



**FINAL SAR 02-1**  
**STRATEGIC ANALYSIS REPORT**  
**on Transit in the Outer Mission**

Initiated by Commissioner Sandoval  
 Accepted by the Authority Board  
 on May 20, 2002

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**I. INTRODUCTION**

**Purpose of Document**

This report provides the SFCTA Board with a brief but comprehensive summary of transit-related issues in the Outer Mission. This Strategic Analysis Report, or SAR for short, highlights for the Board the significance of these issues in areas of SFCTA jurisdiction, and identifies implications for future policy decisions by the Board in its capacity as administrator of Proposition B sales tax funds and as Congestion Management Agency for San Francisco. Every effort was made to make this a factual document, avoiding speculation, and leaving judgment to the reader. This document was designed to inform policy-level decision-making, and its abbreviated length (only 9 pages plus exhibits) optimizes its usefulness to Authority Board members. Technical discussion has been condensed and only facts deemed essential to outline the policy-level issues are included. Additional information is available from the sources cited, or by calling Maria Lombardo, Deputy Director, at (415) 522-4802.

*“The SAR ... provides a context and road map to facilitate policy decisions about transit improvements in the Outer Mission commercial district. It also makes specific recommendations for follow-up actions.”*

**Summary**

The Authority Board approved the scope of work for the Outer Mission SAR in August 2001. The SAR was initiated at the request of Commissioner Sandoval. The

Outer Mission commercial district is located on Mission Street between Geneva and Silver in south central San Francisco. As requested by Commissioner Sandoval and approved by the Board, the SAR explores the transit needs of the Outer Mission retail district, analyzes potential transit-related improvements to address these needs at the general planning level, and discusses the policy-level implications for the Authority. This analysis looks at both internal circulation and external access issues in the retail district. One of the potential transit-related improvements is a shuttle service similar to the Los Angeles DASH. The SAR examines these concepts and provides a context and road map to facilitate policy decisions about transit improvements in the Outer Mission commercial district. It also makes specific recommendations for follow-up actions.

**II. BACKGROUND**

This section reviews relevant transportation studies and plans that address the Outer Mission.

**Better Neighborhoods 2002 Balboa Park Station Area Plan:**

The primary focus of the Planning Department’s Better Neighborhoods effort is to facilitate long-range planning in some of the city’s transit-served neighborhoods, while encouraging the development of more housing, particularly affordable housing, to address the city’s current and projected need for housing. The Balboa Park Station Area Plan is well underway. The plan encompasses the area immediately surrounding the BART station, also including the City College campus and the Ocean Avenue neighborhood commercial district to the west.

In addition to proposals for changing zoning and building transit-oriented housing on publicly and privately owned land adjacent to the BART station and along Ocean Avenue, the Balboa Park Station Area planning effort has generated some transportation-related recommendations that are intended to support existing and proposed land uses and, in some cases, to free up land so that it could be developed for other purposes. The transportation recommendations range from general policy statements such as *redesign streets and intersections to be bicycle and pedestrian friendly*, to specific project proposals such as bus boarding islands, improved pedestrian crossings, safer drop-off areas for transit passengers, to more ambitious undertakings like redesigning the Balboa Park BART Station to allow easier BART/Muni bus/LRV transfers, decking over the I-280 freeway, and redesigning the I-280 ramps.

The transportation proposals of the Better Neighborhoods program are conceptual in nature, having only gone through a fatal flaw type analysis. Cost estimates are either not available or are order-of-magnitude estimates that will need to be carefully evaluated from an engineering perspective. Furthermore, there has not been a comprehensive analysis of transportation system performance impacts of the proposed transportation improvements. Likelihood of funding availability has not been evaluated either. As part of completing the plan, the Planning Department is identifying a strategy to hand off the proposed transportation improvements to the relevant implementing departments for further study and, if appropriate, for implementation.

The next steps for the Balboa Park Better Neighborhoods Plan involve the release of a draft plan for public comment in summer 2002. This will be followed by a public review process, including hearings before the Planning Commission and other bodies to obtain formal input on the draft. Completion of the plan and corresponding programmatic EIR is expected by the end of the year.

### **San Francisco/San Mateo Bi-County Transportation Study**

The Authority, in coordination with the San Mateo City/County Association of Governments, initiated this study, with participation from the San Francisco Department of Parking and Traffic, MUNI, the Planning Department, the San Francisco Redevelopment Agency, the San Mateo Transportation Authority, the Caltrain Joint Powers Board, and the cities of Brisbane and Daly City. The study is intended to develop an understanding of the potential transportation impacts of several proposed developments along the eastern edge of the San Francisco/San Mateo county line, to identify potential transportation improvements to reduce the impacts of those projects, and to develop a mechanism for working together to address those impacts.

The developments considered in the study include the Hunters Point Shipyard Redevelopment Project, the Bayview Hunters Point Redevelopment Survey Area, the Candlestick Point Stadium/Mall Development, Executive Park Development (71-acre site between Candlestick Point and US 101 just north of the county line), and the Brisbane Baylands Development. The San Mateo travel demand forecasting model was used to forecast the system performance impacts of the proposed developments. The model was then run again to see if a set of proposed transportation improvements would help mitigate the system performance impacts of the proposed land development. The transportation improvements evaluated in the Bi-County study which are of most relevance to the Outer Mission study area include:

- Geneva Avenue Extension to from Bayshore Blvd. to US 101;
- Candlestick Point Interchange Replacement;
- Third Street Light Rail Extension to 3Com Park;
- Third Street Light Rail Extension to Balboa Park via Geneva;
- Bayshore Caltrain/Muni Multimodal Station (assumed to be part of Third Street Light Rail extension, second phase); and
- Bus connection between the Baylands Development in Brisbane and Balboa Park BART (making stops along Geneva approximately every two blocks, with frequencies of 15 and 20 minutes during peak and off-peak periods respectively).

The study consultant is preparing a final report documenting the results of the analysis. Overall, the proposed transportation improvements do contribute to improved transportation system performance. Concurrently with completing the final report, the participating agencies are developing a strategy for moving forward with the recommendations of the Bi-County Study, including developing a mechanism for determining financial contributions for specific improvements, notifying developers of the impacts of their projects, and determining the form of public involvement that makes the most sense at this stage in the planning process.

## **III. STRATEGIC ANALYSIS**

### **A. Needs Assessment**

For the purposes of this SAR, the Outer Mission retail district is defined as Mission Street between Geneva and Silver. The SAR study area is roughly defined by the 280 freeway, the county line, and McLaren Park (see map on page 11).

