

## ALAMEDA COUNTY TECHNICAL ADVISORY COMMITTEE (ACTAC) MEETING NOTICE

**Tuesday, July 3, 1:30 P.M.** 1333 Broadway, Suite 300, Oakland, California 94612 (see map on last page of agenda)

Chairperson:Art DaoStaff Liaison:Matt ToddSecretary:Linda Adams

#### **AGENDA**

Copies of Individual Agenda Items are Available on the:
Alameda CTC Website -- www.AlamedaCTC.org

#### 1 INTRODUCTIONS

#### 2 PUBLIC COMMENT

Members of the public may address the Committee during "Public Comment" on any item <u>not</u> on the agenda. Public comment on an agenda item will be heard when that item is before the Committee. Anyone wishing to comment should make his or her desire known to the Chair.

3	CONS	SENT CALENDAR	
	3A	Minutes of June 5, 2012 – Page 1	A
	3B	Review Caltrans Memo Notifying New Disadvantage Business Enterprise (DBE) Requirements for Federal Projects – Page 7	A
4	ACTI	ON ITEMS	
	4A	Approval of Transportation Fund for Clean Air (TFCA) FY 2012/13 Final Program – Page 9	A
5	NON.	ACTION ITEMS	
	5A	Review of Vehicle Registration Fee Transportation Technology Program – Page 13	I
	5B	Review of Congestion Management Program: Annual Update of the Land Use Analysis Program Element, Fiscal Year (FY) 2011/2012 – <b>Page 17</b>	Ι
	5C	Review of 2012 Level of Service Monitoring Study Draft Results – Page 25	I
	5D	Review of Draft 2011 Performance Report: State of Transportation in Alameda County – <b>Page 79</b>	Ι
	5E	Review of Countywide Bicycle and Pedestrian Plans – Page 95	Ι

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5F	Review of Annual Countywide Pedestrian and Bicycle Count Program, Count Sites and 2012 Counts Report (2002-2011) – <b>Page 117</b>	I
5G	Review of Plan Bay Area Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) – <b>Page 169</b>	Ι
5H	Review of Measure B Pass-through Compliance Report Process for FY 2011-12 – Page 191	I
51	Review Metropolitan Transportation Commission (MTC) Presentation on Complete Streets *	Ι
5J	Review of California Transportation Commission (CTC) June 2012 Meeting Summary – <b>Page 195</b>	I
6 LEG	ISLATIVE PROGRAM UPDATE	
6A	Review Legislative Program Update*	I
7 STA	FF AND COMMITTEE MEMBER REPORTS	

7A Review of Local Streets and Roads Working Group (LSRWG) Update *No Meeting held in June* 

#### 8 ADJOURNMENT AND NEXT MEETING: September 4, 2012

Key: A- Action Item; I – Information Item; \*Material will be provided at meeting.

(#) All items on the agenda are subject to action and/or change by the Committee.

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Alameda County Transportation Commission 1333 Broadway, Suites 220 & 300, Oakland, CA 94612 (510) 208-7400 (510) 836-2185 Fax (Suite 220) (510) 893-6489 Fax (Suite 300) www.alamedactc.org



#### ALAMEDA COUNTY TECHNICAL ADVISORY COMMITTEE MINUTES of June 5, 2012

#### 1 INTRODUCTIONS

#### 2 PUBLIC COMMENT

#### 3 CONSENT CALENDAR

- 3A Minutes of May 8, 2012
- 3B Review Caltrans Memo Proposing Hazardous Materials Languages Into Caltrans' Relinquishment Agreement Template

A motion was made by Don Frascinella (Hayward) to approve the consent calendar. Kunle Odumade (Fremont) seconded the motion. The motion passed unanimously.

#### 4 ACTION ITEMS

#### 4A Approval of the Guaranteed Ride Home (GRH) Program Annual Evaluation Report and Scope of Work for the GRH Request for Proposals

Diane Stark requested ACTAC to recommend the Commission approve the Annual Evaluation Report and Scope of Work for the Guaranteed Ride Home (GRH) Program. She gave a brief overview stating that the current (GRH) program has TFCA funding approved by the Board through November 2013. She noted that the goal of the program is to reduce vehicle trips and urge people to get out of their cars. She stated that the recommendations may include continuing the program with cost efficiencies, establishing employer or employee fees, and other funding options, in conjunction with possible expansion as part of a comprehensive countywide TDM program, , or transferring it into a regional or multiple county program or phasing it out. A motion to approve staff recommendation was made by Matt Nichols (Berkeley), and seconded by Jaimee Bourgeois (Dublin). The motion passed unanimously.

#### 4B Approval of Final Vehicle Registration Fee (VRF) FY 2012/13 Strategic Plan

Vivek Bhat requested ACTAC recommend the Commission approve the Final Vehicle Registration Fee (VRF) FY 2012/13 Strategic Plan. He reported that the Measure F Alameda County Vehicle Registration Fee (VRF) Program was approved by the voters in November 2010. He stated that the fee will generate about \$10.7 million per year, and that this program has four categories, with 60% going to Local Streets and Roads, 25% going to transit, 10% to technology, and 5% to bike and pedestrian. He stated that the Final Strategic Plan was the same as the Draft Plan that was presented to the Committees and Commission at the May 2012 meeting. A recommendation was made to approve the final Strategic Plan at the June 28, 2012, Board meeting, and that staff bring back a funding plan for the local technology component in the following month. A motion was made by Mike Tassano (Pleasanton) and seconded by Don Frascinella (Hayward). The motion was passed unanimously.

#### 4C Approval of State Transportation Improvement (STIP) At Risk Report

James O'Brien reported on this item recommending that the Commission approve the STIP At

Risk Report, dated May, 31, 2012. He noted that the report includes a total of 37 ŠTIP projects that are being monitored for compliance with the STIP "Timely Use of Funds" provisions. He noted that there are ten Red zone projects which are considered at a high risk of non-compliance with the provisions. A motion was made by Kunle Odumade (Fremont) and seconded by Obaid Khan (Alameda). The motion passed unanimously.

#### 4D Approval of Federal Surface Transportation/Congestion Mitigation and Air Quality (STP/CMAQ Program At Risk Report

James O'Brien reported briefly on this item recommending that the Commission approve the Federal STP/CMAQ Program at Risk Report, dated May 31, 2012. He noted that the report includes 58 locally sponsored federally funded projects segregated by "zone", 22 of which are in the Red zone. Red zone projects are considered at a high risk of non-compliance with the provisions of MTC's Resolution 3606. A motion was made by Kunle Odumade (Fremont), seconded by Donna Lee (BART). The motion passed unanimously.

4E Approval of CMA Exchange Program Quarterly Status Monitoring Report
James O'Brien reported on this item recommending that the Commission approve the Quarterly
Status Report for CMA Exchange Projects, dated May 31, 2011. He noted that the CMA
Exchange Program provides funding for the projects programmed in the CMA Transportation
Improvement Program (CMATIP), which is a local fund source for the Alameda CTC. He noted
the report does not include the 2012 STIP/Measure B exchange project. The report notes that a
total of \$7.5 million of revenue has been received from Union City's CMA Exchange project
number 11, since the March 2012 report. A motion was made by Kunle Odumade (Fremont) and
seconded by Don Frascinella (Hayward). The motion passed unanimously.

#### 4F Approval of Transportation Fund for Clean Air (TFCA) At Risk Report, dated May 31, 2012

Jacki Taylor requested ACTAC to recommend the Commission approve the TFCA At Risk Report. She stated that the report includes active and recently completed projects programmed with Alameda County TFCA Program Manager funds. She also stated that the report segregates the active projects in the "Red, "Yellow", and "Green", zones based on upcoming project delivery milestones and that projects 11ALA03 and 11ALA07 will be moved from the red zone to the green zone for the Commission version of the report. A motion was made by Kunle Odumade, (Fremont), seconded by Don Frascinella (Hayward). The motion passed unanimously.

Approval of Draft FY 2012/13 Transportation Fund for Clean Air (TFCA) Program
Jacki Taylor recommended Commission approval of the Draft FY 2012/13 Transportation Fund
for Clean Air (TFCA). She stated that a total of \$364,982 in TFCA funding is available to
program to projects for FY 2012/13, and that staff is currently evaluating the projects proposed
for TFCA funding to confirm project eligibility and cost effectiveness. A motion was made by
Mike Tassano (Pleasanton), seconded by Donna Lee (BART). The motion passed unanimously.

#### 5 NON-ACTION ITEMS

5A Review of Countywide Transportation Plan (CWTP) and Transportation Expenditure Plan (TEP) and Update on Development of a Sustainable Communities Strategy (SCS)/Regional Transportation Plan (RTP).

Tess Lengyel provided the committee with an update on the Countywide Transportation Plan (CWTP). She stated that the cities of Alameda and Berkeley unanimously approved the TEP. Today the Alameda County Board of Supervisors unanimously approved placing the TEP on the ballot, it was moved by Supervisor Keith Carson, and seconded by Supervisor Scott Haggerty.

She also stated that at the May 24, 2012 meeting, the Commissioners approved **Agendante m**r<sup>3A</sup> placing this item on the ballot. She mentioned that the ordinance includes language that indicates that if voters do not approve an expenditure plan in the future (i.e. 2042), the Commission is not allowed to add new projects until the approval of a new expenditure plan. She said that if any of the members were interested in talking to people on the campaign, staff can get them the contact phone numbers, but cannot provide any additional information.

Beth Walukas reported that the CWTP was approved by the Steering Committee at the May 24, 2012 meeting, and the plan is going to the Commission in June. She noted that on May 17, 2012, ABAG/MTC held their first joint meeting with their executive board and commissioners. She noted that at the meeting the committee took action approving the Preferred Scenario, the SCS and the Transportation Investment Strategy, and adopted Resolution 4035, which is the One Bay Area Grant Program, as well as approving the draft RHNA methodology and releasing the draft RHNA numbers.

#### 5B Update on Metropolitan Transportation Commission's (MTC) One Bay Area Grant Program (OBAG)

Tess Lengyel reported briefly on this item, and provided an update on MTC's final One Bay Area Grant (OBAG) program. She noted that this program was approved by MTC on May 17, 2012. She also mentioned that the Complete Streets and Roads resolutions are due by January 31, 2013, and noted that proposed Projects are due by June 2013.

Dave Campbell (a member of the public) commented on the Master Program Funding Agreements and he stated that this program is very important to the East Bay Bicycle Coalition (EBBC).

Beth Walukas reported that staff will be completing the Countywide Bicycle and Pedestrian Plan in April 2013, and also adopting the LOS Monitoring Service and Guaranteed Ride Homes program.

# Tess Lengyel provided brief comments on this item, noting that a new approach will be implemented to more closely align the integration of policy developments with the updated Countywide Transportation Plan (CWTP) that will support the projects and programs included in the CWTP and the TEP. She also stated that staff will bring a recommendation for changes to the administrative code to reflect necessary changes to the agency that support current administrative

and legislative needs, and will also look at changing and expanding the structure of the ACTAC.

- Saravanna Suthanthira reported briefly on this item, stating that data for this service will be available in two weeks. She will be sending out an email to the committee in three weeks with the final sets of data, and a seperate list for the LOS data. She also asked the committee to contact her via email if they have any questions or comments on the LOS monitoring results.
- SE Review of California Transportation Commission (CTC) May 2012 Meeting Summary Vivek Bhat presented brief comments on this item. He noted that the May 2012 CTC meeting was held in Sacramento and there were ten items on the agenda pertaining to Alameda CTC programs. He also stated that the CTC approved allocations of approximately \$147 Million towards CMIA projects within Alameda County.

#### 6 LEGISLATIVE PROGRAM UPDATE

#### ACTAC Meeting - 07/03/12 Agenda Item 3A

#### 6A Review Legislative Program Update

Tess Lengyel provided a brief update and noted that on May 14, 2012, the Governor released the May Revise which revealed a higher shortfall than what was predicted in January. She noted that the deficit grew from a \$9.4 billion shortfall in January to \$15.7 billion, which will require additional cuts. She also noted that if the measure is not approved by the voters, education will see significant cuts beginning in January 2013. She added that the legislature has until June 15 to pass a balanced budget.

#### 7 STAFF AND COMMITTEE MEMBER REPORTS

Jaimee Bourgeois announced that this will be her last ACTAC meeting. She thanked all of the staff, and noted that she has been a member for five years and will miss the members of this committee.

Debbie Bell announced that she will not be able to attend the ACTAC meetuings for a few months, but will return in the future.

#### 7A Review of Local Streets and Roads Working Group (LSRWG) Update

Vivek Bhat reported that there will be a joint meeting on the Programming Delivery Working Group on June 18, 2012, at 9:30am. He also noted that Obaid Khan has completed one year as the ACTAC contact for the Local Streets and Roads Working Group. Keith Cooke nominated Obaid Khan to continue as the ACTAC contact for the LSRWG, and Matt Nichols seconded. Obaid volunteered to continue as the ACTAC contact for LSRWG.

#### 8 ADJOURNMENT AND NEXT MEETING:

Meeting adjourned at 3:50pm.

**NEXT MEETING:** July 3, 2012.

Location: Alameda CTC Offices, 1333 Broadway, Suite 300,

Oakland, CA 94612.

Attest by:

Linda Adams, Secretary

#### ACTAC Meeting - 07/03/12 Agenda Item 3A



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Oakland, CA 94612

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### ALAMEDA COUNTY TECHNICAL ADVISORY COMMITTEE JUNE 5, 2012 ROSTER OF MEETING ATTENDANCE

ROSTER OF MEETING ATTENDANCE ALAMEDA CTC COMMITTEE ROOM, OAKLAND, CALIFORNIA

JURISDICTION/
NAME ORGANIZATION PHONE # E-MAIL  1 Keth Volk Sanleandro 510-577-3439 Kooke egan leandro. Org
2. Kunle Odumade trement 510.494.4746 Kodumade & frement gov
3. Tom Ruark Union City 510-675-5301 thomas rounioncity org
4. Don Fraccinella Hayword 510-583-478 den frascinella chaquest-en.com
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6. Mike Tassano Pleasanton (925) 931-5670 MISSSANDE C. Pleasanton. ca. us
7. Beth Walukus Ala, CTC 510/208-7405 brahkescalemolacte, or
8. Mat Todd " 7420 mtadde "
Linda adam Alanda CTC (514) 208-7418 Ladame alamotacte sis
10. Ilm leugel Alameda CTC 208-7428 Hengel Calamda Tang
11. John Lee BART (510) 462-6282 dee 0 bart. gov
12. Matt Nichel Beteley 515-981-7063 mnichol Ocityoflekely.org
13. Bruce William Oakked 510-232-7229 builliamscookladuel.
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18 Dave Campbell EAST BAY BICYCLE COALITION dave. Campbeller 19. JOHN HEMIND Alaurda CTC 5xp-248-7414 ; heming@alamedactc.org
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#### DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR P.O. BOX 942873, MS-49 SACRAMENTO, CA 94273-0001 PHONE (916) 654-5266 FAX (916) 654-6608 TTY 711 www.dot.ca.gov Flex your power! Be energy efficient!

Agenda Item 3E

June 22, 2012

ALL CITIES AND COUNTIES IN CALIFORNIA METROPOLITAN PLANNING ORGANIZATIONS REGIONAL TRANSPORTATION PLANNING AGENCIES

#### Dear Directors:

The United States Department of Transportation (US DOT) has informed the California Department of Transportation (Caltrans) that the Disadvantage Business Enterprise (DBE) program waiver granted on August 7, 2008 has been rescinded. Contract goals for federally funded projects authorized on and after July 1, 2012, must include ALL DBE groups (African Americans, Asian Pacific American, Native American, Women, Hispanic American, and Subcontinent Asian American and any other groups whose members are certified as socially and economically disadvantaged).

As directed in the June 15, 2012, letter from the Federal Highway Administration (FHWA), Caltrans is transitioning to a New Race Conscious (RC) DBE program that will apply to Caltrans and Local Agency transportation projects funded with FHWA federal funds.

#### **Impacts to FHWA Funded Federal-aid Projects**

- All FHWA federally funded projects AUTHORIZED PRIOR TO JULY 1, 2012 shall follow the pre-July 1, 2012 RC DBE (Old RC DBE) procedures, i.e., contract goals shall include the four Underutilized DBEs (UDBEs). No change to contract goals or language or bid documents will be needed.
- FHWA federally funded projects AUTHORIZED ON JULY 1, 2012 THROUGH SEPTEMBER 30, 2012 may be authorized under the Old RC DBE procedures; however, PRIOR TO ADVERTISING, bid documents must be revised to comply with the new RC DBE requirements (i.e., contract goal calculations must include all DBE groups). Projects authorized on July 1 through September 30, 2012 and awarded that DO NOT COMPLY with the New RC DBE Program requirements will NOT be eligible for federal funds.
- Effective OCTOBER 1, 2012, all FHWA federally funded projects must comply with the new RC DBE requirements PRIOR TO AUTHORIZATION.

All Cities and Counties in California, et al June 22, 2012 Page 2

#### New Office Bulletin for Implementation of the New RC DBE Program

Caltrans Division of Local Assistance (DLA) is developing an Office Bulletin to address the implementation of the new RC DBE program (i.e., change from four UDBE groups to all DBE groups). The Office Bulletin is scheduled to be issued on July 1, 2012. To address implementation of the New RC DBE program, the Office Bulletin will address, but not be limited to the following:

- Procedures for the transition to and implementation of the New RC DBE Program requirements.
- Revised Local Programs Procedures Manual (LAPM) Exhibits required for implementation of the New RC DBE requirements.
- Revised consultant and construction contract specifications for use under the New RC DBE Program.
- Training (e.g., webinars) of local agencies on the New RC DBE requirements will be conducted by the Division of Local Assistance beginning the month of July 2012.
- For FHWA federally funded projects AUTHORIZED ON JULY 1, 2012 through SEPTEMBER 30, 2012 under the old RC DBE provisions, the local agency must sign a letter (to be submitted with their Request for Authorization) stating that the local agency has read and understands the new RC DBE Office Bulletin, requirements for transition to and compliance with the new RC DBE Program and acknowledges that NONCOMPLIANCE WILL MAKE THE PROJECT INELIGIBLE FOR FEDERAL FUNDS.

Caltrans will be discussing this topic with the MPOs and RTPAs at the June 26, 2012, RTPA meeting. If you have questions, please contact your District Local Assistance Engineer.

Sincerely,

MALCOLM DOUGHERTY

Director

Enclosure



#### Memorandum

**DATE:** June 22, 2012

**TO:** Alameda County Technical Advisory Committee

**FROM:** Matt Todd, Manager of Programming

Jacki Taylor, Program Analyst

**RE:** Approval of Transportation Fund for Clean Air (TFCA) FY 2012/13 Final

**Program** 

#### **Recommendation:**

It is recommended the Commission approve the TFCA FY 2012/13 final program. Attachment A details the final program.

#### **Summary:**

A total of \$364,982 in TFCA funding is available to program to projects for FY 2012/13. Six applications were received requesting a total of \$451,484. The final program is based on the completed project evaluation for TFCA eligibility and cost-effectiveness.

#### **Information:**

TFCA is a local fund source of the Bay Area Air Quality Management District (Air District). As the TFCA program manager for Alameda County, the Alameda CTC is responsible for programming 40 percent of the four dollar vehicle registration fee that is collected in Alameda County for this program. Eligible projects are those that conform to the provisions of the TFCA Guidelines and meet the requirement of achieving a cost-effectiveness, on an individual project basis, of equal to or less than \$90,000 of TFCA funds per ton of total reactive organic gases (ROG), oxides of nitrogen (NOx), and weighted particulate matter 10 microns in diameter and smaller (PM10) emissions reduced (\$TFCA/ton emissions reduced). Additionally, TFCA funded projects are required to collect data for monitoring requirements and submit annual and final project reports.

Per the current Alameda CTC TFCA Guidelines, 70% of the available funds are to be allocated to the cities/county based on population, with a minimum of \$10,000 to each jurisdiction. The remaining 30% of the funds are to be allocated to transit-related projects on a discretionary basis. A city or the county, with approval from the Alameda CTC Board, may choose to roll its annual "70%" allocation into a future program year. Since all available TFCA funds are to be programmed each year, a jurisdiction may borrow against its projected future year share in order to use rolled over funds in the current year. The preferred minimum TFCA request is \$50,000.

The Fund Estimate for the FY 2012/2013 program includes approximately \$1,775,000 in new programming capacity. This amount includes the five percent of available funding that is

#### ACTAC Meeting - 07/03/12 Agenda Item 4A

reserved for program administration. A total of \$1,430,000 of the FY 12/13 funding was previously programmed by the Alameda CTC in January 2012. The remaining \$364,982 available to program has been prioritized for transit and program operations. Consistent with this prioritization, all of the applications received were for projects that are currently funded with TFCA.

Attachment A details the final program. Staff worked with Sponsors and Air District staff to confirm project eligibility and cost effectiveness. A primary consideration for the amount of TFCA funding recommended for each project is the result of a project's cost-effectiveness evaluation. The amount of TFCA recommended for the City of Oakland Broadway Shuttle project is constrained due to the program cost effectiveness requirements. Because TFCA projects are required to be fully funded, the City of Oakland has clarified that it will be committing other funding sources to the Friday and Saturday evening service operations to make up for the \$130,000 shortfall between the amount of TFCA requested and the amount recommended.

The FY 2012/13 Expenditure Plan, which determines the amount of TFCA funding available to program was adopted by the Air District May 2, 2012. The Air District's programming guidelines allow up to 6 months from the date of the Air District's approval of the Expenditure Plan to approve additional projects if a balance of funds remains. Any remaining balance not programmed by the end of the 6-month period, November 2, 2012, will be returned to the Air District. To ensure that all available funds are programmed and avoid a remaining balance an additional \$44,346 over the amount requested is recommended to be programmed to LAVTA's Route 10. The project is the most cost-effective of LAVTA's three submitted projects and the amount of TFCA funds requested for FY 12/13 Route 10 operations is approximately \$40,000 less than the amount awarded for FY 11/12 operations. LAVTA has confirmed that the lower request for FY 12/13 was based on the lower TFCA fund estimate and not on reduced funding needs.

#### **Attachments:**

Attachment A: TFCA FY 2012/13 Final Program

# FY 2012/13 TFCA County Program Manager Fund Final Program

Sponsor	Project Name	Project Description	Total Project Cost	TFCA \$ Requested	TFCA \$ Recommended	Draft Cost- effectiveness
30% Transit Disc	30% Transit Discretionary Share					
California State University, East Bay	CSUEB Second (Peak Hours) Shuttle - Increased Service Hours	The shuttle connects the Cal State University East Bay campus to the Hayward BART station. TFCA currently funds a second shuttle bus for peak hour service from 7am-10am and 3pm-7pm. TFCA request is for expansion of service hours for the second shuttle to include operations during 10am - 3pm, allowing for continuous operations from 7am - 7pm for FY12/13.	\$313,350	\$56,350	\$ 56,350	\$51,290
LAVTA	Route 10 Service - BART to ACE to LLNL	Route 10 provide service between Dublin/Pleasanton BART, Livermore ACE and Lawrence Livermore Lab (LLNL). Route operates 7 days/week. TFCA request is for FY 12/13 operations.	\$4,301,183	\$100,000	\$ 144,346	\$27,413
LAVTA	Route 53 ACE Shuttle Service	Local feeder bus service that provides service to the Altamont Commuter Express (ACE) Pleasanton Station and the West Dublin/ Pleasanton BART Station, and the Stoneridge mall. TFCA request is for FY 12/13 operations.	\$136,718	\$34,180	\$ 34,180	\$51,507
LAVTA	Route 54 ACE Shuttle Service	Local feeder bus service that provides service between the Altamont Commuter Express (ACE) Pleasanton Station, the Dublin/Pleasanton BART Station and major employment centers including Stoneridge Mall, Bernal Business Park and Hacienda Business Park. TFCA request is for FY 12/13 operations.	\$149,198	\$37,299	\$ 37,299	\$21,768
City of Oakland	Broadway Shuttle - Fri and Sat evening Extended Service	The Free Broadway Shuttle operates between the Jack London Oakland Amtrak Station and Broadway at 27th Street at 11-16 minute frequencies Monday-Thursday 7am-7pm; Friday 7am-1am; and Saturday 6pm-1am. TFCA request is for a second year of Friday and Saturday evening service operations (Friday 7pm-1am and Saturday 6pm-1am).	\$166,148	\$166,148	\$35,300	\$89,887
City of Pleasanton	Pleasanton Trip Reduction Program	The project consists of a three-pronged approach to reducing trips including employer-based, residential-based and school-based programs. The project includes monitoring efforts through surveys. TFCA request is for FY 12/13 program operations.	\$179,000	\$57,507	\$57,507	\$71,093
		Total	\$5,245,597	\$451,484	\$ 364,982	
		TFCA Balan	TFCA Balance Available	\$364,982	\$364,982	
		(Over)/Under Amount Available	ınt Available	(\$86,502)	-	

ACTAC Meeting - 07/03/12 Agenda Item 4A Attachment A

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#### Memorandum

**DATE:** June 19, 2012

**TO:** Alameda County Technical Advisory Committee

**FROM:** Matt Todd, Manager of Programming

John Hemiup, Senior Transportation Engineer

**SUBJECT:** Review of Vehicle Registration Fee (VRF) Transportation Technology Program

#### Recommendation

This is an information item. No action is requested.

#### **Summary**

The goal of the VRF program is to sustain the County's transportation network and reduce traffic congestion and vehicle related pollution. The program includes four categories of projects to achieve this, including:

- Local Road Improvement and Repair Program (60%)
- Transit for Congestion Relief (25%)
- Local Transportation Technology (10%)
- Pedestrian and Bicyclist Access and Safety Program (5%)

At the June 2012 meeting ACTAC requested additional information on the Local Transportation Technology Program component.

#### **Background**

The East Bay SMART Corridors program is a cooperative effort by the Alameda County Transportation Commission (Alameda CTC) and 17 other partner agencies to operate and manage a multi-modal Advanced Transportation Management System (ATMS) to support four field elements:

- Closed Circuit Television (CCTV),
- Non-Intrusive Vehicle Detection System (VDS),
- Transit Priority equipment (Brand Opticom), and
- Communication link to the Tri-Valley Region

These field elements are located on, or connect to, the following four corridors:

- Interstate 80 /San Pablo Avenue Corridor,
- Interstate 880 Corridor,
- International Boulevard/Telegraph Avenue/East 14<sup>th</sup> Street (INTEL) Corridor, and
- Interstate 580/680 Tri-Valley Corridor

The data from the field elements are connected to a centralized server through leased AT&T Calnet T1 wire-lines, AT&T wireless communication modems and through local Traffic

Management Centers (TMC). The exception is the Tri-Valley corridor where the cities of Dublin, Livermore and Pleasanton maintain all their own field elements and the East Bay SMART Corridor accesses this data through a leased AT&T Opteman wire-line so it can be displayed on the East Bay SMART Corridor website (http://www.smartcorridors.com/accma/). Attachment A details field elements at an intersection and how the communication links are made to the co-location facility.

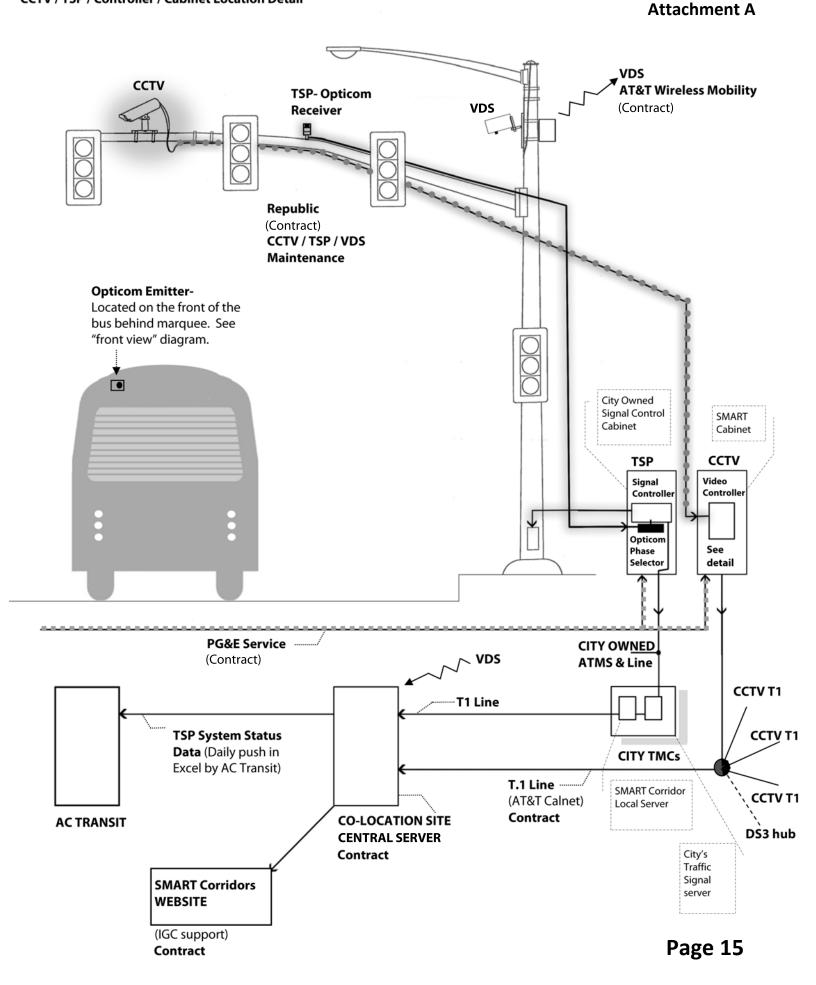
To maintain, operate and repair these field elements, communications lines, power, and a centralized server site requires the following funding:

Project Component	Budget for FY 11/12 & 12/13
Communications Costs	\$ 627,548
Tri-Valley Communications Cost	\$ 95,400
Rehabilitation of Field Devices	\$ 466,697
PG&E Power	\$ 108,912
Central Server	\$ 225,012
Software/website Management & Support	\$ 114,480
Field ATMS Maintenance	\$ 501,656
I-680 Express Lane Support	\$ 100,000
Legal Costs	\$ 9,600
Project Support Costs	\$ 179,520
TOTAL	\$ 2,428,825

Attachments

Attachment A: East Bay SMART Elements & Communications

**CCTV / TSP / Controller / Cabinet Location Detail** 



ACTAC Meeting - 07/03/12 Agenda Item 5A Attachment A

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#### Memorandum

**Date:** June 14, 2012

**To:** Alameda County Technical Advisory Committee (ACTAC)

**From:** Beth Walukas, Deputy Director of Planning

Diane Stark, Senior Transportation Planner

**Subject:** Review of Congestion Management Program: Annual Update of the Land Use

Analysis Program Element, Fiscal Year (FY) 2011/2012

#### Recommendation

This item is for information only. No action is requested.

#### **Summary**

ACTAC is requested to review the attached list of projects and 1) verify all projects are included; 2) inform staff if projects are complete; and 3) confirm that the information presented is accurate. The deadline for responses is July 31, 2012. The list of projects is part of the annual conformity requirements for the Land Use Analysis Program element of the Congestion Management Program (CMP).

#### **Background**

The Land Use Analysis Program information provided by staff is part of the annual conformity requirements to show that the jurisdictions are conforming with the CMP. The Land Use Analysis information covers the period from July 1, 2011 to June 30, 2012. This information will be included with three additional conformity requirements, listed below. Every year, as part of the conformity requirements for the Congestion Management Plan, jurisdictions are asked to provide evidence of complying with the following items:

- 1) (a) Tier 1 Land Use Analysis submit all Notice of Preparations, EIRs and General Plan amendments; (b) Tier 2 Land Use Forecasts- review of ABAG Projections by traffic analysis zones;
- 2) Traffic Demand Management Complete Alameda CTC's Site Design Checklist;
- 3) Payment of Fees; and
- 4) Deficiency Plans, as needed in some jurisdictions.

ACTAC Meeting - 07/03/12
Agenda Item 5B
Attachment A

ACTAC is requested to provide information on 1(a), above, the Land Use Analysis program, by reviewing and providing any changes to the attached table that shows Notices of Preparations, EIRs and General Plan amendments. By August, jurisdictions will be requested to provide the remaining items, 2, 3 and 4, above. A draft report showing the status of compliance will be brought to ACTAC in September and October, with a final to the Alameda CTC in December 2012.

