be provided at only three Van Ness Avenue locations in the LPA: SB Pine, SB Market and SB Mission/ Otis.

## **Methodology**

The 2015 and 2035 LPA Synchro Models were developed by modifying the 2015 and 2035 Center Lane BRT Design Option B Synchro DEIR models respectively. Exclusive right-turn lanes were eliminated at 11 locations along Van Ness Avenue and were replaced by shared through-and-right lanes in the models at the following locations:

1. NB Market
2. SB McAllister
3. NB Golden Gate
4. NB O'Farrell
5. SB Geary
6. NB Post
7. SB Sutter
8. NB Bush
9. NB California
10. SB Sacramento
11. NB Clay

The LPA models include exclusive right-turn lanes only at three locations along Van Ness Avenue: SB Pine, SB Market and SB Mission/ Otis.

Both, the 2015 and 2035 LPA models assumed the same volume, signal timings and signal offsets as the Center Lane BRT with Design Option B Synchro models to help make comparison of results between the LPA and DEIR models easy.

## **Traffic Analysis Results**

Attached Table 1 provides a comparison of the 2015 and 2035 LPA and DEIR Center Lane BRT with Design Option B Alternative intersection LOS, and approach LOS, delay and 95th percentile queue results for approaches that have been modified. The key results are as follow:

1. In 2015, the intersection LOS and approach LOS at all 11 intersections analyzed under LPA would be the same as the corresponding LOS under the Center with Design Option B Alternative.
2. In 2015 under the LPA, the queue length would be within the one- block and the queue would not block the upstream intersection at all 11 intersections.
3. In 2035, the intersection LOS and approach LOS would decline slightly at some intersections analyzed under the LPA. However, the intersection and approach LOS would remain at acceptable LOS A, B, C or D at all 11 intersections under the LPA.
4. In 2035 under the LPA, the queue generated after the elimination of exclusive right-turn lanes would spill over and block the upstream intersections approach at two locations; the queue on southbound Van Ness at Geary would spill over and block southbound approach at Post; the queue on northbound Van Ness at Post would spill over and block northbound approach at Geary. But this is the worst-case scenario, estimated to occur less than 5% of the time. The results show that the average queue would be contained within the block length. The queue length at the remaining 9 intersections analyzed under the LPA would be within the one- block distance and the queue would not block the upstream intersection.

## **Conclusion**

The results show that the approaches and intersections under the 2015 LPA have the capacity to accommodate and service the right-turn vehicles in their shared lanes without causing extensive queues. In 2035, 9 out of 11 intersections analyzed have similar results of acceptable LOS and no queue spillage. However, at 2 locations - northbound Van Ness at Post and southbound Van Ness at Geary, the 95<sup>th</sup> percentile queue generated after the elimination of exclusive right-turn lanes would extend and block their respective downstream intersections in the worst-case scenario, thus causing traffic congestion. The scenario would occur less than 5% of the time. On average, the queue would be contained within the block length at these two locations.

**Comparison of Build Alternative 3 and 4 with Design Option B and LPA LOS and Delay  
(For 11 locations where right-turn pockets are eliminated in LPA)**

	2015 Build Alternative 3 and 4 with Design Option B	2015 LPA	2035 Build Alternative 3 and 4 with Design Option B	2035 LPA
<b>Van Ness &amp; Market</b>				
Int LOS	C	C	C	C
NB Approach LOS	C	C	C	D
NB Approach Delay	21.6	25.4	25.5	35.8
<b>Van Ness &amp; McAllister</b>				
Int LOS	B	B	B	B
SB Approach LOS	B	B	B	B
SB Approach Delay	13.9	15.5	11.7	15
<b>Van Ness &amp; Golden Gate</b>				
Int LOS	A	A	A	A
NB Approach LOS	A	A	A	A
NB Approach Delay	4.7	5.8	5.2	6.2
<b>Van Ness &amp; O'Farrell</b>				
Int LOS	C	C	C	D
NB Approach LOS	A	A	B	B
NB Approach Delay	5.8	7.2	13.7	17.3
<b>Van Ness &amp; Geary</b>				
Int LOS	B	B	B	C
SB Approach LOS	B	B	C	D
SB Approach Delay	11.5	18.5	22.3	54.4
<b>Van Ness &amp; Post</b>				
Int LOS	B	B	B	C
NB Approach LOS	A	A	A	B
NB Approach Delay	3.9	7.9	5.4	19.5
<b>Van Ness &amp; Sutter</b>				
Int LOS	C	C	C	C
SB Approach LOS	B	B	B	B
SB Approach Delay	19	19.6	14.3	14.9
<b>Van Ness &amp; Bush</b>				
Int LOS	B	B	C	C
NB Approach LOS	A	A	A	A
NB Approach Delay	6.5	7.5	5.4	9.2
<b>Van Ness &amp; California</b>				
Int LOS	B	B	C	C
NB Approach LOS	A	A	A	A
NB Approach Delay	4.4	5.4	3.9	6.3
<b>Van Ness &amp; Sacramento</b>				
Int LOS	B	B	B	B
SB Approach LOS	B	B	B	C
SB Approach Delay	14.7	16.4	17	21.2
<b>Van Ness &amp; Clay</b>				
Int LOS	A	A	B	B
NB Approach LOS	A	A	A	A
NB Approach Delay	4.8	7.6	3.8	7.8

