

Memorandum

Date: July 5, 2018
To: Transportation Authority Board
From: Eric Cordoba – Deputy Director for Capital Projects
Subject: 07/10/18 Board Meeting: Transportation Management for Major Corridor Projects

RECOMMENDATION <input checked="" type="checkbox"/> Information <input type="checkbox"/> Action	<input type="checkbox"/> Fund Allocation <input type="checkbox"/> Fund Programming <input type="checkbox"/> Policy/Legislation <input type="checkbox"/> Plan/Study <input checked="" type="checkbox"/> Capital Project Oversight/Delivery <input type="checkbox"/> Budget/Finance <input type="checkbox"/> Contract/Agreement <input type="checkbox"/> Other: _____
None. This is an information item.	
SUMMARY	
At the Chair’s request, we have coordinated with the San Francisco Municipal Transportation Agency (SFMTA), and San Francisco Public Works (SFPW) to prepare an update of traffic management plans to support several upcoming major transportation infrastructure construction projects that are planned throughout the City over the next five years. The projects encompass state and local transportation capital improvements, with significant sewer and water components for most projects. TA, SFMTA and SFPW staff will present details on the timing and approach to coordinating outreach and traffic management associated with these projects.	

DISCUSSION

Background

The City of San Francisco is currently experiencing unprecedented private development, public works and infrastructure construction activity. Over the next five years, several major transportation infrastructure projects will be constructed as listed in attachment 1, including: SFMTA’s Van Ness Corridor (US 101) Transit Bus Rapid Transit (BRT) Improvement Project (currently under construction); the Lombard Street (US 101) Improvements Project (recently awarded, soon to commence construction); SFPW’s 19th Ave (SR 1) Combined City project (anticipated to start construction in 2019); and the Geary Boulevard (BRT) Improvement Project (scheduled for construction in 2019/2020). All the above-mentioned projects include infrastructure upgrades to replace aging water mains, sewer pipelines, traffic signal electrical systems and auxiliary water supply system (AWSS) in addition to surface street modifications.

The California Department of Transportation (Caltrans) will also resurface 19th Avenue (SR 1) and Lombard Street (US 101) after SFPW’s projects on these corridors is completed. SFPW’s 19th Ave. (SR 1) Combined City and Lombard Street (US 101) Improvements project will install bulb-outs, curb ramps, traffic signals, upgraded water and sewer pipelines prior to Caltrans’ resurfacing of these corridors. Caltrans also plans to replace the aging US-101 freeway concrete deck above Alemany

Agenda Item 11

Boulevard in 2020. It is anticipated this project will include a one-month closure of US-101 and require major temporary traffic detours in the area.

Other Light Rail Transit projects such as the L Taraval Rapid and Twin Peaks Tunnel Rail Replacement are also receiving needed replacement for worn rails, overhead wires, and track equipment. Streetscape projects to improve safety for pedestrian and bicyclists are being constructed along Broadway Chinatown, Polk Street, and 16th Street (22 Fillmore project). These projects also include additional upgrades to aging water, sewer, and electrical systems. The location map and schedule for the respective projects are shown as attachments 2 and 3.

Traffic Management

Although these much-needed projects will have substantial long-term benefits to the City, it will be critical to properly coordinate the delivery of the respective projects in the various corridors and implement best practices public notifications and traffic management procedures to the extent possible.

A robust public outreach campaign is an important component of traffic management best practices to keep the public, local businesses and residents informed of traffic situations affected by construction activities. Major projects such as the Van Ness Corridor Transit Improvement Project and Geary Rapid Project are currently hosting Business Advisory Committee meetings and Community Advisory Committee meetings to keep local businesses and residents along the corridors informed of current and upcoming construction work. Public outreach teams will also host additional community events as needed to raise awareness and answer questions. A media campaign is planned to deliver the message in multiple languages through press release to local television and radio stations, digital outreach in San Francisco and the surrounding commuter counties, informational notices on Muni buses, and up-to-the-minute alerts through SFMTA's website. These tactics aim to raise awareness and educate the public so that they can prepare accordingly, allocate additional time for travel, or take alternative routes.