#### **Land Use and Demographics/Overview**

The Outer Mission retail district is predominantly a neighborhood commercial district. It contains no regional attractors. Instead it is primarily characterized by small businesses like beauty salons, automotive shops, insurance agents and tax preparers. The neighborhoods surrounding the commercial district are mainly comprised of attached single-family homes with garages. It has traditionally been a working-class neighborhood.

Nearly two thirds of Outer Mission housing is owner-occupied (66%), which is double the citywide average

(32%).<sup>1</sup> This corresponds to the predominantly single-family housing available in the Outer Mission. Closely related, auto ownership is significantly higher in the Outer Mission than citywide: 84% of Outer Mission households own one or more vehicles versus 69% citywide. As one might expect given the high level of vehicle availability, only 31% of Outer Mission residents commute by transit, compared to the 41% citywide average. The percent of residents who work in San Francisco is slightly lower (75%) than the average for the city (80%). Eighteen percent (18%) of Outer Mission residents work in San Mateo County, representing the next largest portion of commuters.

The Outer Mission represents less than 2% of the City's total employment, and a little more than 5% of the City's land area. The Outer Mission has a high concentration of jobs in production, distribution and repair. These jobs are concentrated in the study area south of Ocean Avenue between Cayuga and I-280.

### Roadway Network

Major streets in the study area include Mission Street, San Jose Avenue, and Alemany Boulevard, which run mainly northeast to southwest, Ocean Avenue (east-west), and Geneva Avenue (northwest to southeast). Alemany and Geneva are classified as major arterials in the General Plan. According to the biennial level of service (LOS) monitoring for the Congestion Management Program, the arterials in this area all function at a LOS D or better.

In the General Plan, Mission Street is classified as a *transit-oriented street*, Geneva as a *transit important street*, and Ocean as a *secondary transit street*. In the study area, Mission Street has two lanes in each direction and a parking lane on either side.

The Outer Mission encompasses several different types of street networks. Overall, the street network is aligned on a northeast to southwest access, paralleling Mission Street. Geneva and Mission Streets roughly divide the area into quadrants. The northeast quadrant (Excelsior) has a very regular grid network overlaying a hilly topography – many streets have a street grade of 5%-10% and several blocks have even greater street grades. The western half of the study area has a more irregular and somewhat compressed grid network, which is bounded by I-280 and Mission. I-280 is a barrier to east-west travel except where under- or overpasses have been constructed. Finally, the southeast quadrant of the study area (Crocker Amazon) is a mixture of grid and curved streets in a hilly area – most of the streets have a street grade between 5% and 10%. The transitions between these various types of

street patterns are worked out at the intersections fronting on Geneva and Mission Streets and results in many T-intersections and irregular intersections with diagonal streets.

### Internal Circulation

Geographic coverage in the Outer Mission meets Muni's service standards: the entire area is within one-quarter mile of a transit route (see map on page 12). Eight bus routes run on Mission Street in the study area: the 14, 14L and 14X run the entire length of the street in the study area (approximately 2 miles), while the 29, 49, 54, and 88 operate on Mission Street for a few blocks to a mile. Frequency of service on Mission Street is excellent: on average, *scheduled* headways show a Muni vehicle every 2.6 minutes on weekdays and 3.7 minutes on weekends (see Tables 1 and 2).

There are ten Muni routes that connect the surrounding neighborhoods to Mission Street and the commercial uses that are located there. These include the 9X, 9AX, 15, 29, 43, 44, 49, 52, 54, and 88. Scheduled headways range from 7-20 minutes weekday peak periods, 10-20 minutes midday weekdays, and 10-20 minutes on weekends.

Based on the *scheduled* service, accessibility from the surrounding neighborhoods to the Mission Street commercial district is quite good. However, Muni is not always able to *deliver* service as scheduled, so transit passengers experience a lower *actual* level of service. For instance, Prop. E, passed by the voters in November 1999, requires Muni to regularly collect data on service reliability. Two of

the measures are *schedule adherence* and *headway adherence*. Prop. E defines *schedule adherence* as the percent of vehicles between 4 minutes late and 1 minute early, compared to published *timetables*. *Headway* is the number of minutes between buses. *Headway adherence* is defined as the percent of vehicles within 10 minutes or 30% (whichever is less) of the scheduled *headway*. As Table 3 shows, schedule adherence is poor in the Outer Mission, with the more recent schedule adherence data falling between 50-70% for most routes. Schedule adherence in the Outer Mission is not noticeably different than Muni's system-wide average (68% in August 2001), which has been improving.

In general, schedule adherence and headway adherence

<sup>1</sup> 1990 U.S. Census.

are more important for lower frequency lines since the passenger has to wait a longer time should s/he miss the bus. For instance, the 54-Felton, which has 20-minute headways on weekdays, had only 42.7% schedule adherence in October 2000. If a passenger misses the bus because it does not show up at the scheduled time, s/he has to wait an additional 20 minutes. Given that wait time is typically considered much more onerous than in-vehicle time, poor schedule adherence is a strong disincentive for choice transit riders, and an inconvenience to all transit passengers.

As defined for this SAR, nearly all of the Outer Mission neighborhoods are within a ¼ mile of a bus stop. Given the short distance, poor schedule adherence, and route headways that are often 10 minutes or longer, walking may be faster than taking transit to get from the surrounding neighborhoods to Mission Street. Of course, not everyone can easily walk, and circumstances such as carrying shopping bags, traveling with small children, or inclement weather can make walking an unattractive option. Furthermore, parts of the Outer Mission, particularly the Excelsior and Crocker Amazon have relatively steep street grades, which can make walking difficult. Similarly, some people could drive from home to the retail district and be shopping before the bus or trolley bus arrives at the nearest transit stop. During the mid-day, the problem for drivers is competition for parking. As a result, alternatives to transit are not realistic for all people or situations.

