

# C/CAG

## CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

*Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park  
Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

**1:15 p.m., Thursday, August 15, 2013**  
**San Mateo County Transit District Office<sup>1</sup>**  
**1250 San Carlos Avenue, 2<sup>nd</sup> Floor Auditorium**  
**San Carlos, California**

### TECHNICAL ADVISORY COMMITTEE (TAC) AGENDA

- |  |               |              |
|--|---------------|--------------|
| 1. Public comment on items not on the Agenda (presentations are customarily limited to 3 minutes).   | Porter/Hurley | No materials |
| 2. Issues from the last C/CAG Board meeting (August 2013): <ul style="list-style-type: none"><li>• Approved – Agreement with SMC Dept. of Housing for Joint Workplan for Housing-Related Activities for FY13/14 for \$125,000</li><li>• Accepted – Recommendation of the Measure A Funded Pacifica Bayshore Circulator Shuttle for FY13/14 for \$90,762</li><li>• Approved – TDA Art. 3 Ped/Bike Call for Projects for FY13/14</li><li>• Approved – Amend No. 1 to the Agreement with SMC Division of Environmental Health to continue support for the Countywide Water Pollution Prevention Program through Dec. 2014 for \$214,962</li><li>• Approved - Limited term position for a countywide Ped/Bike Coordinator for FY 13/14 an FY 14/15 (funded by San Mateo Co., SamTrans and C/CAG)</li></ul> | Hoang         | No materials |
| 3. Approval of the Minutes from July 18, 2013  | Hoang         | Page 1-2     |
| 4. Review and Recommend Approval of the Draft 2013 Congestion Management Program (CMP) and Monitoring Report (Action)  | Hoang         | Page 3-43    |
| 5. Make a recommendation on the proposed Highway Relinquishment Study for SR 82 El Camino Real/Mission Street  | Wong          | Page 44-50   |
| 6. Review and approval of a written response to the Revised Regional Project Delivery Policy for Regional Discretionary Funds (MTC Resolution 3606) (Action)   | Higaki        | Page 51-53   |
| 7. Regional Project and Funding Information (Information)  | Higaki        | Page 54-56   |
| 8. Executive Director Report   | Wong          | No materials |
| 9. Member Reports  | All           |              |

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<sup>1</sup> For public transit access use SamTrans Bus lines 260, 295, 390, 391, KX or take CalTrain to the San Carlos Station and walk two blocks up San Carlos Avenue. Driving directions: From Route 101 take the Holly Street (west) exit. Two blocks past El Camino Real go left on Walnut. The entrance to the parking lot is at the end of the block on the left, immediately before the ramp that goes under the building. Enter the parking lot by driving between the buildings and making a left into the elevated lot. Follow the signs up to the levels for public parking.

2013 TAC Roster and Attendance						
No.	Member	Agency	Mar	Apr	May	Jul
1	Jim Porter (Co-Chair)	San Mateo County Engineering	x	x		
2	Joseph Hurley (Co-Chair)	SMCTA / PCJPB / Caltrain	x	x	x	x
3	Afshin Oskoui	Belmont Engineering	x	x	x	x
4	Randy Breault	Brisbane Engineering	x	x	x	x
5	Syed Murtuza	Burlingame Engineering	x	x	x	x
6	Bill Meeker	Burlingame Planning				
7	Lee Taubeneck	Caltrans		x	x	x
8	Sandy Wong	C/CAG	x	x	x	x
9	Robert Ovardia	Daly City Engineering	x	x	x	x
10	Tatum Mothershead	Daly City Planning	x	x	x	x
11	Brad Underwood	Foster City Engineering	n/a	n/a	x	x
12	Mo Sharma	Half Moon Bay Engineering	x	x		x
13	Paul Willis	Hillsborough Engineering	n/a	n/a	x	
14	Chip Taylor	Menlo Park Engineering	x	x	x	x
15	Van Ocampo	Pacifica Engineering	x	x	x	x
16	Shobuz Ikbal	Redwood City Engineering	x	x	x	
17	Klara Fabry	San Bruno Engineering		x	x	x
18	Jay Walter	San Carlos Engineering	x	x	x	x
19	Larry Patterson	San Mateo Engineering		x	x	x
20	Steve Monowitz	San Mateo County Planning				
21	Brian McMinn	South San Francisco Engineering	x	x	x	
22	Gerry Beaudin	South San Francisco Planning	x	x	x	
23	Paul Nagengast	Woodside Engineering	x	x	x	
24	Kenneth Folan	MTC				

**TECHNICAL ADVISORY COMMITTEE (TAC)  
FOR THE  
CONGESTION MANAGEMENT PROGRAM (CMP)**

**July 18, 2013  
MINUTES**

The meeting of the Technical Advisory Committee (TAC) was held in the SamTrans Offices, 1250 San Carlos Avenue, 2<sup>nd</sup> Floor Auditorium, San Carlos, CA. Co-chair Hurley called the meeting to order at 1:15 p.m. on Thursday, July 18, 2013.

TAC members attending the meeting are listed on the Roster and Attendance on the preceding page. Others attending the meeting were: Jim Bigelow, C/CAG CMEQ; Ronnie Kraft – SamTrans; Jean Higaki – C/CAG; John Hoang – C/CAG; and others

**1. Public comment on items not on the agenda.**

None.

**2. Issues from the last C/CAG Board meeting.**

As noted on Agenda.

**3. Approval of the Minutes from May 16, 2013.**

Approved.

**4. El Camino Real Improvements**

Lee Taubeneck, TAC member from Caltrans, presented information about recently completed, current, and future projects Caltrans has on El Camino Real totaling \$56 million including ITS projects in various cities including the Smart Corridor, signal interconnect, drainage, crosswalk improvements, and ADA curb ramps and sidewalks. Caltrans position is that El Camino Real should be locally owned and operated. Information on ADA curb ramp project will be forwarded to the TAC separately.

Tying back to the proposed El Camino Real Relinquishment Study discussion from the last meeting, Sandy Wong updated the TAC that the CMEQ Committee recommended moving forward with the El Camino Relinquishment but subsequently the C/CAG Board agreed with the TAC's recommendation and did not recommend taking part in the Study.

**5. San Mateo County TA Measure A Grade Separation Program**

April Chan from the Transportation Authority presented an overview of the Grade Separation Program. An estimated \$200 million remains available over the life of the program. The first round of call for project will occur in fall 2013 with approximately \$5 to \$7 million available. Up to \$1 million is available for planning phase and up to \$5 million is available for PAED phase. Proposed evaluation criteria includes: Project Readiness (20%), Safety and Traffic Improvement (35%), Project Need and Justification (35%), and Funding Leverage (10%). All construction would be completed by Caltrain, have a full funding plan, and

The TAC requested clarifications regarding the policy on consistency with the Caltrain/High Speed Rail blended system as well as coordination with the CPUC Section 190 Grade Separation Program with regards to construction projects.

**6. Feasibility Study at the 101/92 Interchange Area**

Mark Bowman from Kittlelson and Associates presented results of the traffic analysis performed at the vicinity of the US 101/SR 92 interchange considering operational issues associated with bottlenecks, queues, and delays. The Study provided three capital project packages with recommendations to implementing auxiliary lanes on SR 92 and conversion of SR 92/El Camino Real interchange to a partial cloverleaf configuration.

**7. Draft 2014 STIP Development**

Jean Higaki presented the draft 2014 STIP for the period of FY 2014/15 through FY 2018/19. C/CAG typically focuses STIP funds on highway projects. Previously programmed funds remain with the addition of \$18.2 million programmed for construction of the SR 92 Improvements.

**8. Regional Project and Funding Information**

Jean Higaki provided handouts highlighting policy changes to the region including FHWA policy for inactive projects, revisions of TDA Article 3 Policy and MTC Resolution 3606 updating the Regional Delivery Policy for Regional Discretionary funds. Higaki requested comments and feedback from the TAC. It was suggested that C/CAG receive comments from TAC members collectively and draft one letter to MTC. The draft letter will be brought back the TAC.

**9. Executive Director Report**

Sandy Wong, C/CAG Executive Director, reported that there will be a TDA Article 3 Call for Projects for \$1.6 million, including setting aside \$200K for bike/ped plans with a maximum of \$400K per capital project. Staff met with Senator Jerry Hill’s office regarding potential stormwater initiatives and legislation.

**10. Member Reports**

None.

End of meeting at 2:55 p.m.

# C/CAG AGENDA REPORT

**Date:** August 15, 2013  
**To:** Congestion Management Program Technical Advisory Committee (TAC)  
**From:** John Hoang  
**Subject:** Review and recommend approval of the Draft 2013 Congestion Management Program (CMP) and Monitoring Report

(For further information contact John Hoang at 363-4105)

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## **RECOMMENDATION**

That the CMP TAC review and recommend approval of the Draft 2013 Congestion Management Program (CMP) and Monitoring Report

## **FISCAL IMPACT**

It is not anticipated that the changes in the 2013 CMP will result in any increase in the current fiscal commitment that C/CAG has made to the Program.

## **BACKGROUND/DISCUSSION**

### *Overview*

Every two years, C/CAG as the Congestion Management Agency for San Mateo County, is required to prepare and adopt a Congestion Management Program (CMP) for San Mateo County. The CMP is prepared in accordance with state statutes, which also establish requirements for local jurisdictions to receive certain gas tax subvention funds. The CMP's conformance with regional goals enable San Mateo County jurisdictions to qualify for state and federal transportation funding.

The Metropolitan Transportation Commission (MTC) also provides guidance for consistency and compatibility with the Regional Transportation Plan (RTP). MTC's findings for the consistency of CMPs focus on five areas:

- Goals and objectives established in the RTP,
- Consistency of the system definition with adjoining counties,
- Consistency with federal and state air quality plans,
- Consistency with the MTC travel demand modeling database and methodologies; and
- RTP financial assumptions.

For this year's update, MTC recommended additional information for inclusion in the CMP which includes:

- References to statutory requirements MAP-21 for RTP and air quality conformity requirements
- References to the Plan Bay Area and performance targets in the latest adopted RTP

### ***2013 CMP Update***

The Draft 2013 CMP includes updated information and changes from the adopted 2011 CMP. The majority of the document is unchanged from the 2011 CMP. Updated and new texts are shown as underlined in the document (deleted or superseded text are shown as strike through). Some key updates are highlighted below:

- Updated Chapter 5 – Trip Reduction and Travel Demand Element
  - Reflects the current Transportation Demand Element (TDM) and Transportation System Management (TSM) measures.
- Updated Chapter 7 – Deficiency Plan Guidelines
  - Reflects updated 2013 monitoring results and amended San Mateo County Congestion Relief Plan (CRP).
- Updated Chapter 8 – Seven Year Capital Improvement Program
  - Reflects the draft 2014 State Transportation Improvement Program (STIP) project list.
- Updated Chapter 11 – Vehicle Registration Fee (VRF) Program
  - Reflects final \$4 VRF program allocations and updated Measure M Program.
- Appendices that were updated includes the following:
  - Appendix F - 2013 CMP Monitoring (Draft)
  - Appendix G – Status of Capital Improvement Projects
  - Appendix I - Land Use Guidelines and Compliance Monitoring (Program Compliance List)
  - Appendix M – Measure M Implementation Plan (amended)
- A new Appendix N is added for inclusion of the complete *MTC’s Guidance for 2013 Congestion Management Programs (CMPs)*

It is recommended that Chapter 11, Vehicle Registration Fee (VRF) Program be deleted from the next CMP update due to the fact that the \$4 VRF Program ended January 2013. In addition, there are no requirements by either the CMP statutes or MTC’s CMP Guidance that indicates the need to update or include the C/CAG VRF Program. The Appendix M, Measure M Implementation Plan, can continue to be included in the appendix as information only.

### ***2013 Traffic Level of Service and Performance Monitoring***

C/CAG is required to measure the roadway segments and intersections on the Congestion Management Program roadway network to determine the change in LOS from one period to the next. As part of the 2013 CMP update, C/CAG has retained a consultant to monitor the roadway segments and intersections on the CMP roadway network. Traffic volumes counts and travel time

surveys were performed between March 14th and April 10th of this year. As a result of this monitoring, C/CAG is required to determine what location(s), if any, has (have) exceeded the LOS standard that was established by C/CAG in 1991.

In determining conformance with the LOS standards, C/CAG historically excludes traffic impacts attributable to interregional travel based on the C/CAG Travel Demand Forecasting Model. To address deficiencies on the CMP network, C/CAG developed the San Mateo County Congestion Relief Plan (CRP). Originally adopted in 2002 and reauthorized in 2011 to be effective through June 2015, the CRP fulfills the requirement of a Countywide Deficiency Plan for all roadway segment and intersection deficiencies identified through the monitoring done for the 1999 through the current Congestion Management Programs. With the CRP in place, no jurisdiction will be required to develop a deficiency plan as a result of this monitoring report.

In calculating the LOS for the CMP network, C/CAG identifies the deficient locations after deducting for interregional travel (all trips originating outside San Mateo County). Based on the monitoring report and after the exclusions for interregional traffic was applied, four out of the 53 roadway segments exceeded the LOS standard. The segments in violation of the LOS Standard in 2013 are as follows:

- AM – Northbound SR 1 between SF County line and Linda Mar Blvd
- AM – Westbound SR 84 between I-280 and Alameda de Las Pulgas
- AM – Eastbound and Westbound SR 92 between I-280 and US 101
- PM – Eastbound and Westbound SR 92 between I-280 and US 101

For the sixteen intersections monitored, the 2013 traffic volumes, lane configurations, and signal phasing were used as inputs to the intersection level of service calculations. This year’s monitoring as well as the 2011 monitoring used the 2000 Highway Capacity Manual method (average control delay) to calculate the LOS results.

All 16 CMP intersections were in compliance with the LOS Standard. There were no LOS standard violations for intersections in 2011 also.