**Attachments:** 

Attachment A: CMP – Land Use Analysis Program for the period

July 1, 2011 to June 30, 2012

# Attachment 1

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2)	Comments		DEIR Complete.			DSEIR Complete		DEIR complete.	Project approved and now inactive.	Specific Plan and EIR completed and adopted by the Dublin City Council in February 2011.	Addendum to 1993 EIR and 2002 & 2005 SEIR. City Council to review in March.	GPA to change from Semi-Pubic to residential. Preparing Addendum to 1993 EIR.	No project description yet for EIR.	No project description or CEQA review determined yet.	No project description or CEQA review determined yet.		
nalysis Program (for the period between July 1, 2011 to June 30, 2012)	CMA Response Date		4/27/2010	6/23/2011	12/6/2004 5/12/2008 6/30/2008	11/10/2011, 3/30/12	11/17/2011	12/20/2011, 4/26/12	6/11/2008	03/03/2010 11/3/2010						03/03/2010 11/3/2010	4/2/2012
tween July 1,	STATUS (Exempt/ Tier I)		Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1						Tier 1	Tier 1
(for the period be	APPLN NUMBER		NA	NA	NA		NA	State Clearinghouse #2011092011	PA 07-057	NA						NA	PLN 2010-0030
CMP - Land Use Analysis Program	Development Title		Eden Area General Plan	North Park Street Regulating Code	City of Berkeley Draft Southside Plan	West Berkeley Project	Acheson Commons Project	Berkeley Iceland Adaptive Reuse Project	Nielsen	Downtown Area Specific Plan	Capistrello	Brannigan GPA	Moller Ranch	Promenade GPA	Valley Christian GPA	Downtown Area Specific Plan	Downtown Community Plan
CMP	TIER I Review Category (GPA/NOP/EIR)	OJECTS - ACTIVE	DEIR	NOP	NOP/DEIR DEIR Completed DEIR	NOP/SEIR, DSEIR	NOP	DEIR	GPA, SPA, DEIR/NOP	NOP/DEIR DEIR	GPA	GPA	GPA	GPA	GPA	NOP/DEIR DEIR	DSEIR
	Jurisdiction	LAND USE RELATED PROJECTS - ACTIVE	Alameda County	Alameda (City)	Berkeley	Berkeley	Berkeley	Berkeley	Dublin	Dublin	Dublin	Dublin	Dublin	Dublin	Dublin	Dublin	Fremont
		I	1	2	3	4	ស	9	7	8	6	10	11	12	13	14	15

# R:\ACTAC\2012\7. July 2012\5B LUAP\5B Attachment A\_LUAP Table-July 1, 2010-June 30, 2011

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DEIR Complete.	DEIR complete			completed	completed	NOP issued 6/26/09. DEIR being prepared.	NOP issued 11/01/09, DEIR being prepared	completed	DEIR published 10/17/10. FEIR being prepared	NOP issued 11/10/2010. DEIR being prepared.	SEIR published 08/11. FEIR being prepared.	DEIR published 10/4/11. FEIR being prepared	completed	NOP issued 05/18/11. DEIR being prepared.	NOP issued 10/7/11. DEIR being prepared.	NOP issued 11/21/11. SEIR being prepared.		
2/13/2008 12/2/2009	11/19/2007 12/14/2009 08/10/2010	6/14/2012	12/7/2011	2/5/2009 3/1/2010	4/3/2009 2/3/2010	7/17/2009	12/3/2009	6/10/2008 10/07/2010	4/10/2008	12/9/2010	7/18/2011	12/7/2007 11/21/2011	11/1/2010		11/17/2011	12/16/2011	3/27/2011	6/14/2012
Tier 1	Tier 1	Exempt	Exempt	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1	Tier 1		Tier 1	Tier 1	Tier 1	Tier I	Tier 1	Tier 1	Tier 1	Tier 1
RDA CAP AMENDMENT PLN2009-002002009	PLN2005-00186			ER08-005	ER09-0001	ER09-007	ER09-006	ER08-0003	ER08-0001	ER10-0002	ER11-001 - 99052061	ER-06-0009	ER10-0003	ER10-001	ER11-0014 APN 008-0642-018	ER110016 State Clearhouse #98031116		ZS12046 & ER120005
Fremont Merged Redevel opment Project Area Plan Amendment	Patterson Ranch Development Plan	Las Palmas Project	Tri Cities Recycling and Disposal Facility Final Re- Use Plan	Fruitvale Transit Village II	Alta Bates Summit Medical	Safeway Redevelopment Project	College Safeway Redevelopment Project	Kaiser Center	St. John's Episcopal Church Improvements	(DEIR) for the Victory Court Ballpark Development	Broadway/MacArthur/San Pablo Redevelopment Plan	Emerald Views Residential Development Project	Proposed Amendments to the Central District Redevelopment Project Area Plan	High & MacArthur Mixed Use Project	1800 San Pablo	Central Estuary Implementation Guide	Lake Merritt Station Area Plan in the City of Oakland	Broadway/Valdez District Specific Plan
NOP Draft Subsequent Redevelopment Program EIR	NOP/DEIR DEIR GPA	NOP/DEIR	GPA	NOP/DEIR DEIR	NOP/DEIR DEIR	NOP/DEIR	NOP/DEIR	NOP/DEIR DEIR	NOP/DEIR	NOP/DEIR	SEIR	NOP/DEIR DEIR	DEIR	NOP/EIR	NOP/DSEIR	NOP/SEIR	NOP/DEIR C	NOP/DEIR
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35	Pleasanton	NOP/DEIR DEIR	City of Pleasanton, Housing Element Update	PGPA-17	Tier 1	5/13/2011 11/17/2011	
36	Pleasanton	NOP/DEIR	Lund Ranch II Planned Unit Development	PUD-25, Lund Ranch II	Exempt	6/14/2012	
37	San Leandro	NOP/ DEIR	Kaiser	NA	Tier 1	2/14/2008	
38	San Leandro	GPA	Zoning Amendments Pertaining to Miscellaneous Changes to NA-2, SA-2, DA-3, DA-5, IL, IG and IP Zoning Districts related to Assembly Uses, Commercial Recreation, Cultural Institutions and Entertainment Activities		Exempt		
39	San Leandro	GPA - PD, DA	66DU Washington Project				information provided by San Leandro - updated during Q2
40	Union City	NOP	Turk Island Landfill	State Clearinghouse #2008112107	probably exempt - the project is for 33 sf homes	No comments received - NOP closed on 12/26/2008	
41	Union City	NOP/DEIR	Station District Mixed Use Plan	State Clearinghouse #	Tier 1	5/9/2008	
42	Hayward	NOP/DEIR/GPA	Mission Boulevard Corridor Specific Plan	NA	Tier 1	05/13/11	
43	Newark	NOP/DEIR/FEIR	Dumbarton Transit Oriented Development Specific Plan	NA	Tier 1	7/1/2011	FEIR received on 07/20/2011
NOTE							

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Ther I refers to GPA and NOP for EIR for projects consistent with the general plan.

Exempt refers to the development proposals that do not exceed the threshold of generating 100 p.m. peak-hour trips, or do not

No comments means there were no comments to make or in the case of DEIR or FEIR, previous Alameda CTC comments were addressed.

		S	CMP - Land Use Analysis Program (for the period between July 1, 2011 to June 30, 2012)	n (for the p	period between	July 1, 2011 to June 30,	2012)
Index#	Jurisdiction	TIER I Review Category (GPA/NOP/EIR)	Development Title	APPLN NUMBER	STATUS (Exempt/ Tier I)	CMA Response Date	Comments
LAND U	LAND USE PROJECTS - INACTIVE	S - INACTIVE					
1	Dublin	GPA	Camp Parks RFTA	03-015	Tier 1		Project development in process. No application or project description yet. No CEQA process yet. A Master Developer has been selected.
2	Dublin	GPA, EIR	Dublin Preserve	PLPA-2010- 00076			No project description of CEQA process yet
3	Dublin	GPA, SPA,	Jordan Ranch Phs. 2	PLPA-2010- 00078			No project description of CEQA process yet
4	Emeryville	NOP	South Bay Front (Site B) Bay Street Development	NA	Tier 1	11/17/2005	EIR on hold pending re-design
5	Emeryville	NOP/DEIR/GPA	General Plan Update	NA	Tier 1	2/9/2006	Adopted 10/13/09.
9	Hayward	NOP/SEIR/GPA	South Hayward BART Form-Based Code	NA	Tier 1	05/31/06	
7	Oakland	NOP/DEIR	19th St. Residential Condominiums	ER06-0009	Tier 1	12/7/2007	renamed Emerald Views (see Active sheet)
8	Oakland	DEIR	Gateway Community Development Project	ER05-0001		11/3/2010	DEIR published 8/10/07.
Landing	managed dates for a mount	TOTO TE	1	and on the outliers	made contate adv litera		

Inactive - proposal withdrawn or no CEQA document for the past 5 years. These projects will be retained as inactive until the status changes. No comments means there were no comments to make or in the case of DEIR or FEIR, previous Alameda CTC comments were addressed.

ACTAC Meeting - 07/03/12
Agenda Item 5B
Attachment A

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	CMP	<b>CMP - Land Use Analysis</b>	Ilysis Program (for the period between July 1, 2011 to June 30, 2012)	riod betw	een July 1, 20	11 to June 30,	2012)
Index #	Jurisdiction	TIER I Review Category (GPA/NOP/EIR)	Development Title	APPLN NUMBER	APPLN STATUS NUMBER (Exempt/ Tier I)	CMA Response Date	Comments
TRANSPOR	TATION IMPRO	<b>TRANSPORTATION IMPROVEMENT PROJECTS - AC</b>	TS - ACTIVE				
1	AC Transit	NOP/EIR/EIS/SDEIR NI/EIS/FEIR	East Bay BRT	NA	Comments	6/24/2003 3/16/2004 07/03/2007 03/19/2012	Certified the FEIR on April 25, 2012 along with the NOD. Filed the NOD with the county and state clearinghouse on April 26.
2	SCVTA	NOP/EIR/EIS NOP/DEIR/DSEIR		NA	Comments	5/20/2004 8/21/2006	Requested that MTS impacts be evaluated as well as station access and parking impacts at the Alameda County Stations
TRANSPOR	TATION IMPRO	TRANSPORTATION IMPROVEMENT PROJECTS - COMPLETED	TS - COMPLETED				



#### Memorandum

**DATE:** June 25, 2012

**TO:** Alameda County Technical Advisory Committee (ACTAC)

**FROM:** Beth Walukas, Deputy Director of Planning

Saravana Suthanthira, Senior Transportation Planner

**SUBJECT:** Review of 2012 Level of Service (LOS) Monitoring Study Draft Results

#### Recommendations

This item is for information only and no action is requested.

#### **Summary**

ACTAC is requested to review the draft results by July 6, 2012, particularly the Tier 1 segments identified as performing at LOS F during the afternoon or morning peak periods and inform staff of any construction activities that may have impacted the traffic on these LOS F segments. A general analysis of the draft results from the 2012 LOS Monitoring Study will be presented at the ACTAC meeting on July 3, 2012. The draft report will be presented in October 2012.

#### **Background**

Alameda CTC, in its role as the Congestion Management Agency for Alameda County, conducted the biennially required Level of Service (LOS) Monitoring Study this year. Travel time data collection on the CMP roadways began on February 28, 2012 and was completed by June 7th, 2012.

Starting this year, in addition to monitoring the Tier 1 roadway network of freeways and selected arterials (232 miles) during the morning and afternoon peak periods, travel time data was also collected on freeways (134 miles) during the weekend peak period and on the newly added Tier-2 arterial roadways (92 miles) for both morning and afternoon peak periods. Data collected on the Tier 1 network during the afternoon (PM) peak period is used for conformity. However, data collected during the morning peak period on the Tier 1 network, all of the data collected on the Tier 2 network, and weekend travel time data on the freeways are used for informational purposes only. The following list provides the complete set of roadways and time periods for which travel time data were collected in the Spring 2012:

- 1. Tier 1 Freeways PM Peak Period
- 2. Tier 1 Freeways AM Peak Period
- 3. Tier 1- Arterials PM Peak Period
- 4. Tier 1- Arterials AM Peak Period
- 5. Tier 1 Ramps and Special Segments PM Peak Period
- 6. Tier 1 Ramps and Special Segments AM Peak Period
- 7. Tier 2 Arterials PM Peak Period

- 8. Tier 2 Arterials AM Peak Period
- 9. Freeways Weekend Peak Period

The draft 2012 LOS results for the Tier 1 roadways for both peak periods and the weekend peak period on the freeways including the speed data on the Tier 2 roadways for both peak periods are attached. Staff is developing a list of Tier 1 LOS F segments based on the data collected during the PM peak period, which will be used for performing select link analysis using the countywide travel demand model, to which the applicable statutory exemptions will be applied. Based on the select link analysis results, if any roadway segment is found to be deficient, the respective jurisdiction including participating jurisdictions, if any, will be informed of the deficiency, likely in mid-July.

#### **Fiscal Impact**

None

#### **Attachments**

Attachment 1 – Draft 2012 LOS Monitoring Results for Freeways – PM Peak Period

Attachment 2 – Draft 2012 LOS Monitoring Results for Arterials – PM Peak Period

Attachment 3 –Draft 2012 LOS Monitoring Results for Ramps and Special Segments – PM Peak Period

Attachment 4 – Draft 2012 LOS Monitoring Results for Freeways – AM Peak Period

Attachment 5 – Draft 2012 LOS Monitoring Results for Arterials – AM Peak Period

Attachment 6 –Draft 2012 LOS Monitoring Results for Ramps and Special Segments – AM Peak Period

Attachment 7 - Draft 2012 LOS Monitoring Results for Tier 2 Arterials - PM Peak Period

Attachment 8 – Draft 2012 LOS Monitoring Results for Tier 2 Arterials – AM Peak Period

Attachment 9 – Draft 2012 LOS Monitoring Results for Freeways – Weekend Peak Period

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Rt 262/Mission

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Durham Rd

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2012 LOS results Speed

2010 LOS Results

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Jurisdiction

Draft Results for 2012 LOS Monotoring Study for Freeways - PM Peak Period

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San Ramon Rd

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Tassajara Rd

**1-68**0

Segment Limits

Eden Caynon

San Ramon Rd

**I-680** 

40 I-580 - WB 41 I-580 - WB Eden Canyon

Center

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		Segm	Segment Limits		Plan	Length	No of	Prior LOS "F"	2010 LOS Results	Results
	CMP Route	From	To	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	FOS
75	I-680 SB	Bernal Ave.	Sunol Blvd	Unincorp	4	1.31	9		61.1	A
76	I-680 SB	Sunol Blvd.	SR 84	Unincorp	4	3.82	9		9.89	A
77	I-680 SB	SR 84 (Niles Canyon)	Andrade Rd	Unincorp	3	1.32	9		64.7	A
78	I-680 SB	Andrade Rd	Sheridon Rd	Unincorp	3	1.39	9		61.5	A
79	I-680 SB	Sheridon Rd	Vargas Rd	Unincorp	3	0.81	9		66.5	4
8	80 I-680 SB	Vargas Rd	SR 238/Mission	Unincorp	3	1.08	9		63.2	4
81	I-680 - SB	Rt 238/Mission	Washington Blvd	Fre	3	1.04	9		62.9	٨
82		Washington Blvd	Durham Rd	Fre	3	1.52	9		67.8	٨
83	83 I-680 - SB	Durham Rd	Rt 2262/Mission	Fre	3	1.67	9		70.7	Ą
8	I-680 - SB	Rt 262/Mission	Scott Creek Rd	Fre	ဗ	2.19	9		62.3	۷
85	I-880 - NB	Dix Landing	SR 262/Mission	Fre	ဗ	2.08	8	91-'92	52.1	ပ
86	I-880 - NB	SR 262/Mission	AutoMall Pkwy	Fre	ဗ	2.44	8	96	42.0	D
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83	I-880 - NB	Decota	Alvarado Blvd	Fre - Un Cty	3	1.17	8	02,10	28.6	(F30)
6	I-880 - NB	Alcarado Blvd	Alvarado-Niles Blvd	Fre- Uni Cty	3	1.17	8	02,10	26.8	(F30)
91	- 088-1	Alv-Niles	Tennyson	Un Cty - Hay	3	2.65	8	00-02,06-08,10	17.7	(F20)
92	I-880 - NB	Tennyson	SR 92	Нау	2	1.14	8	91-'92	37.7	В
93	I-880 - NB	SR 92	A St	Hay	2	1.52	8	91-'92	38.4	Ш
94	94 I-880 - NB	A St	1-238	Unincorp	2	1.82	8	94-'95	62.7	A
95	I-880 - NB	I-880/1238 (split)	Marina Blvd	Oak -SL	2	2.66	8		8.99	A
96	I-880 - NB	Marina Blvd	SR 112/Davis	Oak - SL	2	0.79	8		62.1	٨
97	- 088-I	SR 112/Davis	Hegenberger	Oak - SL	2	1.88	8		56.5	В
86	I-880 - NB	Hegenberger	High/42nd	Oak	-	2.47	8		52.7	၁
66	I-880 - NB	High/42nd	23rd (1st on)	Oak	-	1.06	8		64.5	٨
100	I-880 - NB	23RD (1ST on)	Jct 980 (off)	Oak	-	2.64	8		57.7	В
101	I-880 - NB	Jct 980 (off)	I-880/I-80 split	Oak	-	2.38	8		60.8	٨
102	I-880 - NB	I-880/I 80 (split)	I-880/I-80 (merge)	Oak	-	1.40	8		31.5	ш
				Oak	-	3.17	9			
103	I-880 - SB	1-880/1-80 split	I-880/I-80 merge	Oak	-	1.63	8		65.3	٧
104	104 I-880 - SB	I-880/I-80 merge	Jct 980	Oak	-	2.65	8		64.0	٨
105	I-880 - SB	1-980	23rd	Oak	-	2.79	8	90	30.2	ш
106	I-880 - SB	23rd St	High/42nd	Oak	-	1.35	8		62.9	A
107	I-880 - SB	High/42nd	Hegenberger	Oak	-	2.27	8	90	36.8	ш
108	I-880 - SB	Hegenberger	SR 112/Davis	Oak - SL	-	1.69	8	91-'92,08	37.6	ш
109	I-880 - SB	SR 112/Davis	Marina Blvd	Oak - SL	-	0.87	8	91-'92	57.1	В
110	I-880 - SB	Marina Blvd	SR 238 WB (merge)	Oak - SL	-	2.41	8	91-'92	59.5	В
111	I-880 - SB	1-238	A St	SL-Uninc	2	2.03	8	91-'92, '00-02	32.3	В

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			Draft Results for 2012	LOS Monotoring Study for	ring S	tudy for	Freew	Freeways - PM Peak Period					
		Seg	ment Limits		Plan	Length	No of	Prior LOS "F"	$\sim$	S Results		2012 LOS res	results
	CMP Route		10	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	ros	# Runs	Speed	ros
112  -6	I-880 - SB	A St	Rt 92	Нау	2	1.81	ω		37.2	ш	7	39.9	ш
113 1-8	I-880 - SB	Rt 92	Tennyson	Нау	2	96.0	8	00	35.0	ш	7	33.6	ш
114  -8	I-880 - SB	Tennyson	Alv-Niles	Hay - UC	2	2.49	8		45.9	Δ	7	41.9	۵
115  -8	I-880 - SB	Alv-Niles	Alvarado	UC - Fre	3		8		57.9	В	7	54.0	ပ
116  -8	I-880 - SB	Alvarado	Decoto	UC - Fre	3		8		58.9	В	7	42.2	۵
117  -{	I-880 - SB	Decoto	Stevenson	Fre	3	4.07	8		58.9	В	7	54.4	ပ
118  -	I-880 - SB	Stevenson	AutoMall Pkwy	Fre	2	1.26	8		64.8	A	7	64.5	∢
119  -{		AutoMall Pkwy	Rt 262/Mission	Fre	2	3.04	8		62.4	4	9	62.5	∢
120  -8		SR 262/Mission	Dix Landing(off)	Fre	3	1.27	8	92,'06	64.1	4	9	68.1	∢
121  -(	I-980 - WB	SR 24 @ 580	1-880	Oak	-	2.27	8		64.8	٨	7	65.2	∢
122  -6	I-980 - EB	1-880	SR 24 @ 580	Oak	τ-	2.32	8	'91	29.7	(F30)	7	39.4	Ш
123 SI	SR 13 - NB	-	Carson/Redwood (1) (off)	Oak	-	1.20	4		88.8	∢	9	83.1	∢
		_											
124 SI	SR 13 - NB	(off)	Joaquin Miller	Oak	τ-	1.09	4		44.4	۵	9	43.3	۵
125 SI	SR 13 - NB	Joa Miller/Linc	Moraga Ave	Oak	-	1.77	4		61.4	⋖	9	56.0	Ф
126 SI	SR 13 - NB	Moraga Ave	Hiller (Sig)	Oak	-	1.57	4	06,10	24.2	(F30)	9	18.9	(F20)
127 SI	SR 13 - SB	Hiller Sig	Moraga Ave	Oak	-	1.66	4		57.2	В	7	54.1	ပ
	SR 13 - SB	Moraga Ave	Joa Miller/Linc	Oak	-	2.04	4		71.2	٧	7	9.69	۷
129 SI	SR 13 - SB	Joaq Miller/Lincoln	Redwood	Oak	-	1.34	4		61.4	⋖	7	61.1	∢
130 SF	SR 13 - SB	Redwood	Jct I-580 (EB Merge)	Oak	-	0.89	4	08,10	12.5	(F20)	7	15.6	(F20)
131 S	131 SR 24 - EB	I-580 (on ramp)	Broadway/SR 13	Oak	-	2.08	8	91-'97, '02, 06, 08,10	15.8	(F20)	7	16.0	(F20)
132 SF	SR 24 - EB	Broadway/SR 13	Caldecott (enter)	Oak	_	1.41	8	91-'97,'02,06-08,10	14.5	(F20)	7	14.1	(F20)
133 SF	SR 24 - EB		Fish Ranch Road	Oak	-	1.03	8	91-'97,'02,06	34.6	Ш	7	35.9	Ш
134 SI	SR 24 - WB		Caldecott (exit)	Oak	-	0.99	8		50.9	ပ	7	51	ပ
135 SF	SR 24 - WB	Caldecott (exit)	Broadway	Oak	-	1.77	8		69.4	٨	7	68.8	∢
136 SI	SR 24 - WB	Broadway	Jct I-580 (on)	Oak	τ-	2.19	8		59.3	В	7	57.8	В
137 SI	SR 84 - EB	San M CL	Toll Plaza	Fremont	က	2.97	9		56.2	В	9	51.9	ပ
130	ď	Toll Diaza	Thornton	Fromont	۲	76.0	U	90		۵	ď		α
2		_	Newark Blvd/Ardenwood		י כ	7.0	)	00	600	٠ .	)		ו ב
139 S	139 SK 84 - EB	I hornton   Newark Riva/Ardenwood	BIVG	Newark	9	1.23	9	90	65.8	۲	9	45.9	۵
140 SR 84	R 84 - EB		I-880 NB (off)	Newark	က	0.97	9	08-10	26.9	(F30)	9	16.4	(F20)
141 S	141 SR 84 - WB	I-880 NB (off)	Ardenwood/Newark	Newark	3	0.99	9		45.9	۵	9	47.2	۵
142 SI	SR 84 - WB	Ardenwood/Newark	Paseo Padre Pkwy		3	1.15	9		60.2	4	9	63.4	۷
143 SI	SR 84 - WB		Toll Gate		3	0.75	9		51.4	ပ	9	44.0	۵
144 SI	SR 84 - WB		San M CL	Fremont	2	3.17	9		64.8	۷	9	64.1	⋖
	í				,	;	ſ		-	ľ			,
145 SI	SR 92 - EB	San M CL	Toll Plaza	Uninc - Hay	5	2.61	9	97-'02	62.9	∢	7	47.4	ه د
146 S	R 92 - EB	Toll Plaza	Clawiter	Uninc - Hay	2	1.76	9	91-94, '96-'02	37.6	ш	,	49.7	ပ
147 SI	SR 92 - EB	Clawiter	1-880	Нау	2	2.10	9	91-92,94-'95,97-'02,06-10	10.0	(F20)	7	54.4	O (
148 S	R 92 - WB	I-880	Clawiter	Hay	2	2.01	9		52.4	O I	9	59.7	۱ ۵
2 t t t	R 92 - WB	Clawiter	Toll Plaza	Uninc - Hay	27 (	1.87	9 0	91-'92	45.6	۵ ۰	9 0	42.2	۰ د
120	K 92 - WD	I oli Plaza	San M CL	Uninc - nay	7	7.01	٥		7.10	1	٥	01.7	<