### **Existing and Planned Transit Improvements**

Buses have transit lanes on the northernmost portion of Mission Street between Beale and 11<sup>th</sup> Street. Transit lanes have not been implemented on Mission Street in other parts of the City because of space constraints. However, fourteen bus bulbs have been installed between McCoppin and Precita. Bus bulbs provide a larger waiting space for passengers, facilitate loading/unloading, and can improve travel time and reliability since transit vehicles do not have to pull out of traffic and then merge back in after picking up or dropping off passengers. Bus bulbs are a section of sidewalk that extends from the curb of a parking lane to the edge of the through lane to reduce congestion on sidewalks, create additional space at bus stops, and eliminate bus-weaving maneuver into a parking-lane curbside stop. Depending where they are located, bus bulbs also have the benefit of shortening the street crossing distance for pedestrians. Waiting and transferring passengers could benefit from bus bulbs, possibly full corner bulbouts, at Mission and Geneva. DPT has made a preliminary study and concluded that that the bus bulbs are feasible and beneficial. Due to a lack of available funding and given other high priority transit preferential street items, DPT has not yet pursued

improvements for this intersection.

Another transit improvement is transit signal priority. *“Waiting and transferring passengers could benefit from busbulbs... at Mission and Geneva.”* This allows specially equipped vehicles approaching traffic signal to, es, hold the green light longer and light to green before it might transit vehicles can hold many people, giving priority to transit can potentially increase the person throughput of an intersection, as well as improve transit travel time and schedule adherence. Implementing transit signal priority has been shown to cut travel time by 8 percent in some locations.<sup>2</sup>

Presently, transit signal priority is installed at nearly 70 intersections in San Francisco, for trolley coaches, light rail, and cable cars. None are located along Mission St. in the study area. However, in the greater study area, intersections with signal priority include Mission at Bosworth, and San Jose at Ocean, Seneca, and Geneva. Near the study area, there is signal priority at Ocean on Faxon and at Plymouth, San Jose at Randall and at 30<sup>th</sup>, and Mission at numerous intersections between 29<sup>th</sup> and 14<sup>th</sup> Streets.

In March 2002, Muni and DPT advertised a transit signal priority project that would cover 39 intersections along Mission Street and Geary Boulevard and 217 Muni vehicles. This project will include several Mission Street intersections between Bosworth and Sickles. Transit signal priority anywhere in the Mission corridor benefits the Outer Mission. *“March 2002, Muni/DPT advertised a transit signal priority project that would cover 39 intersections along Mission Street and Geary Boulevard”* Intersections in the study area included in the transit signal priority project include Mission at Persia, and less critical intersections at Mission at Brazil, Italy and Sickles (to be dropped in case of budget overruns). Work on this project should begin in August and be completed in 14 months.

### **External Circulation**

We assessed the existing transit service to determine how well the Outer Mission is connected to external destinations either in San Francisco or other parts of the Bay Area. The Outer Mission is remotely located relative to the other major commercial centers of the city. However, it is conveniently located near regional transit stations (i.e., BART and Caltrain) that serve the Peninsula, South Bay and East Bay. In general, issues regarding

<sup>2</sup> [http://www.metrokc.gov/kcdot/news/2001/nr010212\\_TSP.htm](http://www.metrokc.gov/kcdot/news/2001/nr010212_TSP.htm)  
accessed on November 27, 2001

service frequency and reliability are the same as for internal circulation. With respect to external trips, because the Outer Mission is so far from downtown, unreliable transit service has a more significant impact than in other parts of the city.

### **Muni**

Transit accessibility to/from the Outer Mission and other parts of San Francisco is very good. More than 70% of San Francisco is within ¼ mile of the transit lines that serve the Outer Mission study area, including major destinations like the Financial District, Golden Gate Park and other commercial districts in the city. This means that transit riders with the Outer Mission as their origin can reach the vast majority of San Francisco without transferring.

*“With respect to external trips, because the Outer Mission is so far from downtown, unreliable transit service has a more significant impact than in other parts of the city.”*

### **BART**

In addition to providing access to other parts of the Mission corridor, Civic Center, and Financial District, BART provides access to the Peninsula and East Bay. The BART-SFO Extension Project is scheduled for completion in late 2002. The new service will provide the Outer Mission with improved transit connections to the employment and transportation hub at the San Francisco International Airport, as well as to other Peninsula destinations and Silicon Valley via a direct transfer to Caltrain at Millbrae.

BART runs every few minutes during weekdays and every 10 to 20 minutes on evenings and weekends. BART runs between 4 AM and midnight during the week, starting later on the weekends (see Tables 1 and 2).

BART provides another transit option to the Outer Mission, which offers several advantages over Muni: it is very reliable, travel times are shorter, and passengers can wait inside a station, sheltered from the elements. The fact that the monthly Muni pass (i.e., the FastPass) can be used for unlimited trips on BART within San Francisco provides another incentive to use BART. This is borne out by BART’s ridership patterns. At the Balboa Park BART station, approximately 86% of the entries and exits are for trips to/from another San Francisco BART station. Similarly, at the Glen Park BART station, approximately 80% of the entries and exits are for trips to/from another San Francisco BART Station.<sup>3</sup> Of course, BART only serves a limited portion of San Francisco; transit riders with destinations not on the BART line, would rely on Muni for their transportation to other San Francisco

destinations.

From most places in the Outer Mission, BART can be reached within a few minutes via one Muni route. One notable exception applies to the Mission corridor south of Geneva. Muni service terminates about a quarter mile short of the Daly City BART Station and, except for the 88, which runs only during the peak, there is no direct bus

*“...except for the 88, which runs only during the peak, there is no direct bus service in the Mission Corridor from south of Geneva to the Balboa Park BART Station.”*

service in the Mission corridor from south of Geneva to the Balboa Park BART Station. When the 88 is not operating, people in the southern most part of the Mission corridor have to take the 14 or 14L to Geneva, and then transfer to another bus to reach the Balboa Park BART Station. Transfers are a disincentive to take transit. If they are not timed, transfers can add significantly to the door-to-door duration of the trip. In order to avoid the inconvenience of transferring, some people may drive to the Balboa Park BART station. BART does not provide parking, but there is some on-street parking. A separate SAR is currently looking at neighborhood parking patterns around the Balboa Park Station.

No funding has been identified yet for the improvements suggested in the Better Neighborhoods Balboa Park Station Area Plan, which includes enhanced bicycle and pedestrian access to the station and transfers between transit lines (both BART and Muni). The Authority has already programmed \$999,000 in federal CMAQ funding to fully fund improvements to a walkway located between the BART station and the Muni yard, to enhance pedestrian safety and access between Geneva Avenue., the BART station, Ocean Avenue and City College. Construction will be completed by the end of 2003.

### **Caltrain**

Caltrain provides regional rail service between San Francisco, the Peninsula and the South Bay. Paul Avenue and Bayshore Caltrain Stations are approximately 3 miles from the study area. A number of local bus lines and bicycle routes provide service to the Caltrain stations.

