



METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 4a
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Operations Committee

DATE: March 3, 2017

FR: Executive Director

W. I. 6840

RE: Managed Lanes Implementation Plan: Transit and Park-Rides

As part of the Managed Lanes Implementation Plan (MLIP) effort that began in spring 2015, MTC, Caltrans and the California Highway Patrol have explored operational and network improvements, including supportive transit, carpooling and commuter parking strategies, to improve the operations and management of both high-occupancy vehicle (HOV) and express lanes in the Bay Area.

Express buses, carpools, and park-rides are key support structures that help optimize managed lanes by essentially filling seats and moving a greater number of people in fewer cars through a congested corridor. Express bus services provided by Golden Gate Transit, AC Transit, and WestCat (to name a few) that take commuters in and out of San Francisco work best when they can take advantage of an HOV lane that provides riders speed and time savings that they may not otherwise get as a solo driver in a congested general purpose lane. Carpools – whether casual carpools or organized carpools – in the same vein can also benefit from the reliability of an HOV lane. Furthermore, park-ride lots are a key first-mile strategy that provide commuters with convenient locations to transfer from a single passenger vehicle to a carpool, vanpool, or transit. As part of the Bay Bridge Forward initiative, the Commission approved a funding plan in July 2016 to support the design/construction of three pilot park-ride lots within Caltrans airspaces under the freeways at I-880/High Street and I-880/Fruitvale Avenue in Oakland, and at I-80/Buchanan in Albany. These pilot park-ride lots will feature parking pricing and be equipped with parking management technologies to address payment, parking enforcement and real-time parking information.

Taken together, the improvements to express bus services, park-rides and carpooling as identified in MLIP are designed to complement any changes in HOV policies and support the operations of new express lanes projects to open soon.

At your March 2017 meeting, staff will provide you with a) an overview of the region's express bus and park-ride network to support managed lanes and b) an update on the Bay Bridge Forward: Commuter Parking Initiative.



Steve Heminger

SH: mg/sh

J:\COMMITTEE\Operations\2017 Operations Comm Packet\03_OPS_Mar_2017\4a_Transit_Park-Ride.docx

Transit and Park-Rides

Operations Committee
March 10, 2017



Managed Lanes Implementation Plan



1) Improve Reliability (Address Degradation)

- ✓ Violations & Enforcement 5/16 OPS Committee
- ✓ Clean Air Vehicles 5/16 OPS Committee
- ✓ Hours of Operation Policy 1/17 OPS Committee

Occupancy Policy

2) Improve Consistency (Reduce Driver Confusion)

- Need for consistency as regional network starts to form

3) Increase Person Throughput (Efficiency)

- Improve access & attractiveness of all HOV Options
Carpool → Transit
- Network Gap Closures (Connectivity)