SFMTA with support from Prop K will purchase and replace existing Intelligent Transportation Systems (ITS) equipment such as Variable Message Sign displays and controllers, network communication devices (switches and routers) and other related hardware and equipment. Variable Message Sign displays are used to show real-time information about current and future traffic conditions and emergency alerts. These signs are located throughout downtown and near Freeway 80 on-ramps and off-ramps. Two signs will be installed as part of the Van Ness BRT project. The contract will be awarded by Summer 2018 with implementation in late 2018 through Summer 2019.

Closed-circuit television (CCTV) traffic cameras and related hardware will also be purchased and installed at various locations throughout the city. SFMTA's Transportation Management Center uses CCTV traffic cameras to monitor traffic conditions to dispatch transit supervisors and traffic signal electricians as needed. The cameras are also used by traffic engineers to evaluate traffic signal timing to better accommodate various modes of travel. SFMTA currently has 84 traffic cameras in the field and 110 cameras in stock. Prop K and Prop 1B Bonds are contributing a total of \$1,800,000 for the installation of cameras at 138 new locations. These locations include major corridors such as Embarcadero, Geary Boulevard, 19th Avenue, and Lombard Street. In addition, SFMTA plans to purchase as many as 160 new cameras for deployment. Installation of cameras is expected to take

Agenda Item 11

place throughout 2019. Expanding the traffic camera network will support improved decision making and help SFMTA to better manage field operations.

SFMTA will review traffic control plans (TCP) to ensure appropriate application of traffic control devices, lane transitions, detours and the deployment of flaggers, parking control officers (PCO) and the San Francisco Police Department (SFPD). SFMTA will also issue special traffic permits (STP) mandating the use of specific traffic control devices, traffic personnel, detour routes, work dates and hours and coordination with City agencies. Practical implementation includes spacing between work zones along a corridor, to avoid continuous impacts and to dissipate congestion. SFMTA will also review 60-100-day look-ahead schedules to help phase work within a designated area to avoid cumulative construction impacts. On an average day, SFMTA has 140 PCOs to minimize congestion in downtown Bay Bridge queues, to minimize double parking, and provide traffic control for special events. In the coming years, SFMTA plans to add more PCOs to help with the planned construction program. City agencies plan to allocate additional budget for traffic control officers and support staff to deal with the anticipated increased construction activity. Traffic officers will be deployed to key intersections. City agencies are also working on an overall traffic management plan. These measures will help the City better manage a generational construction challenge.

FINANCIAL IMPACT

None. This is an information item.

CAC POSITION

None. This is an information item.

SUPPLEMENTAL MATERIALS

Attachment 1 – Major Corridor Project Description Table Present – 2023

Attachment 2 – Project Map

Attachment 3 – Project Construction Schedule

Attachment 1: Major Corridor Project Description Table Present – 2023

Project	Description	District(s)	Estimate	Start Construction	End Construction
19th Ave Combined City (SFPW)	Implements transit reliability and vision zero safety improvements along with other infrastructure upgrades along 19 th Avenue between Lincoln Way and Holloway Avenue. Includes bus and pedestrian bulb-outs, removal of channelizing islands, reconstruction of channelizing island at 19 th Avenue and Winston Drive, sewer replacement, water work, AWSS replacement, traffic signal, traffic control, and all associated work. 19 th Avenue is a Vision Zero Corridor. Work is timed to precede Caltrans repaving of 19 th Avenue.	4, 7	\$42,674,838	Early 2019	Late 2020
19th Ave Resurfacing (Caltrans)	Caltrans will resurface 19 th Avenue and upgrade signals from Junipero Serra to Lake Street. Caltrans will upgrade signals at Lake Street, Crossover Drive, Martin Luther King Jr Drive, and Crespi Drive. Construction work will follow work being done as part of the 19th Ave Combined City Project.	1, 2, 4, 5, 7	\$22,771,000	Summer 2020	Summer 2021