Most Outer Mission Caltrain riders use the Bayshore Station. Caltrain service at the Bayshore Station generally has 30-minute headways during the day and 1-hour headways from 8 PM until midnight. The time penalty is large if a passenger misses a train. Given Muni’s poor schedule adherence and the fact that there is free parking at the Bayshore Station, make it generally more convenient to drive to the Bayshore Caltrain Station.

<sup>3</sup> Entry-Exit Matrices, February 2002, Bay Area Rapid Transit (BART)

In the future, the Bayshore Station will relocate to just south of the county line, and it will become part of an intermodal station including the southern terminus of the Third Street light rail line and Muni and Samtrans buses. It is too early in the planning process for detailed service plans, but it is possible that some bus routes will be rerouted to serve the facility.

When the BART extension to the San Francisco Airport opens, passengers will be able to take BART and transfer to Caltrain at the Millbrae Station. Although BART extension fares are not yet set, this trip would be more expensive, but perhaps more reliable, than taking Muni to Caltrain for residents of the Outer Mission who live within walking distance of BART.

### **SamTrans**

While northbound Samtrans routes cannot be boarded in the Outer Mission, the Route 391 runs along Mission Street to provide service to the Transbay Terminal and the Peninsula. Outer Mission residents can board the 391 at Geneva and Mission Streets to travel to San Mateo county cities along El Camino Real from Daly City to Redwood City during commute hours. The 391 stops about one-half mile from the Daly City BART station. Some of the Outer Mission residents who work in San Mateo county may use this Samtrans route. The 391 runs every 20 minutes on weekdays and 30 minutes on weekends.

### **Origin/Destination Travel Time Analysis**

We conducted a mini origin/destination analysis to gain a better understanding of the transit choices available to Outer Mission residents and visitors. We chose three residential origins in the Outer Mission. They are Capistrano and Santa Ysabel, Felton and Peru, and South Hill and Rolph (see map on page 11). The origins were chosen to illustrate the differences in transit options available to the Outer Mission such as BART versus Muni or local bus service versus express service.

We compared the travel options for travelers with the aforementioned origins to three major destinations in San Francisco: the Financial District (2<sup>nd</sup> and Market), City Hall (Grove and Van Ness), and San Francisco State University (SFSU) (Holloway and 19<sup>th</sup> Ave.). We also assumed a maximum walking distance of ¼ mile, and examined travel options during the AM peak and midday. All data is based on scheduled service.

At least four different transit options are available for most origin/destination combinations. Offering more choices and building redundancy into the system gives the passenger many alternatives.

*“At least four different transit options are available for most origin/destination combinations. Offering more choices and building redundancy into the system gives the passenger many alternatives.”*

30 to 40 minutes depending on the origin. In reality, if the connecting Muni service is unreliable, wait time may increase until it reduces the travel time advantage offered by BART.

The fastest transit trips from the Outer Mission origins to SFSU ranged from 20-30 minutes for South Hill/Rolph and Capistrano/Santa Ysabel to around 40 minutes for Felton/Peru. Given our assumptions about a ¼ mile walking distance, a passenger leaving from Felton/Peru usually had to rely on the 54, a neighborhood circulator with 20-minute headways. The longer headways contributed to the longer travel time for this origin.

According to published schedules, the fastest way to the Financial District or City Hall always involves a transfer to BART, saving passengers up to 10 minutes even when the alternative is a direct express bus. The fastest travel times are about

## **B. DASH Shuttle Analysis**

### **Background**

To provide some context for the analysis of a potential shuttle service, we researched the LA DASH shuttle, EmeryGoRound shuttle, and San Francisco jitneys.

### **Los Angeles DASH**

The Los Angeles Department of Transportation (LADOT) has run the DASH shuttle service in Los Angeles since the mid-1980s. DASH routes are typically more marginal routes operating where the LAMTA (the region's major transit provider) does not serve. DASH services have steadily expanded, and now include the original downtown shuttle service, express buses, and neighborhood routes. Combined, the routes totaled 8 million trips in 2001. The downtown shuttle service is provided from 6:00 AM to 7:00 PM, Monday through Friday on six routes, for a \$0.25 fare. MTA pass holders can use the service free of charge. Service downtown is every 5-10 minutes. On the weekends, service is provided on three routes every 15-20 minutes between 6:00 AM and 7:00 PM. Community routes typically run Monday through Saturday, with only two operating on Sunday. Frequencies on these routes vary between 10 and 30 minutes, while service extends from 6:30 AM to 6:30 PM on most routes.

*“ the high cost of meeting state insurance requirements was a big factor in the demise of the jitneys.”*

DASH service and vehicle maintenance are privately contracted, but LADOT owns the nearly 50 vehicle fleet. Revenue hours of service are contracted at \$43.17 per hour, about half of the rate that MTA achieves on its own (\$95/hour). Recently, MTA has paid for a portion of DASH operating expenses for services the MTA wanted DASH to provide. This is the result of a strong working relationship between MTA and LADOT, which has focused on service expansion first and foremost. This cooperative relationship has done much to head off any institutional issues surrounding the DASH service.

### **EmeryGoRound**

Emeryville started its EmeryGoRound (EGR) shuttle service seven years ago to serve new development in the city. Seven buses currently serve two routes in the city from 6:00 AM to 9:30 PM weekdays and 10:00 AM to 6:00 PM on weekends with 30 minutes frequencies. Peak-hour service expands to four routes with 15-minute frequencies. EGR routes connect the city's major shopping and residential centers with the MacArthur BART station. There were a total of 575,000 trips on the EGR in 2000. Weekdays averaged 2000 trips/day and weekends averaged 1300 trips/day. Real time passenger information is available for EGR services, including lobby-signs at 5 or 6 Emeryville employment sites, which are leased by employers for \$800/year.

EGR riders enjoy this service free of charge. Corporate sponsorship and the City (using funds from the redevelopment agency) split the cost of the system fifty-fifty in its first few years of service. In 2001, the funding shifted entirely to retail and commercial property owners in the city after creating a Business Property Improvement District. Similar to DASH, EGR is administered by a private firm that charges \$46.15 per revenue hour of service provided. The contract is administered by the Emeryville Transportation Management Agency.

### **Jitneys**

Jitneys are independently operated vans or mini-buses that can best be described as a cross between a fixed route bus and a taxi. Generally speaking, jitneys operate with fixed routes and flat or zonal fares. However, they do not have set schedules and can be hailed by passengers anywhere along their route. Moreover, due to their smaller size (10 to 25 passengers), they typically operate more efficiently than conventional public transit, as they spend less time loading and unloading and can maneuver relatively quickly through traffic.