# Appendix 15

## Pedestrian Volume Sensitivity Analysis





# MEMORANDUM

DATE: January 3, 2013  
TO: Michael Schwartz  
FROM: Chi-Hsin Shao  
RE: Sensitivity of Pedestrian Volumes

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The purpose of this memo is to present the vehicular impacts of the estimated future BRT users accessing BRT bus stops along Van Ness Avenue under the Locally Preferred Alternative.

## Van Ness Avenue BRT bus passenger volumes

Most BRT passengers are expected to walk to the proposed BRT bus stops to board and alight from buses. Thus, hourly pedestrian volumes on crosswalks at the intersections in the vicinity of the proposed BRT bus stop locations would increase as seen in Table 1. Table 1 also shows crosswalks with a reduction in pedestrian volumes. Relocation of some existing Route 47 and 49 bus stops would cause pedestrians to reroute to access the new bus stops and thus pedestrian volumes along crosswalks in the vicinity of relocated bus stops would decrease.

**Table 1 Change in Hourly Pedestrian Volumes at Van Ness Avenue Intersections**

	West	North	East	South
Mission	15	-52	15	0
Market	200	240	200	705
McAllister	35	99	35	78
Eddy	-15	28	-15	25
O'Farrell	255	1084	255	-50
Geary	255	18	255	1149
Sutter	49	125	49	-58
Bush	49	0	49	197
Sacramento	18	127	18	0
Clay	52	340	52	-33

## Sensitivity of Vehicular Delay to Pedestrian Volumes

An increase in pedestrian volumes along crosswalks could potentially increase delay and degrade levels of service for traffic turning right and left from the cross street on permitted signal phase. The turning vehicles may have to wait longer for higher number of pedestrian to cross before



they can finish their turn. To evaluate sensitivity of vehicular traffic delay to pedestrian volumes, the right and left turn pedestrian conflict volumes at intersections in the vicinity of the proposed bus stops were increased or reduced by the pedestrian volumes seen in Table 1. This analysis was only conducted for the 2035 Locally Proffered Alternative (LPA), to understand the impacts in the worst case scenario with highest vehicular volumes.

The model results as seen in Table 2 show NO CHANGE in the Impact findings at the select intersections. The LOS would remain the same as the LPA model for all intersections. The intersection delay would increase by less than 1 second per vehicle at all intersections except Geary and Van Ness. The increase in intersection delay (1.3 second per veh) at Geary would be due to substantial increase in pedestrian conflicts for all permitted turning movements. However, the intersection LOS would remain C.

Synchro modeling software was used for analyzing vehicular impact analysis in the EIR and was used for this analysis to be consistent. However, Synchro vehicular delay calculations are not very sensitive to pedestrian volumes and associated conflicts. This may partially explain the relatively small increase in delay at intersections with large increase in pedestrian values.