Project	Description	District(s)	Estimate	Start Construction	End Construction
22 Fillmore (SFMTA)	Constructs transit priority and pedestrian safety improvements for the 22 Fillmore route along 16 th Street, including transit-only lanes, transit bulbs and islands, new traffic signals, and several pedestrian safety upgrades. The project will transform and shape the 16 th Street corridor by improving transit reliability, travel time, safety, and accessibility for all users while meeting the needs of current and future residents, workers, and visitors to this growing regional destination.	6, 8, 9, 10	\$67,500,000	Early 2019	Early 2021
Highway 101/280 Managed Lanes (SFCTA/Caltrans)	Project is studying ways to increase the operational efficiency and person throughput of San Francisco's freeways by converting existing general-purpose lanes to carpool or transit lanes, or re-purposing closely spaced on- and off-ramps for carpool and transit only.	6, 9, 10	\$47,700,000	Fall 2021	Fall 2023
Highway 101 Deck Replacement at Alemany (Caltrans)	Caltrans will reconstruct 101 Freeway bridge decks above Alemany Boulevard. The project will require the closure of northbound 101 Freeway and diversion of northbound traffic to City streets. Southbound 101 traffic will be routed onto existing northbound deck while the southbound freeway deck is being reconstructed. After reconstruction of southbound deck, southbound 101 traffic will return onto new southbound deck. The northbound deck will then be reconstructed.	9, 10	\$20,340,000	Spring 2020	Fall 2020

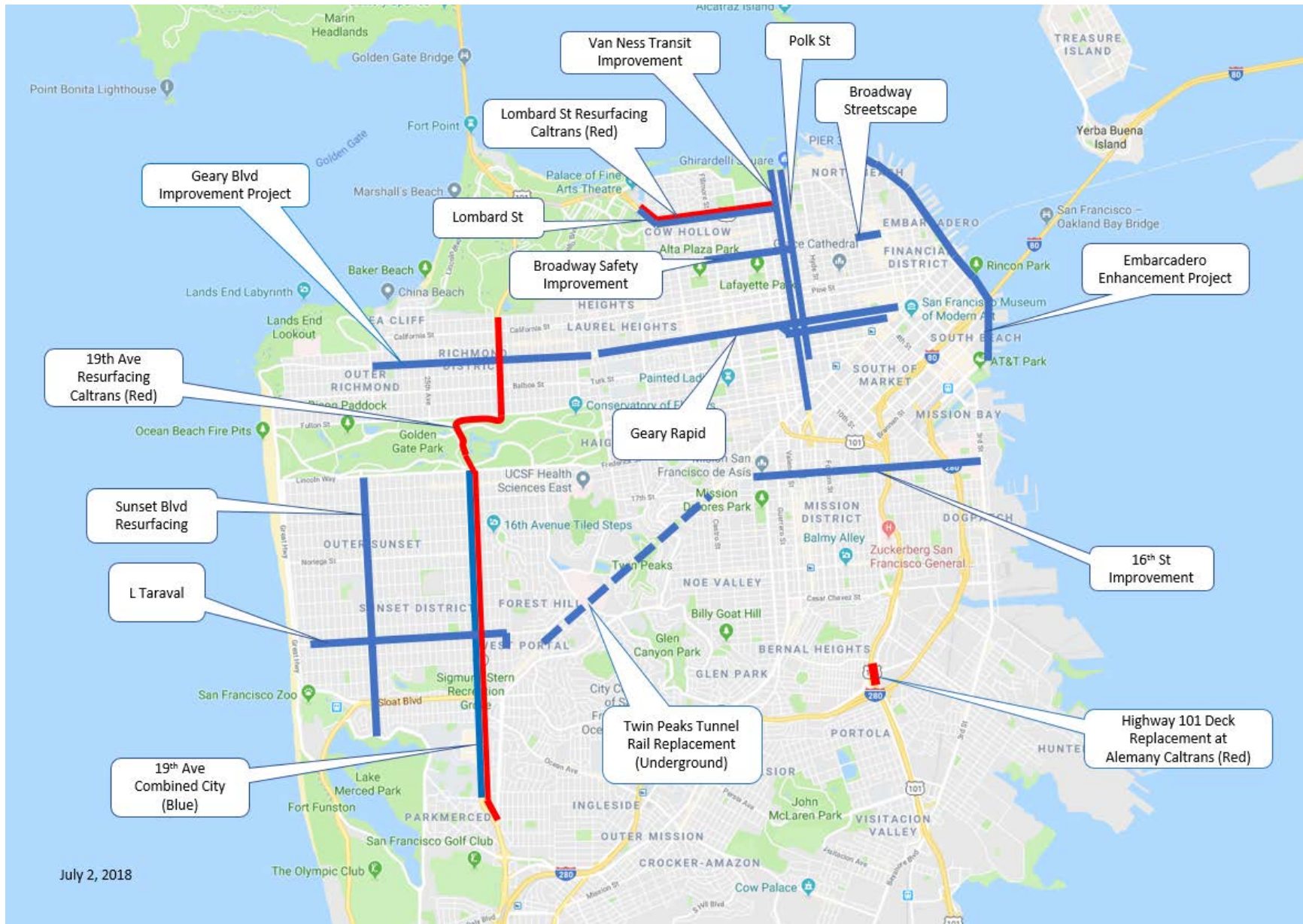
Project	Description	District(s)	Estimate	Start Construction	End Construction
Broadway Chinatown Streetscape Improvement Project (SFPW)	Project will provide a safer and more pleasant walking experience, with new paving, streetlights, street trees, and street furnishings inspired by the unique history of the neighborhood. The work, on Broadway between Columbus Ave to the Robert C. Levy Tunnel, will convert the current arterial to two lanes of traffic in each direction, and include bulb-outs, raised crosswalks, and special intersection treatment to improve pedestrian visibility.	3	\$7,300,000	Spring 2017	Spring 2018
Embarcadero Enhancement Project (SFMTA)	This is a planning effort to improve safety and comfort for all travelers along the Embarcadero, including the Promenade, by envisioning the Embarcadero as a Complete Street. This phase of the project will develop a conceptual design and cost estimate for creating dedicated and physically separated space for pedestrians, bikes and cars along The Embarcadero, and this would primarily be accomplished through the design and construction of a fully protected bikeway. This project will be coordinated with the Port of San Francisco's 'Seawall Earthquake Safety Program.'	3, 6	TBD, planning only currently	Coordinated with Port's Seawall Earthquake Safety Program	Coordinated with Port's Seawall Earthquake Safety Program
Geary Rapid (SFMTA)	The Geary Rapid project includes dedicated side-running bus-lanes as well as other transit reliability and pedestrian safety improvements between Market and Stanyan streets such as transit and pedestrian bulbouts, new and upgraded traffic signals, removal of the Steiner Street pedestrian overcrossing structure, a road diet, and new pedestrian crossings. Work will be	1, 2, 3, 5, 6	\$64,656,000	Early 2019	Summer 2021