In the U.S., jitneys once enjoyed widespread use.

However, with the federal government's growing commitment to public transit in the 1960s and 70s, jitney use has slowly faded. Factors contributing to their demise have included competition from public transportation, as well a more stringent regulatory environment that imposed costly requirements (e.g. insurance and passenger safety improvements), which diminished the slim profit margins of many jitney operators. Specifically, the high cost of meeting state insurance requirements was a big factor in the demise of the jitneys.

During their heyday in the 1920s, there were hundreds of jitneys in service throughout San Francisco, most of them shuttling passengers along the Mission Street corridor between the San Mateo County line and the Ferry Terminal. MUNI service and the completion of Daly City BART decimated the once thriving Mission Street jitney service. One of three shopper shuttles, the Mission Shuttle (86) ran from 16<sup>th</sup> and Capp to Mission and Army (Cesar Chavez). Today, just one jitney survives in San Francisco, transporting rush-hour commuters between the Montgomery BART station on Market Street in the financial district and the Fourth and Townsend Street Caltrain depot.

To establish a new jitney service in San Francisco, a company would need a permit from the Police Commission, requiring a filing fee and a public hearing finding that the proposal serves a public need, and an insurance policy. In addition, proposed new routes must be approved by the Board of Supervisors, and would likely be regulated so as to avoid competition with Muni service. Jitney fares would need to match Muni fares. Under these conditions, it would likely be very difficult to run profitable jitney service in San Francisco today.

*“it would likely be very difficult to run profitable jitney service in San Francisco today.”*

### **Potential Route and Service**

In devising a shuttle route to test the viability of a DASH-like shuttle service, we followed a few principles:

- There is already a high level of service on Mission Street. Shuttle service *along* Mission Street is not needed and may cause unnecessary delays to the existing Muni service.
- In order to enhance the viability of any DASH-like shuttle, it should connect to the Balboa Park BART station.
- The route should minimize walking distance to the

shuttle.

- The route should reduce the number of transfers for those living along the Mission corridor south of Geneva and who are traveling to BART.

The proposed shuttle route is for illustration purposes only and is intended to help generate order-of-magnitude costs and raise the operating and institutional issues that would need to be addressed when considering new shuttle service. Clearly, any detailed evaluation of shuttle service would need to consider neighbors’ reactions to a shuttle operating on their street, ease of making left turns, availability of safe locations to pull over and board/off load passengers, and demand (e.g., where people want to travel to and from).

We developed the proposed route for the shuttle analysis using these principles. The route, shown in the map on page 16, is approximately 4.9 miles in length and it crosses Mission 3 times each circuit, providing service both to the Outer Mission retail district and the Balboa Park BART Station.

**Evaluation of Shuttle Service**

Using the proposed route described above, we made some assumptions about the service provided in order to estimate costs. For instance, in order to achieve 10-minutes headways (a balance between a high frequency of service and cost) and assuming an average operating speed of 8 mph (including stops), we would need 4 vehicles. The service was assumed to operate from 10 AM to 4 PM daily in order to target shopping hours and avoid weekday peak periods when Muni service is frequent. The shuttle would not operate on holidays. The fare was assumed to be \$.50, which could be a subsidized private fare or a public fare with heavy senior/youth ridership. Given that the shuttle route is intended to avoid those areas already well served by Muni, we assumed an average daily ridership of 600 person trips. This is equivalent to approximately 27 persons per vehicle per hour, which is commensurate with a smaller sized vehicle as might be preferred for a neighborhood shuttle.

Either a public or a private agency could operate the shuttle. For public service, we assumed an hourly operating cost (including maintenance, overhead, and salaries) of \$110 per hour, which is equivalent to Muni’s operating costs for motor coaches. For private service, we have assumed a low (\$45 per hour, consistent with the DASH and EGR service costs) and a high (\$60 per hour, based on shuttle services contracted by Samtrans) operating cost to better illustrate the range of potential costs. The results of applying these assumptions are as follows:

	Public	Private (high)	Private (low)
<b>Total Cost</b>	\$849,000	\$463,000	\$347,000
Fare Revenues	\$105,000	\$105,000	\$105,000
<b>Net Cost</b>	\$744,000	\$358,000	\$242,000
Total Cost/Ride	\$4.04	\$2.21	\$1.65
<b>Subsidy/Ride</b>	\$3.54	\$1.71	\$1.15

Any new shuttle would probably gain some passengers who were previously using existing Muni service, as well as attracting new riders. Performing that level of analysis is beyond the scope of this SAR, but would need to be done if shuttle service were further explored.

One of the biggest challenges for any proposed shuttle service or new transit service is paying for the operating costs. Federal operating subsidies have been significantly

*“One of the biggest challenges for any proposed shuttle service or new transit service is paying for the operating costs”.*

cut back, so that federal dollars only minimally contribute to operating costs. By far, the greatest contribution to cover operating expenses is fares.

This means that transit routes with a high level of ridership require less subsidy to operate because the fare box recovery ratio (fare/operating costs) is higher. Currently, Muni is struggling to identify ways to cover its projected budget shortfalls for FY02/03; thus, adding new Muni service would be difficult in the near-term. One option would be to assess the retail district to help pay for the shuttle, similar to the EmeryGoRound model. However, the commercial base is much smaller in the Outer Mission Retail district, and it may be tougher to sell the benefits of the shuttle to the merchants. Another option would be implementing a parking assessment district and using those revenues to help subsidize the shuttle service.



reliable service), Muni should give priority to improving the schedule reliability of routes connecting to BART.

### C. Other Potential Transit-Related Improvements/Opportunities

Based on our analysis it appears that improvements to the existing transit service primarily aimed at increasing reliability and decreasing door-to-door travel time hold more promise than the implementation of alternative services. For instance, the Outer Mission would clearly benefit from real time transit information. This would not directly improve Muni's reliability, but it would allow passengers to better control their own travel time since they could reach a transit stop when they know the transit vehicle is coming, or choose between different routes based on which transit vehicle will first arrive at its transit stop. Muni could also consider minor adjustments to existing transit routes to improve travel time, increase reliability, or add timed transfer points. Improvements could involve moving a route a few blocks or installing transit signal priority at intersections where transit experiences delays.