A summary of the number of roadway segments and intersections with a LOS F (F designated the worse possible congestion) since the 1999 CMP are as follows:

Year	LOS F*		Year	LOS F*	
	Roadways	Intersections**		Roadways	Intersections**
1999	18	3	2007	14	2
2001	16	1	2009	10	3
2003	13	0	2011	14	2
2005	12	0	2013	12	2

\* Without Exemption

\*\* Majority of intersections monitored are along Route 82 (El Camino Real)

It is noted that nine (9) CMP segments had an LOS of F (without exemptions) in both the AM and PM peak periods. Three segments had LOS of F in the AM peak period only and three segments had LOS F in the PM peak period only.

Travel times were also measured for the U.S. 101 corridor between the San Francisco and Santa Clara County Lines. The U.S. 101 corridor was selected because, in addition to mixed-flow lanes, it includes High Occupancy Vehicle (HOV) lanes, bus routes, and passenger rail.

The total travel time for carpools was estimated by adding the travel time in the HOV lanes between the Santa Clara County Line and Whipple Avenue to the travel time in the mixed-flow lanes between Whipple Avenue and the San Francisco County Line. Travel times for bus and passenger rail modes were estimated based on SamTrans and Caltrain published schedules. SamTrans bus route KX operates in the U.S. 101 corridor. This route provides service through San Mateo County from San Francisco to Palo Alto. Travel times were based on the average travel time between County lines during the commute hours. Travel time via Caltrain was calculated in a similar manner.

Travel time for single occupancy identified as part of the 2013 monitoring indicates a 21% increase in the southbound AM peak period and an 18% decrease in the southbound PM peak period. Carpool lanes show an increase of 23% in both the southbound AM peak period and northbound PM peak periods. Travel time for Caltrain and SamTrans is being verified and will be included in the final document. Results for the 2013 travel time surveys are summarized below.

Average Travel Time in US 101 Corridor (in minutes)																
<i>(Between San Francisco and Santa Clara County Lines)</i>																
Mode	AM - Morning Commute Peak Period								PM - Evening Commute Peak Period							
	Northbound				Southbound				Northbound				Southbound			
	2013	2011	2009	2007	2013	2011	2009	2007	2013	2011	2009	2007	2013	2011	2009	2007
Auto - Single Occ.	28	29	30	26	41	34	28	35	30	32	33	33	33	40	29	30
Carpool - HOV Lane	32	28	30	26	37	30	26	31	37	30	32	31	32	35	27	29
Caltrain (Baby Bullet b/n Palo Alto and SF Stations)	tbd	35	35	35	tbd	31	31	34	tbd	34	34	38	tbd	35	35	34
SamTrans Route KX (b/n Palo Alto Station and SFO, would transfer to BART at SFO to County Line)	tbd	76	79	75	tbd	81	85	78	tbd	81	83	80	tbd	78	89	81

As shown below, the 2013 transit ridership data indicates annual total ridership for SamTrans has decreased by 9% whereas Caltrain ridership increased by 23% when compared to FY 2011. Annual total ridership for BART increased by 10% at the Colma and Daly City stations and increased by 15% for the SFO Extension stations. Overall annual total transit ridership increased about 10% when compared with FY 2011.

Transit	Annual Total		Average Weekday	
	2011	2013	2011	2013
SamTrans	13,474,466	12,445,748	44,910	40,966
Caltrain	12,673,420	15,595,559	39,909	49,031
BART (Colma & Daly City)	7,014,816	7,778,180	23,598	27,102
BART (SFO Ext. Stations)	10,097,310	11,685,236	32,294	38,696
Combined Transit	43,260,012	47,504,723	140,711	155,795

The complete draft Monitoring Report is included in Appendix F of the Draft 2013 Congestion Management Program. (A copy is attached to this staff report)

***2013 CMP approval schedule (tentative)***

<u>Date</u>	<u>Activity</u>
August 15	Draft CMP to TAC
August 26	Draft CMP to CMEQ
September 12	Draft CMP to Board (distribution for comments)
Sep/Oct	Draft CMP due to MTC
October 17	Final CMP to TAC
October 28	Final CMP to CMEQ
November	MTC performs Consistency Findings
November 14	Final CMP to Board
Nov/Dec	MTC approval of 2012 RTIP

**ATTACHMENT**

- Draft Level of Service and Performance Measure Monitoring Report – 2013
- Draft 2013 San Mateo County Congestion Management Program (CMP)
- Draft 2013 San Mateo County CMP Appendix  
*(Electronic version is available for download at [http://ccag.ca.gov/plans\\_reports.html](http://ccag.ca.gov/plans_reports.html).  
Hard copy available upon request)*

*(Hard copies provided to TAC members only. Public members may contact John Hoang at 650-363-4105 if interested in receiving the document.)*

*Submitted to:*



# **Level of Service and Performance Measure Monitoring Report - 2013**

**DRAFT**

**August 5, 2013**

*Submitted by:*

**JACOBS™**

707 17<sup>th</sup> Street, Suite 2300  
Denver, CO 80202



September 19, 2013

City/County Association of Governments of San Mateo County  
County Office Building  
555 County Center  
Fifth Floor  
Redwood City, California 94063  
Attention: John Hoang, Program Manager

**Re: Level of Service and Performance Measure Monitoring Report - 2013**

Dear Mr. Hoang:

Jacobs Engineering Group Inc. (Jacobs) is pleased to submit the report for the 2013 LOS and Performance Measure Monitoring to support of the 2013 Congestion Management Program for the City/County Association of Governments of San Mateo County (C/CAG).

Jacobs conducted the 2013 study for C/CAG utilizing the latest technology for performing CMP studies. Our extensive and unique experience provides a cost-effective and cutting edge process to obtain and analyze traffic data. Jacobs has developed a methodology including GPS and GIS over the past 12 years with exciting results. The addition of the GIS linear reference system has added a component that has never before been applied to network analyses. For the first time, C/CAG now has an extensive database integrated in GIS for easy access and historic comparisons.

C/CAG has taken a major step forward in having the ability to take the GIS data, in addition to the historic tables, and integrate the digital data with your travel demand model. The speeds, roadway attributes, etc can be conflated with the model to produce a very robust and comprehensive system. This was not available in the past because the methodology used with tables and charts did not produce the value added products of this 2013 study. Jacobs will continue to support C/CAG to produce the best value that not only meets the intended LOS monitoring requirements to allow historic comparisons of this project, but produces the results in a form that can be used by many other areas within the county and by its members.

Sincerely,  
Jacobs Engineering Group Inc.

Chris Primus, PTP  
Project Manager

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Appendix

Technical Appendix

## A. EXECUTIVE SUMMARY

The City/County Association of Governments of San Mateo County (C/CAG) has an established Congestion Management Program (CMP) to monitor the transportation network within the county. All roadways included in the CMP network are evaluated for conformity at least every two years.

The goal of the monitoring program is to improve the performance of the transportation system by identifying congested areas and related transportation deficiencies. This information is then used to help prioritize transportation funding decisions based on system performance, land use factors, multimodal characteristics, and other considerations.

This year's monitoring study was conducted in the spring 2013 with data collection between March and May including travel time runs on approximately 163.3 directional miles of freeways and arterials, 72-hour counts on 21 segments representing 301.4 centerline miles of arterials, and 16 intersection turning movement counts.

This is the first monitoring cycle during which the C/CAG has used Global Positioning System (GPS) technology integrate in a geographic information system (GIS) to monitor Level of Service (LOS) on the CMP network. The primary tasks completed as part of this study include:

- Mapping of the CMP network
- Travel time data collection
- LOS Analysis

With the 2013 monitoring cycle, C/CAG is calculating LOS based on two methodologies—Highway Capacity Manual (HCM) 1994 and HCM 2000. This dual reporting facilitates historical comparisons while also reporting LOS based on the more current methodology. For freeways, only HCM 1994 LOS is reported, as the HCM 2000 methodology requires traffic volume information for all unique freeway segments and ramps. The HCM 2010 criteria was used only for the intersection LOS using the collected peak period turning movement counts analyzed in Synchro. Collection of comprehensive freeway traffic volumes is beyond the scope of the CMP monitoring effort.

With the introduction and use of GIS, included in this years monitoring report, comes the ability to determine LOS for various smaller intersection segments and not only the longer summary segments as determined in the past. Intersection segment results were also calculated in addition to the (generally longer) official CMP segment results. By subdividing the CMP segments into intersection-level results, localized congestion can be quickly identified along the route segment. This helps identify locations of intense congestion. Improvements such as traffic signal upgrade/coordination, dedicated transit lanes, access management, and/or pedestrian and bicycle improvements could be considered for the intersection segments that exhibit high degrees of localized traffic congestion.

## B. INTRODUCTION

### History of the Congestion Management Program

C/CAG has an established Congestion Management Program (CMP) to monitor the transportation network within the county. All roadways included in the CMP network are evaluated for conformity at least every two years by the agency, which is the designated Congestion Management Agency (CMA) for San Mateo County. The goal of the monitoring program is to improve the performance of the transportation system by identifying congested areas and related transportation deficiencies. This information is then used to help prioritize transportation funding decisions in light of system performance, land use factors, multimodal characteristics, and other considerations.

This year's study was conducted in the spring of 2013 with travel time runs between March and May of 2013. The most recent assessment prior to this study was performed in April - May 2011. The primary tasks completed as part of this study include:

- Mapping of the CMP network
- Travel time data collection
- Level of Service Analysis

### Study Background

This year's monitoring study was conducted in the spring 2013 with data collection between March and May including travel time runs on approximately 163.3 directional miles of freeways and arterials, 72-hour counts on 21 segments representing 301.4 centerline miles of arterials, and 16 intersection turning movement counts. CMP legislation requires that state highways (including freeways) and principal arterials be included in the CMP network. The network must be useful to track the transportation impacts of land development decisions, as well as to help assess the congestion management implications of proposed transportation projects. C/CAG's network therefore includes numerous local thoroughfares since most urban traffic occurs on city arterials (rather than on the freeways). **Figure 1** shows the routes that were monitored.

All of the study roadways were evaluated during the AM and PM peak period between the hours of 7 AM - 9 AM and 4 PM - 7 PM. As in previous studies, both time periods are considered when determining the LOS to be reported. The directionality of the segment is not reported in many of the summary tables, but the worst LOS found for either direction for either AM or PM peak period is shown as the official result. In most cases, the PM period is the focus of the CMP since consistently, the PM period results in higher volumes, slower speeds, and more congestion. The methodology used included performing floating car travel time studies, 72-hour traffic counts, and intersection turning movement counts.

The total directional miles and number of route segments for each roadway type are shown in **Table 1**.



Figure 1 – Spring 2013 CMP Monitored Routes

Table 1 – Total Study Miles Summary

Roadway Type	Total Directional Miles
Arterial / State Routes	301.4
Freeway	163.3
Total	464.7

This monitoring report focused on the five performance measures established in the San Mateo County Congestion Management Program. These performance measures are:

1. Roadway Level of Service
  - a. Travel Time – Average Speed
  - b. 72-hour traffic counts – V/C for rural arterials
2. Intersection LOS
3. Travel Time for various modes (single occupant, carpools, and transit)
4. Pedestrian and Bicycle Improvements
5. Ridership / Person Throughput for Transit

As noted, the “Roadway Level of Service and Intersection LOS” are the primary CMP performance measures; therefore, a mitigation plan is required if the resulting LOS is below the established minimum standard.

The following sections focus on each of the above performance measures with emphasis on the Roadway and Intersection LOS. The other items are included to provide some alternative views to help explain the changes in performance and the opportunities for improvement.

## C. METHODOLOGY

### Mapping of CMP Network

#### Global Positioning System (GPS)

Historically, CMP travel time runs were done manually. Jacobs introduced the use of GPS and GIS to C/CAG in 2011. In general, the equipment used by Jacobs received consistent GPS signals across the County.

Before performing the travel time runs, all roadways were mapped using GPS technology. The Haicom-BT Bluetooth receiver was mounted on a vehicle and used in the mapping. The receiver uses differential GPS (DGPS) to provide position information to sub-meter accuracy. These receivers were used in combination with the controlling software developed by Jacobs while driving each roadway to inventory all roadway attributes related to speed.

The data collection process was made more efficient by collecting data electronically using GPS technology. The methodology provided C/CAG with background mapping and traffic-related elements that can be integrated with the agency's GIS/travel demand model for future use.

#### Mapping Runs

The roadway mapping was done in-vehicle using the Haicom-BT GPS equipment and software. Mapping was done in one direction for each roadway segment during off-peak periods.

Certain traffic elements were recorded such as the posted speed limit, presence of traffic signals, number of through lanes, and construction areas. This information could be used later to determine the segment lengths and theoretical travel times, and to provide better insight into the resulting travel time runs.

### Travel Time Data Collection

Travel time runs were conducted using the floating car method. In the floating car method, the driver of the test vehicle "floats" with the traffic to represent the average vehicle by attempting to safely pass as many vehicles that pass the test vehicle.

Travel time runs were conducted during the morning and afternoon peak periods on all applicable roadway segments; runs were only conducted on Tuesdays, Wednesdays, or Thursdays, and school district spring break periods were avoided. A minimum of five (5) runs were made in each direction during each peak period. During the travel time runs, the Haicom BT GPS equipment recorded position and time at one-second intervals into a Dell Personal Digital Assistant (PDA) using Bluetooth technology. The driver of the test vehicle drove the speed limit if no other cars were present and at the school zone speed limit if a school zone speed limit was in effect at the time of the travel time run.

## D. EVALUATION

### LOS Analysis – HCM 1994

The tables in the Appendix highlight the 2013 CMP route segments that had LOS lower than the established standard during the AM or PM Peak by HCM 1994 standards directly from the travel time runs or 72-hour counts. The CMP enabling legislation allows for the reduction in volume for those interregional trips for those segments that have a LOS lower than the established standard; i.e. those trips that originate from outside the county and either pass through the county or have a destination within San Mateo County.

### Other Performance Measures Results

Apart from average speeds aggregated to the CMP route segments level, intersection segment level average speeds were also calculated in 2013 for all routes. These results are available in the GIS tables provided to C/CAG.