Baseline: Existing and Planned HOV and Express Lanes

Key Commuter Considerations to Using Transit and Carpools in HOV Lanes

TIME
SAVINGS



RELIABILITY













ACCESS



COST
SAVINGS

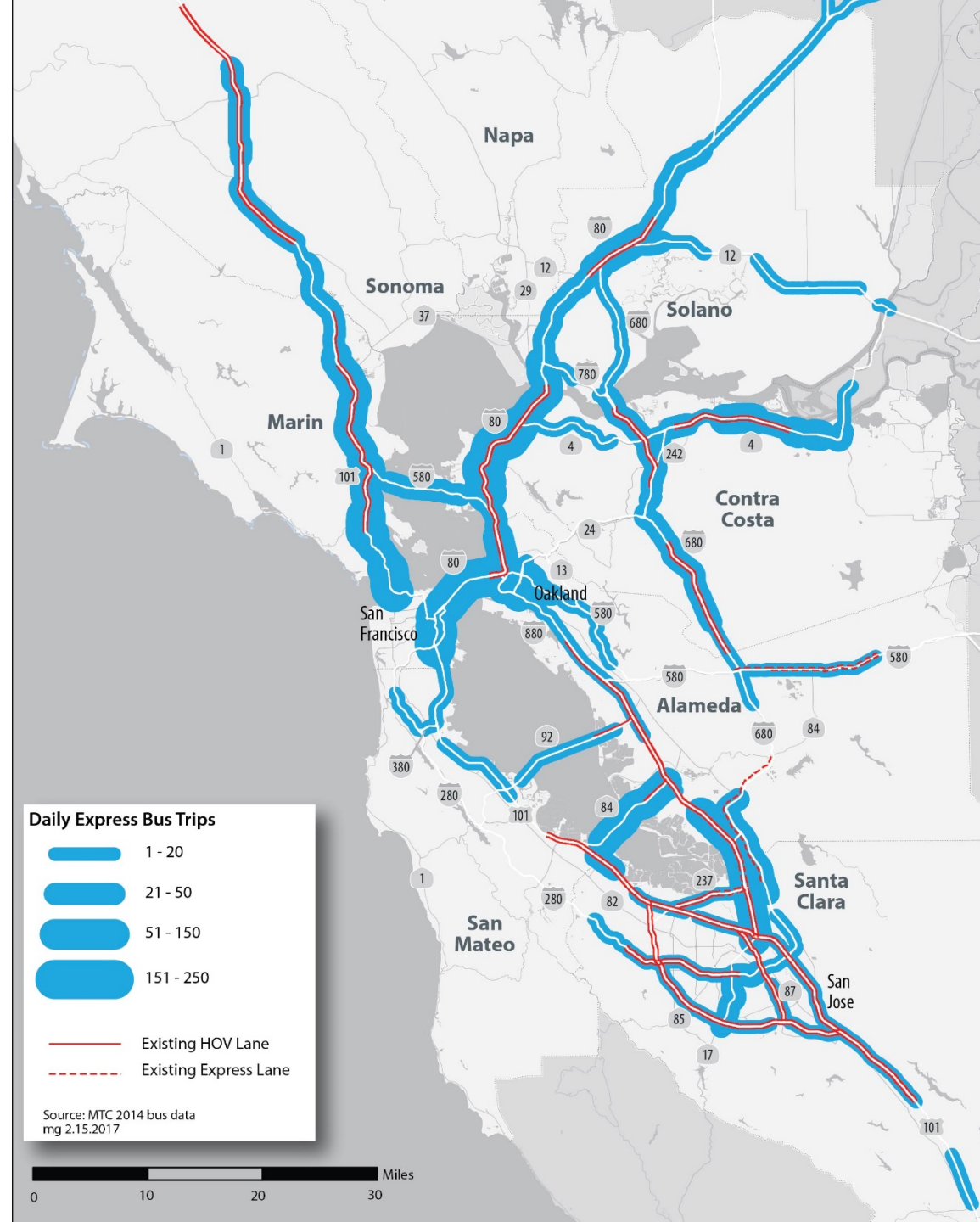
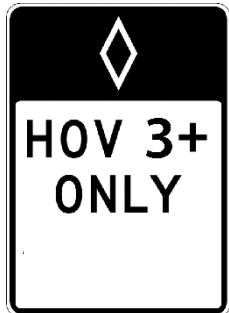


Commute Option Tradeoffs on HOV Corridors

Trip Attribute	 Drive Alone		 Carpool		 Bus	
	 / 					
Travel Time	No waiting	Travel time depends on GP lane congestion	Non-degraded HOV lane offers time savings	Wait for pickup	Non-degraded HOV lane offers time savings	Wait for pickup; Wait for stops
Travel Time Reliability		Reliability depends on GP lane congestion	Non-degraded HOV lane improves reliability		Non-degraded HOV lane improves reliability	Wait for bus
Access	Easy departure	Difficulty parking	Passenger doesn't park	Must find carpool partner	No need to park at work	Need access to bus stops (park-ride or first/last mile)
Trip Cost	Other factors support drive alone	Gas; Tolls; Parking; Car Ownership (Wear & Tear, Insurance)	Split costs	Driving costs	No tolls; Less or no gas, parking, and car ownership costs	Bus Fare; First/last mile (park-ride or first/last mile)

Express Bus Services

- Reliable HOV lanes offer speed and time savings
- Express buses can fill seats and move more people in fewer vehicles



What If I-80 HOV Lanes Were Not Degraded?