Lingth Arterial Plan No of Prior LOS "F" 2010 LOS Results # Off   Prior LOS "F"   2010 Results   # Off   Prior LOS "F"   2010 Results   # Off   Prior LOS "F"   2010 Results   # Off   Prior LOS "F"   2   2   2   2   2   2   2   2   2			2(	2012 LOS Moni	Monitoring Study Draft Results	dy Draft		- Arteri	als PM	- Arterials PM Peak Period					
CAMP Route         From From From From St. Camp Route         Trop St. Eb         From St. Eb         Trop States         Trop States         St. Camp St. Eb         Cost of states         Trop States         St. Camp St. Eb         Trop States         Trop St. Eb         Trop States			Segment Limits			Length	Arterial	Plan	No of	Prior LOS "F"	2010 LOS F	Results		112 LOS Resu	ılts
Stop St. F. B.         Hesperian         St. G.         G.S.         III         2         2         2         17         18         2         18         1	#	CMP Route	From	2	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	ros	# of runs	Speed	ros
Schweit-EB         H-980         Hespenan         SL         0.55         II         2         2         0         7         18.8           AStreet-EB         Messen         Messen         H-99         0.553         III         2         2         2         7         18.8           AStreet-BB         Messen         Messen         H-99         0.553         III         2         2         2         7         6         5           AStreet-WB         Messen         H-99         0.553         III         2         2         7         7         6         5           AStreet-WB         Messen         H-99         0.553         III         2         2         7         7         6         5           AStreet-WB         Messen         H-99         0.503         II         2         2         7         7         6         6         7.7           Astreet-WB         Melan         Mebrater         H-99         0.503         II         1         2         2         2         1         1         1.55         2         1         1         1         2         2         1         1         1         1	7	150th St - EB	Hesperian	1-580	SF	0.51	=	2	2		17.0	a	9	13.6	ш
Street-EB         HBBO         Western         HBY         1.05         III         2         2         2         7.5         E         6         5.2           Street-EB         Western         SR 238         HBY         0.53         III         2         2         2         7.6         F         6         5.2           Astreet-MB         Western         SR 238         HBY         0.53         III         2         2         2         7.6         F         6         5.2           Astreet-WB         Western         HBA         0.50         II         1         2         2.7         C         10         13.5           Astreet-WB         Western         Main         Ala         0.50         II         1         2         2.7         C         10         13.5           Astreet-WB         Western         Main         Ala         0.50         II         1         2         2.7         C         6         15.0           Astreet-WB         Bell         C         0.50         II         1         2         2         1.0         13.5         1.0         1.0         1.0         1.0         1.0         1.0	7	150th St - WB	1-580	Hesperian	SF	0.51	=	2	2		16.5	Q	7	18.2	O
Agnetic EB         Western         SR 238         Hay         0.53         III         2         2         7.6         6         6.5           Agnetic LB         Western Mestern         Hay         0.53         III         2         2         7.6         6         6         10.3           Sprear - WB         Mestern         Hay         0.53         III         2         2         7.6         6         6         10.3           Sprear - WB         Mestern         Hay         0.53         II         2         2         7.6         6         6         10.3           Allandic - MB         Mestern         Allandic - MB         0.050         II         1         2         2         7         7         6         5.0           Allandic - MB         Mestern         Allandic - MB         0.050         II         1         2         2         7         7         6         10.7           Allandic - MB         Malann         Mestern         Allandic - MB         0.050         II         1         2         0         6         10.7           Allandic - MB         MB         0.054         II         1         2         0 <th< td=""><td>٣</td><td>A Stroot - EB</td><td>1-88O</td><td>Wostorn</td><td>ć</td><td>80.1</td><td>=</td><td>c</td><td>c</td><td></td><td>23.3</td><td>C</td><td>۲</td><td>188</td><td>c</td></th<>	٣	A Stroot - EB	1-88O	Wostorn	ć	80.1	=	c	c		23.3	C	۲	188	c
A Street - WB         SR 238         Western         Hay         0.55         III         2         2         135         C         6         177           A Street - WB         Western         Hay         108         II         2         2         2         1         2         6         177           Mainter - BM         Main         Webster         Alae         0.80         II         1         2         2         2         6         177           Webster         Mainter BM         Mainter BM         Mainter BM         Alae         0.80         II         1         2         0         6         177           Hogebrager - BM         Baldwin         Cak         0.75         1         1         2         2         0         6         1.53           Hogebrager - BM         Baldwin         Cak         0.75         1         1         2         2         2         0         6         1.53           Hogebrager - BM         Baldwin         Cak         0.75         1         1         2         2         0         6         1.53           Hogebrager - WB         Baldwin         Baldwin         Cak         0.75	۸ 4	A Street - FB	Western	Westelli SR 238	E Z	0.53	= =	۷ ر	1 0		7.6	ιц	- د	5.2	ع د
Vigineti - WB         Missiern         H80         H8y         1,08         II         2         2         2         2,18         C         6         1777           Vigintic - BB         Main         Webster         Ala         0,80         II         1         2         2         2         7         C         10         19,5           Maintic - WB         Webster         Main         Ala         0,80         II         1         2         20,7         C         10         19,5           Hogenberger - EB         SR Gtg         Edgewater         Osk         0,75         I         1         3         2,23         C         6         25,5           Hogenberger - EB         Baldwin         Osk         1,03         I         1         3         2,23         C         6         2,55           Hogenberger - MB         Baldwin         Osk         1,03         I         1         3         2,03         0         6         1,13           Hogenberger - WB         Edgewater         Osk         1,03         1         1         3         20,1         6         6         20,0           Hogenberger - WB         Edgewater <td< td=""><td>5</td><td></td><td>SR 238</td><td>Western</td><td>Hav</td><td>0.53</td><td></td><td>2 1</td><td>1 2</td><td></td><td>13.5</td><td>ıΟ</td><td>9</td><td>10,3</td><td>٥</td></td<>	5		SR 238	Western	Hav	0.53		2 1	1 2		13.5	ıΟ	9	10,3	٥
Maintic-EB         Maint         Mebster         Ale         0.80         II         1         2         20.7         C         10         19.5           Maintic-EB         Maintic-MB         Maintic-	9		Western	1-880	Нау	1.08	=	2	2		21.8	ပ	9	17.7	Δ
Vegenberger - LEB         SR 61         Edgewater         Oak         0.76         1         2         0         0         0         0.00           Hegenberger - EB         SR 61         Edgewater         Baldwin         Oak         0.76         1         1         3         0         0         6         2.00           Hegenberger - EB         Edgewater         Baldwin         Cath         0.73         1         1         3         0         0         6         2.00           Hegenberger - WB         Baldwin         E14th         Oak         0.73         1         1         3         0         0         6         2.00           Hegenberger - WB         Baldwin         E4gwater         Oak         0.75         1         1         3         0         6         0 <td< td=""><td>7</td><td>Atlantic - EB</td><td>Main</td><td>Webster</td><td>Ala</td><td>0.80</td><td>=</td><td>-</td><td>2</td><td></td><td>20.7</td><td>O</td><td>10</td><td>19.5</td><td>O</td></td<>	7	Atlantic - EB	Main	Webster	Ala	0.80	=	-	2		20.7	O	10	19.5	O
Gegenberger - EB         SR 6t1         Ecgewater         Oak         0.76         1         1         3         175         D         6         15.9           Hegenberger - EB         Edgewater         Baldwin         Cak         0.73         1         1         3         Car         6         2.00           Hegenberger - EB         Baldwin         E 14th         Oak         1.03         1         1         3         Car         6         2.00           Hegenberger - WB         Baldwin         Eqwarter         Oak         0.73         1         1         3         Car         6         2.00           Hegenerar - WB         Edgewater         Oak         0.73         1         1         3         Car         6         2.00           Hesperiar - WB         Edgewater         Oak         0.76         1         1         3         Car         6         1.83           Hesperiar - WB         Edgewater         Oak         0.75         1         2         3         92         C         6         1.83           Hesperiar - WB         Hay         0.74         1         2         2         2         1         1.65         1	Φ	Atlantic - WB	Webster	Main	Ala	0.80	=	_	7		23.7	ပ	9	20.7	O
Eggenberger - EB         Exglewwater         Cask         0.76         1.75         D         6         1.59           egenberger - EB         Edgewater         E14th         Cask         0.73         1         1         3         25.1         C         6         25.5           egenberger - WB         E14th         Baldwin         Cask         1.03         1         1         3         25.1         C         6         25.5           egenberger - WB         E14th         Baldwin         Cask         1.03         1         1         3         6.5         R         5         30.0           egenberger - WB         E14th         Cask         0.75         1         1         3         6.6         6         25.5         10.0         6         25.5         11.9         1         3         6.6         6         1.49         1.49         1.49         1.49         0.47         1         2         3         9.6         6         1.49         1.49         1.49         0.44         1         2         3         9.0         6         1.49         1.49         1.49         1.49         1.49         1.49         1.49         1.49         1.49	(					í						(	,		ı
Generaler         Baldwin         Oak         0.73         1         1         3         27.8         C         6         20.0           genberger - B         Baldwin         E 14th         Oak         1.03         1         1         3         27.8         C         6         22.5           legenberger - WB         Baldwin         E 14th         Oak         0.73         1         1         3         6.5         1         5         30.0           legenberger - WB         Baldwin         E 0.04         0.75         1         1         3         6.5         0         5         30.0           legenberger - WB         Baldwin         E 0.04         0.75         1         1         3         6.5         6         2.5         30.0           lesperian - NB         SH 92         Lay         LAST         1         2         3         92.0         6         1.15	O)	Hegenberger - EB	SR 61	Edgewater	Oak	0.76					17.5	Ω	9	15.9	ш
EB Baldwin         E14th         Oak         1.03         I         1         3         C5.5         C         6         25.5           WB Baldwin         Baldwin         Oak         0.76         I         1         3         C5.5         C         6         25.5           WB Baldwin         Edgewater         Oak         0.76         I         1         2         26.3         C         6         18.0           WB Edgewater         SR 61         Oak         0.76         I         2         3         06-08         15.0         E         14.9           I emyson         SH 92         La Playa         Hay         0.47         I         2         3         06-08         15.0         C         6         14.9           I emyson         A St         Hay         0.44         II         2         3         92.08-10         C         6         14.9           I a Playa         Hay         0.46         II         2         3         92.08-10         G         6         16.8           I a SH         Stringlake         A St         Hacienda         Unin         0.65         II         2         2         0.00,406-10 <td>2</td> <td>Hegenberger - EB</td> <td>Edgewater</td> <td>Baldwin</td> <td>Oak</td> <td>0.73</td> <td>-</td> <td>-</td> <td>က</td> <td></td> <td>27.8</td> <td>ပ</td> <td>9</td> <td>20.0</td> <td>Δ</td>	2	Hegenberger - EB	Edgewater	Baldwin	Oak	0.73	-	-	က		27.8	ပ	9	20.0	Δ
WB         E14th         Baldwin         Oak         1,03         1         1         3         9         A         5         30,0           WB         Baldwin         Edgewater         Oak         0,73         1         1         3         92         0         6         6         18,1           MS         Baldwin         Edgewater         SNB 61         Dok         0,75         1         2         3         06-08         150         E         149           Temygaate         SH 92 - WB         Hay         0,79         1         2         3         06-08         150         E         149         1         2         3         06-08         150         E         149         1         2         3         06-08         150         E         148         1         2         3         06-08         183         1         2         3         06-08         183         1         2         2         3         06-08         183         1         2         2         2         2         2         2         1         150         1         1.5         1         1.5         1         1.5         1         1.5	7	Hegenberger - EB	Baldwin	E 14th	Oak	1.03	-	_	က		25.1	ပ	9	25.5	ပ
WB         Edgewater         Oak         0.76         1         1         3         25.3         C         5         181           WB         Edgewater         SR 61         Oak         0.76         1         2         3         06-08         15.0         D         5         19.5           Tennyson         SH 92 - WB         Hay         0.79         11         2         3         92.08-10         5.6         (F)         6         14.3           SH 92 - WB         WWinton Ave         Hay         0.79         11         2         3         92.08-10         5.6         (F)         6         13.9           W.Winton Ave         Hacienda         Unin         0.65         11         2         3         92.08-10         18.1         C         6         16.8         11.6         11.8         2         2         2         6         16.8         11.6         11.8         2         2         2         6         16.8         16.6         16.8         16.6         16.8         16.6         16.8         16.6         16.8         16.6         16.6         16.8         16.6         16.8         16.6         16.8         16.6         16.8	12	Hegenberger - WB	E 14th	Baldwin	Oak	1.03	_	7	З		35.9	∢	5	30.0	В
WB         Edgewater         SR 61         Oak         0.76         1         2         3         06-08         15.0         E         6         14.9           Tennyson         SH 92 - WB         Hay         0.47         1         2         3         06-08         15.0         E         6         14.9           SH 92 - WB         Hay         0.79         11         2         3         92.08-10         5.6         6         14.9           La Playa         Hay         0.74         11         2         3         92.08-10         5.6         16.8         11.3           M.Winton Ave         A St         Hay         0.74         11         2         3         92.08-10         5.6         16.8         11.8           A St         Hacienda         Unin         0.65         11         2         2         0.004.06-10         8.1         6         16.8           Lewelling         Springlake         Unin         0.66         11         2         2         0.004.06-10         8.1         6         15.5           Earmont         Lathoritis         SL         0.66         11         2         2         91.96         17	13	Hegenberger - WB	Baldwin		Oak	0.73	_	1	3		25.3	ပ	5	18.1	۵
Tennyson         SH 92 - WB         Hay         0.47         1         2         3         06-08         150         E         6         14.9           SH 92         La Playa         Hay         0.79         II         2         3         92         19.2         C         6         18.3           ILA Playa         W.Winton Ave         Hay         0.44         II         2         3         92.08-10         5.6         (F)         6         11.6         11.6           M.Winton Ave         Hax         0.44         II         2         2         2         2         6         11.6	14	Hegenberger - WB	Edgewater	SR 61	Oak	0.76					20.0	۵	5	19.5	۵
SH 92         La Playa         Hay         0.79         II         2         3         92         192         C         6         18.3           La Playa         W.Winton Ave         Hay         0.44         II         2         3         92.08-10         56         (F)         6         11.6           W.Winton Ave         A St         Hay         0.96         II         2         3         92.08-10         56         11.6	15	Hesperian - NB	Tennyson	SH 92 - WB	Hay	0.47	_	2	3	06-08	15.0	Ш	9	14.9	ш
A St         Hay         0.44         II         2         3         92.08-10         56         (F)         6         116           W.Winton Ave         A St         Hay         0.96         II         2         3         92.08-10         56         13.9         6         11.6         13.9         7         14.8         6         11.6         13.9         7         14.8         6         11.9         6         13.9         13.9         14.8         6         13.9         6         13.9         14.8         6         14.8         6         14.8         7	16	Hesperian - NB	SH 92	La Playa	Нау	0.79	=	2	Э	92	19.2	ပ	9	18.3	O
W.Winton Ave         A St         Hay         0.96         II         2         3         92         181         C         6         139           A St         Hacienda         Unin         0.65         II         2         2         2         6         168         168           Hacienda         Grant         Unin         0.65         II         2         2         00.04.06-10         8.1         6         6         168         168           Lewelling         Springlake         Lairmont         0.1         1         2         2         00.04.06-10         8.1         6         6         18.2           Springlake         Fairmont         SL         0.32         II         2         2         14.4         6         17.5         17.5           Fairmont         I.4th         Springlake         Lamont         0.31         II         2         2         91.95.97.08         17.5         17.5           Springlake         Lawelling         Unin         0.265         II         2         2         91.95.97.08         18.5         7         17.5           Grant         Hacienda         Unin         0.265         II	17	Hesperian - NB	La Playa	W.Winton Ave.	Нау	0.44	=	2	3	92,08-10	5.6	(F)	9	11.6	Ш
A St         Hacienda         Unin         0.65         II         2         2         2         19.5         C         6         16.8           Hacienda         Grant         Unin         0.65         II         2         2         2         0         004,06-10         B.1         6         16.8           Hacienda         Grant         Llewelling         Unin         0.28         II         2         2         00,04,06-10         8.1         (F)         6         6.9         16.6           Llewelling         Springlake         Liewelling         Unin         0.66         II         2         2         00,04,06-10         8.1         (F)         6         6.9         18.2           Springlake         Fairmont         SL         0.31         II         2         2         0.91, 95, 97,08         12.4         E         6         15.0           Springlake         Springlake         SL         0.65         II         2         2         0.91, 95, 97,08         13.8         C         7         17.5           Springlake         Llewelling         Unin         0.65         II         2         2         0.00, 10         8.1         7 <td>18</td> <td>Hesperian - NB</td> <td>W.Winton Ave</td> <td>A St</td> <td>Нау</td> <td>96.0</td> <td>=</td> <td>2</td> <td>3</td> <td>92</td> <td>18.1</td> <td>ပ</td> <td>9</td> <td>13.9</td> <td>Ш</td>	18	Hesperian - NB	W.Winton Ave	A St	Нау	96.0	=	2	3	92	18.1	ပ	9	13.9	Ш
Hacienda         Grant         Unin         0.66         II         2         2         0.00,4,06-10         8.1         (F)         6         16.6           Grant         Llewelling         Unin         0.28         II         2         2         0.00,4,06-10         8.1         (F)         6         6.9         6         9           Lewelling         Springlake         Unin         0.40         II         2         2         2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         6         18.2         7         18.2         7         18.2         7         18.2         6         18.2         6         18.2         7         17.5         7         17.5         17.5         18.2         18.2         18.4         E         17.5         18.2         18.2         18.4         E         17.5         18.2         18.2         18.4         <	19	Hesperian - NB	A St	Hacienda	Unin	0.65	=	2	2		19.5	ပ	9	16.8	۵
Grant         Llewelling         Unin         0.28         II         2         2         00,04,06-10         8.1         (F)         6         6.9         4           Llewelling         Springlake         Unin         0.40         II         2         2         2         6         18.2         6         18.3         C         6         18.2         2         2         2         6         18.2         6         18.3         C         6         18.2         6         18.3         C         6         18.2         6         18.2         2         2         2         2         18.3         C         6         15.0         1         15.0         6         15.0         1         15.0         1         15.0         1         15.0         1         15.0         1         15.0         1         15.0         1         15.0         1         1         1         2         2         91.95         1 <t< td=""><td>20</td><td>Hesperian - NB</td><td>Hacienda</td><td>Grant</td><td>Unin</td><td>0.65</td><td>=</td><td>2</td><td>2</td><td></td><td>29.4</td><td>В</td><td>9</td><td>16.6</td><td>۵</td></t<>	20	Hesperian - NB	Hacienda	Grant	Unin	0.65	=	2	2		29.4	В	9	16.6	۵
Llewelling         Springlake         Unin         0.40         II         2         2         2         2         6         18.2           Springlake         Fairmont         SL         0.66         II         2         2         2         0         6         13.5         2           Fairmont         Hath         SL         0.32         II         2         2         2         14.8         D         6         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         15.0         17.5	21	Hesperian - NB	Grant	Llewelling	Unin	0.28	=	2	2	00,04,06-10	8.1	(F)	9	6.9	(F)
Hesperian - NB         Springlake         Fairmont         SL         0.66         II         2         2         2         4.8         D         6         13.5           Hesperian - NB         Fairmont         14th         SL         0.32         II         2         2         2         91,95,97.08         12.4         E         6         15.0           Hesperian - SB         Fairmont         Springlake         SL         0.31         II         2         2         91,95,97.08         12.4         E         7         17.5         7           Hesperian - SB         Fairmont         Springlake         Llewelling         Unin         0.28         II         2         2         91,95,97.08         R         7         7.9         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         7         13.5         1         7         7         13.5         1         7         13.6         1         7         13.6         1         13.6         7         13.6         1         1         2         2         0         0         1	22	Hesperian - NB	Llewelling	Springlake	Unin	0.40	=	2	2		23.3	ပ	9	18.2	ပ
Hesperian - NB         Fairmont         SL         0.32         II         2         2         2         13.7         E         6         15.0           Hesperian - SB         14th         Fairmont         SL         0.31         II         2         2         91, '95, '97.08         I2.4         E         7         17.5         7           Hesperian - SB         Fairmont         Springlake         Llewelling         Unin         0.40         II         2         2         '00, 10         8.1         (F)         7         7.9         7           Hesperian - SB         Llewelling         Unin         0.28         II         2         2         '00, 10         8.1         (F)         7         7.9         7         7.9         7         7.9         7         7.9         7         7.9         7         7.9         7         7.9         7         7         7.9         7         7         7.9         7	23	Hesperian - NB	Springlake	Fairmont	S	99.0	=	2	2		14.8	۵	9	13.5	ш
Hesperian - SB         Fairmont         SL         0.31         II         2         91, '95, '97, 08         12.4         E         7         17.5           Hesperian - SB         Fairmont         Springlake         SL         0.65         II         2         2         91, '95, '97, 08         T         7         17.5         7           Hesperian - SB         Springlake         Llewelling         Unin         0.28         II         2         2         2         7         13.5         7         7.3         7           Hesperian - SB         Grant         Hacienda         Unin         0.65         II         2         2         2         1.86         C         7         7.8.8         7         1.8.6         7         1.8.6         7         1.8.6         7         1.8.6         7         1.8.6         7         1.8.6         7         1.8.6         7         1.8.6         7         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1.8.4         1         1	24	Hesperian - NB	Fairmont	14th	SL	0.32	=	2	2		13.7	Ш	9	15.0	۵
Hesperian - SB         Fairmont         Springlake         Llewelling         Unin         0.65         II         2         2         91 - 92         18.8         C         7         17.5         9           Hesperian - SB         Springlake         Llewelling         Unin         0.28         II         2         2         2         7         13.8         E         7         7.9         7         7.9         7<	25	Hesperian - SB	14th	Fairmont	SF	0.31	=	2	2	'91, '95, '97,08	12.4	Ш	7	17.5	۵
Hesperian - SB         Springlake         Llewelling         Unin         0.40         II         2         2         00, 10         8.1         (F)         7         7.9         7         7.9           Hesperian - SB         Llewelling         Grant         Unin         0.65         II         2         2         2         2         7         7.8         7         26.8         7           Hesperian - SB         Hacienda         A St         Unin         0.65         II         2         2         2         7         7         26.8         7         26.8         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         22.3         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         1         19.6         1         19.6         1         19.6         1         19.6         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <td>26</td> <td>Hesperian -</td> <td>Fairmont</td> <td>Springlake</td> <td>SF</td> <td>0.65</td> <td>=</td> <td>2</td> <td>2</td> <td>'91 - '92</td> <td>18.8</td> <td>ပ</td> <td>7</td> <td>17.5</td> <td>۵</td>	26	Hesperian -	Fairmont	Springlake	SF	0.65	=	2	2	'91 - '92	18.8	ပ	7	17.5	۵
Hesperian - SB         Llewelling         Grant         Unin         0.65         II         2         2         2         2         7         13.5         7         13.5           Hesperian - SB         Grant         Hacienda         Unin         0.65         II         2         2         2         7         7         26.8         7         26.8         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         22.3         7         18.4         7         18.4         7         18.4         7         18.4         7         18.4         7         18.4         7         18.4         7         18.6         7<	27	Hesperian	Springlake	Llewelling	Unin	0.40	=	2	2	'00, 10	8.1	(F)	7	7.9	Ð
Hesperian - SB         Grant         Hacienda         Unin         0.65         II         2         2         2         2         7         26.8         7         26.8         7         26.8         8         4         2         2         2         2         2         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         18.4         8         7         18.4         8         7         18.4         8         7         18.4         8         18.4         9         18.4         9         18.4         9         18.4         9         18.4         9         18.4 </td <td>28</td> <td>Hesperian - SB</td> <td>Llewelling</td> <td>Grant</td> <td>Unin</td> <td>0.28</td> <td>=</td> <td>2</td> <td>2</td> <td></td> <td>13.8</td> <td>Ш</td> <td>7</td> <td>13.5</td> <td>Ш</td>	28	Hesperian - SB	Llewelling	Grant	Unin	0.28	=	2	2		13.8	Ш	7	13.5	Ш
Hesperian - SB         Hacienda         A St         Unin         0.65         II         2         2         2         2         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         19.6         7         18.6         7         22.3         7         18.4         7         18.4         8         7         18.4         8         7         18.4         8         7         18.4         8         7         18.6         8         8         18.6	29	Hesperian - SB	Grant	Hacienda	Unin	0.65	=	2	2		21.8	ပ	7	26.8	В
Hesperian - SB         A St         W.Winton Ave         Hay         0.96         II         A         C         7         22.3           Hesperian - SB         W.Winton Ave         La Playa         Hay         0.44         II         A         24.8         B         7         18.4 <td>90</td> <td>Hesperian - SB</td> <td>Hacienda</td> <td>A St</td> <td>Unin</td> <td>0.65</td> <td>=</td> <td>2</td> <td>2</td> <td></td> <td>19.6</td> <td>ပ</td> <td>7</td> <td>19.6</td> <td>O</td>	90	Hesperian - SB	Hacienda	A St	Unin	0.65	=	2	2		19.6	ပ	7	19.6	O
Hesperian - SB         W.Winton Ave         La Playa         Hay         0.79         II         Annion and a series         B         7         18.4           Hesperian - SB         La Playa         SH 92         Hay         0.79         II         2         3         08-10         11.0         (F)         6         11.7         0	31	Hesperian - SB	A St	W.Winton Ave.	Нау	96.0	=				18.6	ပ	7	22.3	O
Hesperian - SB         La Playa         SH 92         Hay         0.79         II         2         3         08-10         11.0         (F)         6         11.7         0	32	Hesperian - SB	W.Winton Ave	La Playa	Нау	0.44	=				24.8	В	7	18.4	ပ
Hesperian - SB SH 92 - WB   Tennyson   Hay   0.47   1   2   3   08-10   11.0 <b>(F)</b> 6   11.7   0.47	33	Hesperian - SB		SH 92	Нау	0.79	=				17.2	۵	7	18.6	ပ
	8	Hesperian -		Tennyson	Нау	0.47	_	2	3	08-10	11.0	(F)	9	11.7	(F)

CMP Route   Segment Limits   To Juris   Cinites   Cini			Š	2012 LOS Moni	Monitoring Study Draft Results - Arterials PM	dy Draft	Results	- Arteri	als PM	Peak Period					
Roture         From         To         Juris         (miles)         Class         Area         Lanos         (Years)         Speed         LOS         runs           1-860         Favveil         Free         2.63         II         3         2         '91-'92         14.1         D         7           Fanveil         Fraveil         Free         2.63         II         3         2         '91-'92         14.1         D         7           EB         Franveil         Free         2.63         II         3         2         '91-'92         2.1         B         7           EB         Franveil         Free         2.63         II         1         2         2.2         C         7           EB         Franveil         Free         2.63         II         1         2         2.1         B         7           EB         Franveil         Free         0.63         III         1         2         1.1         B         7           WB         Kennedy         Santa Clara         Ala         0.65         II         1         2         1.1         B         7           WB         Kennedy			Segment Limits			Length	Arterial	Plan	No of		2010 LOS R	esults	1 L	2012 LOS Results	lts
Farvell   SH 84   Fie   C34   II   3   2   911-92   141   D   7	#	CMP Route	From	OT.	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	ros	# of runs	Speed	ros
Faivelit         SH 84         Free         2.63         II         3         2         2.51         B         7           Farvelit         Free         2.63         II         3         2         2.26         C         7           Farvelit         Free         2.63         II         3         2         2.03         C         7           EB         Farvelit         Free         0.34         II         1         2         20.9         C         7           EB         Santa Clara         Kennedy         Ala         0.66         III         1         2         24.1         B         7           WB         E 11h         Kennedy         Ala         0.66         III         1         2         24.1         B         7           WB         E 14h         Kennedy         Ala         0.66         III         1         2         12.3         C         7           WB         Kennedy         Ala         0.66         III         1         2         12.3         B         7           WB         Kennedy         Ala         0.66         III         1         2         12.3         B <th>35</th> <th>Mowry - FB</th> <th>1-880</th> <th>Farwell</th> <th>Fre</th> <th>0.34</th> <th>=</th> <th>c</th> <th>٥</th> <th>191 - 192</th> <th>14.1</th> <th>٥</th> <th>7</th> <th>17.0</th> <th>۵</th>	35	Mowry - FB	1-880	Farwell	Fre	0.34	=	c	٥	191 - 192	14.1	٥	7	17.0	۵
SH 64         Favell         Fre         2.63         II         3         2         2.6         C         7           Fawvell         1880         Fre         0.34         II         3         2         20.9         C         7           B         Farvell         1880         Fre         0.34         II         1         2         20.9         C         7           B         Endracell         Kennedy         Ala         0.66         III         1         2         13.2         C         7           NB         E1th         Ala-Oak         0.45         II         1         2         13.2         C         7           NB         Kennedy         E1th         Ala         0.66         III         1         2         12.3         B         7           NB         Kennedy         Santa Clara         Ala         0.66         III         1         2         12.3         B         7           NB         Kennedy         Santa Clara         Ala         0.66         III         1         2         12.3         B         7           NB         Kennedy         Santa Clara         Ala	38	Mowry - EB	Farwell	SH 84	Fre	2.63	=	3	2		25.1	В	7	25.9	В
Encinal         Lead         Fee         0.34         III         3         2         20.9         C         7           EB         Encinal         Santa Clara         Ala         0.66         III         1         2         13.2         C         7           BB         Santa Clara         Kennedy         Ala         0.66         III         1         2         13.2         C         7           BB         Kennedy         E11th         Ala-Oak         0.45         II         1         2         13.2         C         7           BB         Kennedy         E11th         Ala-Oak         0.45         II         1         2         13.9         E         7           NB         Kennedy         E11th         Ala-Oak         0.45         II         1         2         13.2         C         7           NB         Kennedy         Bark         0.90         II         1         2         12.8         7           NB         Santa Clara         Bark         0.32         II         1         2         14.9         6         6           NB         MLKJr-North         Bark         0.63 <td< td=""><td>37</td><td>Mowry - WB</td><td>SH 84</td><td>Farwell</td><td>Fre</td><td>2.63</td><td>=</td><td>3</td><td>2</td><td></td><td>22.6</td><td>ပ</td><td>7</td><td>22.7</td><td>ပ</td></td<>	37	Mowry - WB	SH 84	Farwell	Fre	2.63	=	3	2		22.6	ပ	7	22.7	ပ
B         Santa Clara         Ala         0.23         III         1         2         21.3         B         7           B         Santa Clara         Kennedy         Ala         0.66         III         1         2         13.2         C         7           RB         Kennedy         E 11th         Ala - Oak         0.45         II         1         2         24.1         B         7           MB         Kennedy         Santa Clara         Ala - Oak         0.45         II         1         2         24.1         B         7           MB         Kennedy         Santa Clara         Ala - Oak         0.45         II         1         2         24.1         B         7           MB         Kennedy         Santa Clara         Ala - Oak         0.63         II         1         2         0.41         D         7           MB         Santa Clara         Ala         0.63         II         1         2         0.41         B         7           MLK Jr. North         Berk         0.63         II         1         2         0.41         11         2         0.41         1           Shattuck/Adeline	ਲ	Mowry - WB	Farwell	1-880	Fre	0.34	=	3	2		20.9	ပ	7	23.9	O
Enciral         Santa Clara         Ala         0.23         III         1         2         21.3         B         7           Santa Clara         Kennedy         Ala         0.66         III         1         2         132         C         7           Kennedy         E 11th         Ala-Oak         0.45         II         1         2         24.1         B         7           Kennedy         Santa Clara         Ala         0.86         III         1         2         24.1         B         7           B         Kennedy         Santa Clara         Ala         0.66         III         1         2         044         B         7           B         Santa Clara         Ala         0.80         III         1         2         044         B         7           B         Shatuck/Alacine         Dought         Bark         0.63         II         1         2         044         B         7           B         Shatuck/Adeline         Bark         0.63         II         1         2         044         B         7           B         Dwight         Bark         0.63         II         1															
Santa Clara         Kennedy         Ala Oak         0.66         III         1         2         132         C         7           Kennedy         E 14th         Ala Oak         0.45         II         1         2         13.9         E         7           Kennedy         Kennedy         Kennedy         Ala Oak         0.45         III         1         2         24.1         B         7           Kennedy         Kennedy         Santa Clara         Ala Oak         0.60         III         1         2         12.81         D         7           Kennedy         Enchal         Ala Oak         0.60         III         1         2         12.81         D         7           Maximodolina         Mix Jr. North         Berk         0.63         II         1         2         04         16.5         6           Dwight         Berk         0.63         III         1         2         04         16.5         7           Dwight         Berk         0.63         III         1         2         04         16.5         7           Dwight         Shatuck/Adeline         Berk         0.63         II         1	38	Park/23rd - EB	Encinal	Santa Clara	Ala	0.23	=	-	2			В	7	11.2	۵
Kennedy         E 11th         Ala - Oak         045         II         1         2         24.1         B         7           Inth         Kennedy         Ala - Oak         0.45         II         1         2         24.1         B         7           Inth         Kennedy         Santa Clara         Ala         0.66         III         1         2         24.1         B         7           Inth         Aclaine         Adeline         Oak         0.90         II         1         2         04         18.8         C         6           MLK Jr - North         Berk         0.30         II         1         2         04         18.8         C         6           MLK Jr - North         Berk         0.63         II         1         2         04         18.8         C         6           Shatuck/Adeline         Dwight         Berk         0.63         II         1         2         04         18.8         C         6           Invessity         Berk         0.63         II         1         2         04         18.8         C         6           Shatuck/Adeline         Berk         0.63 <t< td=""><td>40</td><td>Park/23rd - EB</td><td>Santa Clara</td><td>Kennedy</td><td>Ala</td><td>99.0</td><td>=</td><td>1</td><td>2</td><td></td><td></td><td>ပ</td><td>7</td><td>13.1</td><td>O</td></t<>	40	Park/23rd - EB	Santa Clara	Kennedy	Ala	99.0	=	1	2			ပ	7	13.1	O
tennedy         Ala - Oak         045         II         1         2         241         B         7           kennedy         Santa Clara         Ala         0.66         III         1         2         12.9         D         7           stanta Clara         Encial         Ala         0.66         III         1         2         12.9         D         7           Banta Clara         Fincial         Alaeline         Oak         0.90         II         1         2         04         18.8         C         6           MLK Jr - South         Berk         0.32         II         1         2         04         18.8         C         6           MK Jr - South         Berk         0.32         II         1         2         04         18.8         C         6           Dwight         Dwight         Berk         0.63         III         1         2         04         18.8         C         6           Dwight         Berk         0.63         III         1         2         04         18.8         C         6           Shatuck/Adeline         Berk         0.63         II         1         2	41	Park/23rd - EB	Kennedy	E 11th	Ala - Oak	0.45	=	1	2			ш	7	19.8	ပ
tennedy         Santa Clara         Ala         0.66         III         1         2         12.9         D         7           B         Santa Clara         Encinal         Ala         0.23         III         1         2         12.8         D         7           B         SH 24         Adeline         Oak         0.90         II         1         2         04         18.1         C         6           MLX J- South         MLX J- South         Berk         0.63         II         1         2         04         14.8         C         6           Shatuck/Adeline         Dwight         Berk         0.63         III         1         2         04         14.9         C         6           Dwight         Junversity         Dwight         Berk         0.63         III         1         2         04         14.9         C         6           Dwight         Berk         0.63         III         1         2         0         14.9         C         6           Shatuck/Adeline         Berk         0.63         II         1         2         0         13.5         C         7           MK.J Nort	42	Park/23rd - WB	E 11th	Kennedy	Ala - Oak	0.45	=	1	2		24.1	В	7	29.8	В
8         Santa Clera         Encinal         Ala         0.23         III         1         2         04         12.8         D         7           B         SH-24         Adeline         Oak         0.90         II         1         2         04         18.8         C         6           MLX Jr. North         MLX Jr. North         Berk         0.63         III         1         2         04         18.8         C         6           Shattuck/Adeline         Berk         0.63         III         1         2         04         17.2         D         6           Dwight         Berk         0.63         III         1         2         04         13.5         C         7           Dwight         Berk         0.63         III         1         2         06         7         6           Shattuck/Adeline         Berk         0.63         II         1         2         07         7         7           Shattuck/Adeline         Berk         0.63         II         1         2         0         25.0         7         7           MLK Jr. North         Berk         0.63         II         1	43	Park/23rd - WB	Kennedy	Santa Clara	Ala	99.0	=	1	2		12.9	۵	7	12.8	۵
B         SH-24         Adeline         Oak         0.90         II         1         2         044         18.1         C         6           MLK Jr. South         MLK Jr. North         MLK Jr. North         Berk         0.63         II         1         2         044         18.8         C         6         6           MLK Jr. North         Shattuck/Adeline         Dwight         Berk         0.63         III         1         2         04         14.9         C         6         6           Dwight         Dwight         Berk         0.63         III         1         2         04         13.5         C         7         6           Dwight         Berk         0.63         II         1         2         0.22         7         7           Bulk Jr. North         Berk         0.63         II         1         2         06         7         7           B         Adeline         SH 24         Oak         0.88         I         1         2         06         7         7           B         Adeline         SH 24         Oak         0.88         I         1         2         06         7	44	. Park/23rd - WB	Santa Clara	Encinal	Ala	0.23	=	1	2		12.8	۵	7	9.7	۵
MLK Jr - South         MLK Jr - North         Berk         0.30         II         1         2         0.44         18.8         C         6           MLK Jr - North         Shattuck/Adeline         Berk         0.63         II         1         2         0.44         15.5         D         6           Shattuck/Adeline         Dwight         Berk         0.63         III         1         2         14.9         C         6         7           Dwight         Berk         0.63         III         1         2         14.9         C         6         7           Dwight         Berk         0.63         III         1         2         14.9         C         7         7           Shattuck/Adeline         MLK Jr - North         Berk         0.30         II         1         2         0.35         C         7         7           B         Adeline         SH 24         Oak         0.30         II         1         2         96         7         7         7           B         Adeline         Hesperian         Hay         1.55         II         2         0         0         0         7         7	45	MLK Jr Way -NB	SH 24	Adeline	Oak	06.0	=	1	2		18.1	ပ	9	17.4	۵
MLK Jr - North         Shattuck/Adeline         Berk         0.63         II         1         2         16.5         D         6           Shattuck/Adeline         Dwight         Berk         0.32         II         1         2         17.2         D         6           Dwight         University         Berk         0.63         III         1         2         14.9         C         6         6           University         Dwight         Berk         0.63         III         1         2         13.5         C         7         6         6           University         Dwight         Berk         0.63         II         1         2         13.5         C         7         7           Dwight         Berk         0.32         II         1         2         13.5         C         7         7           MLK Jr - North         Berk         0.30         II         1         2         3         1         2         7         7         7           Berk         Adeline         SH 24         0.38         II         1         2         3         1         2         7         7         7 <tr< td=""><td>46</td><td>Adeline - NB</td><td>MLK Jr - South</td><td>MLK Jr - North</td><td>Berk</td><td>0:30</td><td>=</td><td>1</td><td>2</td><td>40</td><td>18.8</td><td>ပ</td><td>9</td><td>15.2</td><td>Ω</td></tr<>	46	Adeline - NB	MLK Jr - South	MLK Jr - North	Berk	0:30	=	1	2	40	18.8	ပ	9	15.2	Ω
Shattuck/Adeline         Dwight         Berk         0.32         II         1         2         17.2         D         6           Dwight         University         Berk         0.63         III         1         2         14.9         C         6           University         Dwight         Berk         0.63         III         1         2         13.5         C         7           Dwight         Shattuck/Adeline         Berk         0.32         II         1         2         22.5         C         7           Shattuck/Adeline         MLK Jr. North         Berk         0.30         II         1         2         22.5         C         7           B Adeline         SH24         Oak         0.88         II         1         2         96, 00         20.0         C         7           Hesperian         Hay         0.88         II         2         2         0         5         7           1-880         Hay         1.63         II         2         2         0         7         6           1-880         Hasperian         Hay         0.86         II         2         2         0         0 <td>47</td> <td>' Adeline - NB</td> <td>MLK Jr - North</td> <td>Shattuck/Adelin</td> <td>Berk</td> <td>0.63</td> <td>=</td> <td>1</td> <td>2</td> <td></td> <td>15.5</td> <td>۵</td> <td>9</td> <td>15.3</td> <td>۵</td>	47	' Adeline - NB	MLK Jr - North	Shattuck/Adelin	Berk	0.63	=	1	2		15.5	۵	9	15.3	۵
Dwight         University         Berk         0.63         III         1         2         14.9         C         6           University         Dwight         Berk         0.63         III         1         2         13.5         C         7           Dwight         Shattuck/Adeline         Berk         0.32         II         1         2         22.5         C         7           Shattuck/Adeline         MLK Jr - North         Berk         0.30         II         1         2         22.5         C         7           MLK Jr - North         MLK Jr - South         Berk         0.30         II         1         2         20.0         20.0         C         7           B Adeline         SH 24         Oak         0.88         II         1         2         20         0         2         7         7           Hesperian         Hay         0.88         I         2         2         0         0         7         6           1-880 NB         Hay         1.63         I         2         2         2         0         0         0         0         0         0         0         0         0 <t< td=""><td>48</td><td>Shattuck NB</td><td>Shattuck/Adeline</td><td>Dwight</td><td>Berk</td><td>0.32</td><td>=</td><td>1</td><td>2</td><td></td><td>17.2</td><td>۵</td><td>9</td><td>15.7</td><td>۵</td></t<>	48	Shattuck NB	Shattuck/Adeline	Dwight	Berk	0.32	=	1	2		17.2	۵	9	15.7	۵
University         Dwight         Berk         0.63         III         1         2         13.5         C         7           Shatuck/Adeline         Shatuck/Adeline         Berk         0.32         II         1         2         22.5         C         7           Shatuck/Adeline         MLK Jr - North         Berk         0.63         II         1         2         22.5         C         7         7           B         Adeline         MLK Jr - North         MLK Jr - South         Berk         0.30         II         1         2         36,00         20.0         C         7         7           B         Adeline         SH 24         Oak         0.88         II         1         2         36,00         C0.0         C         7         7           Hesperian         Hasp         0.88         I         2         2         06         21.7         C         7         7           R         Hasp         1.63         I         2         2         0         C         7         6           R         1.80         Hasp         1.63         I         2         2         2         C         6         <	46	Shattuck NB	Dwight	University	Berk	0.63	=	1	2		14.9	ပ	9	13.8	ပ
Dwight         Shattuck/Adelin         Berk         0.32         II         1         2         25.5         C         7           Shattuck/Adeline         MLK Jr - North         MLK Jr - North         MLK Jr - North         Berk         0.63         II         1         2         95,00         20.0         C         7           B         Adeline         SH 24         Oak         0.88         II         1         2         95,00         20.0         C         7         7           Hesperian         SH 24         Oak         0.88         II         2         2         06         21.7         C         7         7           Hesperian         Hay         1.63         II         2         2         06         21.7         C         6           Rt 238         Hay         1.63         II         2         2         0         21.6         6         6           Rt 238         Hay         0.85         I         2         2         0         21.6         0         6           Hesperian         Hay         0.85         I         2         2         0         21.6         0         6	50	Shattuck SB	University	Dwight	Berk	0.63	=	1	2		13.5	ပ	7	12.8	۵
Shattuck/Adeline         MLK Jr - North         Berk         0.63         II         1         2         95, 700         20.0         C         7           B         Adeline         SH 24         Oak         0.30         II         1         2         '95, 700         20.0         C         7         7           B         Adeline         SH 24         Oak         0.88         II         1         2         20         21.7         C         7         7           Hesperian         Hesperian         Hay         1.65         II         2         2         0         6         2         6         7         6           1         Hesperian         Hay         1.63         II         2         2         0         6         7         7         6           1         Hesperian         Hay         1.63         II         2         2         0         6         7         7         1           1         Hesperian         Hay         0.85         I         2         2         2         0         6         7         7         1           6th         San Pablo         Berk         0.34	51	Shattuck SB	Dwight	Shattuck/Adelin	Berk	0.32	=	1	2		22.5	ပ	7	26.3	В
MLK Jr - South         Berk         0.30         II         1         2         95, 00         20.0         C         7           B         Adeline         SH 24         Oak         0.88         II         1         2         06         21.7         C         7         7           Hesperian         I-880 NB         Hay         1.55         II         2         2         06         22.0         C         6         6           S         Rt 238         Hay         1.55         II         2         2         06         22.0         C         6         6           S         Rt 238         Hay         1.63         I         2         2         2         6         6         7         6           Hesperian         Hay         0.85         I         2         2         2         6         7         6         7         6         6         7         6         7         6         7         6         6         7         6         6         7         6         6         6         6         6         6         6         6         6         6         6         6         6	52	Adeline - SB	Shattuck/Adeline	MLK Jr - North	Berk	0.63	=	1	2		13.1	ш	7	13.0	Ш
B         Adeline         SH 24         Oak         0.88         II         1         2         06         21.7         C         7           Hesperian         Hesperian         Hay         0.88         I         2         2         06         22.0         C         6           S         Hesperian         Hay         1.55         II         2         2         0         6         6         6           S         Rt 238         Hay         1.63         II         2         2         2         6         6         7         6           S         Rt 238         Hesperian         Hay         0.85         I         2         2         2         6         6         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         7         6         7         7         6         7         6         7         7         6         7         6         7         7         6         7         6         7         6         7         6         7         6         7         6         7         <	55	Adeline - SB	MLK Jr - North	MLK Jr - South	Berk	0:30	=	1	2			ပ	7	21.5	ပ
Hesperian         I-880 NB         Hay         0.88         I         2         2         06         22.0         C         6           3         Rt 238         Hay         1.55         II         2         2         19.9         C         6           3         Rt 238         Hay         1.63         II         2         2         19.9         C         6           4         Hesperian         Hay         0.85         I         2         2         19.2         C         6           5         Hesperian         Hay         0.85         I         2         2         2         7         6           1-80 SB         Ghh         Berk         0.40         II         1         2         26.7         B         6           6th         San Pablo         Berk         0.56         II         1         2         10.0         C         6           Sacramento         ML King         Berk         0.30         III         1         2         18.9         C         6           ML King         Shattck PI         Berk         0.30         III         1         2         11.5         C	ሚ	MLK Jr Way -SB	Adeline	SH 24	Oak	0.88	=	1	2			ပ	7	15.3	D
Hesperian         1-880 NB         Hay         0.88         1         2         2         06         22.0         C         6           1-880 NB         Rt 238         Hay         1.55         II         2         2         19.2         C         6           3         Rt 238         Hay         1.63         II         2         2         1         19.2         C         6           4         Hesperian         Hay         0.85         I         2         2         2         7         7         7         6           1-80 SB         Hesperian         Hay         0.40         II         1         2         2         7         7         6           6th         San Pablo         Berk         0.31         II         1         2         2         8         6															
1-880 NB         Rt 238         Hay         1.55         II         2         2         2         2         6         6         6           8         Rt 238         1-880         Hay         1.63         II         2         2         2         7	55	Tennyson - EB	Hesperian	1-880	Нау	0.88	_	2	2	90	22.0	O	9	20.1	۵
8         Rt 238         1-880         Hay         1.63         II         2         2         2         2         7         7         7           8         1-880         Hesperian         Hay         0.85         I         2         2         2         7         0         6         7         7         6         6         7         6         6         7         6         7         6         6         7         6         7         6         7         6         7         6         7         6         6         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         7         7         7         7         8         8         6         7         8         8         6         8	56	Tennyson - EB	I-880 NB	Rt 238	Нау	1.55	=	2	7		19.9	ပ	9	19.2	ပ
8         1-880         Hesperian         Hay         0.85         1         2         2         2         16         D         6           1-80 SB         6th         Berk         0.31         II         1         2         19.0         C         6           6th         San Pablo         Berk         0.31         II         1         2         II         11.5         E         6           Sacramento         ML King         Berk         0.48         II         1         2         18.9         C         6           ML King         Shattck PI         Berk         0.30         III         1         2         17.0         C         6	57	Tennyson - WB	Rt 238	1-880	Нау	1.63	=	2	2		19.2	O	7	20.1	O
1-80 SB         6th         Berk         0.40         II         1         2         26.7         B         6           6th         San Pablo         Sacramento         Berk         0.56         II         1         2         11.5         E         6           Sacramento         ML King         Berk         0.30         III         1         2         18.9         C         6	55	Tennyson - WB	1-880	W.	Нау	0.85	_	2	2		21.6	۵	9	20.5	۵
1-80 SB         6th         Berk         0.40         II         1         2         26.7         B         6           6th         San Pablo         Sarcamento         Berk         0.31         II         1         2         19.0         C         6         6           San Pablo         Sacramento         Berk         0.56         II         1         2         11.5         E         6         6         6           ML King         Berk         0.30         III         1         2         17.0         C         6         6															
6th         San Pablo         Berk         0.31         II         1         2         19.0         C         6           San Pablo         Sacramento         Berk         0.56         II         1         2         11.5         E         6           Sacramento         ML King         Berk         0.30         III         1         2         18.9         C         6           ML King         Shattck PI         Berk         0.30         III         1         2         17.0         C         6	56	University - EB		6th	Berk	0.40	=	1	2		26.7	В	9	16.9	۵
San Pablo         Sacramento         Berk         0.56         II         1         2         11.5         E         6           Sacramento         ML King         Berk         0.48         II         1         2         18.9         C         6           ML King         Shattck PI         Berk         0.30         III         1         2         17.0         C         6	ე9	University - EB		San Pablo	Berk	0.31	=	-	2		19.0	ပ	9	15.3	۵
Sacramento         ML King         Berk         0.48         II         1         2         18.9         C         6           ML King         Shattck PI         Berk         0.30         III         1         2         17.0         C         6	61	University - EB	San Pablo	Sacramento	Berk	0.56	=	_	2		11.5	Ш	9	18.4	ပ
ML King   Shattck PI   Berk   0.30   III   1   2   17.0   C   6	79	University - EB	Sacramento	ML King	Berk	0.48	=	-	2		18.9	ပ	9	16.6	۵
	9	University - EB	ML King	Shattck PI	Berk	0.30	=	-	2		17.0	ပ	9	11.2	D