An example from the 2013 monitoring cycle that illustrates the utility of Intersection Segment level results is presented here. The segments included as official CMP segments are illustrated in **Figure 2**. If the analysis focused only on these segments, much of the corridors highlighted would be missed. Historically, the surface streets have not been evaluated using travel time runs. The performance review has focused either on the traffic counts at various intersections or on link 72-hour traffic counts on the rural arterials. As performed in 2011 for demonstration, travel time runs were completed on SR 82 (El Camino Real) in addition to the intersection turning movement counts. **Figure 3** illustrates the benefit of this methodology to highlight the delays that occur at the local level and may not be reflected in the results when only relying on the traffic counts. The intersections have been evaluated only on an isolated level and consideration was not given for the benefits of coordinate signal timing. Travel time runs when illustrated in GIS, paint a clear picture as to the efficiency of the existing signal timing for progression.

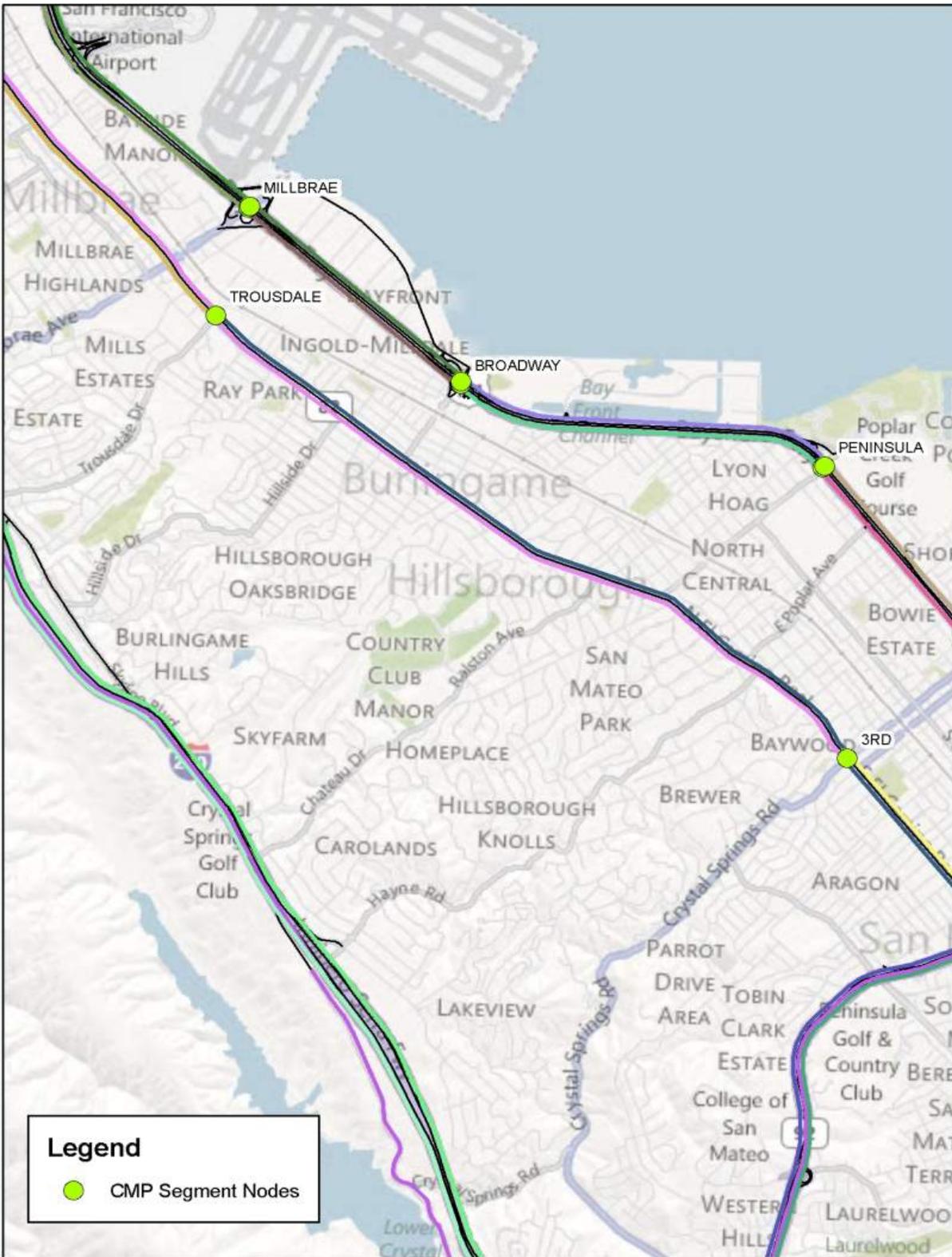


Figure 2 – Example CMP Segment – SR 82 between 3<sup>rd</sup> Street and Trousdale



Figure 3 – 21 Included Intersection Segments on SR 82 between 3<sup>rd</sup> Street and Trousdale

## E. ROADWAY LEVEL OF SERVICE (LOS)

### Traffic Flow

The Highway Capacity Manual (HCM) defines capacity as “...the maximum hourly rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions.”

The vehicle capacity and operational characteristics of a roadway are a function of a number of elements including: the number of lanes and lane widths, shoulder widths, roadway alignment, access, traffic signals, grades, and vehicle mix. Generally, roadways with wider travel lanes, fewer traffic control devices, straight alignments, etc. allow faster travel speeds and therefore greater vehicle flow per unit time.

### Level of Service

The HCM defines level of service (LOS) as “...a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.”

“Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver’s perception of those conditions.”

In accordance with CMP legislation, the county and city governments are required to show that all CMP route segments within their jurisdiction are operating at or above the CMP traffic LOS standard. Section 65089(b)(1)(B) of the California Government Code states that “In no case shall the LOS standards established be below the LOS E or the current level, whichever is farthest from LOS A. When the level of service on a segment or at an intersection fails to attain the established level of service standard, a deficiency plan shall be adopted pursuant to section 65089.4.”

All CMP network segments were evaluated in the spring 2013 monitoring cycle. In addition to the base methodology historically used to evaluate SR 82 which included intersection turning movement counts and 72-hour link counts, the corridor was also monitored for the first time using floating car travel time runs for reference and planning purposes. These results using the floating car results are not subject to performance requirements.

All freeway segments in the network, as included in **Figure 4**, were monitored using the floating vehicle method, which allows for determination of LOS on the basis of average operating speed. C/CAG primarily uses the 1994 and 2000 HCM methodology to monitor LOS on the CMP network, as this methodology was utilized in the baseline monitoring cycle and is necessary to maintain historical comparisons, identify exempt segments, and monitor

potential network deficiencies. The specific methodologies used for monitoring freeway and arterial segments are listed below per HCM definitions:

- **Freeway Segments (HCM 1994 - Chapter 3)** – All freeway segments were evaluated using the “basic freeway sections” methodology of HCM 1994 where the LOS for each freeway segment was determined using its average travel speed.

Freeway LOS was not calculated based on HCM 2000 methodology. In order to evaluate all freeway segments using the HCM 2000 methodology, the volumes on all freeway sections (mainline) with distinct characteristics (e.g., quantity of lanes), as well as on entrances and exits would be required. Changes to the methodology will be considered along with the next update cycle when the HCM 2010 may be incorporated. Until then, the methodology of previous updates was followed to maintain the historical context for comparisons of the results.

- **Multilane, Two-Lane and Arterial Segments (HCM 1994 – Chapters 7, 8, and 11)** – All non-freeway surface street segments were evaluated based on the volume to capacity ratio (V/C) dependant on the local free-flow speed, cross-section, number of lanes, % no-passing zones, and functional class.

Multilane and Two-Lane highways were evaluated primarily based on the current volumes as measured through 72-hour traffic counts at 21 locations throughout the county. These counts and resulting V/C were then compared to the applicable criteria in the HCM 1994 to determine the respective LOS.

Many arterial segments used by C/CAG for CMP purposes (called "CMP Segments") span several blocks and include multiple signals and/or stop controlled intersections. If an Intersection Segment is defined as a segment from one controlled intersection to the next, the CMP segments are a collection of consecutive Intersection Segments. Jacobs methodology of travel time estimation can calculate average speeds at the Intersection Segment level and these data can be aggregated to calculate the average speeds at the CMP segment level. The average speed on each CMP segment is computed as the ratio of total length of the segment to the sum of average travel time on each individual intersection segment within the CMP segment. The average travel time on each intersection segment is computed as the arithmetic mean of travel times of individual floating car runs on that segment. The travel times of individual floating car runs are calculated by measuring the time taken by a floating car to travel from the middle of one controlled intersection to the middle of the next controlled intersection. The average speed thus accounts for time in motion and time spent at the signals or stop signs.

**Table 2** shows the relationship between average travel speed and level of service for basic freeways according to HCM 1994. There are four (4) freeway categories based on the free-flow speed of the facility (ranging from 55-70 mph).

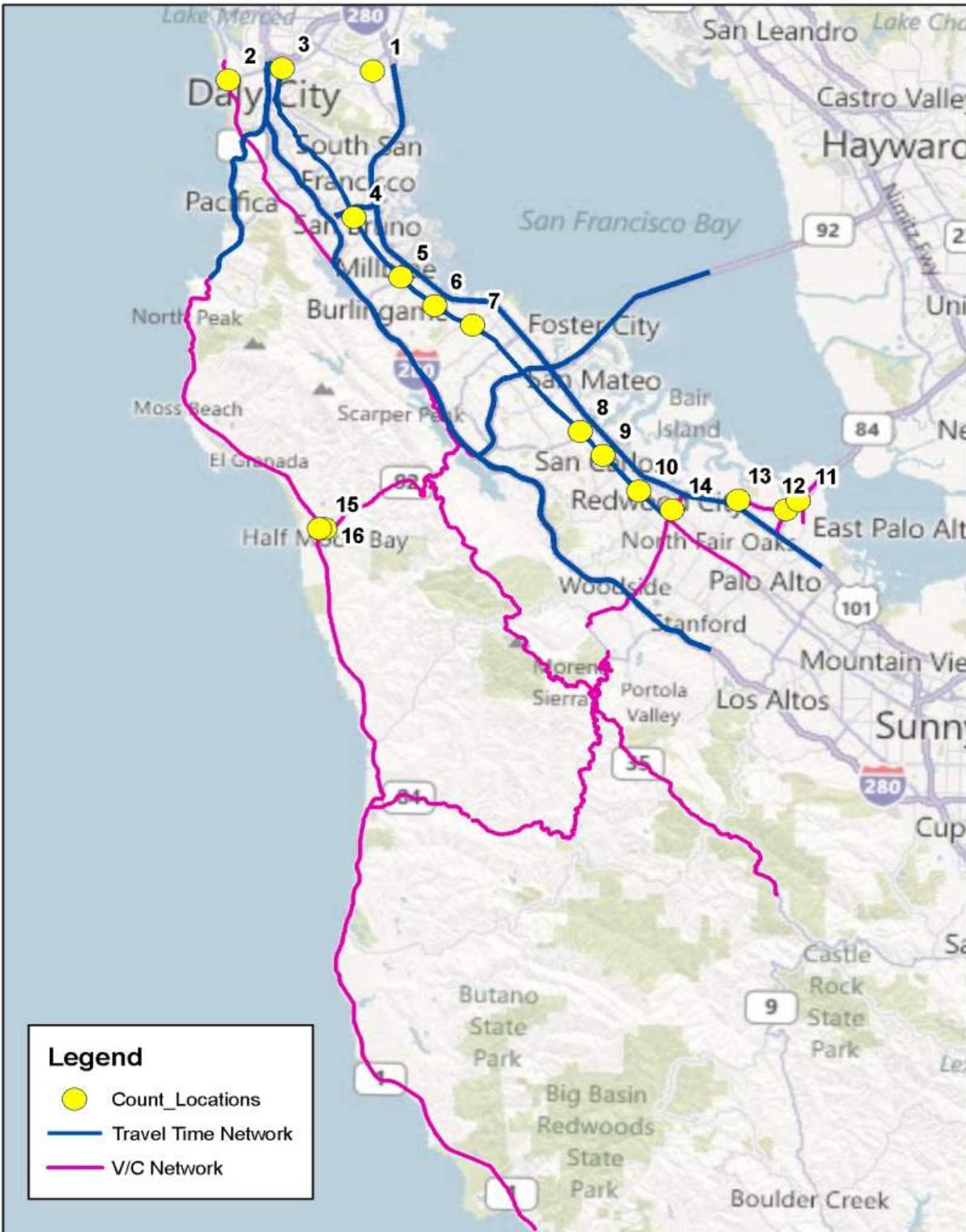


Figure 4 –2013 Routes and LOS Methodologies – **Magenta** 72-hour Counts (HCM 1994), **Blue** Freeways and SR 82 using Floating Car (HCM 1994), **Yellow** Intersections using Peak Period Turning Movement Counts (HCM 2000)

Table 2 – Example LOS from Freeway with Free-Flow Speed of 65 mph (HCM 1994)

Roadway Type	Basic Freeway
Free Flow Speed (mph) Range	65
A	≥ 65
B	≥ 65
C	≥ 64.5
D	≥ 61
E	≥ 56/53
F	< 56

### Roadway Segment LOS Analysis Results

**Table 3** summarizes the current year roadway segment LOS. Additionally, **Figures 5, 6, 7, and 8** illustrate the results graphically. As highlighted in **Table 3**, there are 9 segments (plus the US 101 HOV segment between Whipple and SC County Line) found to be below the established minimum in each of the AM and PM peak periods. **Table 3** includes a summary of the historic results since 1999. All results included in this update have consistently used the HCM 1994 for all roadway types and the HCM 2000 for the intersections. Variations in the LOS results may be explained through capital improvements, construction, or use of transit and other modes. The values included in Table 3 reflect the lowest LOS for either direction. Basically, it is the worst case LOS for the link in either direction during the respective peak periods.