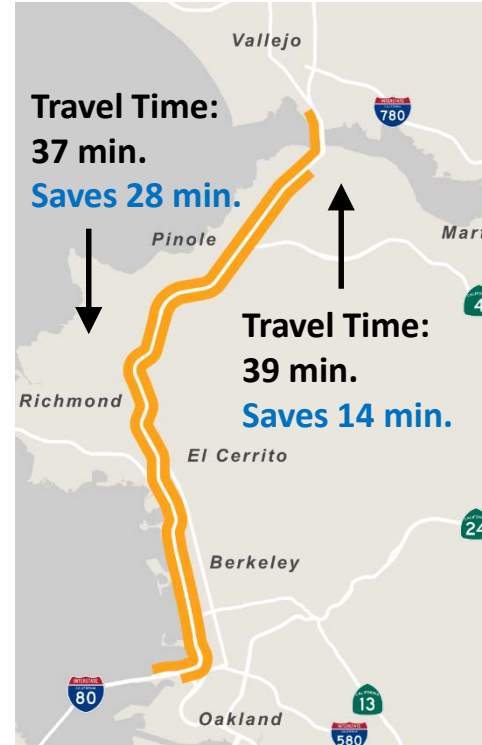
Observed Travel Times

General Purpose (GP)
Lane Travel Times



HOV Lane
Travel Times

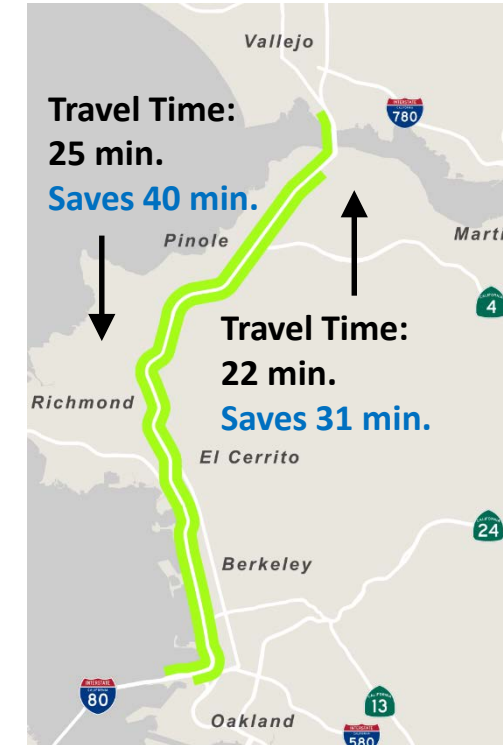
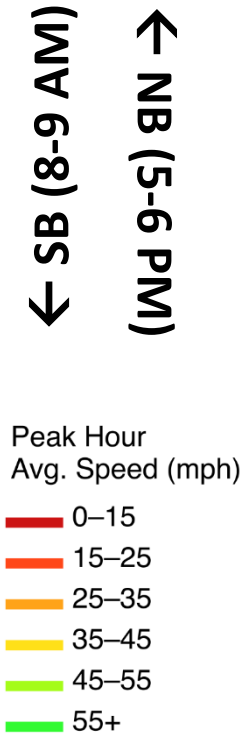
HOV vs GP
Time Savings