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		Ñ	2012 LOS Mon	itoring Stu	dy Draft	Results	- Arteri	als PM	Monitoring Study Draft Results - Arterials PM Peak Period					
		Segment Limits			Length	Arterial	Plan	No of	Prior LOS "F"	2010 LOS Results	Results		2012 LOS Results	ılts
#	CMP Route	From	То	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	ros	# of runs	Speed	ros
49	University - WB	Shattck PI	ML King	Berk	0.30	=	_	2		13.7	O	7	11.0	۵
65	65 University - WB	ML King	Sacramento	Berk	0.48	=	1	2		19.2	O	7	24.8	В
99	66 University - WB		San Pablo	Berk	0.56	=	_	2		12.6	Ш	7	6.6	(F)
29	University - WB		6th	Berk	0.31	=	1	2	86,	17.9	۵	7	10.2	ш
89	University - WB	6th	I-80 SB	Berk	0.40	=	-	2		38.9	4	7	37.8	⋖
69	SR 13 Ashby - WB	Hiller	Domingo	Oak - Berk	0.79	=	_	2		25.6	В	9	21.3	O
20	70 SR 13 Ashby - WB	Domingo	College	Berk	0.50	=	-	1		18.0	O	9	16.0	O
71	71 SR 13 Ashby - WB	College	Telegraph	Berk	0.38	=	_	_		11.0	۵	9	10.2	۵
72	72 SR 13 Ashby - WB	Telegraph	Shattuck	Berk	0.38	=	_	-	'91 - '92	12.5	۵	9	14.8	ပ
73	73 SR 13 Ashby - WB		ML King	Berk	0.24	=	-	7	- 1	9.2	۵	9	7.8	ш
74	SR 13 Ashby - WB		San Pablo	Berk	0.87	=	_	-		13.8	ပ	9	11.8	۵
75	SR 13 Ashby - WB		I-80 Ramps	Berk	0.64	=	-	2		22.0	ပ	9	18.2	O
9/	SR 13 Ashby - EB	1-80	San Pablo	Berk	0.61	=	-	2		19.8	ပ	9	13.9	ш
77	SR 13 Ashby -	San Pablo	ML King	Berk	0.87	=	-	-		17.9	ပ	9	19.5	В
78	SR 13 Ashby	ML King	Shattuck	Berk	0.24	=	-	-		8.6	ш	9	7.2	ш
79	SR 13 Ashby - EB	Shattuck	Telegraph	Berk	0.38	=	-	-		13.4	ပ	9	15.8	O
80	SR 13 Ashby - EB	Telegraph	College	Berk	0.38	=	_	-		7.3	ш	9	12.9	۵
81	SR 13 Ashby	College	Domingo	Berk	0.50	=	-	1	91,00,04,10	6.5	(F)	9	7.7	ш
82	SR 13 Ashby - EB	Domingo	Hiller	Berk - Oak	0.79	=	-	2		24.0	ပ	9	25.4	В
83	SR 61 - SB	Atlantic	Cent/Webster	Ala	0.55	=	-	2		11.5	۵	7	12.7	۵
8	SR 61 - SB	Cent/Webster	Sher/Encino	Ala	0.73	=	-	2		23.1	O	7	18.9	O
85	SR 61 - SB	Sher/Encino	Park	Ala	1.22	=	_	_		19.2	O	7	18.7	O
86	SR 61 - SB	Park	High/Otis	Ala	1.06	=	_	_		20.2	O	7	21.4	O
87	SR 61 (Doolittle) - SB*High	*High	Island Dr	Ala	0.41	=	_	2		17.8	۵	7	20.7	O
88	88 SR 61 (Doolittle) - SB*Island Dr	*Island Dr	Harbor Bay Pkv	Ala	0.50	_	_	2		31.9	В	9	29.0	В
88	89 SR 61 - SB	Harbor Bay	Airport Dr	Oak	2.15	-	_	_		33.0	В	9	31.1	В
6	SR 61 (Doolittle) - SB Airport		Davis	Oak - SL	0.95	-	_	2		39.5	4	9	30.0	В
91	SR 61 (Doolittle) - NB	Davis	Airport	SL - Oak	0.95	-	2	2		33.1	В	8	30.0	В
92	SR 61 - NB		Harbor Bay	Ala	2.15	-	-	-		36.2	∢	8	36.4	⋖
93	SR 61 (Doolittle)-NB*		Island Dr	Ala	0.50	-	_	2		27.5	В	8	32.8	⋖
92	SR 61 (Doolittle)-NB*	Island Dr	High/Otis	Ala	0.41	=	_	2		18.6	O	8	16.6	Ω
95	SR 61 - NB		Park	Ala	1.06	=	1	1			В	8	22.8	ပ

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6         Segment Limits         Length Arefals         Path No of Prior LOS F?         Path No of Prior LOS F.         Path No of Pr			Ñ	2012 LOS Moni	Monitoring Study Draft Results	ıdy Draft	Results	- Arteri	als PM	- Arterials PM Peak Period					
CMP Route         From         To         Juris         (miles)         Class         Area         Lanes         (Years)         Speed         LOS         1         1         2         Correction         Correction         Correction         Correction         Alea         1,22         1         1         2         21.0         C			Segment Limits			Length	Arterial		No of	Prior LOS "F"	2010 LOS	Results		012 LOS Resu	ılts
SR 61 · NB         PawkEnchala         Sher/Cent         Ala         1122         II         1         1         2         180         C           SR 61 · NB         Cent/Web         MeabCent         Ala         0.73         II         1         2         150         C           SR 61 · NB         Cent/Web         Hannic         Ala         0.55         III         1         2         150         C           SR 77 (42nd) · WB         E 14th         Oak         0.30         I         1         2         151         C           SR 77 (42nd) · WB         E 14th         Oak         0.30         I         1         2         157         C           Decoto · WB         Onton Square         Union Square         UC         0.55         II         3         2         157         B           Decoto · WB         AlvAnies Rd         UC         0.66         II         3         2         157         B           Decoto · EB         Inhon Square         UC         0.66         II         3         2         157         B           Decoto · EB         Inhon Square         Union Cly CL         Fre         158         I         3	#	CMP Route	From	To.	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	FOS	# of runs	Speed	SOT
SR 61 - NB         Shet/Cent         Web/Cent         Ala         0.73         II         1         2         21.0         C           SR 77 (42x0) - EB         Cent/Web         Alamic         Alamic         Alamic         1         2         1	96	SR 61 - NB		Sher/Cent	Ala	1.22	=	1	٦		18.0	၁	8	17.7	۵
SR Of LANB         Cent/Web         Alamito         Ala         0.55         III         1         2         16.3         C           SR 77 (42nd) - LB         HeBON BB         E 14th         Oak         0.22         1         1         2         27.7         C           DECOLD - WB         E14th         Beach NB         C 14th         Oak         0.25         1         1         2         C           DECOLD - WB         E14th         Beach NB         UC         0.65         11         3         2         19.7         C           DECOLD - WB         Union Square         UC         0.65         11         3         2         19.7         C           DECOLD - WB         Union Square         UC         0.65         11         3         2         19.7         C           DECOLD - WB         Horin Square         UC         0.65         11         3         2         19.7         C           DECOLD - WB         Horin Square         UC         0.65         11         3         2         19.7         C           DECOLD - WB         Horin Square         UC         0.65         11         3         2         19.7         C<	97	SR 61 - NB		Web/Cent	Ala	0.73	=	1	2		21.0	ပ	8	21.5	ပ
SR 77 (42nd) - VEB         - He80 NB         Oak         0.32         1         1         2         27.7         C           DB cooto - VB         E14th         1880 NB         Oak         0.30         1         1         2         33.4         B           DB cooto - VB         5H 236 Mission         Union Square         UC         0.56         11         3         2         19.7         C           DB cooto - VB         Union Square         Alv-Niles Rd         UC         0.56         11         3         2         19.7         C           Decoto - VB         Alv-Niles Rd         Fremont CL         UC         0.66         11         3         2         19.2         2.0         7         C           Decoto - WB         Alv-Niles Rd         Union Cly CL         Alv-Niles Rd         UC         0.66         11         3         2         19.2         2.0         7         C           Decoto - EB         Liso Otto         Minon Cly CL         Alv-Niles Rd         UC         0.66         11         3         2         19.2         2.0         7         C           Decoto - EB         Liso Otto         Minon Cly CL         UC         0.66         11	86	SR 61 - NB		Atlantic	Ala	0.55	=	1	2		16.3	ပ	8	15.0	ပ
SR 77 (42nd) - EB         1-880 NB         E 14th         Oak         0.22         1         1         2         27.7         C           Decoto - WB         SH 236Mksson         Union Square         UC         0.66         II         3         2         14.6         D           Decoto - WB         SH 236Mksson         Union Square         UC         0.66         II         3         2         14.6         D           Decoto - WB         Alv-Nies Rd         Fremont CL         Fremont CL         Free         1.15         II         3         2         1.46         D           Decoto - WB         Alv-Nies Rd         Fremont CL         Frem CL         Frem CL         Frem CL         1.75         II         3         2         1.75         B           Decoto - EB         Alv-Nies Rd         Frem CL         Frem CL         Frem CL         1.75         II         3         2         2         C           Decoto - EB         Union Square         UC         0.66         II         3         2         1.75         B           Decoto - EB         Union Square         UC         0.66         II         3         2         1.75         B															
State   Stat	66	SR 77 (42nd) - EB	I-880 NB	E 14th	Oak	0.32	-	7	2		27.7	ပ	No da	nta collected	due to
Decoto - WB         SH 238MAssion         Union Square         UC         0.85         II         3         2         Instance and the control of the c	100	SR 77 (42nd) - WB	E 14 th	I-880 NB	Oak	0:30	-	_	7		33.4	В		constructio	c .
Decoto - WB         SH 23AMission         Union Square         UC         0.65         II         3         2         pri-ations condition         17.7         C         6         17.4           Decoto - WB         Union Square         VANINes Rd         UC         0.65         II         3         2         pri-ations condition         27.7         C         6         23.0           Decoto - WB         Fremont CL         LC         0.65         II         3         2         2.7         C         6         23.0           Decoto - RB         Holon Cly CL         Fremont CL															
Decodo - WB         Union Square         Alv-Miles Rd         UC         0.25         II         3         2         1-44-868.80-00-46         145         D         6         13.7           Decodo - WB         Alv-Miles Rd         Incoming Clar         <	101		SH 238/Mission	Union Square	Sn	0.85	=	3	2		19.7	ပ	9	17.4	Δ
Decotio - WB         Alt-Miles Rd         Femont CL         UG         0.66         II         3         2         2         77         B         6         29.0           Decotio - WB         Hemont CL         Femont CL	102	Decoto - WB	Union Square	Alv-Niles Rd	nc	0.25	=	3	2	91-94,96,98,'00-04,06	14.6	۵	9	13.7	ш
Decoto - WB   Fremont CL   +890 NB (off)   Fre   115   11   3   2   2   19   19   19   19   19   19	103	Decoto - WB		Fremont CL	S	99.0	=	3	2		27.7	В	9	29.0	В
Decoto - EB         H 890 NB (orth)         Unlon City CL         Air-Males Rd         UC         0.66         II         3         2         192         C         6         164           Decoto - EB         Unlon City CL         Air-Males Rd         Unlon City CL         Air-Males Rd         UC         0.66         II         3         2         137         C         6         17.9           Decoto - EB         Unlon Square         SH 238Missior         UC         0.85         II         3         2         0.77         C         6         17.9           SR 84Mowny (Fiel-)- Memory         Peralia         Free         0.78         I         3         2         2.43         C         6         2.15           SR 84Mowny (Fiel-)- Memory         Free Control         Free Control         11         3         4         2.43         C         6         2.15           SR 84Mowny (Fiel-)- Memory         Free Control         Free Control         1.29         II         3         4         2.43         B         6         2.15           SR 84Thornton (Fiel-)- Repealed         Free Control         Free Control         Free Control         Free Control         1.15         1         3         4	104	Decoto - WB		I-880 NB (off)	Fre	1.15	=	3	2		22.0	ပ	9	23.0	ပ
Opcodo-EB         Union Cby CL         Ait-Mises Rd         UC         0.66         II         3         2         13.6         E         6         17.9           Decoto-EB         Mix/Nies Rd         Union Square         UC         0.25         II         3         2         18.7         C         6         19.1           Decoto-EB         Union Square         Union Square         Union Square         UC         0.85         II         3         2         C         6         19.1           SR 84/Mowyl (Fe)-W         Union Square         Peralta         Free         1.66         I         3         2         C         6         21.5           SR 84/Femourl (Fe)-W Peralta         Fremont         Free         1.29         II         3         4         2.47         B         6         22.5           SR 84/Femourl (Fe)-Mowyl (Fe)-Westerlat Free Mount         Free Control         1.29         II         3         4         0         0.25         II         2.5         S         8.6         1.74         II         3         4         0         0.5         1.74         II         1.74         II         3         4         0         0         0         1.74 <td>105</td> <td>Decoto - EB</td> <td></td> <td>Union City CL</td> <td>Fre</td> <td>1.15</td> <td>=</td> <td>3</td> <td>2</td> <td></td> <td>19.2</td> <td>ပ</td> <td>9</td> <td>16.4</td> <td>۵</td>	105	Decoto - EB		Union City CL	Fre	1.15	=	3	2		19.2	ပ	9	16.4	۵
Operator EB         Aly-Anlies Rd         Union Square         SH 238MAssion         UCC         0.75         T         C         6         19.1           SR 84Mowny (Fre)-M         Hulon Square         SH 238MAssion         UC         0.78         II         3         2         2         0.77         C         6         15.5           SR 84Mowny (Fre)-M         SH 228M         Fremont         Fre	106	Decoto - EB		Alv-Niles Rd	S	99.0	=	3	2		13.6	Ш	9	17.9	۵
Decoto - EB         Union Square         SH 238Mission         UC         0.85         II         3         2         20,7         C         6         21.5           SR 84Miowuy (Fie)—Wind Square         SH 238Mission         Peralta         Free         0.78         I         3         —         20,7         C         6         21.5         I           SR 84Miowuy (Fie)—Wind SH 238         Fremont         Free         0.33         II         3         4         20,7         C         6         24.9           SR 84Miowuy (Fie)—Wind SH 238         Fremont         Free         0.33         II         3         4         20,8         6         24.9           SR 84Miowuy (Fie)—Honton         Peralta         Free         0.32         II         3         4         20,8         6         24.9           SR 84Miowuy (Fie)—Honton         Mowy         Free         0.32         II         3         4         20,8         6         24.9           SR 84Miowuy (Fie)—Feralta (Fie)—Forting         Mowy         Free         0.32         I         3         4         20         0         6         24.9           SR 84Miowuy (Fie)—Forting         Mines         Mines         II	107	Decoto - EB		Union Square	S	0.25	=	3	2		18.7	ပ	9	19.1	ပ
SR 64/Mowny (Fre)-Miscrett-NB         SR 1238         Freathat         Free         1.29         II         3         4         24.7         B         6         27.9           SR 84/Freemont(Fre)-Miscrett         Hondron         Free         1.29         II         3         4         24.7         B         6         26.5           SR 84/Freemont(Fre)-Miscrett         Hondron         Free         1.29         II         3         4         20.8         C         6         24.5           SR 84/Freemont(Fre)-Miscrett         Hondron         Free         1.29         II         3         4         20.8         C         6         24.9           SR 84/Freemont(Fre)-Filtenont         Miscrett	108	Decoto - EB	o)	SH 238/Missior	S	0.85	=	3	2		20.7	ပ	9	21.5	ပ
SR 44/Feetlate (Free)-Mowry         Free nort         Free no															
SR 44/Fecralta (Fre)-Mowyy         Fremont (Fre)-Mowy	109	SR 84/Mowry (Fre)-W		Peralta	Fre	0.78	_	3			31.9	В	9	35.3	⋖
SR 64/Tremont (Fe)-IV Peralta         Thomton         Free         0.33         II         3         91-92, 94, 02         10.3         E         6         10.5           SR 64/Tromton (Fe)-IV Remont         Fremont         1-80 SB         Fremont         1.29         II         3         4         20.8         C         6         24.9         B         6.5         24.9         B         2.6         2.6         2.8         B         2.8         3.9         3.4         B         6         2.6	110	SR 84/Peralta (Fre)-V	y Mowry		Fre	1.66	-	3			24.8	ပ	9	27.9	O
SR 84/Thornton (Fre)   Fremont	111	SR 84/Fremont(Fre)-\	/ Peralta		Fre	0.33	=	3			10.3	Ш	9	10.5	Ш
SR 84/Femont (Fe)- -880 SB         Fremont Feel and SR 84/Femont (Feel and SR 84/Fe	112	SR 84/Thornton(Fre)-	\ Fremont	I-880 SB	Fre	1.29	=	3			24.7	В	9	26.5	В
SR 84/Femont (Fre) - (Fremont (Fre)) (Fremont	113	SR 84/Thornton (Fre)	-I-880 SB	Fremont	Fre	1.29	=	3	4		20.8	ပ	9	24.9	В
SR 84/Peralta (Fre) - Fremont         Mowry         Free         164         1         3         4(2)         00         188         D         6         24.6           SR 84/Mowry (Fre) - E Peralta         SH 238         Free         0.87         1         3         4(2)         '00         188         D         6         17.4           148 Street - SB         1-580 Off         I.iv         0.61         1         6         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1         1         0         1	114	SR 84/Fremont (Fre)-	Thornton	Peralta	Fre	0.32	=	3	4		10.2	Ш	9	10.5	Ш
SR 84/Mowry (Fre) - E Peralta         SH 238         Fre         0.87         1         3         4(2)         '00         18.8         D         6         17.4           1st Street - SB         I-580 Off         Inman         Liv         1.05         I         R         21.6         D         8         21.0           1st Street - SB         Inman         Liv         1.05         I         R         28.7         B         7         30.8           1st Street - NB         Inman         N Mines         Liv         1.05         I         R         28.7         B         7         30.8           1st Street - NB         Inman         N Mines         Liv         0.61         I         R         R         7         27.4         R           1st Street - NB         Inman         N Mines         Liv         0.61         I         R         R         7         27.4         R           SR 84 - EB         SR 238/Mission         Union City Limit         Fre         0.94         44.5         3         2         42.5         A         6         43.8           SR 84 - EB         Dialamoras         Niles Cryn Quary         Fre         0.75         46.7	115	SR 84/Peralta (Fre) -		Mowry	Fre	1.64	-	3	2		25.2	ပ	9	24.6	O
1st Street - SB         I-580 Off         Inman         Liv         0.61         I         Color         I         B         21.0         B         21.0         B         21.0         Color         I         I         Color         I         <	116	SR 84/Mowry (Fre) - [		SH 238	Fre	0.87	-	3	4(2)	00,	18.8	۵	9	17.4	Δ
1st Street - SB         I -580 Off         I Mines         Liv         0.61         I         6         8         21.0         8         21.0           1st Street - SB         N Mines         Inman         Liv         1.05         I         R         8         31.8         B         8         21.0           1st Street - NB         Inman         N Mines         Liv         1.05         I         R         8         7         27.4         R           SR 84 - EB         SR 238/Mission         Union City Limit         Fre         0.94         44.5         3         2         42.1         A         6         43.8           SR 84 - EB         Union City Limit         Fre         0.94         44.5         3         2         42.1         A         6         43.8           SR 84 - EB         Niles Cnyn Quarry         Fre         0.94         44.5         3         2         42.1         A         6         43.8           SR 84 - EB         Niles Cnyn Quarry         Fre         0.54         46.7         3         2         42.5         A         6         43.8           SR 84 - EB         Sunol Rd         Fre         0.53         27.6															
1st Street - SB         N Mines         Liv         1.05         I         A.105	117	1st Street - SB	I-580 Off	N Mines	Ŀį	0.61	-				21.6	۵	ω	21.0	Δ
1st Street - NB         Inman         N Mines         Liv         1.05         I         A.10         B.10	118			Inman	Ŀi	1.05	-				31.4	Ф	ω	31.8	В
SR 84 - EB         SR 84 - EB         SR 001 Mines         Liv         0.61         1         419         3         2         42.1         B         7         27.4         7 <td>119</td> <td></td> <td></td> <td>N Mines</td> <td>Liv</td> <td>1.05</td> <td>_</td> <td></td> <td></td> <td></td> <td>28.7</td> <td>В</td> <td>7</td> <td>30.8</td> <td>В</td>	119			N Mines	Liv	1.05	_				28.7	В	7	30.8	В
SR 84 - EB         SR 238/Mission         Union City Limit         Fre         0.54         41.9         3         2         38.4         A         6         43.8         41.9         A           SR 84 - EB         Union City Limit         Palamoras         Fre         0.54         445         3         2         A         6         41.9         A         6         43.8         A         A         6         43.8         A         A         6         43.8         A	120	1st Street - NB	N Mines	1-580 Off	Liv	0.61	_				31.2	В	7	27.4	ပ
121         SR 84 - EB         SR 238/Mission         Union City Limit         Free         0.54         44.5         3         2         8.4         A         6         41.9           122         SR 84 - EB         Union City Limit         Palamoras         Free         0.54         44.5         3         2         A2.1         A         6         41.9           123         SR 84 - EB         Palamoras         Niles Cryn Quarry         Sunol Rd         Free         1.75         46.7         3         2         45.5         A         6         47.7           125         SR 84 - EB         Sinol Rd         Piea-Sunol Rd         Free         0.53         27.6         3         2         10         47.7         6         4.8															
122 SR 84 - EB     Union City Limit     Palamoras     Free Number     0.94	121	SR 84		Union City Limi	Fre	1.59	41.9	က	2		38.4	∢	9	35.8	В
SR 84 - EB     Palamoras     Niles Cnyn Quarry     Fre     2.16     43.8     3     2     45.5     A     6     43.8       SR 84 - EB     Niles Cnyn Quarry     Sunol Rd     Fre     1.75     46.7     3     2     10     4.7     F     4.8     6     4.8     6       SR 84 - EB     Plea-Sunol Rd     SR 84 (Off)/I-64     Unin     0.77     42.9     4     2     02-04,06     44.0     A     6     41.0	122	SR 84 - EB	Union City Limit	Palamoras	Fre	0.94	44.5	3	2		42.1	∢	9	41.9	⋖
SR 84 - EB     Niles Cnyn Quarry     Sunol Rd     Fre     1.75     46.7     3     2     45.5     A     6     47.7       SR 84 - EB     Sunol Rd     Ple-Sunol Rd     Fre     0.53     27.6     3     2     10     4.7     (F)     6     4.8     (7       SR 84 - EB     Ple-Sunol Rd     SR 84 (Off)/I-64     Unin     0.77     42.9     4     2     02-04,06     44.0     A     6     41.0	123	SR 84 - EB	Palamoras	Niles Cnyn Qua	Fre	2.16	43.8	3	2		42.5	⋖	9	43.8	⋖
SR 84 - EB Sunol Rd Plea-Sunol Rd Fre 0.53 27.6 3 2 10 4.7 <b>(F)</b> 6 4.8 (SR 84 - EB Ple-Sunol Rd SR 84 (Off)/1-64 Unin 0.77 42.9 4 2 02-04,06 44.0 A 6 41.0	124	SR 84 - EB	Niles Cnyn Quarry	Sunol Rd	Fre	1.75	46.7	3	7		45.5	∢	9	47.7	⋖
SR 84 - EB   Ple-Sunol Rd   SR 84 (Off)/I-64 Unin   0.77   42.9   4   2   02-04,06   44.0   A   6	125	SR 84		Plea-Sunol Rd	Fre	0.53	27.6	3	2	10	4.7	Ē	9	4.8	Ē
	126	<b>SR</b> 84		SR 84 (Off)/I-68	Unin	0.77	42.9	4	2	02-04,06	44.0	4	9	41.0	⋖