Table 3 – CMP Roadway Segment Monitoring Results (Lowest LOS)

2013 CMP Roadway Segment Levels of Service											
Route	Roadway Segment	LOS Standard	2013 LOS		2011 LOS <sup>2</sup>	2009 LOS <sup>2</sup>	2007 LOS <sup>2</sup>	2005 LOS <sup>2</sup>	2003 LOS <sup>2</sup>	2001 LOS <sup>2</sup>	1999 LOS <sup>2</sup>
			AM Without Exemption <sup>3</sup>	PM Without Exemption <sup>3</sup>							
1	San Francisco County Line to Linda Mar Blvd.	E	F	F	F <sup>3</sup> /B <sup>4</sup>	F <sup>3</sup> /F <sup>4</sup>					
1	Linda Mar Blvd. to Frenchmans Creek Road	E	D	D	D	D	D	D	D	D	D
1	Frenchmans Creek Road to Miramontes Road	E	E	E	E	E	E	E	E	F/E	E
1	Miramontes Road to Santa Cruz County Line	D	B	B	B	B	B	C	C	C	B
35	San Francisco county Line to Sneath Lane	E	B	A	A	C	C	C	B	B	A
35	Sneath Lane to I-280	F	F	F	F	E	F	F	F	F	F
35	I-280 to SR 92	B	C	C	C <sup>3</sup> /B <sup>4</sup>	B	B	C/C	C/B	C/B	C/B
35	SR 92 to SR 84	B	B	B	B	B	B	B	B	B	B
35	SR 84 to Santa Clara County Line	E	B	B	B	B	B	B	B	B	B
82	San Francisco County Line to John Daly Blvd	E	A	A	A	A	A	A	A	A	A
82	John Daly Boulevard to Hickey Boulevard	E	A	A	A	A	A	A	A	A	A
82	Hickey Boulevard to I-380	E	A	A	A	A	C	A	A	A	B
82	I-380 to Trousdale Drive	E	A	A	A	A	B	A	A	A	A
82	Trousdale Drive to 3 <sup>rd</sup> Avenue	E	A	A	B	A	A	A	A	A	A
82	3 <sup>rd</sup> Avenue to SR 92	E	A	A	A	A	A	A	A	A	A
82	SR 92 to Hillside Avenue	E	A	A	A	B	B	B	A	A	B
82	Hillside Avenue to 42 <sup>nd</sup> Avenue	E	B	A	B	B	B	B	B	B	B
82	42 <sup>nd</sup> Avenue to Holly Street	E	A	A	A	B	B	A	A	A	A
82	Holly Street to Whipple Avenue	E	A	B	C	C	D	D	B	B	D
82	Whipple Avenue to SR 84	E	A	A	B	C	C	C	B	B	C
82	SR 84 to Glenwood Avenue	E	A	A	B	B	B	B	C	B	B
82	Glenwood Avenue to Santa Cruz Avenue	E	B	C	B	B	C	D	D	C	C
82	Santa Cruz Avenue to Santa Clara County Line	E	B	B	A	B	B	C	D	C	C
84	SR 1 to Portola Road	C	C	C	C	C	C	C	C	D/D	D/C
84	Portola Road to I-280	E	B	B	B	B	B	B	B	D	B
84	I-280 to Alameda de las Pulgas	C	D	C	D <sup>3</sup> /C <sup>4</sup>	C	D/A	C	D/C	D/D	D/D
84	Alameda de las Pulgas to U.S. 101	E	D	C	E	E	E	E	D	E	F/C
84	U.S. 101 to Willow Road	D	C	C	B	E/E	C	B	A	F/E	D
84	Willow Road to University Avenue	E	F	F	F <sup>3</sup> /C <sup>4</sup>	F/E	F/F	F/F	F/F	F/F	F/F
84	University Avenue to Alameda County Line	F	F	F	F	F	F	F	F	F	F
92	SR 1 to I-280	E	E	E	E	E	E	E	E	E	E
92	I-280 to U.S. 101	D	F	E	F <sup>3</sup> /F <sup>4</sup>	E <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>	C <sup>3</sup>	E <sup>3</sup> /E <sup>4</sup>	F <sup>3</sup> /F <sup>4</sup>
92	U.S. 101 to Alameda County Line	E	E	E	F <sup>3</sup> /A <sup>4</sup>	A/B <sup>3</sup>	A/B <sup>3</sup>	A/B <sup>3</sup>	C <sup>3</sup>	F <sup>3</sup> /F <sup>4</sup>	F <sup>3</sup> /F <sup>4</sup>

Table 3 (cont) – CMP Roadway Segment Monitoring Results (Lowest LOS)

2013 CMP Roadway Segment Levels of Service											
Route	Roadway Segment	LOS Standard	2013 LOS		2011 LOS <sup>2</sup>	2009 LOS <sup>2</sup>	2007 LOS <sup>2</sup>	2005 LOS <sup>2</sup>	2003 LOS <sup>2</sup>	2001 LOS <sup>2</sup>	1999 LOS <sup>2</sup>
			AM Without Exemption <sup>3</sup>	PM Without Exemption <sup>3</sup>							
101	San Francisco County Line to I-380	E	E	D	F <sup>3</sup> /A <sup>4</sup>	D <sup>3</sup>	E <sup>3</sup>	D <sup>3</sup>	D <sup>3</sup>	E <sup>3</sup>	F <sup>3</sup> /F <sup>4</sup>
101	I-380 to Millbrae Avenue	E	A	F	F <sup>3</sup> /C <sup>4</sup>	D <sup>3</sup>	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>
101	Millbrae Avenue to Broadway	E	F	E	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>
101	Broadway to Peninsula Avenue	E	F	F	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>
101	Peninsula Avenue to SR 92	F	F	F	F	F <sup>3</sup>					
101	SR 92 to Whipple Avenue	E	F	F	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>			
101	Whipple Avenue to Santa Clara County Line	F	F	F	F	F <sup>3</sup>					
109	Kavanaugh Drive to SR 84 (Bayfront Expwy.)	E	B	D	C	D	D	C	C	E	E
114	U.S. 101 to SR 84 (Bayfront Expressway)	E	A	A	B	C	C	B	C	D	D
280	San Francisco County Line to SR 1 (north)	E	B	C	E	F <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /A	E <sup>3</sup>	F <sup>3</sup> /F <sup>4</sup>	F <sup>3</sup> /F <sup>4</sup>	F <sup>3</sup> /F <sup>4</sup>
280	SR 1 (north) to SR 1 (south)	E	E	D	A/B	E	E	E <sup>3</sup>	E <sup>3</sup>	E <sup>3</sup>	F <sup>3</sup> /F <sup>4</sup>
280	SR 1 (south) to San Bruno Avenue	D	F	F	F <sup>3</sup> /D <sup>4</sup>	E <sup>3</sup> /D <sup>4</sup>	F <sup>3</sup> /C <sup>4</sup>	F <sup>3</sup> /E <sup>4</sup>			
280	San Bruno Avenue to SR 92	D	B	B	D	E <sup>3</sup> /C <sup>4</sup>	A/B <sup>3</sup>	A/B <sup>3</sup>	(A/B) <sup>3</sup>	A/B <sup>4</sup>	D
280	SR 92 to SR 84	D	B	C	A/B	D <sup>3</sup>	D <sup>3</sup>	D <sup>3</sup>	(A/B) <sup>3</sup>	D <sup>4</sup>	E <sup>3</sup> /D <sup>4</sup>
280	SR 84 to Santa Clara County Line	D	A	F	E <sup>3</sup> /A <sup>4</sup>	D <sup>3</sup>	D <sup>3</sup>	E <sup>3</sup> /C <sup>4</sup>	(A/B) <sup>3</sup>	D <sup>4</sup>	E <sup>3</sup> /E <sup>4</sup>
380	I-280 to U.S. 101	F	F	F	F	F <sup>3</sup>	F <sup>3</sup>	E <sup>3</sup>	F <sup>3</sup>	F <sup>3</sup>	F <sup>3</sup>
380	U.S. 101 to Airport Access Road	C	A		A	B <sup>3</sup>	D <sup>3</sup> /C	A <sup>3</sup>	A <sup>3</sup>	C <sup>3</sup>	C <sup>3</sup>
Mission St	San Francisco County Line to SR 82	E	A	A	A	A	A	A	A	A	A
Geneva Ave.	San Francisco County Line to Bayshore Blvd.	E	A	A	A	A	A	A	A	A	A
Bayshore Blvd.	San Francisco County Line to Geneva Avenue	E	A	A	A	A	A	A	A	A	A

Notes:

<sup>2</sup> The first value represents LOS without exemptions, and the second value represents LOS with exemptions.

<sup>3</sup> Based on average speed from travel time surveys.

<sup>4</sup> Exemptions applied to volume-to-capacity ratios estimated from average speeds.

"-" = not applicable. LOS standard is not violated. Therefore, exemptions were not applied.

LOS Standard violations (after application of exemptions) are highlighted in red

LOS based on 1994 Highway Capacity Manual Methodology.

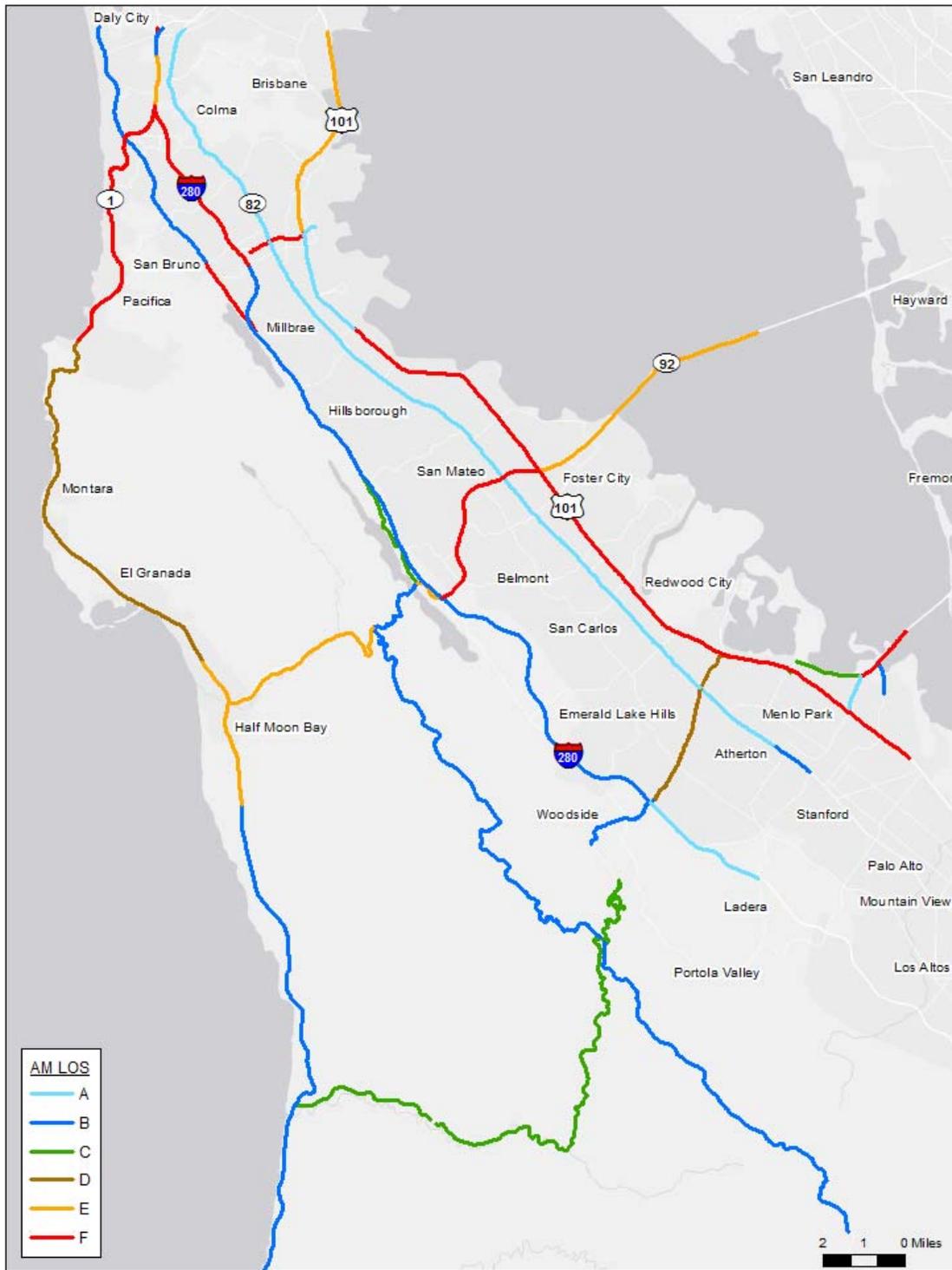


Figure 5 – AM LOS Results (before Exemptions)