If HOV Lane Wasn't Degraded

HOV Lane Travel Times
(≥45 MPH)

vs GP
Time Savings



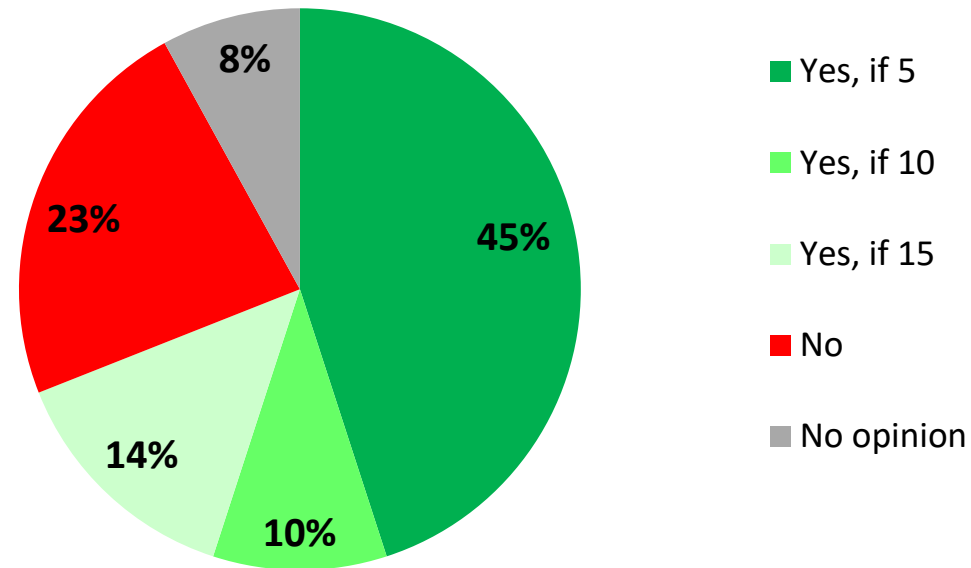
If federal performance standards were met, carpoolers and bus riders would move:

12 Minutes Faster SB – AM
17 Minutes Faster NB – PM

Regional Managed Lanes Survey:

Time Savings & Willingness to Ride Express Bus

Would you take an express bus that uses an HOV lane if it was reliably five minutes faster than driving in the regular lanes? What if it was 10 minutes faster? What about 15 minutes faster?



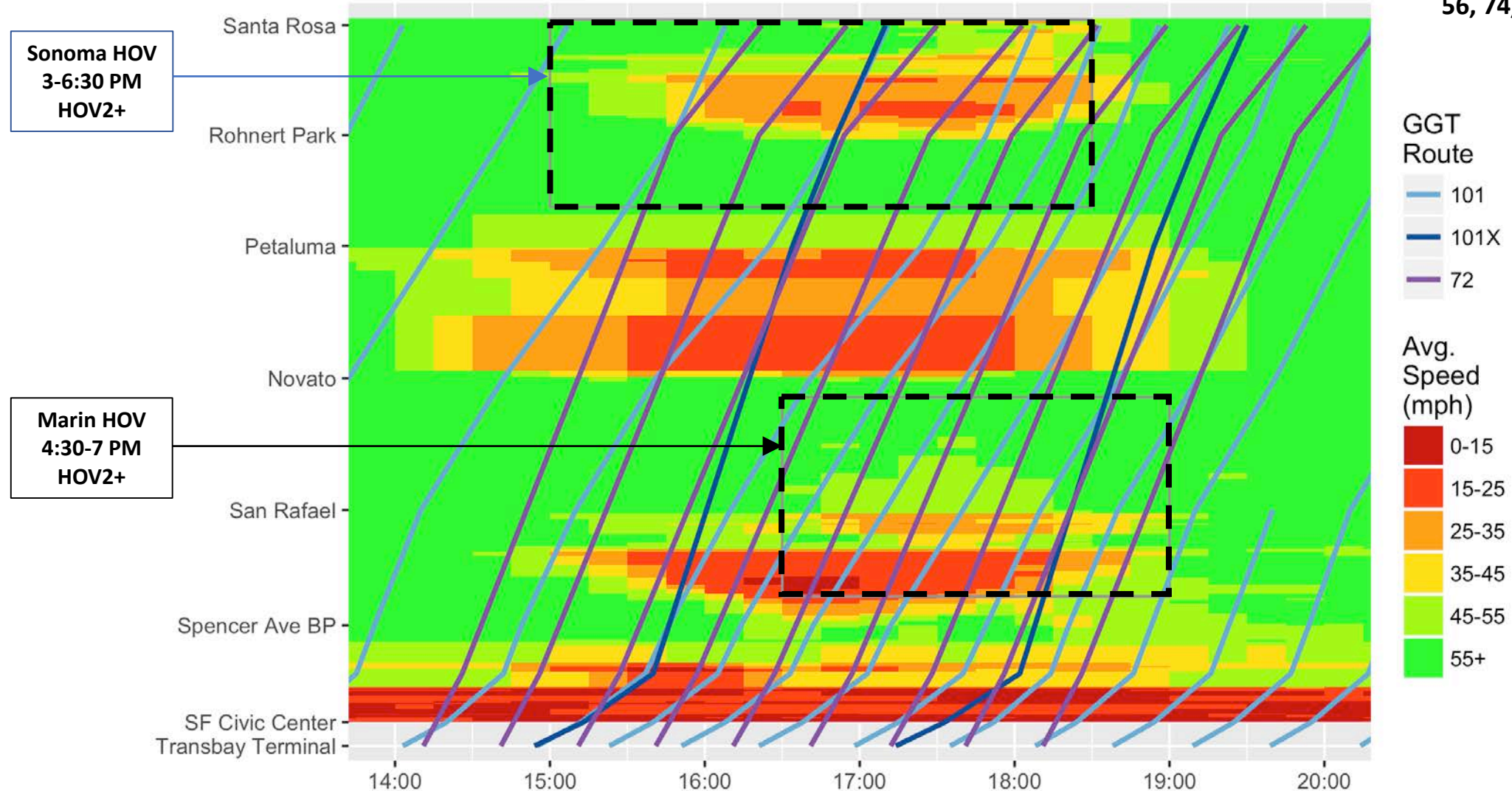
Aggregate Bay Area Sample: 1208 Respondents