Arterial 2012 PM

	2	2012 LOS Moni	Monitoring Study Draft Results	ıdy Draft		- Arterials PM	als PM	Peak Period					
	Segment Limits			Length	Arterial	Plan	No of	Prior LOS "F"	2010 LOS Results	esults		2012 LOS Results	lts
# CMP Route	From	2	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	108	# of	Speed	SOI
27 SR 84	SR 84 (Off)/I-680	Vallecitos Ln	Unin	1.07	50.8	4	2	02-04,06,10	11.7	(F)	9	13.6	(F)
SR 84 -	Vallecitos Ln	Vallecitos Nuc.	Unin	1.14	57.5	4	2	02-04,06	31.6	ш	9	29.1	ш
	Vallecitos Nuc Cent Culvert	t Culvert (Lat/Lo	Unin	1.65	58.3	4	2		44.5	ပ	9	43.4	ပ
SR 84 - EB		Ruby Hill /Kaith	Unin	1.62	59.2	4	2		59.1	4	9	56.4	⋖
131 SR 84 - EB	Ruby Hill./Kaithoff	Isabel/Vallecito	Unin	0.38	_	4	2		29.4	⋖	9	29.8	⋖
132 SR 84 (Liv) - NB	sabel/Vallecitos	Vineyard	Liv	1.12	_	4	2		37.0	4	9	35.2	⋖
SR 84 (Liv	Vineyard		Liv	09.0	_	4	2		34.7	В	9	40.0	⋖
134 SR 84 (Liv) - NB	Concannon	Stanley	Liv	1.07	_	4	2		36.7	⋖	9	37.2	∢
135 SR 84 (Liv) - NB	Stanley	W. Jack Londo	Liv	0.88	_	4	2		38.3	4	9	31.5	В
136 SR 84 (Liv) - NB	London	Blv Airway/Kitty Ha	Liv	0.49	_	4	2		26.6	ပ	9	22.0	Δ
137 SR 84 (Liv) - NB	Airway/Kitty	I-580 (C	Liv	1.06	-	4	2		26.2	ပ	9	28.6	В
138 SR 84 (Liv) - SB	I-580 (On)		Liv	1.06	_	4	2		28.8	Ф	9	33.5	Ф
139 SR 84 (Liv) - SB		W. Jack	Liv	0.49	_	4	2		37.2	4	9	39.6	4
140 SR 84 (Liv) - SB	W. Jack London Blv Stanley		Liv	06:0	_	4	2		50.4	⋖	9	44.9	⋖
141 SR 84 (Liv) - SB	Stanley	Concannon	Liv	1.05	_	4	2		46.1	⋖	9	41.3	⋖
SR 84 (Liv	Concannon	Vineyard	Liv	09.0	_	4	7		43.0	<	9	33.4	В
143 SR 84 (Liv) - SB	Vineyard	Isabel/Vallecito	Liv	1.12	_	4	7		42.9	⋖	9	46.4	⋖
144 SR 84 - WB	sabel/Vallecitos	Ruby Hill /Kaith	Liv	0.38	_	4	2		36.3	⋖	9	45.1	∢
145 SR 84 - WB	Ruby Hill /Kaithoff	Culvert (Lat/Lor	Pleas	1.62	55.8	4	2		58.3	⋖	9	55.7	∢
146 SR 84 - WB	Culvert (Lat/Long: 3	Vallecitos Nuc.	Unin	1.65	56.5	4	2		57.5	⋖	9	54.7	⋖
147 SR 84 - WB	Vallecitos Nuc.Cntr	Vallecitos Ln	Unin	1.14	52.5	3	2		54.9	⋖	9	53.4	⋖
148 SR 84 - WB	Vallecitos Ln SR 84/I-680 NE	SR 84/I-680 NE	Unin	0.21	55.3	3	2		57.7	∢	9	60.5	⋖
0 0 0 0 V/V	SO 91/89 03	70 0000	Ç L	1 27	7	c	c		7 07	<	١	70.0	<
450 CD 04 WD		חוויס ויס	ָר ה	1.2.1	1	ა ი	1 C		† 000	( <	, ^	1.5.4 7.7.7	( <
150 OC 4 WUD	2	Nijes Canyon	<u> </u>	1 75	t α σ	o 0	1 C		23.3	( ⊲	, _	- Y	( ⊲
SR 84	Niles Canvon Quarr	Fremont City Li	E G	1.00	47.5	o с	2 2		46.1	: ∢	, 2	44.6	< ∢
SR 84	Fremont City Limit	Union City Limi	Fre	2.10	41.8	3	2		43.6	⋖	7	43.1	⋖
SR 84	Union City Limit	SR 238	Fre	1.62	31.7	3	2		28.9	⋖	7	33.9	Þ
155 SR 92 - EB	1-880	Mission	Нау	1.59	=	2	3	'91 - '92	15.4	Δ	7	6.9	(F)
156 SR 92 - WB	Mission	1-880	Нау	1.59	=	2	3			ပ	9		O
157 SR 112 (Davis) - EB	B Doolittle/Davis	1-880	SF	0.51	=	2	2		15.1	Δ	7	14.1	۵
158 SR 112 (Davis) - EB		San Leandro	S	1.01	=	2	2	'91	17.2	۵	7	26.2	В
159 SR 112 (Davis) - EB		E 14th	SF	0.28	=	2	2		16.0	O	7	12.1	۵

		Segment Limits			Length	Arterial	Plan	No of	Prior LOS "F"	2010 LOS	Results	L	2012 LOS Results	ults
# CMP Route	oute	From	ပ	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	FOS	# of runs	Speed	FOS
160 SR 112 (Davis)	s) - WB		San Leandro	SL	0.28	=	2	2		13.2	ပ	9	10.8	۵
161 SR 112 (Davi	s) - WB		I-880	SL	1.00	=	2	2		25.1	В	9	25.6	В
162 SR 112 (Davi	s) - WB		Doolittle	SF	0.51	=	2	2		15.5	Δ	ω	19.5	ပ
163 SR 123 San F	Pablo - S		Washington	Alb	0.53	=	_	2	_	25.5	В	9	23.8	ပ
164 SR 123 San F	Pablo - S		Marin	Alb	0.44	=	-	2	_	17.1	ပ	9	14.7	ပ
165 SR 123 San F	Pablo - S		Gilman	Alb - Berk	0.47	=	-	2	_	17.0	۵	9	16.4	Δ
166 SR 123 San F	Pablo - S		University	Berk	0.86	=	-	2		18.3	ပ	9	16.4	Δ
167 SR 123 San F	Pablo - S			Berk	0.20	=	_	2		18.6	ပ	9	13.6	ပ
168 SR 123 San F	Pablo - S	•	Dwight	Berk	0.4	=				18.2	ပ	9	20.2	ပ
169 SR 123 San F	Pablo - S	•	Ashby	Berk	0.68	=				20.2	ပ	9	13.6	Ш
170 SR 123 San F	Pablo - S	•	Stanford	Berk	0.81	=	_	2		17.8	Δ	9	17.2	Δ
171 SR 123 San F	Pablo - S	1	53rd	Oak	0.27	=	_	2		26.3	В	9	17.1	۵
172 SR 123 San F	Pablo - S		Park	Emer	0.34	=	_	2		18.0	۵	9	17.6	Δ
173 SR 123 San F	Pablo - S	: :	35th	Emer - Oak	0.45	=	-	2	'91	14.3	۵	9	12.7	Ш
											,			
174 SR 123 San F	San Pablo - N		Park	Oak - Emer	0.45	=	-	2	-	18.4	ပ	9	12.3	ш
SR 123	Pablo - N		53rd	Emer	0.34	=	-	2		28.5	В	9	22.9	ပ
176 SR 123 San F	Pablo - N		Stanford	Oak	0.27	=	-	7	02	22.2	ပ	9	14.6	Δ
177 SR 123 San F	Pablo - N		Ashby	Oak	0.81	=	-	2	_	19.0	ပ	9	15.0	Δ
178 SR 123 San F	Pablo - N		Dwight	Berk	0.68	=			_	19.4	ပ	9	14.5	Δ
179 SR 123 San F	Pablo - N		Allston	Berk	0.4	=				24.9	В	9	23.9	ပ
180 SR 123 San F	San Pablo - N		University	Berk	0.20	=	1	2	'98, '00,06,10	5.8	(F)	9	5.4	Ē
181 SR 123 San Pablo -	Pablo - N	University	Gilman	Berk	0.86	=	_	2	_	19.8	ပ	9	20.3	ပ
182 SR 123 San Pablo -	Pablo - N	Gilman	Marin	Alb - Berk	0.47	=	_	2	_	15.7	Δ	9	13.4	Ш
183 SR 123 San Pablo	Pablo - N	Marin	Washington	Alb	0.45	≡	-	2	08	24.1	В	9	23.6	В
184 SR 123 San F	Pablo - N	Washington	Carlson	Alb	0.53	=	-	7		17.1	۵	9	19.8	ပ
777 707 40	ć		70		0	-					C	1	7 1.7	C
185 SK 185 (14tn) - 5B	) - SB	4zna	46th St	Oak	0.20	=			_	8.0 L	۵	,	1.61	ם
186 SR 185 (14th) - SB	) - SB	46th St	Seminary	Oak	0.79	=				23.8	O	7	21.6	O
187 SR 185 (14th) - SB	) - SB	Seminary	73rd	Oak	08.0	=	-	2		13.2	Ш	7	10.2	Ш
188 SR 185 (14th) - SB	) - SB	73rd Ave	98th Ave	Oak	1.39	=	-	2		20.4	O	7	18.1	ပ
189 SR 185 (14th) - SB	) - SB	98th	Broadmoor	Oak	0.74	=	-	2		18.7	O	7	19.5	O
190 SR 185 (14th) - SB			Davis	SL	0.73	=	2	2		15.9	۵	7	19.2	O
191 SR 185 (14th	ŧ		San Leandro	SL	1.04	=	2	2		17.2	ပ	7	19.3	В
192 SR 185 (14th	•		Hesperian	SL	0.94	=	2	2		22.4	ပ	7	22.4	ပ
193 SR 185 (14th	:	an	Bayfair	SL	0.46	=	2	2		16.5	۵	7	16.7	۵
194 SR 185 (14th	•		170th	Unin	1.24	=	က	2		19.8	ပ	7	24.1	В
195 SR 185 (14th	) - SB		Llewelling	Unin	0.21	=	3	2		19.0	ပ	7	23.4	ပ
11/1/ 10 10 10 th	00	- Lowelling	Since	2	00		,							

Arterial 2012 PM

		Segment Limits			Length	Arterial	Plan	No of	Prior LOS "F"	2010 LOS	Results		2012 LOS Results	ults
# CMF	CMP Route	From	2	Juris	(miles)	Class	Area	Lanes	(Years)	Speed	ros	# of runs	Speed	FOS
197 SR 185 H	ayward - SB	Sunset	SR 92/238	Нау	0.84	=	2	2		11.4	Δ	7	9.0	ш
198 SR 185 Ha	SR 185 Hayward - NB	SR 92/238	Sunset	Нау	0.84	=	2	7		17.0	O	10	10.6	Δ
199 SR 185 (14th) - NB		Sunset	Llewelling	Unin	1.11	=	3	2		26.3	В	10	24.9	В
200 SR 185 (1	•	ng		Unin	0.21	=	3	2		31.5	∢	10	30.4	∢
201 SR 185 (14th) - NB	4th) - NB		Bayfair	Unin	1.24	=	3	2		25.3	В	10	22.8	ပ
202 SR 185 (1	4th) - NB		Hesperian	SL	0.47	=	2	2		23.5	ပ	10	18.3	ပ
203 SR 185 (14th) - NB	4th) - NB		San L Blvd	SL	0.94	=	2	2		22.8	ပ	10	28.1	В
204 SR 185 (1	4th) - NB	<u>0</u>	Davis	SL	1.02	=	2	2		15.6	ပ	10	15.7	ပ
205 SR 185 (14th) - NB	4th) - NB		Broadmoor	SL	0.72	=	2	2		21.5	ပ	12	21.3	ပ
206 SR 185 (1	•	<u></u>	98th	Oak	0.74	=	_	2		16.2	Δ	∞	15.0	Ω
207 SR 185 (1	•	98th Ave	73rd Ave	Oak	1.37	=	1	2		18.2	ပ	∞	13.9	Ш
208 SR 185 (1	•		Seminary	Oak	09.0	=	1	2		13.1	ш	∞	14.5	Δ
209 SR 185 (14th) - NB	: :		46th St	Oak	0.79	=				25.9	В	∞	28.9	В
210 SR 185 (14th) - NB			42nd	Oak	0.26	=			08-10	7.3	(F)	8	8.7	(F)
211 SR 238 (F	Æ		City Center	Нау	0.62	≡	2	3		17.3	ပ	7	6.4	(F)
212 SR 238 (F	SR 238 (Foothill) - NB City Center		1-580	Unin-Hay	0.73	=	3	3		20.7	O	7	21.5	O
213 SR 238 (F	SR 238 (Foothill) - NB I-580 Ramp		I-580 Merge	Unin	0.71	_	3			45.1	۷	7	48.0	⋖
214 SR 238 (F	oothill) - SB		Cstro V Blvd	Unin	0.86	_	3			47.3	4	7	43.7	A
215 SR 238 (F	oothill) - SB		City Center	Hay-Unin	1.03	=	2	3		27.2	В	7	23.1	ပ
216 SR 238 (F	SR 238 (Foothill) - SB City Center		Jackson	Нау	0.62	=	2	3		16.2	ပ	7	8.9	ш
217 SR 238 (N	lission) - NB	SR 238 (Mission) - NB 680 NB Rmp	Stevenson	Fre	2.46	_	3	2		41.4	۷	10	29.1	В
218 SR 238 (N	SR 238 (Mission) - NB Stevenson		Nursery	Fre	2.57	_	3	2		30.4	В	10	33.4	В
219 SR 238 (Mission) - NB Nursery	lission) - NB		Tamarack	C	2.10	_	3	2		28.7	В	ဝ	27.3	ပ
220 SR 238 (N	SR 238 (Mission) - NB Tamarack		Industrial	UC-Hay	1.96	_	3	2		26.1	ပ	6	30.6	В
221 SR 238 (Mission) - NB Industrial	lission) - NB		Sorenson	Нау	1.47	=	2	2		27.1	В	ဝ	21.5	ပ
222 SR 238 (N	SR 238 (Mission) - NB Sorenson		Jackson	Нау	1.83	=	2	2		15.8	Ω	6	11.8	Ш
				Нау										
223 SR 238 (N	Aission) - SB		Sorenson	Нау	1.83	=	2	7	'91 - '92	23.3	ပ	2	18.7	ပ
224 SR 238 (N	lission) - SB		Industrial	Нау	1.47	=	2	7		22.4	ပ	2	22.5	ပ
225 SR 238 (N	lission) - SB		Tamarack	Hay-UC	1.96	_	2	2		32.7	В	2	30.2	В
226 SR 238 (N	lission) - SB		Nursery	on.	2.07	_	3	2		24.4	ပ	2	23.6	ပ
227 SR 238 (N	lission) - SB		Stevenson	Fre	2.57	_	3	2		30.5	В	9	33.6	В
228 SR 238 (N	lission) - SB		680 NB Rmp	Fre	2.46	_	3	2		31.0	В	9	23.4	ပ
229 SR 260 (T	_npes) - NB	229 SR 260 (Tubes) - NB Atlantic	7th/Web	Oak	1.31	-	1	2		34.7	٧	8	36.5	⋖
230 SR 260 (T	SR 260 (Tubes) - SB		Atlantic	Oak	1.31	_	-	2	'91	31.6	∢	7	33.5	∢
M) 696 GS 186	S 262 (Mission) - ER 280 NR		-680 NB	Ę.	1 33		۲	c		7 97	L	1	1	٥
101 CO 102	יויטופפווי		ביי סססיי								_			

Arterial 2012 PM

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		2(	012 LOS Mor	nitoring Stu	ıdy Draft	Results	- Arteri	als PM	2012 LOS Monitoring Study Draft Results - Arterials PM Peak Period					
		Segment Limits			Length	Arterial	Plan	No of	ength Arterial Plan No of Prior LOS "F" 2010 LOS Results	2010 LOS F	Results	20	2012 LOS Results	lts
#	CMP Route	From	То	Juris	(miles)	(miles) Class	Area Lanes	Lanes	(Years)	Speed	LOS	# of runs	Speed LOS runs Speed LOS	SOT
232	232 SR 262 (Mission) - WĘI-680 NB	WEI-680 NB	I-880 SB	Fre	1.1	_	က	2		25.6	O	∞	30.6	В
		indicate												
		d+in o+co					_							

# Ramps and Special Segments 2012 - PM

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	Segme	Segment Limits		Plan	Length	No of	Free Flow	Prior LOS "F"		2010 LOS Results	Ş		2012 LOS Results	S
CMP Route	From:	То:	Jurisdiction	Area	(miles)	Lanes	Speed	(Years)	# of runs	Speed	ros	# of Runs	Speed	ros
I-80/I-580 Interchange	I-80 SB	I-580 EB	Oak	-	0.30	-	38.0	91-92, 97-02	9	31.0	В	9	33.5	В
2   I-80/I-580 Interchange	I-580 WB	I-80 NB	Oak	1	0.41	1	40.0	91-92, 98	6	40.1	A	9	26.3	D
3 SR 24 WB/I-580 WB	SR 24 ON	I-580 OFF	Oak	-	0.69	2	Weaving	95	9	44.6	n/a	9	33.3	•
4 I-580/SR 24 Interchange	I-580 WB	SR-24 EB	Oak	-	0.51	2	45.0		9	25.4	ш	9	22.8	Ш
5 I-580/SR 24 Interchange	SR-24 WB	I-580 EB	Oak	1	0.74	2	51.0	90	9	30.1	ш	3	22.9	Ш
6 SR13/SR 24 Interchange	SR-13 NB	SR-24 EB	Oak	-	0.32	-	40.0	92-10	9	9.8	(F)	4	7.6	(F)
7 SR13/SR 24 Interchange	SR-24 WB	SR-13 SB	Oak	-	0.16	-	31.0		8	32.7	∢	2	24.0	O
8   I-880/I-238 Interchange	I-880 SB	I-238 EB	SL	2	0.74	2	47.0	93-'95, '97	6	52.8	A	9	40.5	В
9   I-880/I-238 Interchange	I-238 WB	I-880 NB	S	2	0.54	-	54.0		9	74.8	∢	9	60.1	٨
10   I-880/I-238 Interchange	I-880 NB	I-238 EB	SL	2	0.42	1	32.0		6	59.3	A	5	17.5	ш
11   I-880/I-238 Interchange	I-238 WB	I-880 SB	SL	2	0.76	1	53.0		6	78.2	A	5	51.2	A
12   1-580 /1-238 Interchange	I-580 SB	I-238 EB	Нау	2	0.35	1	37.0		6	21.6	Ш	3	22.9	D
13   1-580 /1-238 Interchange	I-238 WB	I-580 NB	Нау	2	0.32	1	38.0		6	37.2	A	4	42.7	٨
25 I-580/I-680 Interchange	I-580 EB	I-680 NB	Pleas	4	0.46	1	35.0		4	24.5	ပ	9	23.8	D
15   1-580/1-680 Interchange	I-580 EB	I-680 SB	Pleas	4	0.28	-	42.0		9	26.0	٥	9	23.8	В
16 I-580/I-680 Interchange	I-680 NB	I-580 EB	Pleas	4	06.0	2	63.8	93	9	58.2	∢	9	47.5	O
17 I-580/I-680 Interchange	I-680 NB	I-580 WB	Pleas	4	99.0	-	41.0		9	49.7	⋖	2	41.8	∢
18 I-580/I-680 Interchange	I-580 WB	I-680 NB	Pleas	4	0.41	-	51.5		9	45.7	В	9	42.4	В
19 I-580/I-680 Interchange	I-580 WB	I-680 SB	Pleas	4	99.0	-	39.0	80	9	31.3	В	9	25.1	O
20 I-580/I-680 Interchange	I-680 SB	I-580 EB	Pleas	4	1.23	2	68.1	92,02	9	65.4	⋖	9	56.5	В
21 I-580/I-680 Interchange	I-680 SB	I-580 WB	Pleas	4	0.43	-	58.4	02	5	50.9	В	9	44.9	O
22 I-880/SR 260 Connection*	I-880 SB	SR-260 WB	Oak	-	0.99	-	32.0		8	17.2	ш	-	21.0	٥
23 1-880/SR 260 Connection	SP-260 EB 1-880 NB	alv Oso I	Š		90.0	•	0 30	00 00 10	0	7 47	į	g	17.5	Ш

Highlighted areas indicate segments with speed data based on less than the regular number of base runs (six runs for segments with LOS C and worse and the regular runs for LOS A&B segments in the prior and current years)

Highlighted areas indicate segments in the prior and current years)

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		Ñ	2012 LOS Monitoring Study Draft Results for Freeways - AM Peak Period	g Study Draft	Resul	ts for Free	ways -	<b>AM Peak Per</b>	jod.				
		Segme	Segment Limits		Plan	Length	No of	Prior LOS F	2010 LO	2010 LOS Results	2012	2012 LOS Results	ults
	CMP Route	From	То	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	SOT	# of Runs	pəədS	SOT
_	I-80 - EB	SF County Line	Toll Plaza	Oak	-	2.06	10		8'.29	В	7	57.2	В
2	2 I-80 - EB	Toll Plaza	I-580 SB Merge	Oak	1	1.15	10		55.5	В	7	55.8	В
3	3 I-80 - EB	I-80/I-580 (Merge)	Powell	Emery - Berk	1	0.79	10		76.0	Α	7	72.9	Α
4	I-80 - EB	Powell	Ashby	Emery - Berk	1	0.67	10		54.1	ပ	7	51.2	ပ
5	5 I-80 - EB	Ashby	University	Emery - Berk	1	1.34	10		64.8	4	7	64.4	⋖
9	6 I-80 - EB	University	Jct I-580 (off)	Berk - Alb	1	1.51	10		65.5	A	7	62.4	٧
7	I-80 - EB	Jct I-580 (off)	Central (on)	Berk - Alb	1	1.12	10		63.4	٨	7	59.4	В
8	8 I-80 - WB	Central	Jct I-580	Berk - Alb	-	0.70	10	08	44.1	O	7	22.7	(F30)
6	9 I-80 - WB	Jct I-580	Univerity	Berk - Alb	-	1.49	10	80	37.0	ш	7	24.9	(F30)
10	10 I-80 - WB	University	Ashby	Emery - Berk	1	1.36	10		50.3	၁	7	47.7	Q
11	11 I-80 - WB	Ashby	Powell	Emery - Berk	1	0.64	10		44.3	Q	7	49.3	ပ
12	12 I-80 - WB	Powell	I-80/I-580 (Split)	Emery - Berk	,	0.42	10		46.1	۵	7	47.3	Ω
13	I-80 - WB	I-580 Split	Toll Plaza	Oak	1	1.20	10	97-10	8.7	(F10)	7	6.0	(F10)
14	I-80 - WB	Toll Plaza	SF County	Oak	-	2.00	10	97-10	14.4	(F10)	7	17.8	(F20)
15	15 I-238 - EB	1-880	I-580	Uninc-San L	2	2.28	9		63.5	٨	10	60.3	⋖
16	16 I-238 - WB	1-580	I-880	Uninc-San L	2	1.60	9	97-08	35.0	Ш	8	20.8	(F30)
17	17 I-580 - EB	I-580/I-238 changed fm (I- 238/Fthl Off)	Grove	Unincorp	2	2.88	∞		55.9	В	80	54.8	O
18	18 I-580 EB	Grove	Eden Canyon	Uninc - Pleas	4	2.17	8		62.9	4	8	67.3	⋖
19	19 I-580 EB	Eden Canyon	San Ramon/ Foothill	Uninc - Pleas	4	4.80	∞		64.5	∢	80	60.4	⋖
20	20 I-580 EB	San Ramon/ Foothill	I-680	Uninc - Pleas	4	0.77	8		68.7	Α	8	2.69	۷
21	I-580 EB	I-680	Hopyard	Plea	4	0.76	8		64.1	Α	8	61.5	Α
22	22 I-580 EB	Hopyard	Santa Rita	Plea	4	1.96	8		69.2	∢	8	6.99	⋖
23	I-580 EB	Santa Rita	El Charro	Uninc-Pleas	4	1.24	80		0.69	∢	8	67.8	⋖
24	24 I-580 EB	El Charro	SR 84/Airway Blvd.	Unincorp	4	1.52	8		68.3	∢	8	6.99	⋖
25	25 I-580 EB	SR 84/Airway Blvd.	Portola	Unincorp	4	1.71	∞		67.2	⋖	8	68.3	∢
26	26 I-580 - EB	Portola	1st St	Liv	4	2.70	8		66.3	∢	8	68.1	4
27	27 I-580 - EB	1st St	Greenville	Liv-Uninc	4	1.98	8		55.5	В	8	9.99	В
28	28 I-580 - EB	Greenville	N.Flynn	Uninc	4	1.50	8		43.2	D	8	42.8	Ω
29	29 I-580 - EB	N.Flynn	Grant Line	Uninc	4	3.19	8		50.4	ပ	8	50.6	ပ
30	30 I-580 - EB	Grant Line	I-205 (SJ Co) Off	Uninc	4	1.11	8		47.0	D	8	46.7	Ω
31	31 I-580 - WB	I-205 (SJ Co)	Grant Line	Liv - Uninc	4	0.89	8	04	36.4	Ш	8	36.7	Ш
32	32 I-580 - WB	Grant Line	N Flynn	Liv - Uninc	4	4.56	8	04	9.59	Α	8	45.9	D
33	I-580 - WB	N Flynn	Greenville Rd	Liv - Uninc	4	2.34	8	94	65.1	⋖	8	36.6	ш
34	34 I-580 - WB	Greenville Rd	1st St	Liv - Uninc	4	2.30	80	04,08-10	34.0	ш	8	23.8	(F30)

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		2	2012 LOS Monitoring Study Draft Results for Freeways - AM Peak Period	g Study Draft	Resul	ts for Free	ways -	AM Peak Per	poi				
		Segme	Segment Limits		Plan	Length	No of	Prior LOS F	2010 LOS Results	S Results	2012	2012 LOS Results	ults
	CMP Route	From	То	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	SOT	# of Runs	Speed	ros
35	5 I-580 - WB	1st St	Portola Ave	Liv	4	2.52	8	08-10	34.0	Ш	8	22.3	(F30)
36	1-580 - WB	Portola	SR 84/Airway Blvd	Liv - Plea	4	1.76	8	04,08	45.6	۵	8	37.4	Ш
37	7 I-580 - WB	SR 84/Airway Blvd	Fallon Rd/El Charro	Plea	4	1.78	∞	04,08	6.03	ပ	7	40.9	ш
38	3 I-580 - WB	Fallon Rd/El Charro	Tassajara	Plea	4	1.16	∞	04,08	57.5	В	7	45.1	۵
39	39 I-580 - WB	Tassajara Rd	089-1	Plea	4	2.87	∞		66.3	⋖	7	49.1	ပ
40	40 I-580 - WB	I-680	San Ramon Rd	Plea - Uninc	4	69.0	∞		65.8	⋖	7	64.4	⋖
4	41 I-580 - WB	San Ramon Rd	Eden Caynon	Plea - Uninc	4	4.75	80		6.99	∢	7	65.2	⋖
42	42 I-580 - WB	Eden Canyon	Center St	Plea - Uninc	4	2.28	80		70.3	∢	7	6.99	∢
43	1-580 - WB	Center	1-580/238	Unincorp	2	1.94	∞	02	57.4	В	7	47.5	۵
44	44 I-580 - EB	1-80	086-1	Oak	-	1.24	80		49.8	ပ	8	49.0	ပ
45	I-580 - EB	086-1	Harrison	Oak	1	0.95	8		6.36	Α	8	66.3	٧
46	46 I-580 - EB	Harrison	Lakeshore	Oak	-	69.0	8		63.2	٧	8	62.3	∢
47	7 I-580 - EB	Lakeshore	Coolidge	Oak	-	2.25	8		0.99	٧	8	9.79	⋖
48	48 I-580 - EB	Coolidge	SH 13 Off	Oak	-	2.15	8		68.3	٧	8	67.7	۷
49	1-580 - EB	SH 13 Off	MacArthur	Foothill	1	4.09	8		65.6	Α	8	64.4	Α
20	50 I-580 - EB	MacArthur	1-580/238	SL - Hay	2	4.33	8		6.99	Α	8	66.4	۷
51	I-580 - WB	I-238	Foothill/MacArthur	Oak -SL	2	4.42	8		63.0	A	7	74.1	4
, u	62   680 WB	11 W 00 0 W 11 11 11 10 0 0	13 0#	<u>0</u>		00 0	0		0 90	Ц	1	7	<
53	1-580 - WB	SH 13 Off	Fruitvale	Oak		2.36	∞	08-10	21.9	(F20)	7	26.4	(F30)
54	1 I-580 - WB	Fruitvale	Harrison	Oak	-	2.21	8		33.3	Е	7	36.6	Е
22	55 I-580 - WB	Harrison	SH 24 On-ramp	Oak	-	1.16	∞		36.1	ш	7	46.8	Δ
26	I-580 - WB	SH-24 On-ramp	I-80/580 Split	Oak	1	0.69	8	02,06-10	12.9	(F10)	7	16.9	(F20)
22	57 I-580 - EB	Central	I-80 Jct	Alb	-	0.77	4		32.2	Е	8	27.3	(F30)
28	58 I-580 - WB	I-80 Jct	Central	Alb	1	1.07	4		64.1	A	9	69.2	4
29	59 I-680 - NB	Scott Creek Rd	Rt 262/Mission	Fre	3	2.20	9		71.2	A	9	65.5	4
9	60 I-680 - NB	Rt 262/Mission	Durham Rd	Fre	က	1.34	9		69.2	⋖	9	66.2	⋖
61	61 I-680 - NB	Durham Rd	Washington Blvd	Fre	3	1.54	9		9.59	٧	9	62.9	4
62	62 I-680 - NB	Washington Blvd	Rt 238/Mission	Fre	3	0.89	9		2.69	٧	9	69.7	4
63	63 I-680 NB	SR 238/Mission	Vargas Rd	Unincorp	3	0.82	9		62.6	Α	9	62.4	٧
64	64 I-680 NB	Vargas Rd	Andrade Rd	Unincorp	က	2.64	9		0.99	4	9	65.2	۷
65	: I-680 NB	Andrade Rd	Calayeras	Unincorp	٣	1.13	9		65.8	۵	9	64.1	۷