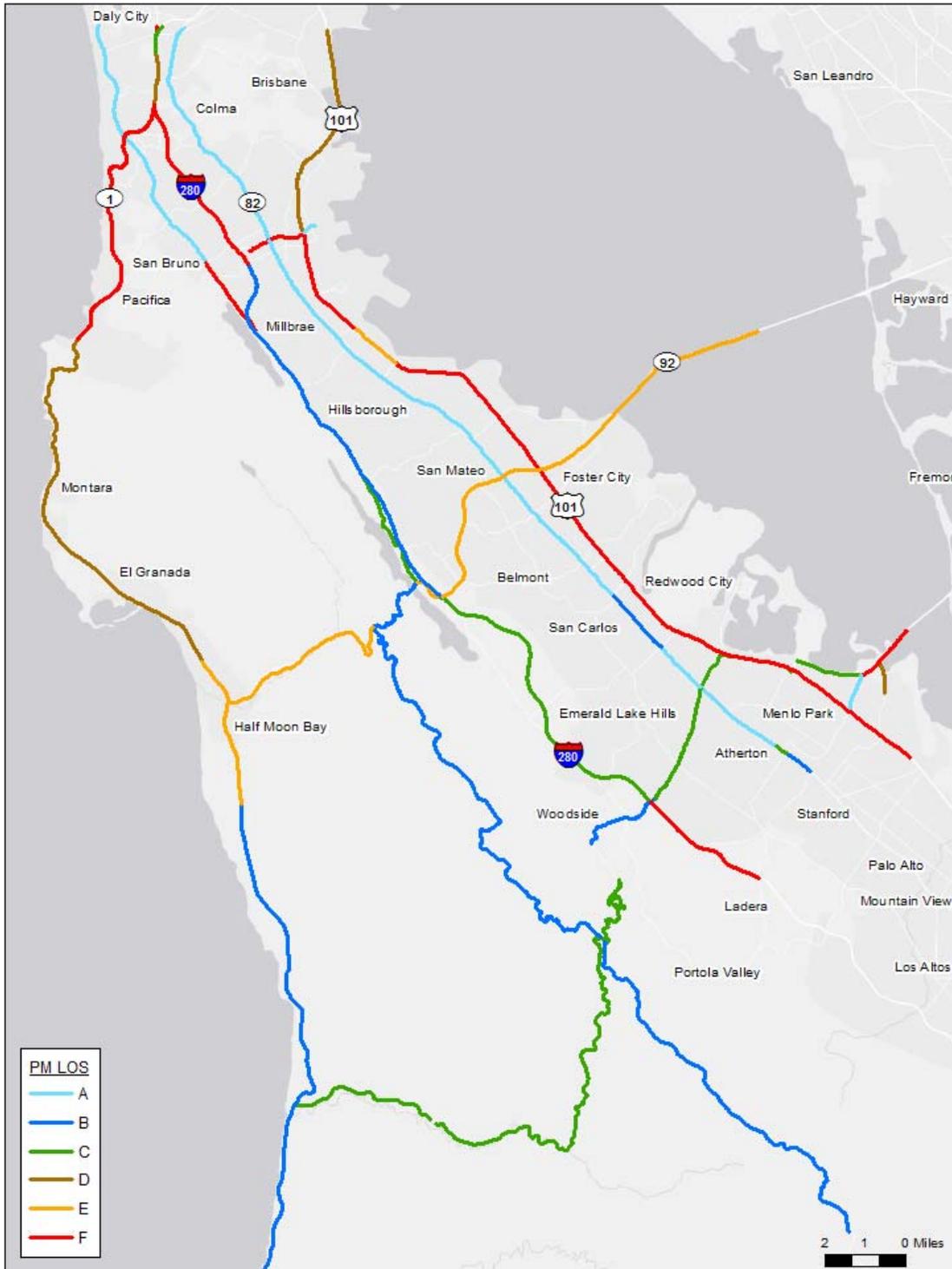


Figure 6 – PM LOS Results (before Exemptions)



Figure 7 – AM CMP Segments with LOS Lower than Standard (before Exemptions)



## F. REDUCTION IN VOLUMES DUE TO INTERREGIONAL TRIPS

The CMP-enabling legislation allows for the reduction in volume for those trips that are interregional. In this case, “interregional” are those trips that originate from outside the county. That is those that either traverse the county or have a destination within the county. For those CMP segments found with a LOS below the standard, the county travel demand model is used to determine the proportion of the volume estimated to be from interregional travel. As shown in **Table 3**, there were 12 segments that had at least one direction in either the AM or PM peak period that had a lower LOS than the established standard. **Table 4** includes the resulting percentage of traffic from the travel demand model that is estimated to be interregional by segment.

Table 4 – Interregional Trips for Segments with LOS Lower than Standard

Link	Segment	Time Period	AM Peak		PM Peak	
			Direction	NB / WB	SB / EB	NB / WB
SR 1	SF Co. Line to Linda Mar Blvd	AM NB & PM SB	3.2%			55.0%
SR 35	I-280 to SR 92	AM SB, PM SB		24.8%		31.1%
SR 84	University Ave to Willow Rd	AM WB & PM EB	91.7%			30.5%
SR 84	I-280 to Alameda de Las Pulgas	AM WB	2.6%			
SR 92	I-280 to US 101	AM EB/WB & PM	9.3%	40.7%	8.1%	45.0%
US 101	I-380 to Millbrae Ave	PM SB				56.1%
US 101	Millbrae Ave to Broadway	AM SB		50.7%		
US 101	Broadway to Peninsula Ave	AM SB & PM SB		46.1%		37.1%
US 101	SR 92 to Whipple	AM SB & PM NB		36.5%	26.9%	
I-280	San Bruno Ave to SR 1	AM NB/SB & PM	35.0%	67.9%	33.4%	
I-280	SR 84 to SC Co. Line	PM NB			91.6%	
I-380	Airport Access Rd - US 101 to I-280	AM WB	48.6%			

When applying reductions, they can be deducted directly for those where V/C is the performance measure used, but for those segments that use floating car to determine the average speed of a segment, a few extra steps are required to reflect the exemption. As mentioned earlier, freeway LOS is primarily determined based on density, but historically, the LOS Monitoring Study has made use of the LOS tables as included in the HCM 1994 that include reference speeds for given free-flow speeds and LOS. In order to reflect the reduction, the V/C must first be estimated from the same tables. This adds a level of error given that density is the preferred performance measure and the methodology is to use a secondary measure to estimate another secondary measure, take the reduction, and then reverse the calculation using the V/C and determine the adjusted LOS with the exemption.

## G. DEFICIENT CMP SEGMENTS

After incorporating the reduction in volume for those segments found to have a LOS lower than the standard, while the AM peak period has 3 segments deficient, the PM peak period was found to have one deficient, as shown in **Figures 9 and 10**. Those include the following:

- AM – Northbound SR 1 between SF County line and Linda Mar Blvd
- AM – Westbound SR 84 between I-280 and Alameda de Las Pulgas
- AM – Eastbound and Westbound SR 92 between I-280 and US 101
- PM – Eastbound and Westbound SR 92 between I-280 and US 101

While the worst LOS of either peak period has historically been presented in the summary table, the individual peak periods have been separated for improved analysis in the body of the report this year and not just in the appendix as in the past. The segment deficient in the PM period is also highlighted in Table 3 and is SR 92 between I-280 and US 101. The LOS standard is D and was found to be LOS F with and without the interregional traffic exemption of 45% during the PM peak period. This is a similar result to the 2011 study when this same segment was the only one deficient after applying the interregional trip reduction.





Figure 10 – PM Deficient Segment after Exemption

## H. INTERSECTIONS

Sixteen intersections were analyzed as part of the 2013 LOS Monitoring. These intersections have been included in previous studies since 1999 and are included in **Table 5** for reference. The performance measure for intersections is LOS, but different from freeways and highways, the HCM 2000 was used to determine the LOS. Turning movement counts were collected for each intersection during the AM and PM peak periods and modeled in Synchro. The intersections were analyzed as if they were isolated (not coordinated or part of a signal system) and optimized given the current geometry. The modeled results provide an estimate of the optimized LOS and may not represent the actual conditions if the intersection is either using less than optimal phasing, splits or cycle length.

**Table 5** includes the results for the 2013 study as well as those back to 2005 using the HCM 2000 methods. As highlighted in the table, all intersections are operating (under optimized signal timing) within established LOS standards. Intersection 5 is operating at standard and should be monitored to avoid exceeding the established LOS standard. Intersections 11 and 12 are operating at LOS F which is the standard at those locations, but should be evaluated for possible improvements.

Table 5 – Intersection LOS

Int #	Intersection	LOS Standard	Peak Hour	2000 HCM Method					2013 Standard Exceeded
				2013 LOS	2011 LOS	2009 LOS	2007 LOS	2005 LOS	
1	Bayshore & Geneva	E	AM	B	B	C	B	C	No
			PM	B	B	C	C	C	No
2	SR 35 & John Daly Blvd	E	AM	C	C	B	B	B	No
			PM	C	C	C	B	C	No
3	SR 82 & Hillside/John Daly	E	AM	C	B	C	C	C	No
			PM	C	C	D	C	D	No
4	SR 82 & San Bruno Ave	E	AM	C	C	C	C	C	No
			PM	C	C	D	D	D	No
5	SR 82 & Milbrae Ave	E	AM	E	F/D	E	E	E	No
			PM	D	E	D	E	E	No
6	SR 82 & Broadway	E	AM	B	B	B	B	B	No
			PM	B	B	A	B	B	No
7	SR 82 & Park-Peninsula	E	AM	C	C	B	B	B	No
			PM	C	C	B	B	B	No
8	SR 82 & Ralston	E	AM	C	C	D	D	E	No
			PM	D	C	D	D	E	No
9	SR 82 & Holly	E	AM	C	C	C	C	C	No
			PM	C	C	D	C	C	No
10	SR 82 & Whipple Ave	E	AM	C	C	C	C	D	No
			PM	C	C	D	D	D	No
11	University & SR 84	F	AM	E	C	B	B	B	No
			PM	F	F	F	F	E	No
12	Willow & SR 84	F	AM	D	C	C	C	C	No
			PM	F	E	F	F	E	No
13	SR 84 & Marsh Rd	F	AM	D	D	C	C	C	No
			PM	D	E	F	D	C	No
14	Middlefield & SR 84	E	AM	D	C	D	D	D	No
			PM	D	D	D	D	D	No
15	SR 1 & SR 92	E	AM	C	D	C	D	D	No
			PM	C	C	D	D	D	No
16	Main St & SR 92	F	AM	B	C	C	C	C	No
			PM	B	B	C	C	C	No

Figures 11 and 12 illustrate the finding for the intersection LOS. Each intersection is represented with two shapes. The larger one is the base and is the LOS Standard. The smaller shape in the middle is the resulting peak period LOS for the respective time period.

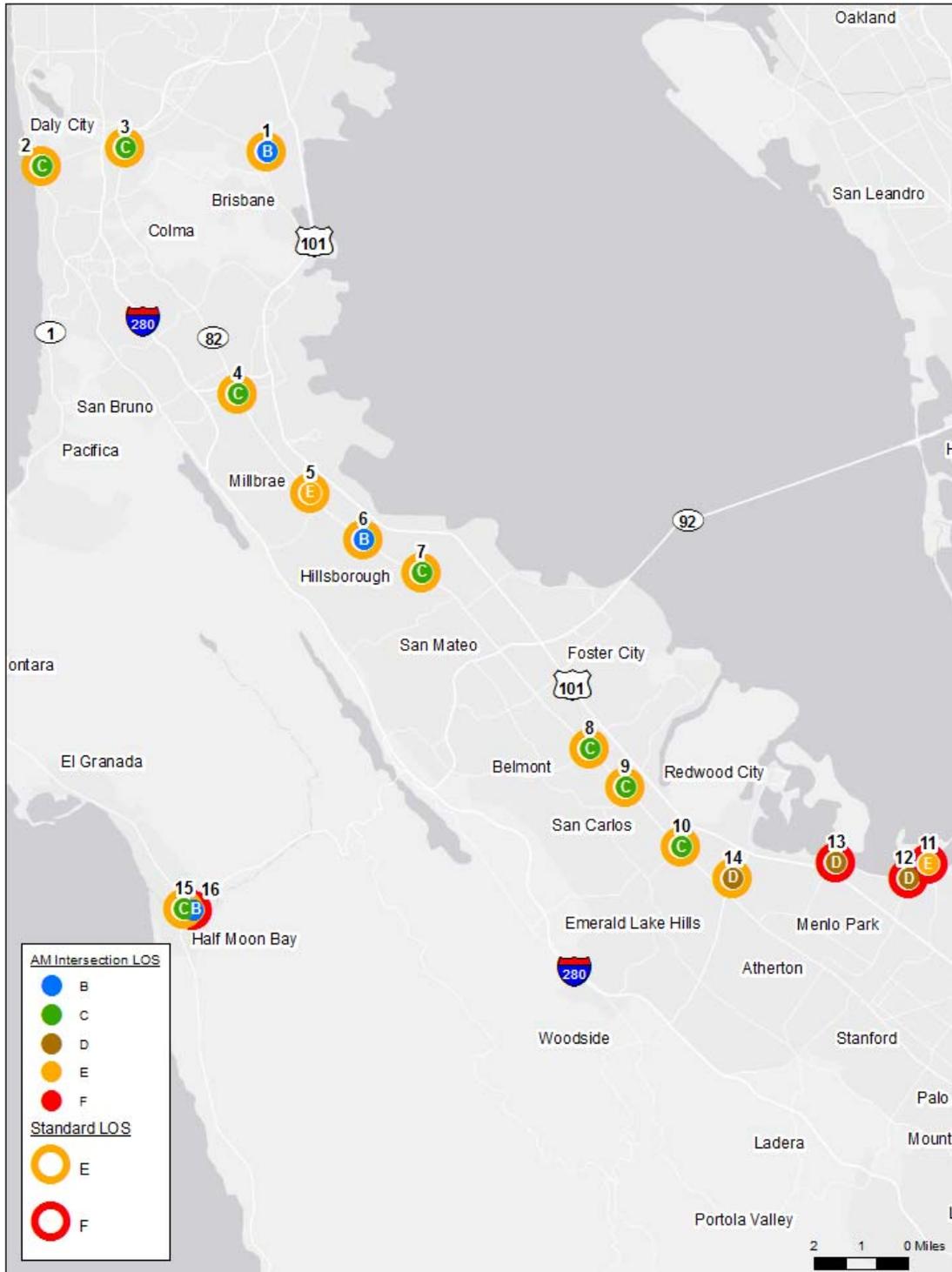


Figure 11 – AM Intersection LOS (Underlying Color is LOS Standard)