Source: MTC Managed Lanes Implementation Plan Survey (2016)

Marin Sonoma 101 NB – PM

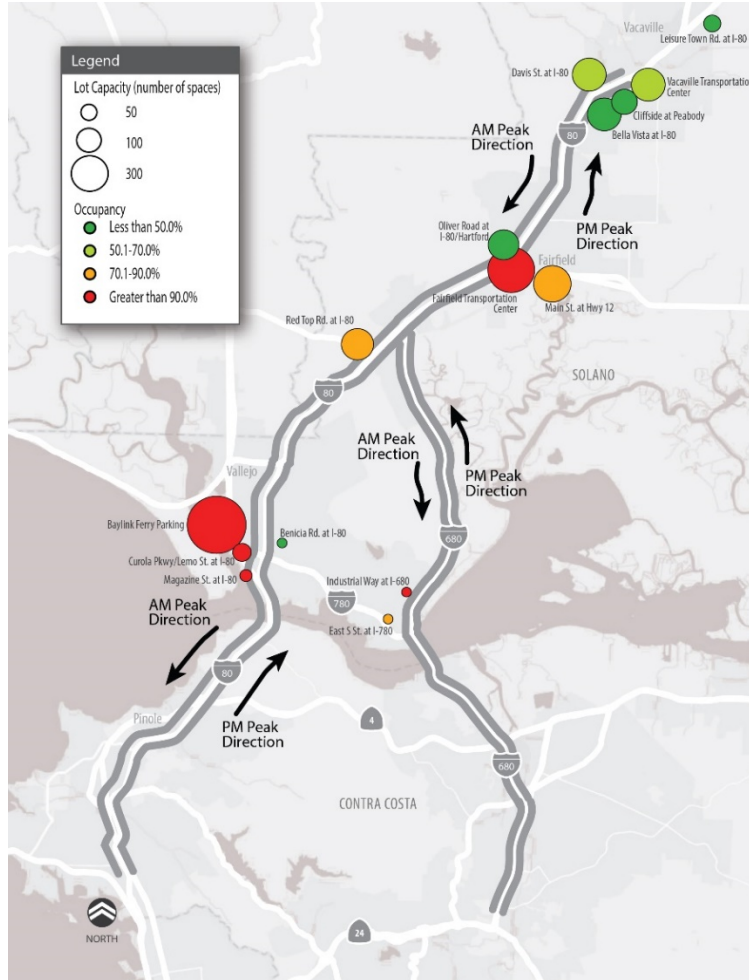
2016 Congestion & Express Buses

Routes delayed:
72, 101, 101X (shown)
56, 74, 76 (not shown)