Project	Description	District(s)	Estimate	Start Construction	End Construction
	coordinated with underground utility work including sewer and water upgrades as well as roadway repaving.				
Geary Boulevard Improvement Project (SFMTA)	The Geary Boulevard Improvement Project will extend bus-only lanes from Stanyan Street to 34th Avenue including a center-running segment between Arguello Boulevard and 28th Avenue. The project will include new bus stations, transit and pedestrian bulb-outs, traffic signals upgrades, new street lights, and underground utility work. The project will provide quicker, more reliable transit service and safety improvements.	1, 2	\$235,344,000	Fall 2020	Spring 2022
L Taraval Rapid (SFMTA)	The project will replace infrastructure like the worn rails, overhead wires and sewers, as well as repave the entire street. Project will include new boarding islands, trees, streetscape elements, bulb-outs, and transit-only lanes to improve safety and transit reliability. Project extends from 15 th Avenue to 46 th Avenue.	4, 7	\$90,000,000	Early 2019	Summer 2021
Lombard Street (SFPW)	Combined City Project from Richardson Avenue and Francisco Street to Lombard Street and Van Ness Avenue. Project consists of curb ramp, bulb-out, bus pad installation, sewer replacement, water work, traffic signal, traffic control, and all associated work.	2	\$18,900,000	Summer 2018	Spring 2020