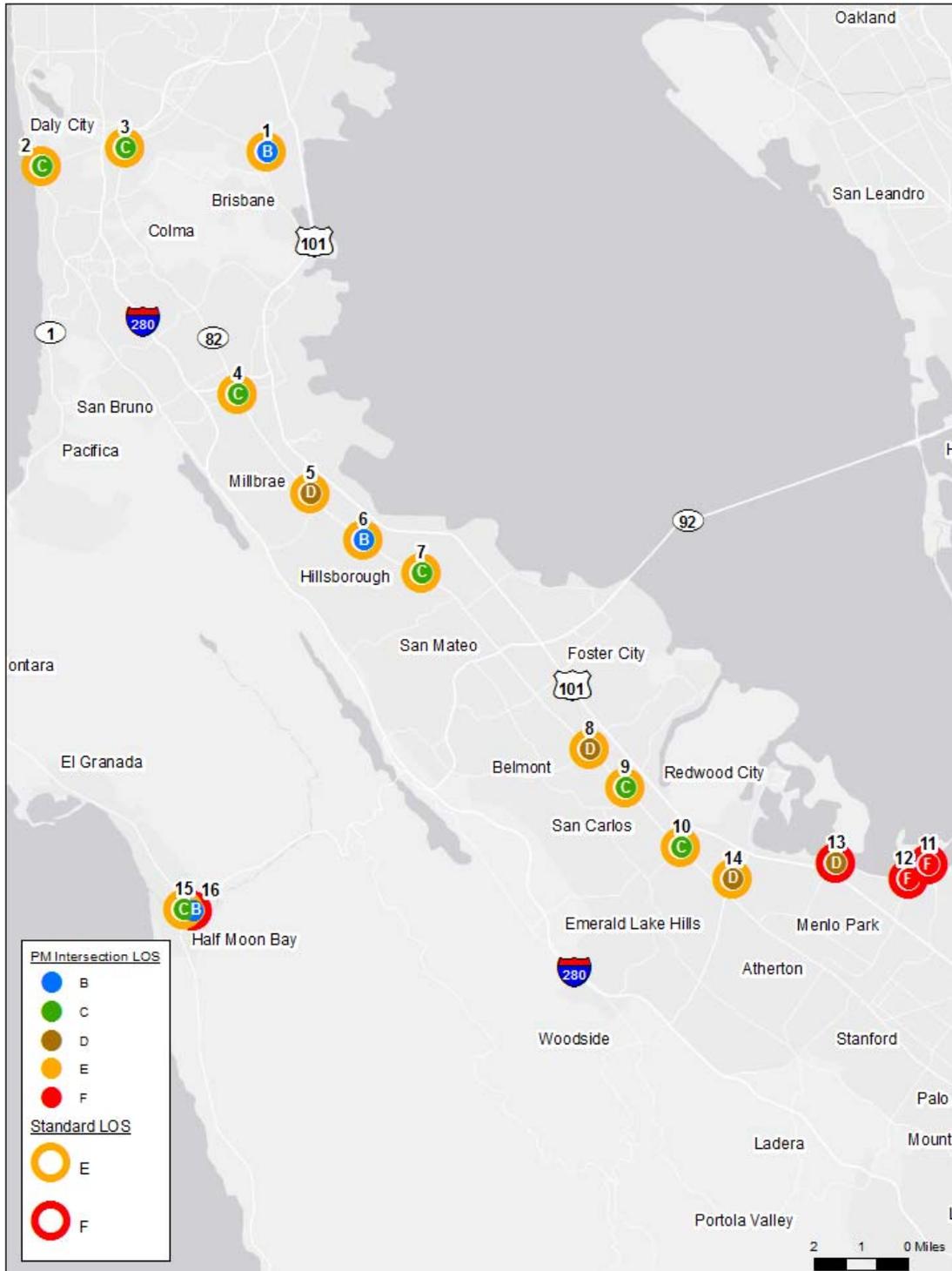


Figure 12 – PM Intersection LOS (Underlying Color is LOS Standard)

## I. 2013 MULTI-MODAL PERFORMANCE MEASURE MONITORING PROGRAM

Beginning in 1995, the Transit LOS Standard element of the San Mateo County CMP was replaced with the Performance Measure element. Four Performance Measures were selected and incorporated in the 1997 CMP Update and used each update cycle through 2009. The four measures are used to measure the performance of the overall multi-modal transportation system, including non-automotive modes. They are:

- Level of service,
- Travel times from single-occupant automobiles, carpools, and transit,
- Pedestrian and bicycle improvements, and
- Ridership / person throughput for transit.

This section presents the 2013 measurements of these performance measures and includes the historic results for context.

### Level of Service

The levels of service of the CMP corridors and segments are included in the previous sections of this monitoring report. The results show that one roadway exceeded the respective LOS standard following reflection of the interregional trips. For the 16 intersections included in the CMP network, all intersections were found to operated at or better than the established standard after incorporating exemptions.

### Travel Times for Single-Occupant Automobiles, Carpools, and Transit

This multi-modal performance measure compares the travel time of the various modes available in the US 101 corridor from the Santa Clara County line to the San Francisco County line. Those include using the general purpose lanes, using the carpool lane for the limits available, or using transit via SamTrans or Caltrain.

The general purpose travel times previously presented early in this report will represent the average time and speed for those using the general purpose lanes for the full length of the county along US 101.

The current limits of the carpool lane in San Mateo County are from the Santa Clara County line to Whipple Avenue. For those that are able to use this lane during the peak hours, the remainder of the run will take place in the general purpose lane.

Travel times for those using transit include the option to access SamTrans route KX along the US 101 corridor or Caltrain. The travel times for the transit options are represented based on the published schedules. Actual data collection for these routes was not performed but is shown consistent with methods used in previous LOS monitoring studies.

The travel times for the various mode options are included in **Table 6** below. The table includes the respective travel times, listed by direction and peak periods, for the current reporting period as well as previous years back to 2005.

Table 6 – Average Travel Time in US 101 Corridor (in minutes)  
Between San Francisco and Santa Clara County Lines

Mode	AM - Morning Commute Peak Period										PM - Evening Commute Peak Period									
	Northbound					Southbound					Northbound					Southbound				
	2013	2011	2009	2007	2005	2013	2011	2009	2007	2005	2013	2011	2009	2007	2005	2013	2011	2009	2007	2005
Auto - Single Occ.	28	29	30	26	31	41	34	28	35	38	30	32	33	33	33	33	40	29	30	35
Carpool - HOV Lane	32	28	30	26	30	37	30	26	31	31	37	30	32	31	32	32	35	27	29	32
Caltrain (Baby Bullet b/n Palo Alto and SF Stations)	38	35	35	35	42	38	31	31	34	42	40	34	34	38	42	37	35	35	34	42
SamTrans Route KX (b/n Palo Alto Station and SFO, would transfer to BART at SFO to County Line)	68	76	79	75	72	73	81	85	78	72	72	81	83	80	79	74	78	89	81	75

The AM and PM northbound auto travel times in the general purpose lanes have remained unchanged since 2009. In contrast, the southbound runs in the same general purpose lanes have increased in southbound direction in the AM and PM periods by as much as 21% (from 34 to 41 minutes in the AM period).

The carpool travel times have increased slightly in all cases other than the northbound AM period.

Caltrain has made minor changes to its schedules since 2009 on the Baby Bullet express that was introduced in 2005, thus the travel times have changed slightly from 2011 between the express stops of Palo Alto just south of the county line to the SF stop north of the county line since the last stop in San Mateo County is Millbrae.

The published schedule for SamTrans Route KX indicate a shorter travel time from that previously shown in 2011 for all directions and time. The KX route only goes as far north as SFO and requires a transfer onto BART to continue north to San Francisco. The times shown reflect the duration of the trip between Palo Alto and the airport.

### Pedestrian and Bicycle Improvements

The purpose of this performance measure is to maintain a focus on non-vehicular alternatives. This should be reflected in connectivity to transit and other modes to not only make connections convenient, but safe and attractive. During the CMP update process, seven-year Capital Improvement Program (CIP) projects are identified and evaluated. The top-ranked projects are forwarded to MTC to be evaluated in the regional process for State and Federal funding.

C/CAG developed the San Mateo County Comprehensive Bicycle and Pedestrian Plan (September 2011) to address the planning, design, funding, and implementation of bicycle and pedestrian projects of countywide significance. The Plan includes a policy framework to guide and evaluate implementation of projects identified by the local implementing cities and the County. To maximize funding available for bikeway projects, the Plan emphasizes projects that improves safety, promote access to jobs, and located within high population as well as employment densities. The Plan also establishes geographical focus areas for countywide investment in pedestrian infrastructure.

### Ridership / Person Throughput for Transit

The purpose of this performance measure is to document the number of patrons using the available transit options. Within San Mateo County, there are three options including SamTrans, Caltrain, and BART. BART has three stops that serve the county including the SFO Airport extension that opened in 2005, Colma, and Daly City.

The 2013 transit ridership data for SamTrans, Caltrain, and BART (Bay Area Rapid Transit) is included in **Table 7**. The FY 2013 data indicates annual and average weekday ridership for SamTrans has decreased slightly approximately 8% whereas Caltrain ridership has increased since FY 2011 over 20%. Data for BART an increase of over 10% for the Colma and Daly City stations and an increase of 15% for the SFO Extension stations. Total transit ridership indicates an increase of about 10% (annually and average weekday) when compared with FY 2011.

Table 7 – Transit Ridership

	Annual Total					Average Weekday				
	2013	2011	2009	2007	2005	2013	2011	2009	2007	2005
SamTrans	12,445,748	13,474,466	14,951,949	14,351,402	14,189,548	40,966	44,910	49,950	47,535	46,797
Caltrain	15,595,559	12,673,420	12,691,612	10,980,802	9,454,467	49,031	39,909	40,066	34,867	29,270
BART (Colma & Daly City)	7,778,180	7,014,816	7,026,186	6,864,974	6,211,514	27,102	23,598	23,711	23,214	20,992
BART (SFO Ext. Stations)	11,685,236	10,097,310	9,900,626	7,662,450	6,788,036	38,696	32,294	31,485	24,516	22,196
Combined Transit	47,504,723	43,260,012	44,570,373	39,859,628	36,643,565	155,795	140,711	145,212	130,132	119,255

## J. TRENDS AND NEXT STEPS

Overall between 2011 and 2013 there were a few areas that showed improvements while there were a larger number of segments in other areas that worsened especially in the AM Peak Period. A couple of specifics to highlight during the AM period that either improved a letter grade in LOS or over 10 mph faster travel time include the following:

- SR 84 between US 101 and Willow
- US 101 between I-380 and Millbrae Ave
- US 101 between Whipple Ave and the SC County Line
- SR 109 between Kavanaugh Drive and SR 84
- I-280 between SF County Line to SR 1 north

Similarly, for those that worsened a letter grade in LOS or slower by more than 10 mph during the AM period include:

- SR 82 between Hillside Ave and 42<sup>nd</sup> St
- SR 84 between Willow and University
- US 101 between Millbrae Ave and Broadway
- US 101 between Broadway and Peninsula
- US 101 between Peninsula and SR 92
- US 101 HOV between Whipple Ave and SC County Line
- I-280 between SR 1 north and SR 1 south
- I-280 between SR 1 south and San Bruno Ave
- I-280 between San Bruno Ave and SR 92
- I-280 between SR 92 and SR 84
- I-280 between SR 84 and SC County Line
- I-380 between I-280 and US 101

A few specific segments to highlight during the PM period that either improved a letter grade in LOS or over 10 mph faster travel time include the following:

- SR 1 between SF County Line and Linda Mar Blvd
- SR 82 between Holly St and Whipple Ave
- SR 82 between Whipple Ave and SR 84
- SR 84 between I-280 and Alameda de Las Pulgas
- SR 84 between Alameda de Las Pulgas and US 101
- SR 92 between I-280 and US 101
- SR 92 between US 101 and Alameda County Line
- US 101 between SF County Line and I-380
- US 101 between Millbrae Ave and Broadway
- SR 114 between US 101 and SR 84
- I-280 between SF County Line and SR 1 north
- I-280 between San Bruno Ave and SR 92

Similarly, for those that worsened a letter grade in LOS or slower by more than 10 mph during the

PM period include:

- SR 82 between Glenwood Ave and Santa Cruz Ave
- SR 82 between Santa Cruz Ave and Santa Clara County Line
- SR 84 between US 101 and Willow Rd
- US 101 between Peninsula Ave and SR 92
- US 101 HOV between Whipple Ave and SC County Line
- SR 109 between Kavanaugh Dr and SR 84
- I-280 between SR 1 north and SR 1 south
- I-280 between SR 1 south and San Bruno Ave
- I-280 between SR 92 and SR 84
- I-280 between SR 84 and SC County Line
- I-380 between I-280 and US 101

The LOS and Performance Measure Monitoring Report for many years has continued to use the 1994 Highway Capacity Manual as the basis for determining LOS for freeways, arterials and intersections. There have been a couple substantial updates to this manual over the years that not only changed the thresholds for determining LOS but also the methodology to be used over the last 15 years. With these changes have come new data sources that allow additional performance measures to be evaluated included travel time reliability and duration of congestion. Nationally, these performance measures are many times of more interest not only to planners and engineers but to drivers. A driver, many times is more concerned with the consistency or reliability with their travel time than they are with the actual conditions. That allows the driver to better plan their trip, departure time, and arrival time with some level of reliability.

It is recommended for the next update cycle in 2015 that C/CAG transition to the current 2010 HCM and also introduce the use of private sector data available through the Metropolitan Transportation Commission (MTC). After first being introduced in San Francisco and Marin counties in 2011, MTC has purchased a regionwide private sector dataset that is available to each county for their use and incorporation into the CMP efforts.

## **APPENDIX**

AM and PM Roadway LOS Tabular Results

*(Not included in this Draft Report)*

## TECHNICAL APPENDIX

- The technical details, database and support documents are included in a separate geographic information system (GIS) deliverable

*(Not included in this Draft Report)*

## **C/CAG AGENDA REPORT**

Date: August 15, 2013

TO: Congestion Management Technical Advisory Committee (TAC)

From: Sandy Wong, Executive Director

Subject: Make a recommendation on the proposed Highway Relinquishment Study for SR 82 El Camino Real/Mission Street

(For further information or response to questions, contact Sandy Wong at 650 599-1409)

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### **RECOMMENDATION:**

That the TAC make a recommendation on the Highway Relinquishment Study for SR 82 El Camino Real/Mission Street.

### **FISCAL IMPACT:**

Funding for this study is being sought with the Metropolitan Transportation Commission (MTC).

### **REVENUE SOURCES:**

NA.

### **BACKGROUND/DISCUSSION:**

On May 16, 2013, the TAC discussed this item and recommended to defer such study until the corridor functionality is further defined. That would include the operational functionality of the corridor in terms of bus operations, emergency relief route, smart corridor, etc.

The TAC committee was also concern about bringing up the corridor to standard in terms of ADA and other requirements.

On May 20, 2013, this item was presented to the CMEQ Committee. The CMEQ recommended to proceed with such study because the study will provide information (as decision making tool) on obligations, liabilities, and financial implication for relinquishment.

On June 13, 2013, the C/CAG Board discussed this issue as an "Information Item". The discussion indicated there was no interest in relinquishment study unless there is funding for relinquishment.