*"the Outer Mission would clearly benefit from real time transit information."*

Our analysis noted a *service gap* in the Outer Mission: there is no direct bus service on Mission south of Geneva to the Balboa Park BART Station, except for the 88, which runs peak periods only. Muni could consider extending the 14-Mission approximately ¼ mile to the Daly City BART to address this issue. This project is included in the current Proposition B Expenditure Plan, but only as a Priority 2 project, which is unlikely to be funded under the current measure. Muni has explored this issue previously, and encountered opposition due to the perceived visual impacts of the overhead trolley lines. Another potential solution might be to run the Samtrans 391 during non-commute hours between Mission south of Geneva and the Colma BART station, which is closer to the current route than the Daly City BART station.

Given the relatively short distances between the surrounding neighborhoods and the Mission retail district, taxis may also offer a viable option for travel.

### IV. RECOMMENDATIONS/ NEXT STEPS

- Muni should consider deploying real time transit information displays for routes serving the Outer Mission, where poor schedule adherence has a bigger impact on passengers due to lower frequency of service, and because of the area's remote location and longer travel time to many key City destinations.
- Given the important role BART plays for both regional trips (accessibility to destinations on the Peninsula and in the East Bay) and certain trips with both ends in San Francisco (travel time savings and
- The ½ mile gap that separates the south terminus of the 14 from Daly City BART has significant impacts for Outer Mission accessibility to BART. The only other direct connection between Muni bus service and BART is 3 miles north, at 24<sup>th</sup> Street. There is no direct bus service in the Mission corridor from south of Geneva to the Balboa Park BART Station, except for the 88, which runs peak periods only. The bus transfer at Geneva imposes a considerable penalty to Mission corridor riders. Muni should consider extending the 14-Mission to the Daly City BART station or explore options regarding rerouting the Samtrans 391 to serve the Colma BART station.
- The Authority should prioritize improvements identified in the Better Neighborhoods Balboa Park Station Area Plan through the Countywide Transportation Plan process.
- DPT, DPW, Muni and the Planning Department should work with the Authority to determine the priority of bus bulbs at select Mission Street intersections in the Outer Mission, in the context of the Transit Preferential Streets program, and seek to identify additional funding through the Countywide Plan process.
- The Authority should capitalize on its upcoming multimodal citywide travel survey to collect additional data on travel needs (e.g. origin/destinations) of Outer Mission residents and visitors. The survey results should be used to inform prioritization of projects in the Countywide Transportation Plan and other Authority planning and prioritization efforts. The survey data should be shared with Muni, the Department of Parking and Traffic, BART, and other relevant agencies for incorporation into their planning efforts.
- As part of the revenue identification process in the Countywide Plan, the Authority should consider the potential for commercial and parking assessment districts in neighborhoods like the Outer Mission.
- The Authority should seek to prioritize improvement recommendations contained in this SAR through the San Francisco/San Mateo Bi-County Study.

**V. BIBLIOGRAPHY/SOURCES CONSULTED**

1. Municipal Transportation Agency (Muni) Proposition E *Service Standards Reports* available at [www.sfmuni.com/aboutmuni](http://www.sfmuni.com/aboutmuni)
2. Municipal Transportation Agency (Muni) *Short Range Transit Plan FY2002-FY2021* (August 7, 2001)
3. Planning Department, Transportation Element of the General Plan (1995)

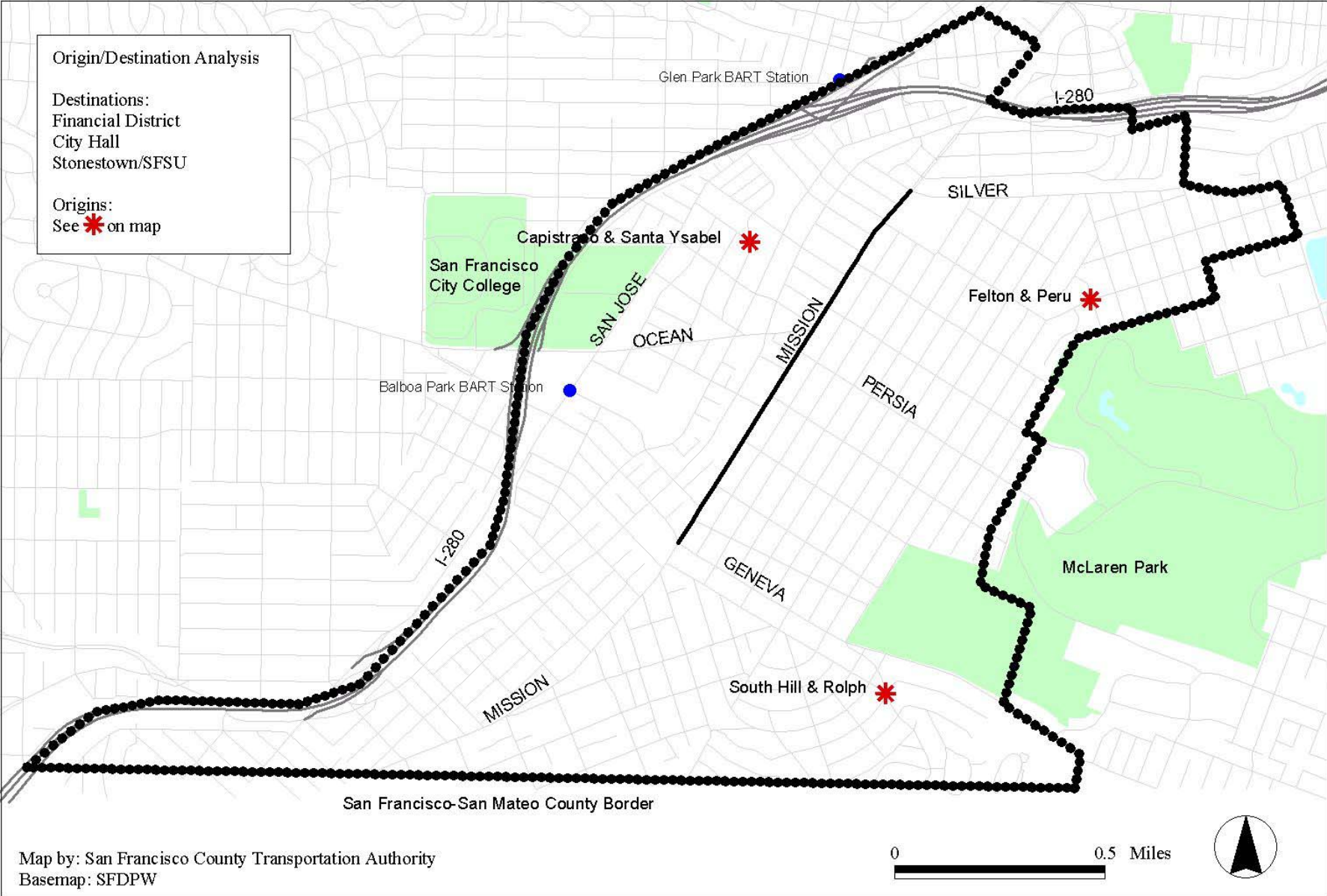
Additional information was provided by BART, the Department of Parking and Traffic, the Planning Department, the Municipal Transportation Agency (Muni), and the Los Angeles Department of Transportation.