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	Segme	Segment Limits		Plan	Length	No of	Prior LOS F	2010 LOS Results	S Results	2012	2012 LOS Results	ults
CMP Route	From	٥	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	ros	# of Runs	Speed	ros
I-680 NB	Calaveras	Rt.84/Vallecitos	Unincorp	3	0.30	9		74.8	А	9	73.4	Α
67 I-680 NB	SR 84	Sunol Blvd	Plea - Uninc	4	3.45	9		68.8	А	9	68.3	Α
68 I-680 NB	Sunol Blvd.	Bernal Ave	Plea - Uninc	4	1.52	9		66.2	4	9	64.6	⋖
69 I-680 NB	Bernal Ave	Stoneridge Dr	Plea	4	2.39	9		66.5	Α	9	65.4	4
70 I-680 NB	Stoneridge Dr	I-580	Plea	4	0.84	9		9.07	∢	9	70.3	⋖
I-680 - NB	1-580	Alcosta	QnQ	4	1.83	9		9.09	А	9	47.9	Ω
20 000 102	0100010	1 500	4	_	1 01	u		7 03	<	7	E7 E	<
73 I-680 SB	Alcosta 1-580	Stoneridae Dr	Plea	1 4	0.76	၁ ဖ		61.9	< <	7	2.74	۵ ۲
74 I-680 SB	Stoneridae Dr	Bernal	Plea	4	2.55	9		55.8	: В	7	40.5	ш
75 I-680 SB	Bernal Ave.	Sunol Blvd	Unincorp	4	1.31	9		43.9	۵	7	27.5	(F30)
76 I-680 SB	Sunol Blvd.	SR 84	Unincorp	4	3.82	9		42.4	٥	7	44.9	۵
I-680 SB	SR 84 (Niles Canyon)	Andrade Rd	Unincorp	3	1.32	9		50.1	ပ	7	49.0	Ω
78 I-680 SB	Andrade Rd	Sheridon Rd	Unincorp	3	1.39	9		51.9	ပ	7	29.7	Ω
79 I-680 SB	Sheridon Rd	Vargas Rd	Unincorp	3	0.81	9		2.09	∢	7	58.7	В
-680 SB	Vargas Rd	SR 238/Mission	Unincorp	3	1.08	9		54.1	ပ	7	46.7	Ω
I-680 - SB	Rt 238/Mission	Washington Blvd	Fre	3	1.04	9		6.73	В	7	50.3	S
82 I-680 - SB	Washington Blvd	Durham Rd	Fre	3	1.52	9		9.09	А	7	51.0	၁
I-680 - SB	Durham Rd	Rt 2262/Mission	Fre	3	1.67	9		62.4	А	7	51.3	ပ
I-680 - SB	Rt 262/Mission	Scott Creek Rd	Fre	3	2.19	9		59.5	В	7	63.0	٧
-880 - NB	Dix Landing	SR 262/Mission	Fre	3	2.08	∞		72.7	∢	7	75.5	4
86 I-880 - NB	SR262/Mission	AutoMall Pkwy	Fre	3	2.44	8		9.89	∢	7	8.89	⋖
87 I-880 - NB	AutoMall Pkwy	Stevenson	Fre	3	1.54	8		67.8	A	7	68.2	۷
88 I-880 - NB	Stevenson	Decoto	Fre	3	4.04	8		65.1	А	8	62.9	۷
-880 - NB	Decota	Alvarado Blvd	Fre - Un Cty	3	1.17	8		54.0	ပ	8	53.1	ပ
90 I-880 - NB	Alcarado Blvd	Alvarado-Niles Blvd	Fre- Uni Cty	3	1.17	80		32.3	Ш	8	45.8	Ω
91 I-880 - NB	Alv-Niles	Tennyson	Un Cty - Hay	3	2.65	80	06-10	24.8	(F30)	8	38.1	Ш
92 I-880 - NB	Tennyson	SR 92	Нау	2	1.14	8		44.9	D	8	64.5	۷
93 I-880 - NB	SR 92	A St	Нау	2	1.52	8		53.8	C	8	53.1	ပ
94 I-880 - NB	A St	I-238 (Marina before 06	Unincorp	2	1.82	8		62.2	А	8	57.9	В
95 I-880 - NB	I-880/1238 (split)	Marina Blvd	Oak -SL	2	2.66	80		47.8	۵	8	34.3	Ш
96 I-880 - NB	Marina Blvd	SR 112/Davis	Oak - SL	2	0.79	∞	10	25.9	(F30)	8	30.0	(F30)
97 I-880 - NB	SR 112/Davis	Hegenberger	Oak - SL	2	1.88	8		31.7	Е	8	29.8	(F30)
I-880 - NB	Hegenberger	High/42nd	Oak	-	2.47	8	10	31.3	ш	7	30.8	Ш
I-880 - NB	High/42nd	23rd (1st on)	Oak	-	1.06	8	10	29.4	(F30)	7	33.2	Ш
00 I-880 - NB	23RD (1ST on)	Jct 980 (off)	Oak	-	2.64	8		43.0	D	7	48.0	Ω
101 I-880 - NB		I-880/I-80 split	Oak	-	2.38	80		63.7	٨	7	63.7	⋖
102 I-880 - NB	I-880/1238 (split)	I-880/I-80 (merge)	Oak	_	1.40	8		65.7	∢	7	65.1	⋖

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		2	2012 LOS Monitoring Study Draft Results for Freeways - AM Peak Period	y Study Draft	Resul	ts for Free	vays -	AM Peak Per	po				
		Segme	Segment Limits		Plan	Length	No of	Prior LOS F	2010 LOS Results	S Results	20121	2012 LOS Results	ılts
	CMP Route	From	То	Jurisdiction	Area	(miles)	Lanes	(Years)	Speed	LOS	# of Runs	Speed	LOS
103	103 I-880 - SB	I-880/I-80 split	I-880/I-80 merge	Oak	-	1.63	8		68.7	4	8	67.5	А
104	104 I-880 - SB	I-880/I-80 merge	Jct 980	Oak	-	2.65	80		46.5	۵	80	83.0	A
105	105 I-880 - SB	1-980	23rd	Oak	1	2.79	8		46.2	O	8	60.7	Α
106	106 I-880 - SB	23rd St	High/42nd	Oak	-	1.35	8		79.9	∢	8	299	В
107	107 I-880 - SB	High/42nd	Hegenberger	Oak	1	2.27	8		62.4	А	8	61.0	Α
108	108 I-880 - SB	Hegenberger	SR 112/Davis	Oak - SL	1	1.69	8		57.8	В	8	9.09	Α
109	109 I-880 - SB	SR 112/Davis	Marina Blvd	Oak - SL	1	0.87	8		70.0	Α	8	72.2	Α
110	110 I-880 - SB	Marina Blvd	SR 238 WB (merge)	Oak - SL	1	2.41	8		40.5	Е	8	47.2	D
111	111 I-880 - SB	I-238 (Marina before 06)	A St	SL-Uninc	2	2.03	8	06-10	18.0	(F20)	8	22.4	(F30)
112	112 I-880 - SB	δ	Rt 92	Нау	7	1.81	8	97,98,00-02,08- 10	25.1	(F30)	∞	34.1	Ш
113	113 I-880 - SB	Rt 92	Tennyson	Нау	2	96.0	8		39.5	ш	8	23.0	(F30)
114	114 I-880 - SB	Tennyson	Alv-Niles	Hay - UC	2	2.49	8	00	29.4	(F30)	8	23.5	(F30)
115	115 I-880 - SB	Alvarado-Niles	Alvarado	UC - Fre	2	1.37	8	10	26.1	(F30)	8	24.6	(F30)
116	116 I-880 - SB	Alvarado	Decoto	UC - Fre	2	1.17	8		33.0	Е	8	26.8	(F30)
117	117 I-880 - SB	Decoto	Stevenson	Fre	3	4.07	8	10	28.4	(F30)	8	20.2	(F30)
118	118 I-880 - SB	Stevenson	AutoMall Pkwy	Fre	2	1.26	8	04,06	43.4	٥	7	35.5	Е
119	119 I-880 - SB	AutoMall Pkwy	Rt 262/Mission	Fre	2	3.04	8	04-08	48.9	٥	7	32.3	Е
120	120 I-880 - SB	SR 262/Mission	Dix Landing(off)	Fre	3	1.27	8	96-00,04	50.0	ပ	7	46.1	D
121	121 I-980 - WB	SR 24 @ 580	I-880	Oak	-	2.27	8		63.0	4	7	63.7	Α
122	122 I-980 - EB	1-880	SR 24 @ 580	Oak	1	2.32	8		61.2	Α	9	60.2	А
123	123 SR 13 - NB	Mountain On	Carson/Redwood (1) (o	Oak	1	1.20	4		91.9	Α	9	85.8	Α
124	124 SR 13 - NB	od (1)	(dJoaguin Miller	Oak	1	1.09	4		46.1	٥	9	39.4	Е
125	125 SR 13 - NB	Joa Miller/Linc	Moraga Ave	Oak	-	1.77	4		33.3	В	9	35.4	Е
126	126 SR 13 - NB	Moraga Ave	Hiller (Sig)	Oak	1	1.57	4	06,10	28.8	(F30)	9	23.2	(F30)
127	127 SR 13 - SB	Hiller Sig	Moraga Ave	Oak	-	1.66	4		9.69	В	9	55.9	В
128	128 SR 13 - SB	Moraga Ave	Joa Miller/Linc	Oak	-	2.04	4		73.9	∢	9	72.0	A
129	SR 13-	Joaq Miller/Lincoln	Redwood	Oak	-	1.34	4		62.9	⋖	9	62.6	⋖
130	SR 13 - SB	Redwood	Jct I-580 (EB Merge)	Oak	-	0.89	4		48.3	۵	9	41.6	D
131	SR 24 - EB	Jct I-580 (on)	Broadway/SR 13	Oak	1	2.08	8		65.4	A	9	65.2	А
132	132 SR 24 - EB	Broadway/SR 13	Caldecott (enter)	Oak	-	1.41	8	08-10	20.1	(F30)	9	18.3	(F20)
133	133 SR 24 - EB	Caldecott (enter)	Fish Ranch Road	Oak	_	1.03	8		39.0	Ш	9	40.2	Е
134	134 SR 24 - WB	Fisch Ranch Road (CCCaldecott (exit)	Caldecott (exit)	Oak	1	0.99	8		50.1	S	8	50.2	С
135	135 SR 24 - WB	Caldecott (exit)	Broadway	Oak	-	1.77	8		65.0	4	8	60.3	Α
136	136 SR 24 - WB	Broadway	Jct I-580 (on)	Oak	1	2.19	8		54.6	ပ	7	49.2	ပ

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	2012 LOS Results	Speed	53.9	58.3	62.9	41.8	42.7	36.3	31.0	2.09	9.59	62.1	8.79	55.1	35.7	59.0
	2012	# of Runs	9	9	9	9	9	9	9	9	7	7	7	9	9	9
	2010 LOS Results	SOT	ပ	В	٧	Э	Q	Э	(F30)	٧	٧	٧	В	C	۵	٧
riod	2010 LO	Speed	22.0	27.7	64.8	39.9	46.5	32.6	22.1	65.1	64.6	60.2	6.53	50.3	42.4	61.3
AM Peak Pe	Prior LOS F	(Years)							10					02	02	02
ways - ,	No of	Lanes	9	9	9	9	9	9	9	9	9	9	9	9	9	9
ts for Free	Length	(miles)	2.97	0.27	1.23	76.0	66.0	1.15	0.75	3.17	2.61	1.76	2.10	2.01	1.87	2.61
Resul	Plan	Area	Э	က	3	3	3	3	က	2	2	2	2	2	7	2
ı Study Draft		Jurisdiction	Fremont	Fremont	Newark	Newark				Fremont	Uninc - Hay	Uninc - Hay	Нау	Нау	Uninc - Hay	Uninc - Hav
2012 LOS Monitoring Study Draft Results for Freeways - AM Peak Period	Segment Limits	To	Toll Plaza	Thornton	Thornton Ave/Pascon Newark Blvd/Ardenwoo	I-880 NB (off)	Ardenwood/Newark	Paseo Padre Pkwy	Toll Gate	San M CL	Toll Plaza	Clawiter	088-1	Clawiter	Toll Plaza	San M CL
20	Segmen	From	San M CL	Toll Plaza	Thornton Ave/Pascon F	Newark Blvd/ArdenwodI-880 NB (off)	I-880 NB (off)	Ardenwood/Newark	Paseo Padre Pkwy	Toll Plaza	San M CL	Toll Plaza	Clawiter	I-880	Clawiter	Toll Plaza
		CMP Route	137 SR 84 - EB	138 SR 84 - EB	139 SR 84 - EB	140 SR 84 - EB	141 SR 84 - WB	142 SR 84 - WB	143 SR 84 - WB	144 SR 84 - WB	145 SR 92 - EB	146 SR 92 - EB	147 SR 92 - EB	148 SR 92 - WB	149 SR 92 - WB	150 SR 92 - WB
			137	138	139	140	141	142	143	144	145	146	147	148	149	150

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		Draft Res	Results for 2012	2 LOS Mor	nitoring	Study f	or Arte	erials -	LOS Monitoring Study for Arterials - AM Peak Period	Period				
		Segmer	Segment Limits		Length	Arterial	Plan	No of	Prior I OS	2010 LOS Results	Results	2012	LOS Results	ults
#	CMP Route	From	<u>٥</u>	Jurisdiction	(miles)		Area	Lanes	) 	Speed	ros	# of Runs	Speed	ros
7	150th St - EB	Hesperian	1-580	SL	0.49	=	2	2		18.5	ပ	7	15.5	۵
2	150th St - WB	1-580	Hesperian	SL	0.49	=	7	2		14.9	۵	7	14.9	۵
3	A Street - EB	1-880	Western	Hay	1.08	=	2	2		21.7	ပ	9	24.0	ပ
4	A Street - EB	Western	SR 238	Hay	0.53	=	7	2		10.3	Δ	9	7.5	ш
2	A Street - WB	SR 238	Western	Hay	0.53	Ξ	2	2		14.0	ပ	9	11.4	۵
9	A Street - WB	Western	1-880	Нау	1.08	=	2	2		25.6	В	9	18.2	O
7	Atlantic - EB	Main	Webster	Ala	08.0	=	-	2		21.4	O	8	23.9	O
∞		Webster	Main	Ala	0.80	=	-	2		27.1	В	8	28.0	В
6	Hegenberger - EB	SR 61	Edgewater	Oak	0.76	-	-	က		22.8	O	9	18.5	۵
10		Edgewater	Baldwin	Oak	0.73	_	-	က		24.8	ပ	9	24.9	O
7		Baldwin	E 14th	Oak	1.03	-	-	3		29.3	В	9	28.5	В
12	Hegenberger - WB	E 14th	Baldwin	Oak	1.03	-	-	3		39.6	∢	9	35.1	۷
13	Hegenberger - WB	Baldwin	Edgewater	Oak	0.73	-	-	3		25.4	ပ	9	22.0	O
14		Edgewater	SR 61	Oak	0.76	-	-	ဧ		21.5	۵	9	20.9	О
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15			SH 92 - WB	нау	0.47	-	7	უ (		15.7	ц	ٔ و	17.8	، د
16		SH 92	La Playa	Нау	0.79	=	2	က		25.9	a i	9	23.4	ပ
17	Hesperian -		W.Winton Ave.	Нау	0.44	=	7	က		25.8	മ	9	15.7	Δ
18	Hesperian -	W.Winton Ave	A St	Нау	96.0	=	7	က		26.4	മ	9	25.2	മ
19	Hesperian - NB	A St	Hacienda	Unin	0.65	=	2	2		24.3	ပ	9	25.4	മ
20	Hesperian -	•	Grant	Unin	0.65	=	7	2		26.9	В	9	30.8	⋖
21	Hesperian - NB	Grant	Llewelling	Unin	0.28	=	2	2	10	10.0	Œ	9	9.9	Ð
22	22 Hesperian - NB		Springlake	Unin	0.40	=	2	2		30.5	В	9	24.2	В
23	Hesperian - NB	Springlake	Fairmont	SL	99.0	=	2	2		18.5	ပ	9	20.1	ပ
24	Hesperian - NB	Fairmont	14th	SL	0.32	=	2	2		17.3	۵	9	18.0	۵
25	Hesperian - SB	14th	Fairmont	SL	0.31	=	2	2		12.9	ш	7	17.8	Δ
26	Hesperian - SB	Fairmont	Springlake	SL	0.65	=	2	2		27.0	В	7	22.2	ပ
27	' Hesperian - SB	Springlake	Llewelling	Unin	0.40	=	2	2		14.3	۵	7	10.6	Ш
28	28 Hesperian - SB	Llewelling	Grant	Unin	0.28	=	2	2		14.5	۵	7	15.2	۵
29	Hesperian - SB	Grant	Hacienda	Unin	0.65	=	2	2		21.6	ပ	7	26.9	В
30	Hesperian - SB	Hacienda	A St	Unin	0.65	=	2	2		20.8	ပ	7	17.0	Δ
31	Hesperian - SB	A St	W.Winton Ave.	Нау	96.0	=	2	3		15.5	۵	7	22.1	ပ
32	Hesperian - S	W.Winton Ave	La Playa	Нау	0.44	=	2	3		25.8	В	7	18.7	ပ
33	Hesperian -	La Playa	SH 92	Нау	0.79	=	7	က		17.2	ပ	7	18.2	ပ
34	Hesperian - SB	SH 92 - WB	Tennyson	Hay	0.47	-	2	3		16.2	۵	9	13.6	Ш

		Draft	Draft Results for 20	2012 LOS Mor	nitoring	Study f	or Arte	rials - ,	LOS Monitoring Study for Arterials - AM Peak Period	Period				
		Segment L	nt Limits		Length	Arterial	Plan	No of	Prior LOS	2010 LOS Results	Results	2012	LOS Results	ults
#	CMP Route	From	То	Jurisdiction	(miles)		Area	Lanes	"F"	Speed	ros	# of Runs	Speed	ros
35	35 Mowry - EB	1-880	Farwell	Fre	0.34	=	3	2		17.6	Δ	9	19.9	ပ
36	Mowry - EB	Farwell	SH 84	Fre	2.63	=	က	2		29.4	В	9	26.8	В
37	Mowry - WB	SH 84	Farwell	Fre	2.63	=	3	2		24.9	В	9	27.1	В
38	38 Mowry - WB	Farwell	1-880	Fre	0.34	=	3	7		24.0	В	9	22.7	ပ
39	39 Park/23rd - EB	Encinal	Santa Clara	Ala	0.23	≡	-	2		13.2	O	7	22.1	В
40	40 Park/23rd - EB	Santa Clara	Kennedy	Ala	99.0	=	-	2		11.9	Δ	7	12.3	۵
41	41 Park/23rd - EB	Kennedy	E 11th	Ala - Oak	0.49	=	-	2		17.2	Δ	7	16.5	Δ
42	Park/23rd - WB	E 11th	Kennedy	Ala - Oak	0.45	=	1	2		23.7	ပ	∞	24.8	В
43	Park/23rd - WB	Kennedy	Santa Clara	Ala	99.0	=	1	2		13.1	ပ	∞	15.4	ပ
44	Park/23rd - WB	Santa Clara	ш	Ala	0.23	=	1	2		22.0	В	8	12.4	۵
45	45 MLK Jr Way - NB	SH 24	ď	Oak	0.30	=	τ-	2		24.9	В	4	22.9	ပ
46	46 Adeline - NB	MLK Jr - South	MLK Jr - North	Berk	0:30	=	1	2		18.6	ပ	4	12.9	ш
47	Adeline - NB	MLK Jr - North	S	Berk	0.63	=	1	2		17.7	۵	4	20.5	ပ
48	48 Shattuck NB		Dwight	Berk	0.32	_	-	2		23.7	ပ	4	23.5	ပ
49	49 Shattuck NB	Dwight	University	Berk	0.63	=	1	2		24.2	В	4	18.9	ပ
20	Shattuck SB	ity	Dwight	Berk	0.63	=	1	2		17.9	ပ	4	15.4	ပ
51	Shattuck SB	Dwight	Adeline	Berk	0.32	=	τ-	2		30.1	4	4	29.4	В
52	Adeline - SB	Shattuck	MLK Jr - North	Berk	0.63	=	τ-	2		18.6	ပ	4	17.0	Δ
53	Adeline - SB	MLK Jr - North	~	Berk	0:30	=	1	2		15.6	۵	4	19.0	ပ
54	4 MLK Jr Way - SB	Adeline	SH 24	Oak	0.88	=	-	7		21.8	O	4	19.1	ပ
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င္ပင္	I ennyson - EB	неsperian	1-880 5-66	пау	8	-1:	7 0	7 (		Z1.0	י ב	، ه	21.8	י ב
26	Iennyson - EB	1-880 NB	Kt 238	Нау	1.55	=   -	7 0	7 0		20.7	၁ (	တ လ	20.9	၁ (
<i>ک</i> ر		Kt 238	1-880	нау		=	7	7		C'/L	ם	٥	18.1	ر
28	Tennyson - WB	1-880	Hesperian	Нау	0.85	-	2	2		16.0	ш	9	22.3	O
59	59 University - EB	I-80 SB	6th	Berk	0.40	=	-	2		25.3	В	8	20.8	ပ
09	60 University - EB	6th	San Pablo	Berk	0.31	=	-	2		20.2	ပ	8	17.5	۵
61	University - EB	San Pablo	Sacramento	Berk	0.56	=	_	2		12.7	Ш	8	19.6	ပ
62		Sacramento	ML King	Berk	0.48	=	-	2		16.0	۵	8	18.8	ပ
63	63 University - EB	ML King	Shattck PI	Berk	0:30	=	_	2		25.6	∢	8	18.0	ပ
64	64 University - WB	Shattck PI	ML King	Berk	0:30	Ξ	_	2		17.3	U	7	17.3	O
92	65 University - WB	ML King	Sacramento	Berk	0.48	=	-	2		20.9	O	7	19.9	ပ
99	66 University - WB	Sacramento	San Pablo	Berk	0.56	=	_	2		19.4	O	7	20.0	ပ
29	67 University - WB	San Pablo	_	Berk	0.31	=	-	2		15.4	۵	7	20.3	ပ

					•					; ; ; ; ;				_
		Segment Lir	t Limits		Length	Arterial	Plan	No of	Prior I OS	2010 LOS Results	Results	2012	2012 LOS Results	ults
# CMP	CMP Route	From	То	Jurisdiction	(miles)		Area	Lanes	F	Speed	SOT	# of Runs	Speed	ros
68 University - WB	WB	6th	I-80 SB	Berk	0.40	=	-	7		37.3	Α	9	38.6	∢
69 SR 13 Ashbv	v - WB	Hiller	Domingo	Oak - Berk	0.79	=	-	2		20.8	O	9	19.3	C
70 SR 13 Ashby	y - WB	Domingo	College	Berk	0.50	=	_	-		15.0	O	9	14.4	O
71 SR 13 Ashby	y - WB	College	Telegraph	Berk	0.38	=	-	-		20.4	В	9	18.0	O
	y - WB	Telegraph	Shattuck	Berk	0.38	=	-	-		20.1	В	9	13.1	ပ
73 SR 13 Ashby	y - WB	Shattuck	ML King	Berk	0.24	=	-	_		10.3	۵	9	9.3	۵
74 SR 13 Ashby	y - WB	ML King	San Pablo	Berk	0.87	=	_	_		18.0	O	9	18.3	ပ
75 SR 13 Ashby -	y - WB	San Pablo	I-80 Ramps	Berk	0.64	=	_	2		19.1	O	9	16.8	۵
76 SR 13 Ashby - EB	y - EB	1-80	San Pablo	Berk	0.61	=	_	2		19.7	O	9	19.5	ပ
77 SR 13 Ashby	y - EB	San Pablo	ML King	Berk	0.87	=	-	_		19.7	В	9	19.0	O
78 SR 13 Ashby - EB	y - EB	ML King	Shattuck	Berk	0.24	=	-	-		12.6	۵	9	10.6	۵
79 SR 13 Ashby - EB		Shattuck	Telegraph	Berk	0.38	=	-	1		21.4	В	9	18.5	ပ
80 SR 13 Ashby - EB		Telegraph	College	Berk	0.38	=	-	-		18.8	O	9	21.3	В
81 SR 13 Ashby - EB	y - EB	College	Domingo	Berk	0.50	=	-	-		19.7	В	9	20.7	В
82 SR 13 Ashby	y - EB	Domingo	Hiller	Berk - Oak	0.79	=	-	7		28.7	В	9	30.2	∢
83 SR 61 - SB		Atlantic	Cent/Webster	Ala	0.55	=	_	2		16.5	ပ	7	17.3	ပ
SR 6		Sent/Webster	Sher/Encino	Ala	0.73	=	-	2		20.8	O	8	19.4	O
SR 6		Sher/Encino	Park	Ala	1.22	=	-	_		21.4	ပ	8	21.4	ပ
SR 6		bark	High/Otis	Ala	1.06	-	_	<b>-</b>		23.4	ပ	8	24.7	В
SR 6	ittle) - SB	High	Island Dr	Ala	0.41	=	_	8		16.4	۵	80	21.9	O
88 SR 61 (Doolittle) - SB	ittle) - SB	Island Dr	Harbor Bay	Ala	0.50	-	-	2		30.4	В	7	36.6	⋖
89 SR 61 - SB		Harbor Bay	Airport Dr	Oak	2.15	_		_		35.5	Α	7	32.6	Ф
90 SR 61 (Dool	ittle) - SB	Airport	Davis	Oak - SL	0.95	-	_	2		40.6	4	7	27.6	ပ
91 SR 61 (Doolittle) - NB	ittle) - NB	Davis	Airport	SL - Oak	0.95	-	2	7		32.8	Ф	7	36.1	⋖
92 SR 61 - NB		Airport Dr	Harbor Bay	Ala	2.15	-	-	_		40.8	٨	7	36.6	⋖
93 SR 61 (Doolittle) - NB	ittle) - NB	Harbor Bay	Island Dr	Ala	0.50		-	2		31.0	Α	7	25.9	В
94 SR 61 (Doolittle) - NB	ittle) - NB	Island Dr	High/Otis	Ala	0.41	=	-	2		21.6	O	7	12.3	ш

		Draft R	Draft Results for 2012 LOS Monitoring Study for Arterials - AM Peak Period	12 LOS Mor	itoring	Study f	or Arte	rials -	AM Peak F	Period				
		Segment L	t Limits		Length	Arterial	Plan	No of	Prior LOS	2010 LOS Results	Results	2012	LOS Results	ults
#	CMP Route	From	70	Jurisdiction	(miles)		Area	Lanes	"F"	Speed	SOT	# of Runs	Speed	ros
36	R 61 - NB	ligh/Otis	Park	Ala	1.06	=	-	_		24.0	ပ	2	25.0	В
ര്	R 61 - NB	ark/Encnal	Sher/Cent	Ala	1.22	=	1	1		20.5	ပ	7	15.5	۵
<u>.</u> 6	R 61 - NB	sher/Cent	Web/Cent	Ala	0.73	=	τ-	2		23.0	၁	7	23.1	C
S 86	R 61 - NB	ent/Web	Atlantic	Ala	0.55	=	-	2		11.6	Q	7	15.6	ပ
66	R 77 (42nd) - FB	880 NB	F 14th	Oak	0.32	_	-	2		6 66	æ	Data no	Data not collected	ot et b
10	SR 77 (42nd) - WR	1	LASO NB	Oak	30.0	-  -		10		32.7	a a		netriictior	
2	0 v - (1211) - v v v		QN 000-	S S	3	-	-	٧		7.70	۵	3		
101	Decoto - WB	SH 238/Mission	Union Square	nc	0.85	=	3	2		16.5	Δ	9	20.2	ပ
10,			Alv-Niles Rd	nc	0.25	=	က	2		17.1	ပ	9	23.5	O
10,	103 Decoto - WB	Alv-Niles Rd	Fremont CL	nc	99.0	=	3	2		24.9	В	9	22.7	ပ
104			I-880 NB (off)	Fre	1.15	=	က	2		15.2	Δ	9	11.1	ш
105	5 Decoto - EB	I-880 NB (off)	Union City CL	Fre	1.15	=	3	2		24.5	В	9	26.9	В
106	S Decoto - EB		Alv-Niles Rd	nc	99.0	=	3	2		17.7	Ω	9	21.9	ပ
107			Union Square	nc	0.25	=	3	2		17.1	Δ	9	11.8	ш
108	3 Decoto - EB	ദാ	SH 238/Mission	nc	0.85	=	3	2		18.2	ပ	9	17.6	Δ
109	SR 84/Mowry (Fre)-WBSH 238		Peralta	Fre	0.78	-	3			31.9	В	10	32.0	O
11(	110 SR 84/Peralta (Fre)-W⊟Mowry		Fremont	Fre	1.66	-	င			28.0	O	10	29.2	В
111	I SR 84/Fremont(Fre)-W Peralta		Thornton	Fre	0.33	=	Э			9.8	(F)	10	9.5	(F)
112	2 SR 84/Thornton(Fre)-WFremont	ıt	I-880 SB	Fre	1.29	=	င			23.6	ပ	10	23.4	ပ
113	SR 84/Thornton (Fre)-EI-880 SB	_	Fremont	Fre	1.29	=	Э	4		22.5	ပ	ω	25.3	В
114	4 SR 84/Fremont (Fre)-E Thornton		Peralta	Fre	0.32	=	3	4		11.4	Ш	80	11.8	Ш
11	115 SR 84/Peralta (Fre) - E Fremont		Mowry	Fre	1.64	_	Э	2		28.8	В	ω	25.1	ပ
116	SR 84/Mowry (Fre) - Ef Peralta		SH 238	Fre	0.87	-	3	4(2)		23.0	ပ	9	20.9	۵
7	7 424 0400	7000	N Missis	-	2	-				0.40	٥	c	7 10	(
	190,000,000		20	Ì	5	-				5	٠ د	0	-	)
118	3 1st Street - SB	N Mines	Inman	Liv	1.05	-				39.4	⋖	ω	29.0	В
118	119 1st Street - NB	Inman	N Mines	Liv	1.05	-				34.8	В	ω	31.7	В
12(	120 1st Street - NB	N Mines	I-580 Off	Liv	0.61	-				29.6	В	ω	30.2	В
121	I SR 84 - EB	SR 238/Mission	Union City Limit	Fre	1.59	41.9	က	2		40.5	٨	9	38.9	⋖
122	2 SR 84 - EB	:	Palamores	Fre	0.94	44.5	က	2		43.2	⋖	9	42.6	⋖
123	3 SR 84 - EB	Palamoras	Niles Cnyn Quar	Fre	2.16	43.8	င	2		43.2	4	9	40.7	⋖
124	SR 84 - EB	Niles Cnyn Quarr Sunol Rd	Sunol Rd	Fre	1.75	46.7	က	2		47.3	⋖	9	44.8	⋖
125	SR 84 - EB	Sunol Rd	Plea-Sunol Rd	Fre	0.53	27.6	က	2		19.2	۵	9	9.3	Œ