**Table 2 2035 LPA model Intersection LOS Comparison**

Intersection	LPA model in EIR		LPA with updated Ped volumes		Change in Delay
	Delay (Seconds)	LOS	Delay (Seconds)	LOS	
Van Ness & Mission	79	E	79	E	0
Van Ness & Market	32.6	C	33.4	C	0.8
Van Ness & McAllister	16.2	B	16.3	B	0.1
Van Ness & Eddy	51.9	D	51.9	D	0
Van Ness & O'Farrell	41.8	D	42.5	D	0.7
Van Ness & Geary	29.2	C	30.5	C	1.3
Van Ness & Sutter	21.5	C	21.5	C	0
Van Ness & Bush	23.4	C	23.7	C	0.3
Van Ness & Sacramento	18.2	B	18.6	B	0.4
Van Ness & Clay	14.2	B	14.5	B	0.3

# Appendix 16

## Change in Vehicular Traffic Volumes: North-South Streets



**Van Ness Avenue**

**No Project**

Van Ness Segments	Existing Conditions (2007)				2015				2035			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street	48,199	1,326	1,883	3,209	53,531	1,493	2,071	3,564	59,885	1,559	2,428	3,987
North of Market Street	48,860	1,479	1,774	3,253	54,252	1,658	1,954	3,612	60,486	1,736	2,291	4,027
North of McAllister Street	47,178	1,518	1,623	3,141	52,119	1,693	1,777	3,470	57,977	1,755	2,105	3,860
North of Geary Street	46,847	1,629	1,490	3,119	51,879	1,816	1,638	3,454	57,376	1,887	1,933	3,820
North of California Street	45,090	1,554	1,448	3,002	50,272	1,758	1,589	3,347	55,394	1,816	1,872	3,688
North of Broadway Street	51,504	1,818	1,611	3,429	56,956	2,034	1,758	3,792	62,829	2,130	2,053	4,183

**With Projects**

Van Ness Segments	2015 – Side				2015 – Center A				2015 – Center B/ LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street	37,610	1087	1417	2504	38,917	1081	1510	2591	32,443	1081	1079	2160	41,485	1220	1542	2762	42,732	1244	1601	2845	38,316	1244	1307	2551
North of Market Street	38,016	1206	1325	2531	39,322	1199	1419	2618	32,849	1199	988	2187	41,846	1352	1434	2786	43,062	1376	1491	2867	38,646	1376	1197	2573
North of McAllister Street	36,363	1208	1213	2421	37,625	1202	1303	2505	35,582	1244	1125	2369	42,612	1339	1498	2837	43,077	1362	1506	2868	40,809	1410	1307	2717
North of Geary Street	37,956	1297	1230	2527	42,251	1491	1322	2813	37,580	1276	1226	2502	44,594	1456	1513	2969	44,880	1460	1528	2988	42,942	1442	1417	2859
North of California Street	34,906	1248	1076	2324	36,093	1231	1172	2403	33,945	1148	1112	2260	40,869	1391	1330	2721	41,590	1418	1351	2769	39,172	1328	1280	2608
North of Broadway Street	38,872	1370	1218	2588	40,118	1354	1317	2671	39,112	1383	1221	2604	45,285	1536	1479	3015	45,541	1531	1501	3032	44,069	1545	1389	2934

**Difference**

Van Ness Segments	2015 – Side				2015 – Center A				2015 – Center B/ LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street	-15,921	-406	-654	-1060	-14,614	-412	-561	-973	-21,088	-412	-992	-1404	-18,400	-339	-886	-1225	-17,153	-315	-827	-1142	-21,569	-315	-1121	-1436
North of Market Street	-16,237	-452	-629	-1081	-14,930	-459	-535	-994	-21,404	-459	-966	-1425	-18,640	-384	-857	-1241	-17,423	-360	-800	-1160	-21,839	-360	-1094	-1454
North of McAllister Street	-15,756	-485	-564	-1049	-14,494	-491	-474	-965	-16,537	-449	-652	-1101	-15,365	-416	-607	-1023	-14,900	-393	-599	-992	-17,168	-345	-798	-1143
North of Geary Street	-13,924	-519	-408	-927	-9,628	-325	-316	-641	-14,299	-540	-412	-952	-12,782	-431	-420	-851	-12,497	-427	-405	-832	-14,434	-445	-516	-961
North of California Street	-15,365	-510	-513	-1023	-14,179	-527	-417	-944	-16,327	-610	-477	-1087	-14,524	-425	-542	-967	-13,803	-398	-521	-919	-16,222	-488	-592	-1080
North of Broadway Street	-18,084	-664	-540	-1204	-16,837	-680	-441	-1121	-17,844	-651	-537	-1188	-17,543	-594	-574	-1168	-17,288	-599	-552	-1151	-18,760	-585	-664	-1249