**IV. AUTHORITY STAFF CREDITS**

The Authority is indebted to a number of staff members for their contributions to making this SAR possible. Lilia Scott, Transportation Planner, contributed most of the research and initial writing. Maria Lombardo, Deputy Director – Plans & Programs, acted as principal investigator and editor, and designed and evaluated the potential shuttle route service. Andrew Delaney, Senior Transportation Planner, researched background information of shuttles and jitneys. Douglas Johnson (Consultant), Nicholas Maricich (Intern), and Ying Smith (Countywide Plan Manager) assisted with data collection and analysis.

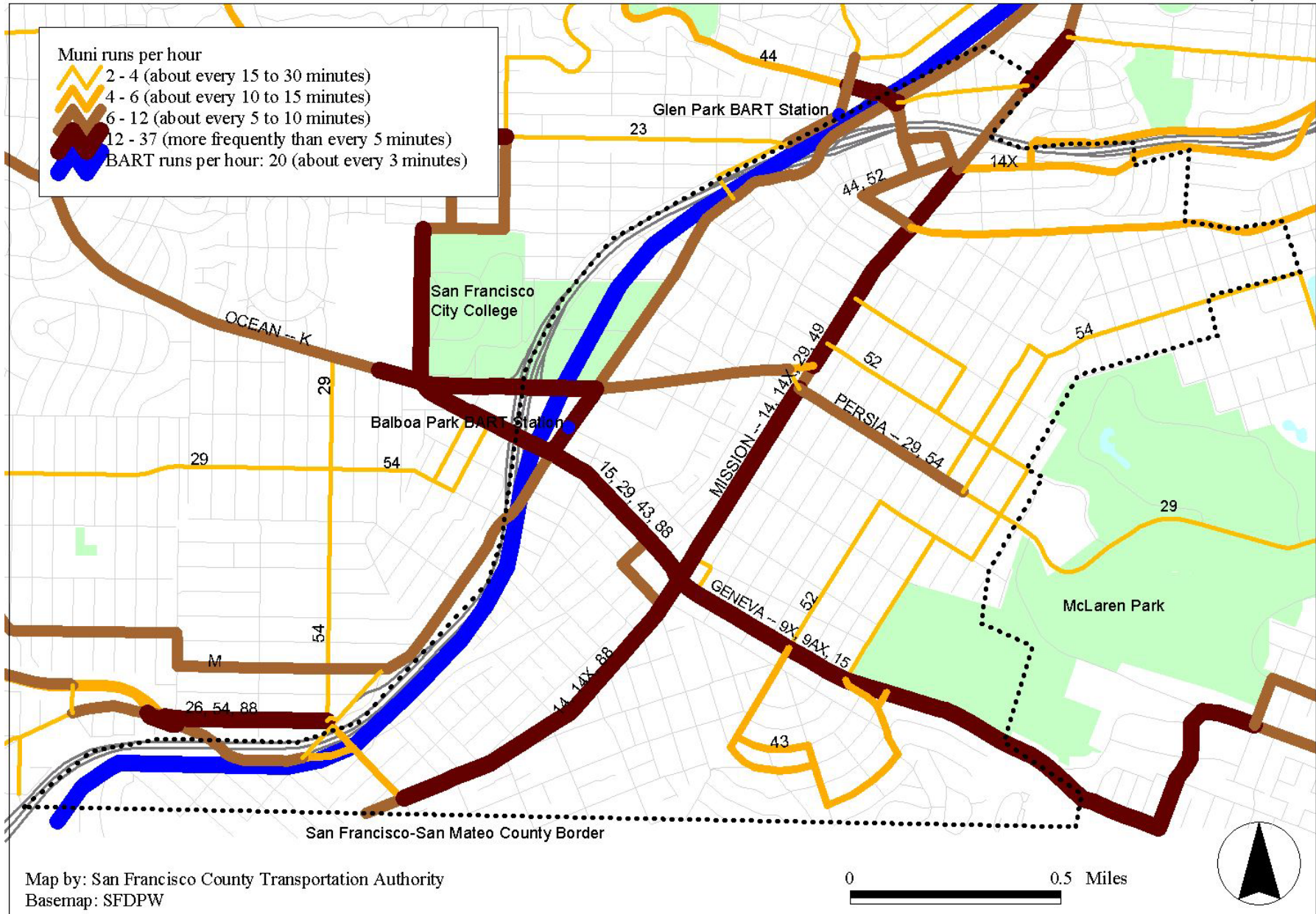
*Jose Luis Moscovich, Executive Director*