Project	Description	District(s)	Estimate	Start Construction	End Construction
Lombard Street Resurfacing (Caltrans)	Caltrans will resurface Lombard Street from Van Ness Avenue to Doyle Drive. Construction will follow work being done as part of SFPW's Lombard Street project.	2	\$3,495,000	Summer 2020	Summer 2021
Polk Streetscape Project (SFPW)	Project extents are Polk Street, from McAllister to Union and includes bicycle improvements: a protected bikeway northbound between McAllister and Pine, a new green bike lane southbound between Union and Post Streets, and additional green paint, buffers, and green backed "sharrows", New pedestrian safety measures include daylighting, crosswalk upgrades, signal improvements, and 11 corner bulb-outs. The bulb-outs will be located where Polk Street intersects with Geary, Bush, Sutter, Pine, California, Broadway, Green, and Union. The project will also consolidate bus stops and optimize commercial loading while providing landscaping and new lighting. The project construction also includes water main and sewer replacement on select segments, new road base and repaving from Beach to McAllister and alley enhancements at Fern and Austin.	2, 3, 6	\$26,058,003	Summer 2016	Summer 2018

Project	Description	District(s)	Estimate	Start Construction	End Construction
Van Ness Corridor Transit Improvement (SFMTA)	The core BRT project will be built in conjunction with several separately-funded utility replacement projects as a unified Van Ness Improvement Project. Sewer, water, and emergency firefighting mains will be installed. Street lights will be replaced. Green infrastructure will be installed in key spots, complementing the 210 new median trees and other landscaping included in the BRT project. Upon completion of the project in 2020, Van Ness Avenue Bus Rapid Transit aims to improve travel time by 32%, increase reliability up to 50%, increase boarding up to 35%, and reduce daily route operating cost by up to 30%. Schedule dates shown at right are for the Unified Van Ness Corridor Transit Improvement Project	2, 3, 5, 6	\$316,400,000	Fall 2016	Late 2020
Twin Peaks Tunnel Rail Replacement (SFMTA)	Conduct rail upgrades to bring the Twin Peaks tunnel into a state of good repair. Project includes: replacing track with 115RE rail, composite ties, ballast, and new rail plates and fasteners; replacing the crossover between West Portal and Forest Hill Stations; replacing turnouts; replacing electrified switch machines and track switch controllers and providing a spare switch machine; replacing tie and ballast tracks with direct fixation embedded track; repairing damaged drain line; installing flood lighting; and adding seismic upgrades.	7, 8	\$40,000,000	Summer 2018	Summer 2019

Attachment 2 – Major Transportation Capital Projects Map (2018-2023)



July 2, 2018

Blue Lines: CCSF Projects
Red Lines: Caltrans Projects

Attachment 3 – Project Construction Schedule

Major Corridor Transit Improvement Projects																														
Present - 2023																														
Project	2018					2019					2020					2021					2022					2023				
Van Ness Corridor Transit Improvement (SFMTA)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■															
Broadway Streetscape (PW), Safety Improvement (MTA)	■	■	■	■	■																									
Polk Streetscape Project (SFPW)	■	■	■	■																										
16th Street Improvement (SFMTA)						■	■	■	■	■	■	■	■	■	■															
Lombard Street - State Route 101 (SFDPW)			■	■	■	■	■	■	■	■	■	■	■	■	■															
Lombard Street Resurfacing - State Route 101 (Caltrans)																■	■	■	■	■										
19th Ave Combined City - State Route 1 (SFDPW)						■	■	■	■	■	■	■	■	■	■															
19th Ave Resurfacing - State Route 1 (Caltrans)																■	■	■	■	■										
L Taraval Rapid (SFMTA)						■	■	■	■	■	■	■	■	■	■															
Twin Peaks Tunnel Rail Replacement (SFMTA)			■	■	■	■	■	■	■	■																				
Highway 101 Deck Replacement at Alemany (Caltrans)																■	■													
Geary Rapid (SFMTA)						■	■	■	■	■	■	■	■	■	■															
Geary Boulevard Improvement Project (SFMTA)																■	■	■	■	■	■	■	■	■	■					
Sunset Boulevard Resurfacing (SFPW)																					■	■	■	■	■	■	■	■	■	■
Embarcadero Enhancement Project (SFMTA)																										■	■	■	■	■

Date: July 2, 2018