	Page A-23
	Arterial 2012 AM

# CMP Route From High/Otts 96 SR 61 - NB High/Otts 96 SR 61 - NB Park/End 97 SR 61 - NB Cent/We 98 SR 61 - NB Cent/We 99 SR 77 (42nd) - EB From From 100 SR 77 (42nd) - WB E 14 th 101 Decoto - WB E 144 th 102 Decoto - WB From 103 Decoto - WB From 104 Decoto - EB High/Otts 106 Decoto - EB High/Niles 106 Decoto - EB High/Niles 107 Decoto - EB High/Niles 108 Decoto - EB High/Niles 110 SR 84/Mowry (Fre)-WB SH 238 110 SR 84/Mowry (Fre)-WB SH 238 111 SR 84/Fremont(Fre)-W Fremont 113 SR 84/Fremont (Fre)-E High SB 114 SR 84/Fremont (Fre)-E High SB 114 SR 84/Fremont (Fre)-E Thornton	<b>2</b>	To Y K K K K K K K K K K K K K K K K K K	Jurisdiction Ala Ala	Length (miles)	Arterial	Plan	No of	Prior LOS	တ	Results	2012   # of	2012 LOS Results	ults
Aoute ) - EB ) - WB  V (Fre)-WB a (Fre)-WB ton(Fre)-W ton (Fre)-ED ont (Fre)-ED	From High/Otis Park/Enchal Sher/Cent Cent/Web -880 NB E 14 th SH 238/Mission Union Square Alv-Niles Rd Fremont CL -880 NB (off) Union City CL Alv-Niles Rd	<del>-                                    </del>	Jurisdiction Ala Ala	(miles)				2		0	# of	(	
) - EB ) - WB ) - WB v (Fre)-WB a (Fre)-WB ton(Fre)-W ton(Fre)-W	High/Otis Park/Enchal Sher/Cent Cent/Web -880 NB E 14 th SH 238/Mission Juion Square Alv-Niles Rd Tremont CL -880 NB (off) Juion City CL	Park Sher/Cent Web/Cent Atlantic E 14th I-880 NB	Ala			Area	Lanes	Ļ	Speed	3	Runs	Speed	LOS
) - EB ) - WB / (Fe)-WB a (Fre)-WB ton(Fre)-W ton (Fre)-E	Park/Enchal Sher/Cent Cent/Web -880 NB = 14 th SH 238/Mission Jnion Square Alv-Niles Rd Fremont CL -880 NB (off) Jnion City CL Alv-Niles Rd	Sher/Cent Web/Cent Atlantic E 14th I-880 NB	Ala	1.06	=	1	-		24.0	ပ	7	25.0	В
) - EB ) - WB  y (Fre)-WB a (Fre)-WB ton(Fre)-W ton (Fre)-W	Sher/Cent Cent/Web -880 NB = 14 th SH 238/Mission Jnion Square Tremont CL -880 NB (off) Jnion City CL Alvi-Niles Rd	Web/Cent Atlantic E 14th I-880 NB		1.22	=	1	-	_	20.5	ပ	7	15.5	۵
) - EB ) - WB y (Fre)-WB a (Fre)-WB ton(Fre)-W ton(Fre)-W	Sent/Web -880 NB = 14 th SH 238/Mission Jnion Square Alv-Niles Rd -remont CL -880 NB (off) Jnion City CL -Mr-Niles Rd	Atlantic E 14th I-880 NB Union Square	Ala	0.73	=	-	2	_	23.0	C	7	23.1	C
99 SR 77 (42nd) - EB 100 SR 77 (42nd) - WB 101 Decoto - WB 102 Decoto - WB 103 Decoto - WB 104 Decoto - WB 105 Decoto - BB 106 Decoto - BB 107 Decoto - BB 108 Decoto - EB 108 Decoto - EB 109 SR 84/Mowry (Fre)-WB 111 SR 84/Fremont(Fre)-WF	-880 NB E 14 th SH 238/Mission Union Square Aiv-Niles Rd Fremont CL -880 NB (off) Union City CL Aiv-Niles Rd	E 14th I-880 NB Union Square	Ala	0.55	=	-	7		11.6	D	7	15.6	U
100 SR 77 (42nd) - WB	E 14 th SH 238/Mission Jnion Square Alv-Niles Rd Fremont CL -880 NB (off) Jnion City CL Alv-Niles Rd	I-880 NB Union Square	Oak	0.32	_	-	2		29.9	В	Data not	Data not collected	due to
101 Decoto - WB 102 Decoto - WB 103 Decoto - WB 104 Decoto - WB 105 Decoto - EB 106 Decoto - EB 107 Decoto - EB 107 Decoto - EB 108 Decoto - EB 109 SR 84/Mowry (Fre)-WB S 111 SR 84/Fremont(Fre)-W F 112 SR 84/Thornton (Fre)-W F 113 SR 84/Fremont (Fre)-W F 114 SR 84/Fremont (Fre)-W F	SH 238/Mission Juion Square Alv-Niles Rd Fremont CL -880 NB (off) Juion City CL Juion City CL Akiv-Niles Rd	Union Square	Oak	0:30	-	-	2		32.7	В	8	construction	
102 Decoto - WB	Jnion Square Alv-Niles Rd Fremont CL -880 NB (off) Jnion City CL		<u></u>	0.85	=	۲	0		16.5	د	٧	20.2	c
103 Decoto - WB		Alv-Niles Bd		0.00	=	۳ (	1 0		17.1	) C	o (c	23.E	) C
104 Decoto - WB   105 Decoto - EB   106 Decoto - EB   107 Decoto - EB   107 Decoto - EB   108 Decoto - EB   108 Decoto - EB   109 SR 84/Mowry (Fre)-WB S   111 SR 84/Fremont(Fre)-W F   112 SR 84/Thornton (Fre)-W F   113 SR 84/Thornton (Fre)-E   114 SR 84/Fremont (Fre)-E   115 SR 84/Fremont (Fre)-E   116 SR 84/Fremont (Fre)-E   117 SR 84/	ا ل	Fremont CL	) O O	0.66	=	ာ က	2 2		24.9	В	9	22.7	) ပ
105 Decoto - EB L 106 Decoto - EB A L 107 Decoto - EB A L 108 Decoto - EB L 109 SR 84/Mowry (Fre)-WB S 110 SR 84/Fremont(Fre)-W F 111 SR 84/Fremont(Fre)-W F 112 SR 84/Thornton (Fre)-B F 113 SR 84/Fremont (Fre)-B F 114 SR 84/Fremont (Fre)-B F	، د	I-880 NB (off)	Fre	1.15	=	3	2	_	15.2	Δ	9	11.1	Ш
106 Decoto - EB		Union City CL	Fre	1.15	=	3	2		24.5	В	9	26.9	В
107 Decoto - EB 108 Decoto - EB 109 SR 84/Mowry (Fre)-WB S 111 SR 84/Fremont(Fre)-W F 112 SR 84/Thornton (Fre)-W F 113 SR 84/Thornton (Fre)-B 113 SR 84/Fremont (Fre)-B 114 SR 84/Fremont (Fre)-E	,	Alv-Niles Rd	OC	99.0	=	ဇ	2	_	17.7	۵	9	21.9	ပ
108 Decoto - EB 109 SR 84/Mowry (Fre)-WB S 110 SR 84/Fremont(Fre)-WF 111 SR 84/Fremont(Fre)-W F 112 SR 84/Thornton (Fre)-B 113 SR 84/Thornton (Fre)-E1 114 SR 84/Fremont (Fre)-E1	,	Union Square	OC	0.25	=	3	2	_	17.1	۵	9	11.8	Ш
109 SR 84/Mowry (Fre)-WB S 110 SR 84/Peralta (Fre)-WE 111 SR 84/Fremont(Fre)-W 112 SR 84/Thornton (Fre)-E 113 SR 84/Fremont (Fre)-E	Onion Square	SH 238/Mission	OC	0.85	=	3	2		18.2	O	9	17.6	۵
109 SR 84/Mowry (Fre)-WBS 110 SR 84/Peratta (Fre)-WF 111 SR 84/Fremont(Fre)-W F 113 SR 84/Thornton (Fre)-E1 114 SR 84/Fremont (Fre)-E1													
110 SR 84/Peratta (Fre)-Wf N 111 SR 84/Fremont(Fre)-W F 112 SR 84/Thornton(Fre)-W F 113 SR 84/Thornton (Fre)-E1 114 SR 84/Fremont (Fre)-E1		Peralta	Fre	0.78	-	3			31.9	В	10	32.0	ပ
111 SR 84/Fremont(Fre)-W P 112 SR 84/Thornton(Fre)-W F 113 SR 84/Thornton (Fre)-E1 114 SR 84/Fremont (Fre)-E1		Fremont	Fre	1.66	-	3			28.0	ပ	10	29.2	В
112 SR 84/Thornton(Fre)-W 113 SR 84/Thornton (Fre)-E1- 114 SR 84/Fremont (Fre)-E1		Thornton	Fre	0.33	=	3			9.8	(F)	10	9.2	Ð
113 SR 84/Thornton (Fre)-El- 114 SR 84/Fremont (Fre)-E T	ıt	I-880 SB	Fre	1.29	=	က		_	23.6	ပ	10	23.4	ပ
114 SR 84/Fremont (Fre)-E T		Fremont	Fre	1.29	=	3	4		22.5	O	80	25.3	В
Ì	_	Peralta	Fre	0.32	=	က	4	_	11.4	ш	80	11.8	ш
115 SR 84/Peralta (Fre) - E Fremont		Mowry	Fre	1.64	-	3	2	_	28.8	В	8	25.1	ပ
116 SR 84/Mowry (Fre) - Ef Peralta		SH 238	Fre	0.87	-	3	4(2)		23.0	O	9	20.9	۵
117 1st Street - SB	I-580 Off	N Mines	Liv	0.61	-				21.3	۵	8	25.1	ပ
118 1st Street - SB	N Mines	Inman	Liv	1.05	-				39.4	∢	80	29.0	В
119 1st Street - NB	Inman	N Mines	Liv	1.05	-				34.8	В	8	31.7	В
	N Mines	I-580 Off	Liv	0.61	-			_	29.6	В	ω	30.2	В
	lission	Union City Limit	Fre	1.59	41.9	3	2	_	40.5	∢	9	38.9	∢
	Union City Limit	Palamores	Fre	0.94	44.5	3	2		43.2	∢	9	42.6	∢
123 SR 84 - EB	Palamoras	Niles Cnyn Quar	Fre	2.16	43.8	က	2		43.2	∢	9	40.7	4
124 SR 84 - EB	Niles Cnyn Quarr Sunol Rd	Sunol Rd	Fre	1.75	46.7	3	2		47.3	∢	9	44.8	⋖
	Sunol Rd	Plea-Sunol Rd	Fre	0.53	27.6	က	7		19.2	٥	9	9.3	Ē

**LOS** 

Runs # of

**Los** 

Speed

Prior LOS "F"

Area

(miles)

Jurisdiction Unin Unin Unin Unin Unin

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From

**CMP Route** 

#

Segment Limits

No of Lanes

Length Arterial Plan

2012 LOS Results Speed

2010 LOS Results

Draft Results for 2012 LOS Monitoring Study for Arterials - AM Peak Period

⋖ ⋖ ⋖ ⋖

48.1

В

50.8 57.5 58.3

> 1.14 1.65

/allecitos Nuc.C

Vallecitos Ln

Vallecitos Ln

SR 84 (Off)/I-680

127 SR 84 - EB 126 SR 84 - EB

128 SR 84 - EB 129 SR 84 - EB 130 SR 84 - EB

Vallecitos Nuc CeCulvert (Lat/Lon Culvert (Lat/Long Ruby Hill /Kaithc

42.9

0.77 1.07

SR 84 (Off)/I-68

Ple-Sunol Rd

53.6

55.2

55.7

4

59.2

1.62

0.38

Ruby Hill./Kaithof Isabel/Vallecitos

Vineyard

Vallecitos/Isabel

40.3

ω ω ω

40.9 44.9 56.9  $\forall$   $\Box$   $\Box$ 

32.3 37.1

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⋖  $\triangleleft$   $\square$   $\cup$ 

37.2 44.6 43.0 40.3 19.5 26.6

0.88 0.49

W. Jack London Airway/Kitty Haw

Stanley W. Jack London I

1.06

⋵

1-580

Airway/Kitty

0.60 1.07

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Concannon Stanley

Vineyard Concannon

131 SR 84 - EB 132 SR 84 (Liv) - NB 133 SR 84 (Liv) - NB 134 SR 84 (Liv) - NB 135 SR 84 (Liv) - NB 137 SR 84 (Liv) - NB

38.5 41.8

В

38.4 17.6

32.6

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28.7 36.7

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1.06 0.49

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W. Jack London

Airway/Kitty

139 SR 84 (Liv) - SB

138 SR 84 (Liv) - SB

1-580

Airway/Kitty Haw

32.3

48.0 A 6 45.	9 9 9 V V V	0 0 0 0 V		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							
,	1 2	2 2 2	2 2 2 2	2 2 2 2 2 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4								
		   4 4 4	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		55.8 56.5 56.5 52.5 55.3	5.58 56.5 56.5 56.5 56.3	55.8 56.5 56.5 56.5 57.4 41.4 41.9	55.8 56.5 52.5 55.3 41.4 41.9	55.8 56.5 52.5 52.5 54.14 41.9 48.5	558 56.5 52.5 52.5 52.5 41.4 41.9 48.5 41.5		55.8 56.5 52.5 52.5 52.5 41.4 41.9 47.5 47.5 13.17
Liv 1.05												Liv 0.60 Liv 0.38 Pleas 1.62 Unin 1.14 Unin 0.21 Fre 0.53 Fre 0.53 Fre 1.75 Fre 1.00 Fre 1.00 Fre 1.00 Fre 1.00 Fre 1.00 Fre 1.00
Concannon	Vineyard				ong I							
Stanley C	+	+-+-	<u> </u>					Vineyard Isabel/Vallecitos Ruby Hill /Kaithof C Culvert (Lat/Long V Vallecitos Ln SR 84/I-680 NB C P Pie-Sunol Rd Niney Vineyard Rd Nineyard Nineyard Rd Nineyard Nin	Vineyard Isabel/Vallecitos Ruby Hill /Kaithof C Culvert (Lat/Long V Vallecitos Ln SR 84/1-680 NB C P Pie-Sunol Rd Sunol Rd Niles Canyon Quf F Viney Canyon Cult	Vineyard Isabel/Vallecitos Ruby Hill /Kaithof C Culvert (Lat/Long V Vallecitos Ln SR 84/I-680 NB C PIe-Sunol Rd Sunol Rd Niles Canyon Qu/F Fremont City Lim	Vineyard Isabel/Vallecitos R Ruby Hill /Kaithof C Culvert (Lat/Long V Vallecitos Ln S Vallecitos Ln S Vallecitos Ln S SR 84/1-680 NB C Pie-Sunol Rd S Sunol Rd Niles Canyon Qu/F Fremont City Lim U Union City Lim I	Vineyard Isabel/Vallecitos Ruby Hill /Kaithof C Culvert (Lat/Long V Vallecitos Ln S S R 84/l-680 NB C P Pie-Sunol Rd S Sunol Rd Niles Canyon Qu/F Fremont City Limit Union City Limit S 1800 NB C P 1880 NB C P NING CITY CITY CITY CITY CITY CITY CITY CITY
141 SR 84 (Liv) - SB 142 SR 84 (Liv) - SB		143 SR 84 (Liv) - SB 144 SR 84 - WB	143 SR 84 (Liv) - SB 144 SR 84 - WB 145 SR 84 - WB	143 SR 84 (Liv) - SB 144 SR 84 - WB 145 SR 84 - WB 146 SR 84 - WB 147 SR 84 - WB			SB					
141 SR 8 142 SR 8		143 SR 8 144 SR 8	143 SR 8 144 SR 8 145 SR 8	144 SR 8 144 SR 8 145 SR 8 146 SR 8	143 SR 8 144 SR 8 145 SR 8 146 SR 8 147 SR 8	143 SR 8 144 SR 8 146 SR 8 147 SR 8 148 SR 8 148 SR 8	143 SR 8 144 SR 8 146 SR 8 147 SR 8 148 SR 8 148 SR 8 149 SR 8	143 SR 8 145 SR 8 146 SR 8 147 SR 8 148 SR 8 149 SR 8 150 SR 8	143 SR 8 144 SR 8 146 SR 8 147 SR 8 148 SR 8 150 SR 8 151 SR 8 151 SR 8	143 SR 8 145 SR 8 146 SR 8 147 SR 8 148 SR 8 150 SR 8 151 SR 8 151 SR 8 151 SR 8 152 SR 8	143 SR 84 (L 145 SR 84 - v 146 SR 84 - v 147 SR 84 - v 148 SR 84 - v 149 SR 84 - v 150 SR 84 - v 151 SR 84 - v 153 SR 84 - v 151 SR 84 - v 153 SR 84 - v 153 SR 84 - v 154 SR 84 - v 155 SR 84 - v 155 SR 84 - v 155 SR 84 - v	143 SR 8 144 SR 8 146 SR 8 147 SR 8 150 SR 8 151 SR 8 152 SR 8 154 SR 8 155 SR 8 155 SR 8 156 SR 8

		)	•				AIN LEAN LEILOU	5				
Segment	t Limits		Length	Arterial	Plan	No of	Prior I OS	2010 LOS Results	Results	2012	2012 LOS Results	ults
From	2	Jurisdiction	(miles)		Area	Lanes		Speed	ros	# of Runs	Speed	ros
Doolittle	1-880	SL	0.51	=	2	2		31.2	Α	8	23.5	ပ
0	San Leandro	SL	1.01	=	2	2			В	8	22.3	ပ
San Leandro	14th	SL	0.28	=	2	2			ပ	8	15.4	ပ
E 14th	San Leandro	SL	0.28	=	2	7		14.0	O	7	12.9	۵
San Leandro	1-880	SL	1.00	=	2	2		29.0	В	7	29.3	В
	Doolittle	SL	0.51	=	2	2		21.5	ပ	7	21.1	ပ
	Washington	Alb	0.53	=	_	2		30.4	В	9	24.3	В
SR 123 San Pablo - SB Washington	Marin	Alb	0.44	=	_	2		19.6	O	9	15.5	ပ
	Gilman	Alb - Berk	0.47	=	-	2		24.2	ပ	9	24.6	В
	University	Berk	0.86	=	-	2		18.7	D	9	16.6	۵
SR 123 San Pablo - SBUniversity	Allston	Berk	0.20	≡	-	2		23.2	В	9	29.0	∢
SR 123 San Pablo - SBAllston	Dwight	Berk	0.4	=	Ψ.	2		25.0	В	9	22.3	ပ
	Ashby	Berk	0.68	=	-	2		27.6	В	9	23.2	ပ
SR 123 San Pablo - SB Ashby	Stanford	Berk	0.81	=	_	2		23.1	O	9	22.5	ပ
	53rd	Oak	0.27	=	_	2		25.8	В	9	21.2	ပ
	Park	Emer	0.34	=	-	2		24.9	ပ	9	19.6	ပ
SR 123 San Pablo - SB Park	35th	Emer - Oak	0.45	=	_	7		21.4	O	9	18.3	O
	Park	Oak - Emer	0.45	=	τ-	2		20.9	O	7	16.3	Δ
	53rd	Emer	0.34	=	-	7		24.0	В	7	23.6	ပ
	Stanford	Oak	0.27	=	-	7		27.9	В	7	33.5	∢
70	Ashby	Oak	0.81	=	<b>–</b>	2		25.9	В	7	20.6	ပ
	Dwight	Berk	0.68	=	-	2		32.1	٨	7	28.4	В
	Allston	Berk	0.4	=	~	7		30.9	⋖	7	30.9	⋖
	University	Berk	0.20	=	_	2		17.2	ပ	7	21.8	Ф
Pablo - NEUniversity	Gilman	Berk	0.86	=	_	7		31.0	⋖	7	26.7	В
_	Marin	Alb - Berk	0.47	=	-	7		26.4	ပ	7	32.5	⋖
	Washington	Alb	0.45	=	-	2		37.7	A	7	24.8	В
Washington	Carlson	Alb	0.53	=	-	2		29.7	A	7	28.3	В
	46th St	Oak	0.26	=				16.7	۵	9	21.9	ပ
	Seminary	Oak	0.79	=				25.4	В	9	29.6	В
	73rd	Oak	0.80	=	-	2		15.5	D	9	12.1	ш
73rd Ave	98th Ave	Oak	1.39	=	-	2		21.1	ပ	9	21.8	ပ
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Page

		Draft F	Draft Results for 2012	12 LOS Mor	itoring	Study f	or Arte	rials -	LOS Monitoring Study for Arterials - AM Peak Period	eriod				
		Segment	t Limits		Length	Arterial	Plan	No of	Prior LOS	2010 LOS Results	Results	12	LOS Results	ults
#	CMP Route	From	То	Jurisdiction	(miles)		Area	Lanes	"F"	Speed	ros	# of Runs	Speed	ros
126	:6 SR 84 - EB	Ple-Sunol Rd	SR 84 (Off)/1-68(	Unin	0.77	42.9	4	2		40.9	⋖	8	40.3	∢
127	7 SR 84 - EB	SR 84 (Off)/I-680 V	Vallecitos Ln	Unin	1.07	50.8	4	2		44.9	В	8	48.1	⋖
128	8 SR 84 - EB	Vallecitos Ln	Vallecitos Nuc.C	Unin	1.14	57.5	4	2		56.9	∢	80	53.6	⋖
129	9 SR 84 - EB		Culvert (Lat/Lon	Unin	1.65	58.3	4	7		57.4	Α	8	55.2	⋖
130	10 SR 84 - EB	Culvert (Lat/Long Ruby Hill /Kaitho	Ruby Hill /Kaitho	Unin	1.62	59.2	4	7		57.4	Α	8	55.7	⋖
131	SR 84 - EE	Ruby Hill./Kaithof Isabel/Vallecitos	Isabel/Vallecitos	Unin	0.38	_	4	2		37.2	∢	80	38.5	⋖
132	2 SR 84 (Liv) - NB	Vallecitos/Isabel	Vineyard	Liv	1.12	_	4	2		44.6	٨	æ	41.8	⋖
13	3R 84 (Liv		Concannon	Liv	0.60	_	4	2		43.0	۷	8	32.3	В
13	SR 84 (Liv	on	Stanley	Liv	1.07	_	4	2		40.3	۷	8	37.1	٧
13	3R 84 (Liv	Stanley	W. Jack London	Liv	0.88	_	4	7		41.2	4	∞	38.4	⋖
13	SR 84 (Liv	nopu		Liv	0.49	-	4	7		19.5	Δ	8	17.6	۵
13	SR 84 (Liv	Airway/Kitty	1-580	Liv	1.06	-	4	7		26.6	ပ	8	32.6	В
13	138 SR 84 (Liv) - SB	1-580	Airway/Kitty Haw	Liv	1.06	-	4	2		28.7	В	9	34.1	Ф
13	139 SR 84 (Liv) - SB	Airway/Kitty	W. Jack London	Liv	0.49	-	4	2		36.7	٨	9	32.3	В
4	140 SR 84 (Liv) - SB	W. Jack London [S	Stanley	Liv	0.90	_	4	2		48.0	4	9	45.7	⋖
4	141 SR 84 (Liv) - SB	Stanley	Concannon	Liv	1.05	_	4	2		40.5	∢	9	36.0	⋖
4	142 SR 84 (Liv) - SB	Concannon	Vineyard	Liv	09.0	_	4	2		22.8	O	9	28.0	ပ
143	SR 84 (Liv)	Vineyard	Isabel/Vallecitos	Liv	1.12	_	4	2		18.9	D	9	14.6	ш
14	144 SR 84 - WB	Isabel/Vallecitos	Ruby Hill /Kaitho		0.38	-	4	2		39.7	۷	9	36.5	⋖
145	5 SR 84 - WB		Culvert (Lat/Lon		1.62	55.8	4	2		47.4	В	9	18.1	(F)
146	SR 84	Culvert (Lat/Long V	Vallecitos Nuc.C	Unin	1.65	56.5	4	2		45.4	В	9	41.8	ပ
147	SR 84	Vallecitos Nuc.Cr	Vallecitos Ln	Unin	1.14	52.5	က	2		52.0	4	9	51.3	۷
148	8 SR 84 - WB	Vallecitos Ln	SR 84/I-680 NB		0.21	55.3	3	2	_	57.1	۷	9	54.7	⋖
14	149 SR 84 - WB	SR 84/I-680 NB (	(Ple-Sunol Rd		1.27	41.4	ဗ	2		38.0	В	8	34.6	В
15	0 SR 84 - WB	Ple-Sunol Rd	Sunol Rd		0.53	41.9	3	2		41.9	Α	8	41.7	4
151	11 SR 84 - WB	Sunol Rd	Niles Canyon Qu	Fre	1.75	48.5	3	2		46.9	A	8	47.7	4
15.	SR 84	Niles Canyon Qua	Fremont City Lin		1.00	47.5	က	2		45.4	4	8		4
15	3 SR 84 - WB	Fremont City Lim	Union City Limit		2.10	41.8	3	2		42.5	Υ	8	44.6	∢
15	SR 84 -	Union City Limit	SR 238	Fre	1.62	31.7	က	2		28.4	В	8	24.4	ပ
7.	00 00	-880	Mission	ì	1 50	=	c	٣		18.1	ر	7	18.8	c
5 4	20 NO 22 ED 20 N/O	Mississ	000	ا عر	5 4	= =	1 C	) (		. 4	ם כ	. 9	5 5	) (
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								T						

**LOS** 

# of Runs

Prior LOS 2010 LOS Results

Lanes

Area

(miles)

Jurisdiction

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From

**CMP Route** 

Segment Limits

0.51 1.01

Draft Results for 2012 LOS Monitoring Study for Arterials - AM Peak Period

Length Arterial Plan No of

2012 LOS Results Speed 23.5 O Ω В

22.3 15.4

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0.28 0.28

2 2 2 2 3

San Leandro

14th

San Leandro

E 14th

160 SR 112 (Davis) - WB 159 SR 112 (Davis) - EB

I-880

Doolittle

157 SR 112 (Davis) - EB 158 SR 112 (Davis) - EB

**1-880** 

31.2 24.5 14.5 14.0

12.9 29.3

0 0

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San Leandro

	В	ပ	Ф	ပ	В	۵	∢	ပ	ပ	ပ	ပ	ပ	ပ	Δ	ပ	⋖	ပ	В	٨	В	В	4	В	В	ပ	В	ш	ပ	В
	29.3	21.1	24.3	15.5	24.6	16.6	29.0	22.3	23.2	22.5	21.2	19.6	18.3	16.3	23.6	33.5	20.6	28.4	30.9	21.8	26.7	32.5	24.8	28.3	21.9	29.6	12.1	21.8	24.5
	7	7	9	9	9	9	9	9	9	9	9	9	9	7	7	7	7	7	7	7	7	7	7	7	9	9	9	9	9
	В	ပ	В	ပ	ပ	D	В	В	В	ပ	В	ပ	၁	ပ	В	В	В	A	A	ပ	A	ပ	۷	۷	۵	В	۵	ပ	В
	29.0	21.5	30.4	19.6	24.2	18.7	23.2	25.0	27.6	23.1	25.8	24.9	21.4	20.9	24.0	27.9	25.9	32.1	30.9	17.2	31.0	26.4	37.7	29.7	16.7	25.4	15.5	21.1	25.9
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			2	2	2
	2	2	_	-	-	-	-	_	-	-	-	-	-	_	-	τ-	-	-	-	-	-	-	-	_			-	_	-
	=	=	=	Ξ	=	=	Ξ	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=
	1.00	0.51	0.53	0.44	0.47	98.0	0.20	0.4	0.68	0.81	0.27	0.34	0.45	0.45	0.34	0.27	0.81	0.68	0.4	0.20	0.86	0.47	0.45	0.53	0.26	0.79	0.80	1.39	0.74
	SL	SL	Alb	Alb	Alb - Berk	Berk	Berk	Berk	Berk	Berk	Oak	Emer	Emer - Oak	Oak - Emer	Emer	Oak	Oak	Berk	Berk	Berk	Berk	Alb - Berk	Alb	Alb	Oak	Oak	Oak	Oak	Oak
	I-880	Doolittle	Washington	Marin	Gilman	University	Allston	Dwight	Ashby	Stanford	53rd	Park	35th	Park	53rd	Stanford	Ashby	Dwight	Allston	University	Gilman	Marin	Washington	Carlson	46th St	Seminary	73rd	98th Ave	Broadmoor
	San Leandro	1-880	Carlson	Washington	Marin	Gilman	University	Allston	Dwight	Ashby	Stanford	53rd	Park	35th	Park	53rd	Stanford				ty	Gilman		Washington	42nd	46th St	Seminary	73rd Ave	98th
,	161 SR 112 (Davis) - WB	SR 112 (Davis) - WB	SR 123 San Pablo - SB Carlson	64 SR 123 San Pablo - SBWashington	SR 123 San Pablo - SBMarin	SR 123 San Pablo - SBGilman	SR 123 San Pablo - SBUniversity	SR 123 San Pablo - SBAllston	SR 123 San Pablo - SBDwight	SR 123 San Pablo - SBAshby	SR 123 San Pablo - SB Stanford	SR 123 San Pablo - SB53rd	SR 123 San Pablo - SB	SR 123 San Pablo - NB 35th	SR 123 San Pablo - NBPark	SR 123 San Pablo - NB53rd	SR 123 San Pablo - NB Stanforc	SR 123 San Pablo - NBAshby	$\sim$	SR 123 San Pablo - NEAllston	23 San	23 San Pablo - NE	SR 123 San Pablo - NEMarin	SR 123 San Pablo - NBWashington	SR 185 (14th) - SB				
1	161	162	163	164	165	166	167	168	169	170	171	172		174	175		177	178	179	180	181		183	184	185	186	187	188	189

		Draft Res	Results for 2012	12 LOS Mon	itoring	Study f	or Arte	rials -	LOS Monitoring Study for Arterials - AM Peak Period	eriod				
		Segment Lin	t Limits		Length	Arterial	Plan	No of	Prior I OS	2010 LOS Results	Results	2	LOS Results	ults
#	CMP Route	From	То	Jurisdiction	(miles)		Area	Lanes	"F"	Speed	ros	# of Runs	Speed	ros
190	SR 185 (14th) - SB	Broadmoor	Davis	SF	0.73	=	2	2		22.4	ပ	7	22.1	ပ
191	SR	Davis	San Leandro	SL	1.04	=	2	2		20.2	В	7	21.8	В
192	SR 185 (14th) - SB	San L Blvd	Hesperian	SL	0.94	=	2	2		23.1	ပ	7	22.5	ပ
193	SR 185 (14th) - SB	Hesperian	Bayfair	SL	0.46	=	2	2		22.2	ပ	7	28.9	В
194	194 SR 185 (14th) - SB	Bayfair	170th	Unin	1.24	=	3	2		24.8	В	9	25.1	В
195	SR 185 (14th) - SB	170th	Llewelling	Unin	0.21	=	3	2		21.2	ပ	9	25.2	В
196	SR 185 (14th) - SB	Llewelling	Sunset	Unin	1.02	=	3	2		22.7	ပ	9	23.4	O
197	SR 185 Hayward - SB	Sunset	SR 92/238	Нау	0.84	=	2	2		17.3	O	9	12.8	۵
198	SR 185 Hayward - NB	SR 92/238	Sunset	Нау	0.84	=	2	2		20.2	В	9	17.0	O
199	SR 185 (14th) - NB	Sunset	Llewelling	Unin	1.11	=	3	2		24.8	В	9	25.5	Ф
200		Llewelling	170th	Unin	0.21	=	3	2		29.7	В	9	22.5	ပ
201	i		Bayfair	Unin	1.24	=	3	7		26.3	В	9	26.4	В
202			Hesperian	SL	0.47	=	2	2		29.5	В	7	26.0	В
203			San L Blvd	SL	0.94	=	2	2		22.4	ပ	7	23.7	ပ
204		,o	Davis	SL	1.02	=	2	2		13.5	ပ	7	19.3	Ф
205	SR 185 (14th) - NB		Broadmoor	SL	0.72	=	2	2		23.4	ပ	7	23.5	ပ
206		Έ.	98th	Oak	0.74	=	1	2		20.7	ပ	2	16.0	۵
207		98th Ave	73rd Ave	Oak	1.37	=	-	2		19.4	ပ	5	20.2	ပ
208			Seminary	Oak	09.0	=	-	2		13.6	ш	5	10.8	ш
209	SR 185 (14th) - NB	Seminary	46th St	Oak	0.79	=				24.2	В	2	29.8	В
210	SR 185 (14th) - NB		42nd	Oak	0.26	=			10	7.2	(F)	5	8.8	(F)
211	SR 238 (Foothill) - NB	Jackson	City Center	Нау	0.62	=	7	၁		14.4	ပ	7	10.6	۵
212	SR 238 (Foothill) - NB	City Center	1-580	Unin-Hay	0.73	=	က	3		30.9	⋖	7	19.5	ပ
213	SR 238 (Foothill) - NB	I-580 Ramp	I-580 Merge	Unin	0.71	-	3			47.6	⋖	7	48.0	⋖
214	SR 238 (Foothill) - SB	1-580	Cstro V Blvd	Unin	0.86	_	က			64.0	∢	9	46.4	∢
215	SR 238 (Foothill) - SB	Cstro V Blvd	City Center	Hay-Unin	1.03	=	7	3		17.6	۵	9	23.8	O
216	SR 238 (Foothill) - SB		Jackson	Hay	0.62	=	7	က		11.7	۵	9	11.3	۵
217	SR 238 (Mission) - NB	680 NB Rmp	Stevenson	Fre	2.46	_	3	2		35.5	∢	9	37.2	∢
218	SR 238 (Mission) - NB	Stevenson	Nursery	Fre	2.57	_	က	2		43.0	∢	9	38.2	∢
219	SR 238 (Mission) - NB	Nursery	Tamarack	OC	2.10	_	3	2		31.6	В	9	29.8	В
220	SR 238 (Mission) - NB	Tamarack	Industrial	UC - Hay	1.96	_	က	2		31.9	В	9	31.8	В
221	SR 238 (Mission) - NB		Sorenson	Hay	1.47	=	2	2		30.1	∢	9	24.4	В
222		Sorenson	Jackson	Нау	1.83	=	2	2		25.6	В	9	20.2	O
			(				(	(			ı	(		(
223	223 SR 238 (Mission) - SB	Jackson	Sorenson	Нау	1.83	=	2	2		26.0	В	9	18.1	O
224	224 SR 238 (Mission) - SB	Sorenson	Industrial	Нау	1.47	=	2	2		24.1	В	9	20.4	O

**LOS** 

Runs # of

**LOS** 

Speed 33.4 25.3 30.0

Prior LOS "F"

Lanes

Area 2 က က က

(miles) 1.96

Jurisdiction Hay - UC

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From

**CMP Route** 

#

Segment Limits

**Tamarack** 

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2012 LOS Results Speed

2010 LOS Results

Draft Results for 2012 LOS Monitoring Study for Arterials - AM Peak Period

Length Arterial Plan No of

В S В В

31.7 22.5 29.8

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18.0 15.4

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34.7 14.5

2 2

1.31 1.31

Oak Oak

7th/Web

Atlantic

231 SR 262 (Mission) - EB I-880 NB 232 SR 262 (Mission) - WB I-680 NB

28.5

24.1

2.46

680 NB Rmp Stevenson

228 SR 238 (Mission) - SB Stevenson

227 SR 238 (Mission) - SB Nursery

229 SR 260 (Tubes) - NB Atlantic 230 SR 260 (Tubes) - SB 7th/Web

Fre Fre

2.07 2.57

S

Nursery

226 SR 238 (Mission) - SB Tamarack

225 SR 238 (Mission) - SB Industrial

Highlighted areas indicate segments with speed data based on less than the regular number of base runs (six runs for LOS A&B segments in the prior and current years)

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Arterial 2012 AM	
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POS