# Study Area Outer Mission, San Francisco



Map by: San Francisco County Transportation Authority  
Basemap: SFDPW

# Transit Runs per Hour: PM Peak (4-6 PM) Outer Mission, San Francisco



Map by: San Francisco County Transportation Authority  
 Basemap: SFDPW

Table 1. Weekday Scheduled Transit Service in the Outer Mission

Line	Name	Route Type	Vehicle Type <sup>4</sup>	First	7-9a	9a-4p	4-6p	Eve <sup>5</sup>	Last
Muni									
9X	San Bruno Express	To/From Downtown	MC	9:03 AM	10	12	10		5:55 PM
9AX	San Bruno Express	To/From Downtown	MC		10		10		
14	Mission	To/From Downtown	TC	Owl	10	6	10	10	Owl
14L	Mission	To/From Downtown	MC	8:40 AM		<b>20</b>			
14X	Mission	To/From Downtown	MC		9		10		
15	Third Street	To/From Downtown	MC	5:28 AM	8	10	7	15	11:59 PM
26	Valencia	To/From Downtown	MC	6:04 AM	15	<b>20</b>	15	<b>20</b>	12:32 AM
29	Sunset	Crosstown	MC	6:02 AM	16	15	14	<b>20</b>	11:54 PM
43	Masonic	Crosstown	MC	5:55 AM	15	12	10	<b>20</b>	12:28 AM
44	O'Shaughnessy	Crosstown	MC	5:55 AM	15	15	10	<b>20</b>	12:30 AM
49	Van Ness-Mission	Crosstown	TC	5:42 AM	15	15	10	<b>20</b>	12:30 AM
<b>52</b>	<b>Excelsior</b>	<b>Neighborhood circulator</b>	<b>MC</b>	<b>6:20 AM</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>30</b>	<b>12:12 AM</b>
<b>54</b>	<b>Felton</b>	<b>Neighborhood circulator</b>	<b>MC</b>	<b>5:53 AM</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>12:35 AM</b>
88	BART Shuttle		MC		<b>20</b>		10		
J	Church	To/From Downtown	LRT	5:09 AM	9	10	9	12	11:25 PM
BART									
All lines	Balboa Park Station	Regional commuter rail		4:00 AM	3	3	3	<b>20</b>	Midnight

<sup>4</sup> Vehicle type codes are as follows: MC stands for motor coach, TC for trolley coach, and LRT for light rail transit or streetcar.

<sup>5</sup> Eve stands for evening.

Table 2. Weekend Scheduled Transit Service in the Outer Mission

Line	Name	Route Type	Vehicle Type <sup>6</sup>	Saturday					Sunday				
				First	7-10a	10-6p	Eve	Last	First	7-10a	10-6p	Eve	Last
Muni													
9X	San Bruno Express	To/From Downtown	MC	9:31 AM		15		6:08 PM					
9AX	San Bruno Express	To/From Downtown	MC							10	10		Owl
14	Mission	To/From Downtown	TC	Owl	8	8	10	Owl	Owl	8	8	10	8
14L	Mission	To/From Downtown	MC	9:09		15		4:56 PM					
14X	Mission	To/From Downtown	MC										
15	Third Street	To/From Downtown	MC	5:28 AM	10	10	15	11:54 PM	5:28 AM	10	10	15	11:54 PM
<b>26</b>	<b>Valencia</b>	<b>To/From Downtown</b>	<b>MC</b>	<b>6:11 AM</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>12:32 AM</b>	<b>6:11 AM</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>12:32 AM</b>
29	Sunset	Crosstown	MC	6:00 AM	15	15	<b>20</b>	11:54 PM	6:00 AM	15	15	<b>20</b>	11:54 PM
43	Masonic	Crosstown	MC	5:48 AM	15	15	<b>20</b>	12:27 AM	5:48 AM	15	15	<b>20</b>	12:27 AM
44	O'Shaughnessy	Crosstown	MC	5:55 AM	15	15	<b>20</b>	12:30 AM	5:55 AM	15	15	<b>20</b>	12:30 AM
49	Van Ness-Mission	Crosstown	TC	5:57 AM	12	8	15	12:54 AM	5:57 AM	12	8	15	12:54 AM
<b>52</b>	<b>Excelsior</b>	<b>Neighborhood circulator</b>	<b>MC</b>	<b>6:20 AM</b>	<b>20</b>	<b>20</b>	<b>30</b>	<b>12:09 AM</b>	<b>6:20 AM</b>	<b>20</b>	<b>20</b>	<b>30</b>	<b>12:09 AM</b>
<b>54</b>	<b>Felton</b>	<b>Neighborhood circulator</b>	<b>MC</b>	<b>5:50 AM</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>12:34 AM</b>	<b>5:50 AM</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>12:34 AM</b>
88	BART Shuttle												
J	Church	To/From Downtown	LRT	5:36 AM	15	15	<b>20</b>	12:16 AM	5:36 AM	15	15	<b>20</b>	12:16 AM
BART													
All lines	Balboa Park Station	Regional commuter rail		6:00 AM	10	6	10	12:00 AM	8:00 AM	10	10	10	12:00 AM

<sup>6</sup> Vehicle type codes are as follows: MC stands for motor coach, TC for trolley coach, and LRT for light rail transit or streetcar.

Table 3. Prop. E Muni Service Reliability Data: Schedule and Headway Adherence

Line	Name	Route or System Avg.	Month	Schedule Adherence	Headway Adherence
	<b>Standard</b>			<b>&gt;85%</b>	<b>&gt;80%</b>
14L	Mission	Route Avg.	Oct-00	<b>64.7%</b>	88.7%
52	Excelsior	Route Avg.	Oct-00	71.0%	89.7%
54	Felton	Route Avg.	Oct-00	<b>42.7%</b>	63.0%
		System Avg.	Oct-00	<b>53.9%</b>	<b>45.8%</b>
14X	Mission	Route Avg.	Nov-00	78.7%	66.7%
		System Avg.	Nov-00	<b>56.4%</b>	<b>54.0%</b>
88	BART Shuttle	Route Avg.	Mar-01	67.1%	79.4%
		System Avg.	Mar-01	<b>52.0%</b>	<b>50.5%</b>
14	Mission	Route Avg.	May-01	<b>60.2%</b>	<b>33.9%</b>
		System Avg.	May-01	65.6%	<b>53.4%</b>
43	Masonic	Route Avg.	Jun-01	73.1%	70.6%
49	Van Ness/Mission	Route Avg.	Jun-01	<b>64.2%</b>	<b>47.5%</b>
		System Avg.	Jun-01	<b>64.4%</b>	<b>57.4%</b>
9AX	San Bruno Express	Route Avg.	Jul-01	<b>57.1%</b>	<b>53.2%</b>
15	Third Street	Route Avg.	Jul-01	66.2%	
		System Avg.	Jul-01	<b>64.9%</b>	64.8%
29	Sunset	Route Avg.	Aug-01	<b>53.4%</b>	69.2%
		System Avg.	Aug-01	67.7%	60.5%
54	Felton	Route Ave.	Sept-01	<b>43.4%</b>	60.1%
		System Avg.	Sept-01	69.3%	74.7%

**Standards** shown are to be met by July 1, 2004 per Prop. E.

**Schedule Adherence:** The percent of vehicles between 4 minutes late and 1 minute early, compared to published schedule *times*.

**Headway Adherence:** The percent of vehicles within 10 minutes or 30% , whichever is less, of scheduled *headways*.

**Bold figures** denote performance worse than 20% below the standard.

# Proposed Shuttle Route Outer Mission, San Francisco, CA