On August 8, 2013, the C/CAG Board received a presentation from Russ Hancock, Co-Chair of GBI Task Force, Executive Director of Joint Venture Silicon Valley. The C/CAG Board directed staff to provide detail information regarding the proposed study.

### **ATTACHMENTS**

- Draft Conceptual Level Workslope
- May 16, 2013 Staff Report.

## **ATTACHMENT A**

### **DRAFT CONCEPTUAL LEVEL WORKSCOPE**

#### **Task 1: Describe Caltrans' Process for Relinquishment of State Highways**

- Include description of relinquishment type, relinquishment conditions, key agency stakeholders and procedures for relinquishment of State highways to local agencies.
- Cite legislative statutes and policies.

#### **Task 2: Clarify Roles and Responsibilities of Stakeholders (Caltrans, Local Agencies, MTC...)**

- Identify scope and types of inter-agency agreements to be prepared (e.g., MoUs, RFI, PIDs...) and agencies responsible for the preparation.
- Describe the collaboration, negotiation and review processes between the stakeholders, specifically among the cities and intra-agency departments that would be participating in these discussions.
- Explore potential ownership options.

#### **Task 3: Describe Calculations for Cost Analysis and Identify Potential Funding Sources**

- Assess existing conditions of SR 82 corridor for Santa Clara and San Mateo counties by county and city, and the estimated cost to bringing the roadway to a state of good repair.
- Investigate how much Caltrans has spent to operate and maintain SR 82 corridor in Santa Clara and San Mateo counties for past 5, 10 and 20 year periods if data is available.
- Provide cost estimates for relinquishment and annual operations and maintenance for subsequent 10 years following relinquishment and identify funding sources typically used to support the relinquishment process and on-going maintenance of the corridor. Include breakdown of costs that cities already cover (e.g. some cities already maintain sidewalks and median landscaping) as well as increased cost associated with full roadway maintenance.

#### **Task 4: Provide Examples of Recent Relinquishments in the Bay Area and Other Areas of the State**

- Compile examples of relinquishment projects in the Bay Area and other areas of relinquishment interest in the State and summarize key common elements in a table format for comparison (e.g., relinquishment of SR 82 and SR 130 in San Jose and SR 238 in Hayward). Also include discussion on local motivation(s) for relinquishment and anticipated benefits.
- Compare lengths of corridor, cost per mile for relinquishment and maintenance, inventory of roadside assets (e.g., traffic signal controllers, street light poles, length of sidewalk and curb/gutter...).

#### **Task 5: Estimate Level of Effort and Schedule for Relinquishment**

- Describe level of effort for relinquishment from planning phase to implementation phase including staffing resources and budget.
- Identify funding responsibilities for relinquishment planning and implementation.
- Provide outline of tasks and schedule, including duration and next steps.

**C/CAG AGENDA REPORT**

Date: May 16, 2013  
TO: C/CAG CMP Technical Advisory Committee (TAC)  
From: Sandy Wong, Executive Director  
Subject: Provide comments and input on Highway Relinquishment Study for SR 82 El Camino Real/Mission Street

(For further information or response to questions, contact Sandy Wong at 650 599-1409)

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**RECOMMENDATION:**

That the TAC provide comments and input on Highway Relinquishment Study for SR 82 El Camino Real/Mission Street.

**FISCAL IMPACT:**

Funding for this study is being sought with the Metropolitan Transportation Commission (MTC).

**REVENUE SOURCES:**

NA.

**BACKGROUND/DISCUSSION:**

Relinquishment, as defined by Caltrans, is the act of transferring the property rights, liability and maintenance responsibilities (ownership) of a portion of a state highway to another entity.

State legislation allows for the relinquishment of highways under certain conditions. These conditions relate to the change in characteristics and functionality of the roadway where the highway no longer operates as originally designed. An example of a typical situation is a highway (such as SR 82 El Camino Real) that runs through the middle of a city or town. The relinquishment process includes an assessment by both Caltrans and local agency, followed by a State review, to determine if the highway segment in evaluation serves regional statewide transportation needs and if a relinquishment would be in the best interest of both entities.

One of the benefits of relinquishment is that it allows local agencies and their communities to be more creative and flexible in making improvements to the roadway facility.

SR 82 El Camino Real/Grand Boulevard Initiative:

SR 82 El Camino Real is one of the oldest State highways in the Bay Area. Over fifty years ago, this route was an important highway for regional and statewide mobility. Today, the regional significance of this local state highway has been superseded by US 101 and I-280 freeways with El Camino Real functioning more as a conventional street or boulevard. The section of El Camino Real that is being evaluated by the Grand Boulevard Initiative (GBI) extends for a length of 43 miles from

## ATTACHMENT

Mission Street in Daly City to The Alameda near the Diridon Caltrain Station in San Jose.

The GBI is a collaborative planning effort of 19 cities, counties, local and regional agencies, as well as representatives from private businesses and non-profit organizations, to improve the performance, safety and aesthetics of the corridor. This effort is funded by various federal, state, local and private grant programs and foundations.

The vision of the Grand Boulevard Initiative as established by its committee and task force is to see the El Camino Real corridor “*achieve its full potential as a place for residents to work, live, shop and play, creating links between communities that promote walking and transit and an improved and meaningful quality of life.*” This vision also includes guiding principles that support and encourage compact mixed-use development, multimodal complete streets elements, managed parking and attractive public spaces along El Camino Real.

As part of the GBI planning discussions, one of the issues highlighted by the group was meeting Caltrans highway design standards versus developing multimodal complete streets designs desired by the local agencies. At its meeting on December 5, 2012, GBI Task Force requested staff to further explore the idea of relinquishment for SR 82 El Camino Real and the associated costs.

Since then, representatives from Caltrans, Metropolitan Transportation Commission (MTC), City/County Association of Governments of San Mateo County (C/CAG), San Mateo County Transit District (SamTrans) and Santa Clara Valley Transportation Authority (VTA) have met and prepared a conceptual workscope that outlines an approach for studying the relinquishment of SR 82 El Camino Real.

At its last meeting on March 27, 2013, the GBI Task Force expressed interest in moving forward with the conceptual workscope and requested VTA and C/CAG staff to inquire if their respective local agencies would also be interested in the relinquishment study with the understanding that the funding would be sought from MTC. Attached is a copy of the memorandum and conceptual workscope that was presented to the GBI Task Force for consideration.

The key benefits of this study are that it would provide cities and counties with the following information:

- Understanding of Caltrans relinquishment policies and process.
- Assessment of existing conditions and public infrastructure along El Camino Real including estimated cost for relinquishment and annual maintenance including a discussion on exploration of potential funding sources.
- Case studies of recent highway relinquishments, including their relinquishment schedule, budget and staffing resources and next steps.

## ATTACHMENTS

GBI Staff Report and Draft Conceptual Level Workscope.



*From Mission St in Daly City, to El Camino Real and The Alameda in San Jose*

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**TF 2**

TO: Grand Boulevard Task Force

FROM: John Ristow, VTA

SUBJECT: **Update on Study of Relinquishment of El Camino Real**

DATE: March 27, 2013

At its December 5, 2012 meeting, the Grand Boulevard Task Force received a presentation from Hans Larsen, City of San Jose Director of Transportation, on the recent relinquishment of a portion of The Alameda (State Route 82), focusing on the City's experience with the Caltrans relinquishment process. The Task Force directed staff to further explore the idea of relinquishment for the remainder of State Route 82 in Santa Clara and San Mateo counties and its associated costs.

Representatives from Caltrans, Metropolitan Transportation Commission (MTC), Santa Clara Valley Transportation Authority (VTA), City/County Association of Governments (C/CAG) of San Mateo County, and the San Mateo County Transit District (SamTrans) met on February 20, 2013 at MTC's offices to discuss a study of the relinquishment of El Camino Real, including investigating the process, challenges, and cost estimates. Attached is a conceptual level workscope and map that was drafted by this group for the Grand Boulevard Initiative Task Force to consider for the first phase of a relinquishment study for State Route 82.

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***The Vision:***

*El Camino Real will achieve its full potential as a place for residents to work, live, shop and play, creating links between communities that promote walking and transit and an improved and meaningful quality of life.*

## **ATTACHMENT A**

### **DRAFT CONCEPTUAL LEVEL WORKSCOPE**

#### **Task 1: Describe Caltrans' Process for Relinquishment of State Highways**

- Include description of relinquishment type, relinquishment conditions, key agency stakeholders and procedures for relinquishment of State highways to local agencies.
- Cite legislative statutes and policies.

#### **Task 2: Clarify Roles and Responsibilities of Stakeholders (Caltrans, Local Agencies, MTC...)**

- Identify scope and types of inter-agency agreements to be prepared (e.g., MoUs, RFI, PIDs...) and agencies responsible for the preparation.
- Describe the collaboration, negotiation and review processes between the stakeholders, specifically among the cities and intra-agency departments that would be participating in these discussions.
- Explore potential ownership options.

#### **Task 3: Describe Calculations for Cost Analysis and Identify Potential Funding Sources**

- Assess existing conditions of SR 82 corridor for Santa Clara and San Mateo counties by county and city, and the estimated cost to bringing the roadway to a state of good repair.
- Investigate how much Caltrans has spent to operate and maintain SR 82 corridor in Santa Clara and San Mateo counties for past 5, 10 and 20 year periods if data is available.
- Provide cost estimates for relinquishment and annual operations and maintenance for subsequent 10 years following relinquishment and identify funding sources typically used to support the relinquishment process and on-going maintenance of the corridor. Include breakdown of costs that cities already cover (e.g. some cities already maintain sidewalks and median landscaping) as well as increased cost associated with full roadway maintenance.

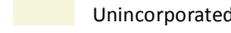
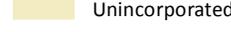
#### **Task 4: Provide Examples of Recent Relinquishments in the Bay Area and Other Areas of the State**

- Compile examples of relinquishment projects in the Bay Area and other areas of relinquishment interest in the State and summarize key common elements in a table format for comparison (e.g., relinquishment of SR 82 and SR 130 in San Jose and SR 238 in Hayward). Also include discussion on local motivation(s) for relinquishment and anticipated benefits.
- Compare lengths of corridor, cost per mile for relinquishment and maintenance, inventory of roadside assets (e.g., traffic signal controllers, street light poles, length of sidewalk and curb/gutter...).

#### **Task 5: Estimate Level of Effort and Schedule for Relinquishment**

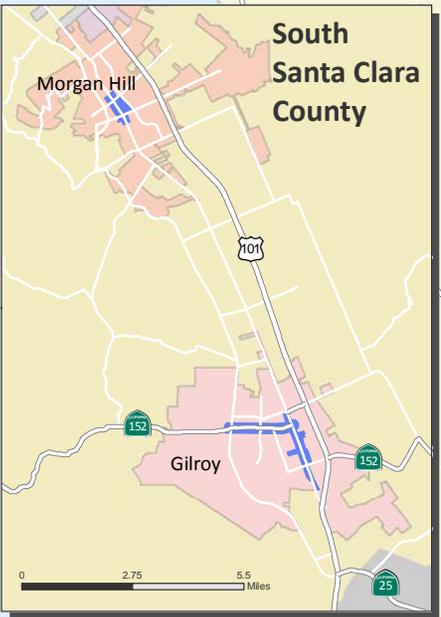
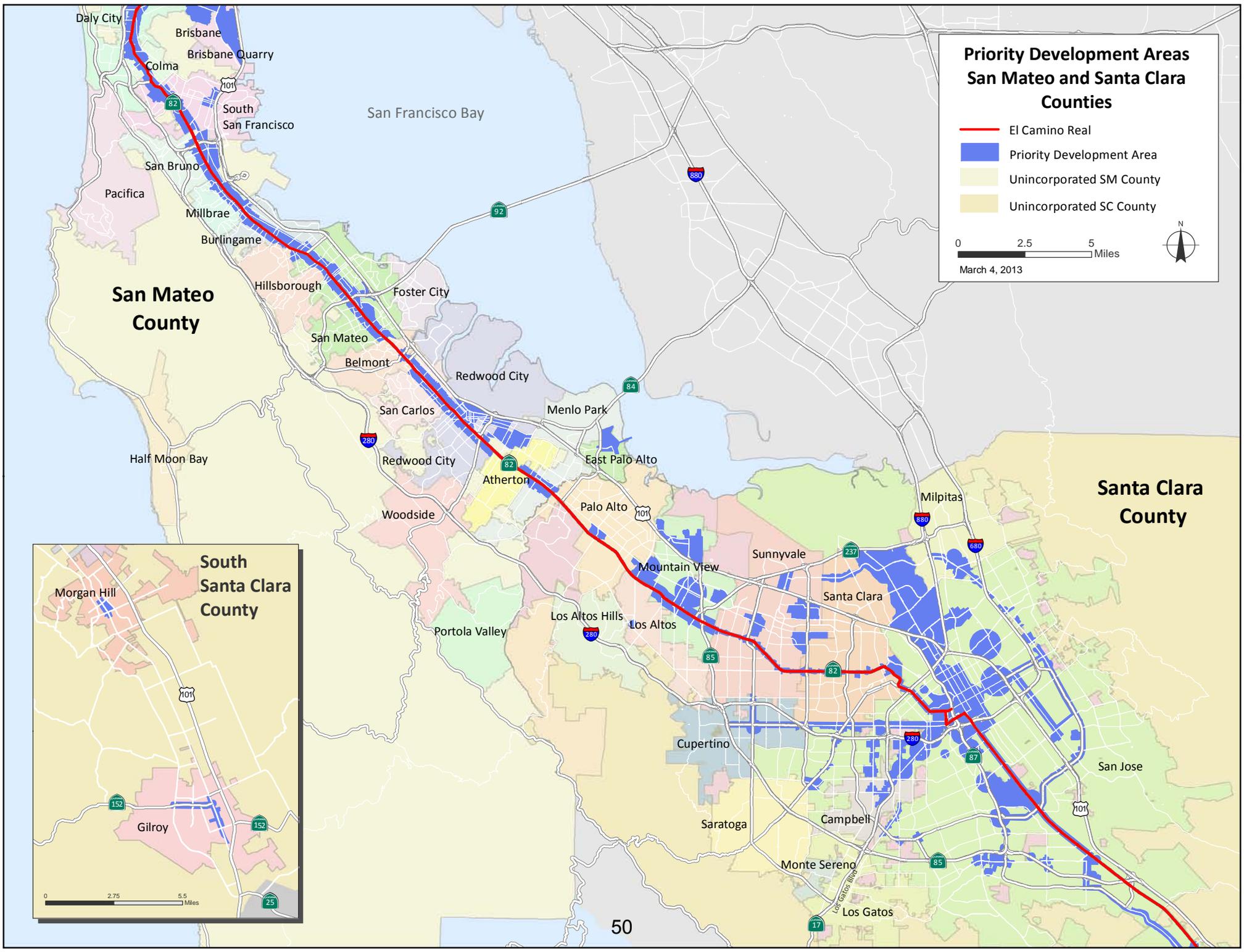
- Describe level of effort for relinquishment from planning phase to implementation phase including staffing resources and budget.
- Identify funding responsibilities for relinquishment planning and implementation.
- Provide outline of tasks and schedule, including duration and next steps.