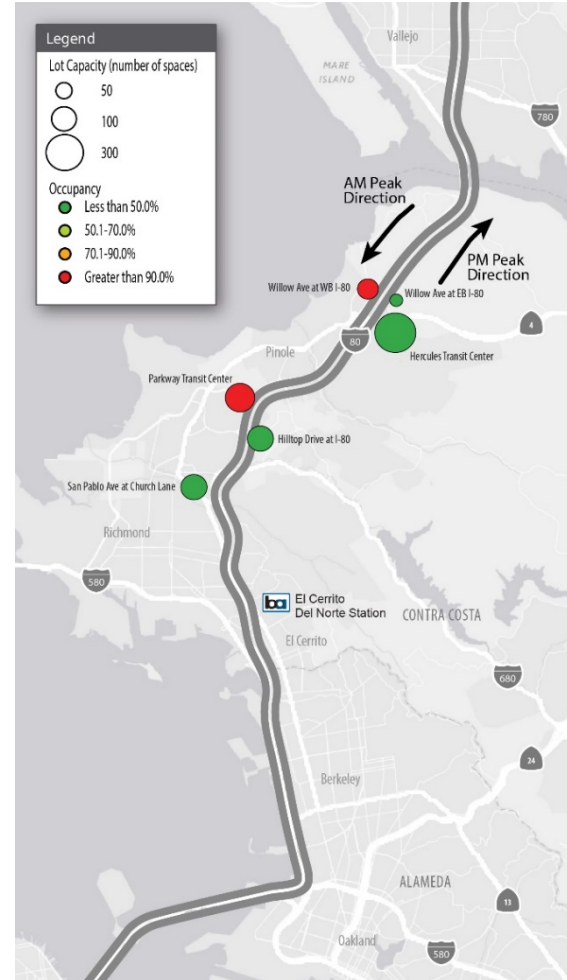


Park-Ride Lots Help Address First Mile Gaps

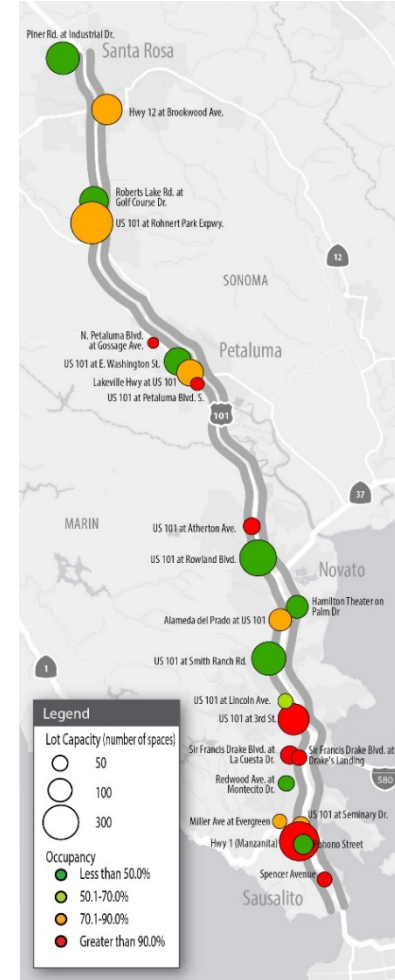
I-80 Solano



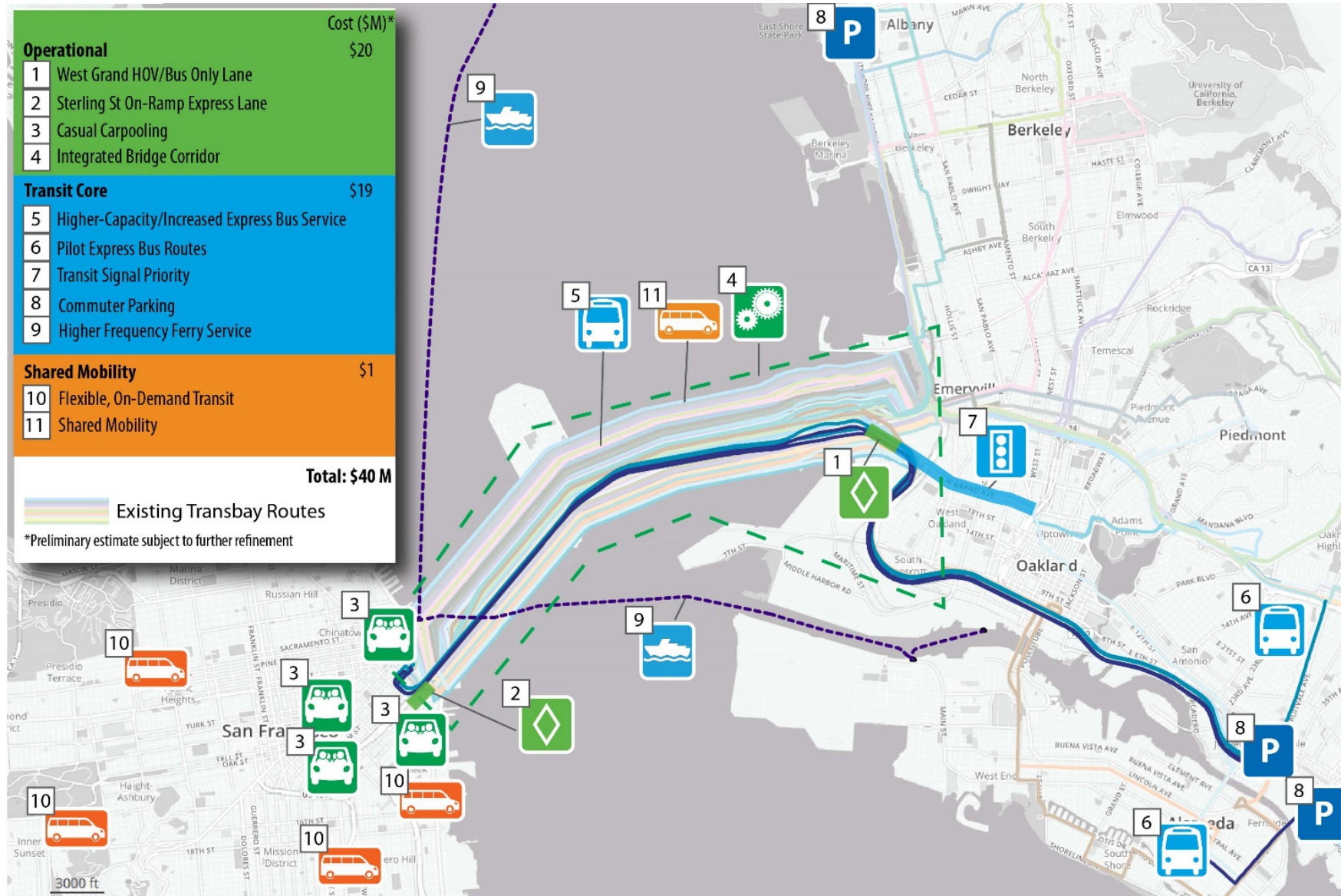
I-80 Alameda/Contra Costa



US-101 Marin/Sonoma

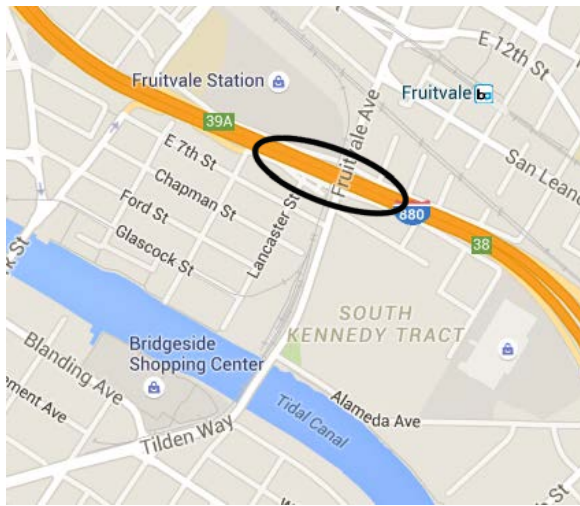