**% Change**

Van Ness Segments	2015 – Side				2015 – Center A				2015 – Center B/ LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	
North of Mission Street	-27%	-32%	-30%	-28%	-27%	-27%	-28%	-48%	-39%	-22%	-36%	-31%	-20%	-34%	-29%	-20%	-46%	-36%						
North of Market Street	-27%	-32%	-30%	-28%	-27%	-28%	-28%	-49%	-39%	-22%	-37%	-31%	-21%	-35%	-29%	-21%	-48%	-36%						
North of McAllister Street	-29%	-32%	-30%	-29%	-27%	-28%	-27%	-37%	-32%	-24%	-29%	-27%	-22%	-28%	-26%	-20%	-38%	-30%						
North of Geary Street	-29%	-25%	-27%	-18%	-19%	-19%	-30%	-25%	-28%	-23%	-22%	-22%	-23%	-21%	-22%	-24%	-27%	-25%						
North of California Street	-29%	-32%	-31%	-30%	-26%	-28%	-35%	-30%	-32%	-23%	-29%	-26%	-22%	-28%	-25%	-27%	-32%	-29%						
North of Broadway Street	-33%	-31%	-32%	-33%	-25%	-30%	-32%	-31%	-31%	-28%	-28%	-28%	-28%	-27%	-28%	-27%	-32%	-30%						

**Franklin**

**No Project**

Franklin Segments	Existing Conditions (2007)				2015				2035			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street		n/a	n/a			n/a	n/a			n/a	n/a	
North of Market Street	16,946	0	1,220	1,220	19,224	0	1,384	1,384	20,807	0	1,498	1,498
North of McAllister Street	34,878	0	2,511	2,511	37,031	0	2,666	2,666	39,975	0	2,878	2,878
North of Geary Street	37,114	0	2,672	2,672	39,753	0	2,862	2,862	43,337	0	3,120	3,120
North of California Street	33,961	0	2,445	2,445	36,392	0	2,620	2,620	39,600	0	2,851	2,851
North of Broadway Street	27,683	0	1,993	1,993	29,697	0	2,138	2,138	32,419	0	2,334	2,334
North of Lombard Street	6,834	51	441	492	8,167	53	535	588	9,001	54	594	648

**With Projects**

Franklin Segments	2015 – Side				2015 – Center A				2015 – Center B/ LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	Peak Hour SB	Peak Hour NB	Peak Hour (2-way)	AADT (2-way)	Peak Hour SB	Peak Hour NB	Peak Hour (2-way)	AADT (2-way)	Peak Hour SB	Peak Hour NB	Peak Hour (2-way)
North of Mission Street		n/a	n/a			n/a	n/a			n/a	n/a			n/a	n/a			n/a	n/a			n/a	n/a	
North of Market Street	20,654	0	1487	1487	21,002	0	1512	1512	26,988	0	1943	1943	25,488	0	1835	1835	25,335	0	1824	1824	29,419	0	2118	2118
North of McAllister Street	38,184	0	2749	2749	38,100	0	2743	2743	40,475	0	2914	2914	42,712	0	3075	3075	42,809	0	3082	3082	45,809	0	3298	3298
North of Geary Street	40,864	0	2942	2942	40,656	0	2927	2927	41,989	0	3023	3023	46,226	0	3328	3328	46,281	0	3332	3332	47,823	0	3443	3443
North of California Street	37,406	0	2693	2693	37,197	0	2678	2678	38,031	0	2738	2738	42,865	0	3086	3086	43,448	0	3128	3128	44,434	0	3199	3199
North of Broadway Street	31,197	0	2246	2246	31,322	0	2255	2255	32,655	0	2351	2351	35,572	0	2561	2561	36,114	0	2600	2600	37,670	0	2712	2712
North of Lombard Street	9,459	52	629	681	8,876	0	639	639	8,876	0	639	639	10,126	0	729	729	11,306	0	814	814	11,306	0	814	814