# Priority Development Areas San Mateo and Santa Clara Counties

-  El Camino Real
-  Priority Development Area
-  Unincorporated SM County
-  Unincorporated SC County



March 4, 2013



# C/CAG AGENDA REPORT

**Date:** August 15, 2013

**To:** C/CAG CMP Technical Advisory Committee (TAC)

**From:** Jean Higaki, Transportation System Coordinator

**Subject:** Review and approval of a written response to the Revised Regional Project Delivery Policy for Regional Discretionary Funds (MTC Resolution 3606)

(For further information or questions contact Jean Higaki at 650-599-1462)

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## **RECOMMENDATION**

That the TAC review and approve of a written response to the Revised Regional Project Delivery Policy for Regional Discretionary Funds (MTC Resolution 3606).

## **FISCAL IMPACT**

None.

## **SOURCE OF FUNDS**

N/A

## **BACKGROUND/DISCUSSION**

C/CAG staff routinely attends meetings hosted by the Metropolitan Transportation Commission (MTC) and receives information distributed by the MTC pertaining to Federal funding, project delivery, and other regional policies that may affect local agencies.

At the July 11, 2013 Programming and Delivery Working Group meeting, MTC introduced proposed revisions to the Regional Project Delivery Policy for Regional Discretionary Funds (MTC Resolution 3606). The proposed revisions will introduce new regional delivery deadlines as well as new regional requirements associated with regional discretionary federal and state funds.

At the July 18, 2013 TAC meeting, the TAC requested that staff draft a response letter based on comments received from TAC members.

## **ATTACHMENTS**

1. Draft response to MTC Resolution 3606 revisions

# C/CAG

## CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

*Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park • Millbrae  
Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

August 15, 2013

Ross McKeown, Principal  
Metropolitan Transportation Commission  
101 Eighth Street  
Oakland, CA 94607-4770

**Subject: Comments on Revised Regional Project Delivery Policy for Regional Discretionary Funds Resolution 3606**

Dear Mr. McKeown,

The Revised Regional Project Delivery Policy for Regional Discretionary Funds (Resolution 3606) was introduced to the C/CAG Congestion Management Program Technical Advisory Committee (TAC) at their July 18, 2013 meeting.

Some of the comments and concerns raised by the TAC on the revised policy are as follows:

- The six month deadline to award construction contracts is only attainable in ideal conditions and can easily be missed in the event of bid protests, resolving contractor submittal issues, or the need to rebid projects. There should be a process in place for requesting extensions in these cases.
- The TIP program year appears to no longer be synchronized with the federal fiscal year, as the revised policy advances the obligation submittal deadlines by several months. This makes it difficult for project sponsors to determine the appropriate program year for a project if the project cannot deliver by the regional deadline but will deliver well in advance of the federal fiscal year's end.
- Currently, Caltrans prioritizes processing projects programmed in the current delivery year. MTC should establish new prioritizing procedures with Caltrans so that Caltrans will give priority to next fiscal year projects.
- Since the revised policy requires local public agencies to have a single point of contact for FHWA funds, we believe that MTC should provide resources and regular training to help local public agencies maintain this staff position.

- Are all LPAs that receive regional discretionary funds required to prepare and update a delivery status report on major delivery milestones or only those that miss delivery milestones and funding deadlines? The revised policy states that LPAs must keep this documentation in order to be “regionally qualified” but also makes the documentation a requirement of project sponsors that miss delivery milestones and funding deadlines.

Your consideration of these comments in the revision of Resolution 3606 is appreciated. If there are any questions please contact Jean Higaki at [jhigaki@smcgov.org](mailto:jhigaki@smcgov.org) or (650) 599-1462.

Sincerely,

Jim Porter, Chair  
Congestion Management Program  
Technical Advisory Committee

# C/CAG AGENDA REPORT

**Date:** August 15, 2013  
**To:** C/CAG CMP Technical Advisory Committee (TAC)  
**From:** Jean Higaki, Transportation System Coordinator  
**Subject:** Regional Project and Funding Information  
  
(For further information or questions contact Jean Higaki at 650-599-1462)

---

## **RECOMMENDATION**

This is an informational item.

## **FISCAL IMPACT**

None.

## **SOURCE OF FUNDS**

N/A

## **BACKGROUND/DISCUSSION**

C/CAG staff routinely attends meetings hosted by the Metropolitan Transportation Commission (MTC) and receives information distributed by the MTC pertaining to Federal funding, project delivery, and other regional policies that may affect local agencies. Attached to this report includes relevant information from MTC.

- FHWA policy for inactive projects - The current inactive list is attached. Project sponsors are requested to visit the Caltrans site regularly for updated project status at:  
<http://www.dot.ca.gov/hq/LocalPrograms/Inactiveprojects.htm>

Caltrans provides policy and procedural guidance to Caltrans and local agency staff for the management of Inactive Obligations at:

<http://www.dot.ca.gov/hq/LocalPrograms/InactiveProjects/Letter%20to%20Local%20agencies%20re-Inactive%20Obligations%202013-04-04.pdf>

- MTC's Regional Streets & Roads Program – MTC's Regional Streets & Roads Program (RSRP) staff is currently compiling the 2012 regional pavement condition summary report. This report is available at :  
[http://apps.mtc.ca.gov/meeting\\_packet\\_documents/agenda\\_2092/05b\\_2012\\_LS\\_R\\_Regional\\_PC\\_I\\_KPI\\_Memo.pdf](http://apps.mtc.ca.gov/meeting_packet_documents/agenda_2092/05b_2012_LS_R_Regional_PC_I_KPI_Memo.pdf)

The report will be released to the press in September 2013. Along with the PCI, MTC we proposes to include several key performance indicators (KPI). MTC is looking for feedback on the KPIs by August 12, 2013. You can reach Sui Tan at 510-817-5844, stan@mtc.ca.gov.

- Miscellaneous Federal Aid Announcements - MAP-21 established the Transportation Alternative Program (TAP) as a new program that provides for a variety of alternative transportation projects, including many that were previously eligible activities under separately funded programs. The TAP replaces the funding from pre-MAP-21 programs including Transportation Enhancements, Recreational Trails, Safe Routes to School, and several other discretionary programs, wrapping them into a single funding source. Final TAP Guidance is now available at: <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm> and related related TAP Q&As can be found at <http://www.fhwa.dot.gov/map21/qandas/qatap.cfm>

## **ATTACHMENTS**

1. Inactive list generated on 8/1/13

Inactive Obligations  
Local, State Administered/Locally Funded and Rail Projects

Updated on  
08/01/2013

Project No (newly added projects highlighted in GREEN)	Days until Inactive	FMIS transaction or deobligation by:	Agency/District Action Required	Prefix	District	Agency	Description	Latest Date	Authorization Date	Last Expenditure Date	Last Action Date	Program Codes	Total Cost	Federal Funds	Expenditure Amt	Unexpended Bal
5171019	Inactive	10/1/2013	Invoice under review by Caltrans. Monitor for progress.	CML	04	Burlingame	BROADWAY, BURLINGAME, CALIFORNIA, INSTALL STREET PEDESTRIAN LAMPS	4/4/2012	4/4/2012		7/25/2013	L40E	\$340,000.00	\$301,000.00	\$0.00	\$301,000.00
6014005	Inactive	10/1/2013	Submit invoice by 6/1/2013-- Invoice past due. Contact DLAE.	HPLUL	04	San Mateo County Transit District	EL CAMINO REAL , PE - MEDIAN LANDSCAPING/IRRIGATION	6/5/2012	4/15/2007	6/5/2012	6/5/2012	LY10, HY10	\$874,638.00	\$699,710.00	\$699,709.94	\$0.06
5935058	9	10/1/2013	Final invoice under review by Caltrans. Monitor for progress.	STPL	04	San Mateo County	CANADA, MIDDLEFIELD, SEMICIRCULAR, ALPINE, EDGEWOOD, CRESTVIEW, AC OVERLAY	8/17/2012	2/22/2011	8/17/2012	6/25/2013	L23E	\$1,514,762.00	\$1,266,813.00	\$1,040,514.95	\$226,298.05
5299012	20	10/1/2013	Submit invoice by 7/29/2013-- Invoice past due. Contact DLAE.	CML	04	Millbrae	EL CAMINO REAL AT VICTORIA AVENUE, INSTALL NEW SIGNAL, BUS PAD, AND PEDESTRIAN IMPROV	8/28/2012	4/25/2011	8/28/2012	8/28/2012	L40E	\$457,803.00	\$355,000.00	\$14,106.24	\$340,893.76
6204096	22	10/1/2013	Submit invoice by 7/31/2013-- Invoice past due. Contact DLAE.	HPLUL	04	Caltrans	ON SR101 FROM EMBARCEDERO TO UNIVERSITY, INSTALL AUX LANES	8/30/2012	2/3/2012	8/30/2012	8/30/2012	LY10, HY10	\$12,648,000.00	\$1,619,820.00	\$1,619,615.80	\$204.20
5268004	41	10/1/2013	Final invoice under review by Caltrans. Monitor for progress.	ESPLEHP	04	Belmont	OVERCROSS SR101 NORTH RALSTON EXIT, PEDESTRIAN OVERCROSSING	9/18/2012	8/21/2009	9/18/2012	9/18/2012	LY20, HY20, C220	\$3,077,147.00	\$2,852,000.00	\$2,846,689.05	\$5,310.95
5935062	76	10/23/2013	Submit invoice to District THIRTY days prior to date on left.	BPMP	04	San Mateo County	UNINCORPORATED AREAS OF SAN MATEO COUNTY NEAR MENLO PARK,SAN GREGORIO & PESCADAR, BRIDGE PRECENTATIVE MAINTENANCE	10/23/2012	3/16/2012	10/23/2012	10/23/2012	L1CE	\$100,000.00	\$88,530.00	\$19,983.07	\$68,546.93
5935053	90	11/6/2013	Submit invoice to District THIRTY days prior to date on left.	BRLO	04	San Mateo County	SKYLINE BLVD CROSSING LOWER CRYSTAL SPRINGS DAM AREA IN SAN MATEO COUNTY, BRIDGE REPLACEMENT(TC)	11/6/2012	7/8/2011	11/6/2012	11/6/2012	L1CE	\$114,404.00	\$114,404.00	\$62,845.94	\$51,558.06
5177028	104	11/20/2013	Submit invoice to District THIRTY days prior to date on left.	HSIPL	04	South San Francisco	GRAND AVE/ MAGNOLIA AVE, TRAFFIC SIGNALS INSTALLATION	11/20/2012	10/24/2011	11/20/2012	11/20/2012	LS3E	\$74,250.00	\$66,825.00	\$663.70	\$66,161.30
6204060	120	12/6/2013	Submit invoice to District THIRTY days prior to date on left.	HPLUL	04	Caltrans	RT 101 (BETWEEN 3RD AVE TO MILLBRAE AVE) , AUXILIARY LANES	12/6/2012	9/8/2006	12/6/2012	12/6/2012	LY10, HY10	\$3,374,624.00	\$2,699,699.00	\$1,364,308.41	\$1,335,390.59
5177030	127	12/13/2013	Submit invoice to District THIRTY days prior to date on left.	BRLS	04	South San Francisco	SAN BRUNO CANAL BRIDGE AT SOUTH AIRPORT BOULEVARD, BRIDGE REPLACEMENT	12/13/2012	12/13/2012		12/13/2012	M240	\$407,500.00	\$360,760.00	\$0.00	\$360,760.00
6014009	127	12/13/2013	Invoice under review by Caltrans. Monitor for progress.	HP21L	04	San Mateo County Transit District	VICTORIA AND SR82 (EL CAMINO REAL), INSTALL TRAFFIC SIGNAL	12/13/2012	4/25/2011	12/13/2012	12/13/2012	LY10	\$585,881.00	\$438,000.00	\$8,357.08	\$429,642.92
5029028	132	12/18/2013	Submit invoice to District THIRTY days prior to date on left.	CML	04	Redwood City	SHOREWAY ROAD, SKYWAY ROAD, AIRPORT WAY, BIKE LANES, SIGNAGE, BIKE LANE IMPROVEMENTS	12/18/2012	10/18/2011	12/18/2012	5/17/2013	L40E, L400	\$173,489.08	\$168,489.08	\$147,527.25	\$20,961.83
5267015	154	1/9/2014	Submit invoice to District THIRTY days prior to date on left. DO NOT SUBMIT A JUSTIFICATION.	CML	04	San Carlos	OLD COUNTY RD, EAST SAN CARLOS, BIKE PATH, SIDEWALK WIDEN, LANDSCAPE	1/9/2013	1/11/2011	1/9/2013	1/9/2013	L40E, L400	\$3,280,034.00	\$2,221,000.00	\$369,993.86	\$1,851,006.14
5935052	154	1/9/2014	Submit invoice to District THIRTY days prior to date on left. DO NOT SUBMIT A JUSTIFICATION.	BRLO	04	San Mateo County	CRYSTAL SPRINGS DAM BRIDGE 35C0043 , ENVIRONMENTAL MITIGATION	1/9/2013	2/4/2010	1/9/2013	1/9/2013	L110	\$565,000.00	\$500,195.00	\$164,638.64	\$335,556.36