Bay Bridge Forward: Near-Term, Low-Cost, & High-Impact Efficiency Strategies

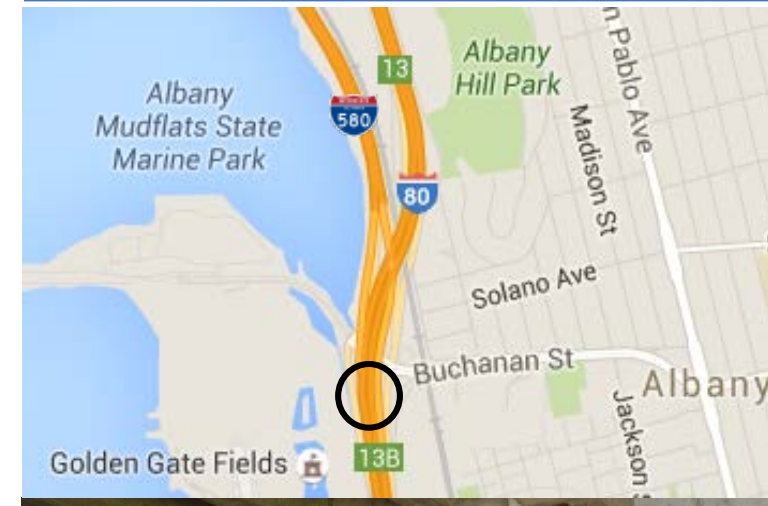


Commuter Parking Initiative

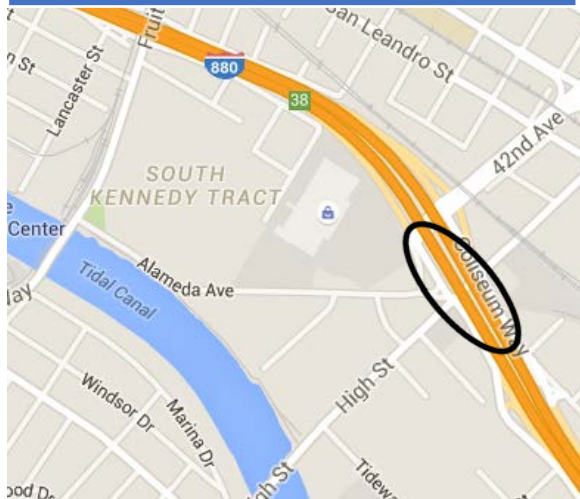
I-880/Fruitvale Ave (Oakland)



I-80/Buchanan St (Albany)



I-880/High St (Oakland)



Parking Management Technology



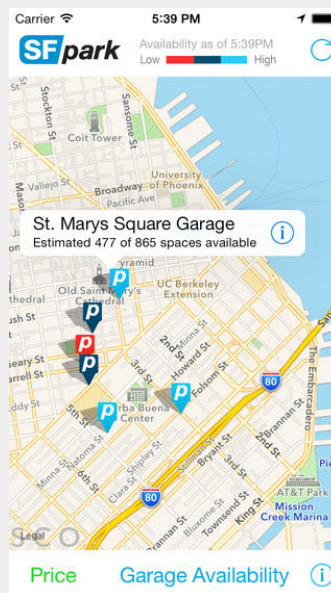
Payment



Real-Time Parking Information



Enforcement



Commuter Parking Initiative Implementation Timeline and Supporting Activities



2015/11/05
07:47:48