**Difference**

Van Ness Segments	2015 – Side				2015 – Center A				2015 – Center B/ LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	Peak Hour SB	Peak Hour NB	Peak Hour (2-way)	AADT (2-way)	Peak Hour SB	Peak Hour NB	Peak Hour (2-way)	AADT (2-way)	Peak Hour SB	Peak Hour NB	Peak Hour (2-way)
North of Mission Street																								
North of Market Street	1,431	0	103	103	1,778	0	128	128	7,765	0	559	559	4,681	0	337	337	4,528	0	326	326	8,612	0	620	620
North of McAllister Street	1,153	0	83	83	1,070	0	77	77	3,445	0	248	248	2,736	0	197	197	2,834	0	204	204	5,834	0	420	420
North of Geary Street	1,111	0	80	80	903	0	65	65	2,236	0	161	161	2,889	0	208	208	2,945	0	212	212	4,486	0	323	323
North of California Street	1,014	0	73	73	806	0	58	58	1,639	0	118	118	3,264	0	235	235	3,848	0	277	277	4,834	0	348	348
North of Broadway Street	1,500	0	108	108	1,625	0	117	117	2,959	0	213	213	3,153	0	227	227	3,695	0	266	266	5,250	0	378	378
North of Lombard Street	1,292	-1	94	93	708	-53	104	51	708	-53	104	51	1,125	-54	135	81	2,306	-54	220	166	2,306	-54	220	166

**Gough**

**No Project**

Gough Segments	Existing Conditions (2007)				2015				2035			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street		n/a	n/a			n/a	n/a			n/a	n/a	
North of Market Street	25,672	1,699	0	1,699	27,818	1,841	0	1,841	28,392	1,879	0	1,879
North of McAllister Street	31,988	2,117	0	2,117	34,617	2,291	0	2,291	36,249	2,399	0	2,399
North of Geary Street	29,646	1,962	0	1,962	31,716	2,099	0	2,099	33,015	2,185	0	2,185
North of California Street	17,497	1,158	0	1,158	18,570	1,229	0	1,229	19,356	1,281	0	1,281
North of Broadway Street	9,504	555	74	629	9,534	548	83	631	8,809	482	101	583

**With Projects**

Gough Segments	2015 – Side				2015 – Center A				2015 – Center B/LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street		n/a	n/a			n/a	n/a			n/a	n/a			n/a	n/a			n/a	n/a			n/a	n/a	
North of Market Street	27,651	1830	0	1830	27,682	1832	0	1832	27,682	1832	0	1832	29,570	1957	0	1957	30,522	2020	0	2020	30,522	2020	0	2020
North of McAllister Street	34,844	2306	0	2306	34,889	2309	0	2309	34,980	2315	0	2315	37,805	2502	0	2502	38,863	2572	0	2572	38,969	2579	0	2579
North of Geary Street	31,776	2103	0	2103	32,003	2118	0	2118	32,245	2134	0	2134	34,466	2281	0	2281	35,327	2338	0	2338	35,599	2356	0	2356
North of California Street	18,948	1254	0	1254	19,054	1261	0	1261	20,157	1334	0	1334	20,489	1356	0	1356	21,668	1434	0	1434	22,861	1513	0	1513
North of Broadway Street	10,229	554	123	677	9,957	557	102	659	10,577	598	102	700	10,804	570	145	715	10,320	542	141	683	11,015	588	141	729

**Difference**

Van Ness Segments	2015 – Side				2015 – Center A				2015 – Center B/ LPA				2035 – Side				2035 – Center A				2035 – Center B/ LPA			
	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)	AADT (2-way)	PM Peak Hour SB	PM Peak Hour NB	PM Peak Hour (2-way)
North of Mission Street																								
North of Market Street	-166	-11	0	-11	-136	-9	0	-9	-136	-9	0	-9	1,179	78	0	78	2,131	141	0	141	2,131	141	0	141
North of McAllister Street	227	15	0	15	272	18	0	18	363	24	0	24	1,556	103	0	103	2,614	173	0	173	2,720	180	0	180
North of Geary Street	60	4	0	4	287	19	0	19	529	35	0	35	1,451	96	0	96	2,312	153	0	153	2,584	171	0	171
North of California Street	378	25	0	25	484	32	0	32	1,587	105	0	105	1,133	75	0	75	2,312	153	0	153	3,506	232	0	232
North of Broadway Street	695	6	40	46	423	9	19	28	1,043	50	19	69	1,995	88	44	132	1,511	60	40	100	2,206	106	40	146