Speed

#of Runs

Pos

2010 LOS Results

Free Flow

No of

Length (miles)

Area

Jurisdiction

Segment Limits

Oak Oak Oak Oak Oak Oak Oak

-580 EB

-80 SB

2012 LOS Results

Draft 2012 LOS Monitoring Study Results- Ramps and Special Segments for AM Peak Period

В Δ

32.5

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36.5

34.1

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32.4

29.7 36.7 52.7 5.2

Weaving

0.69

580 OFF SR-24 EB

SR 24 ON

-80 NB

-580 WB

I-80/I-580 Interchange I-80/I-580 Interchange

CMP Route

SR 24 WB/I-580 WB

45.0 51.0 40.0 31.0 47.0 54.0 32.0 53.0 37.0 38.0 35.0 42.0 63.8 41.0 51.5 39.0

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0.51

0.74 0.32

49.9

38.0 40.0

0.30

0.41

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34.1

9

В

49.8 27.8 23.5

⋖ (F)

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32.0 49.9 Ω  $\Box$ ⋖  $\Box$ 

44.9 36.8

61.5

0.42 0.76 0.35

32.7

 $\alpha$ 

0.74 0.54

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SL SL SL

-238 EB

I-880 SB

I-880/I-238 Interchange I-880/I-238 Interchange I-880/I-238 Interchange

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-880 NB -238 EB -880 SB -238 EB -580 NB -680 NB -680 SB

I-238 WB

N 2 2 2 2

0.16

SR-24 EB

SR13/SR 24 Interchange\*\* SR13/SR 24 Interchange

9

-580 EB

SR-24 WB

I-580 WB

-580/SR 24 Interchange I-580/SR 24 Interchange SR-13 SB

SR-24 WB SR-13 NB

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3K-200 WB	I-880 NB	s, the travel route
1-000 SB	SR-260 EB   I-880 NB	Monitoring runs
22 1-860/3R 200 CONTRECTION 1-860 3B SR-260 W	23 I-880/SR 260 Connection	*Starting from the 2010 LOS Monitoring runs, the travel
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2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	CMP Tier 2 Route	Segme	Segment Limits	Inrigalition	Plan Area	Length	No of	2012 LOS Results	Results
V S 8 4		From	Тo			(miles)	Lanes	# Runs	Speed*
2 8 4	1 W. Grand Ave - Grand Ave -EB	I-80/Maritime St	San Pablo Ave	Oakland	1	1.09		7	13.9
8 4 8 8	W.Grand Ave - Grand Ave -EB	San Pablo Ave	Broadway	Oakland	-	0.40		7	10.8
4 W	3 W.Grand Ave - Grand Ave -EB	Broadway	1-580	Oakland	1	1.62		7	24.3
: F	4 W. Grand Ave - Grand Ave -WB	1-580	Broadway	Oakland	1	1.62		5	23.9
5 W	5 W.Grand Ave - Grand Ave -WB	Broadway	San Pablo Ave	Oakland	-	0.40		9	12.0
M 9	6 W. Grand Ave - Grand Ave -WB	San Pablo Ave	I-80/Maritime St	Oakland	1	1.09		9	11.4
7 12	12th St - Lakeshore Ave-EB	I-980 OFF Ramp/Brush St	Webster	Oakland	1	0.46		9	17.8
8 12	8 12th St - Lakeshore Ave-EB	Webster	Lake Merrit Blvd	Oakland	1	0.59		9	20.7
9 12	9 12th St - Lakeshore Ave-EB	Lake Merrit Blvd	MacArthur Blvd/I-580 ON Ramp	Oakland	1	1.30		9	17.0
10 12	10 12th St - Lakeshore Ave-WB	MacArthur Blvd/I-580 ON Ramp	Lake Merrit Blvd	Oakland	1	1.20		8	17.7
11 12	12th St - Lakeshore Ave-WB	Lake Merrit Blvd	Webster	Oakland	1	0.61		9	24.3
12 12	12 12th St - Lakeshore Ave-WB	Webster	I-980 OFF Ramp/Brush St	Oakland	1	0.51		9	14.2
13 Te	Telegraph Ave-NB	51st Street	Russell St	Oakland, Berkeley	1	1.41		9	16.8
14 Te	14 Telegraph Ave-NB	Russell St	Bancroft Way	Oakland, Berkeley	1	0.77		9	15.6
15 Te	15 Telegraph Ave-SB	Bancroft Way	Russell St	Oakland, Berkeley	~	0.75		9	10.4
16 Te	16 Telegraph Ave-SB	Russell St	51st Street	Oakland, Berkeley	-	1.50		9	16.0
17 Br	17 Broadway-EB	Broadway/College Ave	Grand Ave	Oakland	1	1.91		9	14.3
18 Br	18 Broadway-EB	Grand Ave	14th St	Oakland	-	0.55		9	10.4
19 Br	19 Broadway-EB	14th St	5th St/Broadway	Oakland	-	0.48		9	8.3
20 Br	20 Broadway-EB	5th St/Broadway	I-880 OFF Ramp	Oakland	-	90.0		9	11.3
21 Br	21 Broadway-WB	I-880 OFF Ramp	5th St/Broadway	Oakland	1	0.07		9	23.0
22 Br	22 Broadway-WB	5th St/Broadway	14th St	Oakland	-	0.48		9	12.5
23 Br	23 Broadway-WB	14th St	Grand Ave	Oakland	1	0.55		9	16.0
24 Br	24 Broadway-WB	Grand Ave	Broadway/College Ave	Oakland	1	1.91		9	15.7
25 Cc	25 College Avenue-EB	Bancroft Way/College Ave	Ashby Ave	Oakland	1	1.04		9	10.7
26 Cc	26 College Avenue-EB	Ashby Ave	Miles Ave/SR 24 OFF Ramp	Oakland, Berkeley	-	0.83		9	10.3
27 Ct	27 College Avenue-EB	Miles Ave/SR 24 OFF Ramp	Broadway/College Ave	Berkeley	1	0.60		9	11.2
28 Cc	28 College Avenue-WB	Broadway/College Ave	Miles Ave/SR 24 OFF Ramp	Berkeley	1	0.60		9	16.1
29 Cc	29 College Avenue-WB	Miles Ave/SR 24 OFF Ramp	Ashby Ave	Oakland, Berkeley	-	0.83		9	12.5
30 Cc	30 College Avenue-WB	Ashby Ave	Bancroft Way/College Ave	Oakland	-	0.98		9	15.9
31 B	31 Bancroft-EB	Shattuck	Bancroft Way/College Ave	Berkeley	-	0.48		9	16.1
32 B	32 Bancroft-WB	College Ave.	Shattuck	Berkeley	-	0.73		9	14.8
33 51	33 51st Street-EB	SR 24 Off Ramp/52nd St	Broadway	Oakland	-	0.81		9	12.5
34 51	34 51st Street-WB	Broadway	SR 24 Off Ramp/52nd St	Oakland	τ-	0.81		9	10.7
35 Sł	35 Shattuck Avenue-NB	51st	Alcatraz Ave.	Oakland, Berkeley	-	0.81		7	20.3
36 Sł	36 Shattuck Avenue-NB	Alcatraz Ave.	Adeline St.	Berkeley	τ-	0.69		7	13.8
37 St	37 Shattuck Avenue-SB	Adeline St.	Alcatraz Ave.	Berkeley	-	0.69		6	13.1
38 Sł	38 Shattuck Avenue-SB	Alcatraz Ave.	51st	Oakland, Berkeley	-	0.81		6	13.2
39 Pc	39 Powel Street-Stanford Avenue-EB	NB I-80 OFF Ramp	San Pablo Ave	Emeryville	-	0.75		9	14.3
40 Pι	40 Powel Street-Stanford Avenue-EB	San Pablo Ave	MLK Jr Way	Emeryville,Berkeley	_	0.76		9	16.1
41 Pc	41 Powel Street-Stanford Avenue-WB	MLK Jr Way	San Pablo Ave	Emeryville, Berkeley	_	0.76		9	17.2
42 Pt	42 Powel Street-Stanford Avenue-WB	San Pablo Ave	NB I-80 OFF Ramp	Emeryville	~	0.75		9	17.6

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Draft I	Draft Results for 2012 LOS Monito	2 LOS Monitoring Study for the Tier 2 CMP Roadways	MP Roadways - P	- PM Peak Period	riod			
CMP Tier 2 Route	Segmer	Segment Limits	doitaile	Plan Area	Length	No of	2012 LOS	2012 LOS Results
	From	앤			(miles)	Lanes	# Runs	Speed*
43 40thStreet-Shellmound Avenue-EB	Shellmound Way (north of Powell St)	40th St	Emeryville	-	0.82		9	20.1
44 40thStreet-Shellmound Avenue-EB	40th St	San Pablo Ave	Emeryville	-	0.64		9	12.4
45 40thStreet-Shellmound Avenue-WB	San Pablo Ave	40th St	Emeryville	-	0.64		9	20.1
46 40thStreet-Shellmound Avenue-WB	40th St	Shellmound Way (north of Powell St)	Emeryville	-	0.82		9	22.3
47 International Boulevard-NB	42nd Ave	Fruitvale Ave	Oakland	-	0.62		9	14.1
48 International Boulevard-NB	Fruitvale Ave	14th Ave	Oakland	-	1.38		9	21.5
49 International Boulevard-NB	14th Ave	Lake Merrit Blvd	Oakland	1	0.88		9	17.5
50 International Boulevard-SB	Lake Merrit Blvd	14th Ave	Oakland	1	0.88		9	22.5
51 International Boulevard-SB	14th Ave	Fruitvale Ave	Oakland	1	1.38		9	18.7
52 International Boulevard-SB	Fruitvale Ave	42nd Ave	Oakland	1	0.62		9	8.0
53 Foothill Boulevard-NB	International Blvd/73rd Ave	73rd Ave/Foothill Blvd	Oakland	1	1.07		2	14.0
54 Foothill Boulevard-NB	73rd Ave/Foothill Blvd	Seminary Ave	Oakland	1	1.01		2	19.1
55 Foothill Boulevard-NB	Seminary Ave	High Street	Oakland	1	1.22		2	20.5
56 Foothill Boulevard-NB	High Street	Fruitvale Ave	Oakland	-	0.89		2	14.0
57 Foothill Boulevard-NB	Fruitvale Ave	14th Ave	Oakland	-	1.32		2	20.4
58 Foothill Boulevard-NB	14th Ave	1st Ave/Lake Shore Blvd	Oakland	-	0.87		2	16.9
59 Foothill Boulevard-SB	1st Ave/Lake Shore Blvd	14th Ave	Oakland	-	0.99		9	16.9
60 Foothill Boulevard-SB	14th Ave	Fruitvale Ave	Oakland	-	1.30		9	17.2
61 Foothill Boulevard-SB	Fruitvale Ave	High Street	Oakland	-	0.89		9	14.1
62 Foothill Boulevard-SB	High Street	Seminary Ave	Oakland	-	1.22		9	18.2
63 Foothill Boulevard-SB	Seminary Ave	73rd Ave/Foothill Blvd	Oakland	1	1.01		9	17.4
64 Foothill Boulevard-SB	73rd Ave/Foothill Blvd	International Blvd/73rd Ave	Oakland	_	1.04		9	21.2
65 E. 15th Street-SB	1st Avenue	14th Avenue	Oakland	1	0.99		9	16.9
66 High Street-EB	Otis Drive	Central Ave	Alameda	1	0.58		8	21.0
67 High Street-EB	Central Ave	Fernside Blvd	Alameda	1	0.48		8	16.4
68 High Street-EB	Fernside Blvd	NB I-880 OFF Ramp	Alameda, Oakland	1	0.49		8	13.3
69 High Street-EB	NB I-880 OFF Ramp	Foothill Blvd	Oakland	1	0.62		8	11.3
70 High Street-EB	Foothill Blvd	MacArthur Blvd/WB I-580 OFF Ramp	Oakland	-	1.30		∞	17.2
71 High Street-WB	MacArthur Blvd/WB I-580 OFF Ramp	Foothill Blvd	Oakland	1	1.73		8	22.8
72 High Street-WB	Foothill Blvd	NB I-880 OFF Ramp	Oakland	-	0.62		8	9.5
73 High Street-WB	NB I-880 OFF Ramp	Fernside Blvd	Alameda, Oakland	-	0.49		8	18.9
74 High Street-WB	Fernside Blvd	Central Ave	Alameda	-	0.48		8	19.5
75 High Street-WB	Central Ave	Otis Drive	Alameda	1	0.58		8	15.1
76 Crow Canyon Road-NB	A Street/Redwood Road	EB I-580 ON Ramp/Grove Way	Alameda County	2	0.93		7	31.5
77 Crow Canyon Road-NB	EB I-580 ON Ramp/Grove Way	Cull Canyon	Alameda County	2	0.83		7	26.0
78 Crow Canyon Road-NB	Cull Canyon	Cold Water Dr	Alameda County	2	0.89		9	38.4
79 Crow Canyon Road-NB	Cold Water Dr	New Checkpoint (Driver to identify)	Alameda County	2	1.48		9	40.8
80 Crow Canyon Road-NB	New Checkpoint (Driver to identify)	County Line	Alameda County	7	3.90		9	45.1
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	Draft R	Draft Results for 2012 LOS Monito	12 LOS Monitoring Study for the Tier 2 CMP Roadways - PM Peak Period	AP Roadways - P	M Peak Pe	eriod			
	CMP Tier 2 Route	ueun Segmen	Segment Limits	lirisdiction	Plan Area		No of	2012 LOS Results	Results
	CIMIT TIEL & NOUTE	From	То	our isdiction	riali Alea	(miles)	Lanes	# Runs	Speed*
81	1 Crow Canyon Road-SB	County Line	New Checkpoint (Driver to identify)	Alameda County	2	3.90		9	41.7
82	82 Crow Canyon Road-SB	New Checkpoint (Driver to identify)	Cold Water Dr	Alameda County	7	1.48		9	30.9
83	83 Crow Canyon Road-SB		Cull Canyon	Alameda County	2	0.89		9	26.8
84	4 Crow Canyon Road-SB	Cull Canyon	EB I-580 ON Ramp/Grove Way	Alameda County	2	0.83		9	24.5
85	5 Crow Canyon Road-SB	EB I-580 ON Ramp/Grove Way	A Street/Redwood Road	Alameda County	2	0.93		9	24.1
86	86 Winton Avenue - D Street-EB	Hesperian Blvd.	SB I-880 ON Ramp	Hayward	2	0.41		9	19.6
87	87 Winton Avenue - D Street-EB	SB I-880 ON Ramp	Santa Clara St	Hayward	2	0.33		9	21.7
38	88 Winton Avenue - D Street-EB	Santa Clara St	Soto Rd	Hayward	2	0.55		9	13.0
38	89 Winton Avenue - D Street-EB	Soto Rd	Foothill Boulevard/D St	Hayward	2	0.91		9	8.8
96	90 Winton Avenue - D Street-WB	Foothill Boulevard/D St	Soto Rd	Hayward	2	0.91		9	16.2
91	1 Winton Avenue - D Street-WB	Soto Rd	Santa Clara St	Hayward	2	0.55		9	22.6
92	2 Winton Avenue - D Street-WB	Santa Clara St	SB I-880 ON Ramp	Hayward	2	0.33		9	39.6
96	93 Winton Avenue - D Street-WB	SB I-880 ON Ramp	Hesperian Blvd.	Hayward	2	0.41		9	11.1
96	94 A Street-EB	Foothill Boulevard/A St	Redwood Rd/Grove Way	Hayward	2	0.80		9	20.5
96	95 A Street-EB	Redwood Rd/Grove Way	EB I-580 ON Ramp/Grove Way	Hayward	2	0.41		9	23.2
96	96 A Street-WB	EB I-580 ON Ramp/Grove Way	Redwood Rd/Grove Way	Hayward	2	0.41		7	25.0
97	97 A Street-WB	Redwood Rd/Grove Way	Foothill Boulevard/A St	Hayward	2	08.0		9	16.6
36	98 Hesperian Boulevard-Union City Blvd-NB	Union City/Alvarado Blvd	Whipple Rd	Union City	က	0.98		9	21.6
36	99 Hesperian Boulevard-Union City Blvd-NB	Whipple Rd	Hesperian/Union City Blvd/overbridge	Union City	က	0:30		9	22.9
100	100 Hesperian Boulevard-Union City Blvd-NB	Hesperian/Union City Blvd/overbridge	Industrial Blvd	Union City	3	0.57		9	14.4
101	101 Hesperian Boulevard-Union City Blvd-NB	Industrial Blvd	Tennyson/Hesperian	Union City	က	1.04		9	19.3
102	102 Hesperian Boulevard-Union City Blvd-SB	Tennyson/Hesperian	Industrial Blvd	Union City	က	1.03		9	26.5
103	103 Hesperian Boulevard-Union City Blvd-SB	Industrial Blvd	Hesperian/Union City Blvd/overbridge	Union City	8	0.57		9	17.6
104	104 Hesperian Boulevard-Union City Blvd-SB	Hesperian/Union City Blvd/overbridge	Whipple Rd	Union City	3	0:30		9	29.9
105	105 Hesperian Boulevard-Union City Blvd-SB	Whipple Rd	Union City/Alvarado Blvd	Union City	က	0.98		9	24.0
106	106 Alvarado BlvdNB	NB I-880 ON Ramp	Ramp	Union City	3	0.21		9	25.8
107	107 Alvarado BlvdNB	Ramp	Fair Ranch Rd	Union City	3	1.42		9	22.6
108	108 Alvarado BlvdNB	Fair Ranch Rd	Union City/Alvarado Blvd	Union City	3	0.52		9	22.2
108	109 Alvarado BlvdSB	Union City/Alvarado Blvd	Fair Ranch Rd	Union City	3	0.52		9	23.7
110	110 Alvarado BlvdSB	Fair Ranch Rd	Ramp	Union City	3	1.43		9	21.7
111		Ramp	NB I-880 ON Ramp	Union City	3	0.21		9	23.4
112	2 Fremont Boulevard-NB	NB I-880 OFF Ramp	Automall Parkway	Fremont	3	1.27		9	31.8
110		Automall Parkway	Blacow Rd	Fremont	ဇ	06.0		9	32.7
114	4 Fremont Boulevard-NB	Blacow Rd	Adams Ave	Fremont	က	0.38		9	34.5
11,	115 Fremont Boulevard-NB	Adams Ave	Stevenson Rd	Fremont	က	1.17		9	13.5
116	116 Fremont Boulevard-NB	Stevenson Rd	Mowry Ave	Fremont	3	1.00		9	23.2

Tier 2 Arterials 2012 - PM

	Draft R	Draft Results for 2012 LOS Monitoring Study for the Tier 2 CMP Roadways - PM Peak Period	ring Study for the Tier 2 CI	MP Roadways - P	M Peak Pe	riod			
	CMD Tier 2 Douge	Segmen	Segment Limits	acitoibaian	Dlan Area	Length No of		2012 LOS Results	sults
		From	To			(miles) Lanes	es # Runs		Speed*
117	117 Fremont Boulevard-NB	Mowry Ave	Peralta Blvd	Fremont	3	1.21	9		26.9
118	118 Fremont Boulevard-NB	Peralta Blvd	Thornton Ave	Fremont	3	0.32	9		19.8
119 F	Fremont Boulevard-NB	Thornton Ave	Decoto Rd	Fremont	3	1.34	9		18.1
120 F	Fremont Boulevard-NB	Decoto Rd	Paseo Padre Pkwy	Fremont	3	0.55	9		22.3
121	121 Fremont Boulevard-NB	Paseo Padre Pkwy	SB I-880 OFF Ramp	Fremont	3	0.61	9		26.6
122 F	Fremont Boulevard-SB	SB I-880 OFF Ramp	Paseo Padre Pkwy	Fremont	3	0.40	7		19.1
123	123 Fremont Boulevard-SB	Paseo Padre Pkwy	Decoto Rd	Fremont	3	0.55	7		19.7
124	124 Fremont Boulevard-SB	Decoto Rd	Thornton Ave	Fremont	3	1.34	7		30.2
125	125 Fremont Boulevard-SB	Thornton Ave	Peralta Blvd	Fremont	3	0.32	7		26.9
126	126 Fremont Boulevard-SB	Peralta Blvd	Mowry Ave	Fremont	3	1.21	7		21.2
127	127 Fremont Boulevard-SB	Mowry Ave	Stevenson Rd	Fremont	3	1.00	9		27.8
128	128 Fremont Boulevard-SB	Stevenson Rd	Adams Ave	Fremont	8	1.17	9		23.4
129 F	Fremont Boulevard-SB	Adams Ave	Blacow Rd	Fremont	က	0.38	9		25.3
130	130 Fremont Boulevard-SB	Blacow Rd	Automall Parkway	Fremont	8	0.90	9		26.5
131	131 Fremont Boulevard-SB	Automall Parkway	NB I-880 OFF Ramp	Fremont	3	1.25	9		37.7
132	132 Automall Parkway-EB	NB I-880 OFF Ramp	Fremont Blvd	Fremont	8	0.85	9		25.2
133 /	133 Automall Parkway-EB	Fremont Blvd	NB I-680 ON Ramp	Fremont	က	0.75	9		29.4
134	134 Automall Parkway-WB	NB I-680 ON Ramp	Fremont Blvd	Fremont	3	0.75	9		23.5
135 /	135 Automall Parkway-WB	Fremont Blvd	NB I-880 OFF Ramp	Fremont	3	0.77	9		28.3
136	136 Vasco Road-NB	WB I-580 OFF Ramp	Scenic Ave	Livermore	4	0.51	7		27.3
137 \	Vasco Road-NB	Scenic Ave	Dalton Ave/City-County Line	Livermore	4	69.0	7		13.6
138	138 Vasco Road-NB	Dalton Ave/City-County Line	N. Vasco Rd/Vasco Rd	Livermore	4	1.75	7		45.1
139	139 Vasco Road-NB	N. Vasco Rd/Vasco Rd	Local Road underpass/County Line	Livermore	4	2.80	7		54.9
140	140 Vasco Road-SB	Local Road underpass/County Line	N. Vasco Rd/Vasco Rd	Livermore	4	2.80	9		56.4
141	Vasco Road-SB	N. Vasco Rd/Vasco Rd	Dalton Ave/City-County Line	Livermore	4	1.75	9		51.1
142	142 Vasco Road-SB	Dalton Ave/City-County Line	Scenic Ave	Livermore	4	69.0	9		30.4
143	143 Vasco Road-SB	Scenic Ave	WB I-580 OFF Ramp	Livermore	4	0.51	9		24.1
144	144 Dublin BlvdEB	San Ramon Road	Village Parkway	Dublin	4	0.73	9		25.3
145 1	145 Dublin BlvdEB	Village Parkway	Dougherty Rd	Dublin	4	0.81	9		16.3
146	146 Dublin BlvdEB	Dougherty Rd	Hacienda Dr	Dublin	4	1.20	9		29.8
147 1	147 Dublin BlvdEB	Hacienda Dr	Tassajara Dr	Dublin	4	0.88	9		22.3
148	148 Dublin BlvdWB	Tassajara Dr	Hacienda Dr	Dublin	4	0.88	9		26.2
149	149 Dublin BlvdWB	Hacienda Dr	Dougherty Rd	Dublin	4	1.20	9		23.1
150	150 Dublin BlvdWB	Dougherty Rd	Village Parkway	Dublin	4	0.81	9		22.1
151	151 Dublin BlvdWB	Village Parkway	San Ramon Road	Dublin	4	0.73	9		15.9
152	152 San Ramon Road-NB	WB I-580 OFF ramp	Silvergate Dr	Dublin	4	0.67	9		22.7
153	153 San Ramon Road-NB	Silvergate Dr	Line	Dublin	4	0.98	9		29.3
154 (	154 San Ramon Road-SB	Alcosta Blvd/Westside Dr/County Line	Silvergate Dr	Dublin	4	0.98	9		33.1
155	155 San Ramon Road-SB	Silvergate Dr	WB I-580 OFF ramp	Dublin	4	0.67	9		18.0
156 1	156 Dougherty Road-NB	WB I-580 OFF ramp	Amador Valley Blvd on SB	Dublin	4	1.15	9		20.3
157	157 Dougherty Road-NB	Amador Valley Blvd on SB	Fallcreek Rd on SB/County Line	Dublin	4	0.78	9	_	43.0
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Tier 2 Arterials 2012 - PM

Plan Area         Length (miles) Lanes           4         0.78           4         0.78           4         0.66           4         0.60           4         0.60           4         0.60           4         0.60           4         0.63           4         0.06           4         0.08           4         0.06           4         0.06           4         0.04           4         0.03           4         0.04           4         0.03           4         0.04           4         0.04           4         0.04           4         0.04           4         0.04           4         0.04           4         0.04           4         0.06           4         0.06           4         0.06           4         0.06           4         0.06           4         0.06           4         0.06           4         0.06           4         0.06           4		Draft R	Draft Results for 2012 LOS Monit	2 LOS Monitoring Study for the Tier 2 CMP Roadways - PM Peak Period	MP Roadways - P	M Peak Pe	riod			
Figure Road		CMP Tier 2 Roufe	Segme	nt Limits	.lurisdiction	Plan Area	Length	No of	2012 LOS	2012 LOS Results
Failcreek Rd on SB/County Line         Amador Valley Bird on SB         Dublin         4         0.78           Amador Valley Bird on SB         Charley Bird on SB         4         0.78           Amador Valley Bird on SB         Cherral Parkway         0.060         0.060           Contral Parkway         Somerese LnN Dublin Ranch Dr. Fallon Rd         4         0.060           Somerese LnN Dublin Ranch Dr. Fallon Rd         Somerese LnN Dublin Ranch Dr. County Line         Alameda County         4         0.050           Fallon Rd         Somerese LnN Dublin Ranch Dr. County Line         County Line         Alameda County         4         0.050           Fallon Rd         Somerese LnN Dublin Ranch Dr. County Line         County Line         Alameda County         4         0.050           Fallon Rd         Somerese LnN Dublin Ranch Dr. County Line         County Line         Alameda County         4         0.050           Fallon Rd         Somerese LnN Dublin Ranch Dr. County         Muritia Blvd         County         4         0.050           Stream County         Alameda County         Alameda County         4         0.050           Stream County         Alameda County         4         0.050           Stream County         Alameda County         4         0.050			From	악			(miles)	Lanes	# Runs	Speed*
Amador Valley, Bivly on SB         WIR H-SBO OFF rampy         Dublin         4         115           Well H-SBO OFF rampy         Central Parkway         6 miss a Park and Parkway         4         0.60           Vertial Parkway         Gomerset LAN Dublin Ranch Dr. Bublin         4         0.60           Fallon Rd         County Line         Adameda County         4         0.60           Fallon Rd         County Line         Adameda County         4         0.60           County Line         Fallon Rd         Adameda County         4         0.60           Somerset Link Dublin Ranch Dr. Central Parkway         Dublin         4         0.60           Scontral Parkway         Will E-Bo OFF Fampy         Dublin         4         0.60           Amria Buvd         Murita Blvd         Livermore         4         0.63         Proposition           Murita Blvd         Murita Blvd         Livermore         4         0.46         Proposition           S Livermore Ave         Murita Blvd         Livermore         4         0.05         Proposition           Murita Blvd         S. Livermore Ave         Livermore         4         0.04         Proposition           Murita Blvd         Murita Blvd         Murita Blvd	158	Dougherty Road-SB	Fallcreek Rd on SB/County Line	Amador Valley Blvd on SB	Dublin	4	0.78		9	30.4
Central Parkway         Oublin         4         0.60           Central Parkway         Central Parkway         Dublin         4         0.60           Central Parkway         Central Parkway         Dublin         4         1.05           Somerset LnN Dublin Ranch Dr         County Line         Alameda County         4         0.50           Fallon Rd         County Line         Alameda County         4         0.68           Somerset LnN Dubin Ranch Dr         Dublin         4         0.68           Somerset LnN Dubin Ranch Dr         Dublin         4         0.68           Somerset LnN Dubin Ranch Dr         Dublin         4         0.68           Schraften Ranch Dr         County         Alameda County         4         0.68           Murita Blvd         Livermore         Alameda County         4         0.69           Murita Blvd         S. Livermore Ave         Livermore         Livermore         Alameda County         4	159	Dougherty Road-SB	Amador Valley Blvd on SB	WB I-580 OFF ramp	Dublin	4	1.15		9	25.7
Central Patkway         Somerest LnN Dublin Ranch Dr         Dublin         4         0.68           Fallon Rd         County Line         Alameda County         4         1.05           Fallon Rd         County Line         Fallon Rd         4         0.50           County Line         Fallon Rd         Alameda County         4         0.50           Somerest Linn Dublin Ranch Dr         County Line         4         0.63           Gentral Parkway         WB L-580 OFF Ramp         Dublin         4         0.63           Gentral Parkway         WB L-580 OFF Ramp         Dublin         4         0.63           Streamore Ave         Murita Blvd         County         4         0.63           Murita Blvd         S. Livermore Ave         Livermore         4         0.46           S. Livermore Ave         Imman St         Livermore         4         0.46           S. Livermore Ave         Imman St         Livermore         4         0.46           S. Livermore Ave         Imman St         Livermore         4         0.46           S. Livermore Ave         Livermore         4         0.04           Murita Blvd         SR 84/Isabel Ave         Livermore         4         0.04 </td <td>160</td> <td>Tassajara Road-NB</td> <td>WB I-580 OFF ramp</td> <td>Central Parkway</td> <td>Dublin</td> <td>4</td> <td>0.60</td> <td></td> <td>9</td> <td>24.9</td>	160	Tassajara Road-NB	WB I-580 OFF ramp	Central Parkway	Dublin	4	0.60		9	24.9
Someriset Ln/N Dublin Ranch Dr.         Pallon Rd         Dublin         4         1.05           Fallon Rd         Founty Line         Admedad County         4         0.50           Fallon Rd         Fallon Rd         Admedad County         4         0.50           Fallon Rd         Someriset Ln/N Dublin Ranch Dr.         Dublin         4         0.50           Fallon Rd         Someriset Ln/N Dublin Ranch Dr.         Dublin         4         0.68           Someriset Ln/N Dublin Ranch Dr.         Central Parkway         Murit Blvd         4         0.63           SR 64/Isabel Ave         Murit Blvd         County         4         0.63           Murita Blvd         Innan St         Livermore         4         0.46           S Livermore Ave         Murita Blvd         Livermore         4         0.06           Murita Blvd         S Livermore Ave         Murita Blvd         Murita Blvd         1           Murita Blvd         Murita B	161	Tassajara Road-NB	Central Parkway	Somerset Ln/N Dublin Ranch Dr	Dublin	4	0.68		9	34.9
Fallon Rd         County Line         Alameda County         4         0.50           County Line         Fallon Rd         4         0.50           Fallon Rd         Fallon Rd         4         0.50           Somerest LIAN Dublin Ranch Dr         Dublin         4         0.68           Central Parkway         WB L-880 OFF ramp         Dublin         4         0.68           Stream Rest LIAN Dublin Ranch Dr         County         4         0.68         1           SR 84/sabel Ave         Murtia Blvd         Livermore         4         0.46         1           S Livermore Ave         Inman St         Livermore Ave         Livermore         4         0.46         1           Murtia Blvd         Murtia Blvd         Livermore         4         0.46         1         1           Murtia Blvd         Murtia Blvd         Livermore         4         0.46         1 <td>162</td> <td>Tassajara Road-NB</td> <td>Somerset Ln/N Dublin Ranch Dr</td> <td>Fallon Rd</td> <td>Dublin</td> <td>4</td> <td>1.05</td> <td></td> <td>9</td> <td>36.3</td>	162	Tassajara Road-NB	Somerset Ln/N Dublin Ranch Dr	Fallon Rd	Dublin	4	1.05		9	36.3
County Line         Fallon Rd         Alameda County         4         0.60           Fallon Rd         Sonnerset Ln/N Dublin Ranch Dr         Dublin         4         0.60           Fallon Rd         Central Parkway         Dublin         4         0.65           Sonnerset Ln/N Dublin Ranch Dr         Dublin         4         0.65           Central Parkway         WB I-580 OFF ramp         Dublin         4         0.65           Murria Blvd         Inman St         Livermore Ave         Livermore         4         0.46           S Livermore Ave         Inman St         Livermore Ave         Livermore         4         0.46           S Livermore Ave         Murria Blvd         Livermore         4         0.46           Murria Blvd         Hacken Ave         Livermore         4         0.46           Murria Blvd         Hacken Ave         Livermore         4         0.46           Murria Blvd         Hacken Ave         <	163	Tassajara Road-NB	Fallon Rd	County Line	Alameda County	4	0.50		9	38.9
Fallon Rd         Somerset Ln/N Dublin Ranch Dr         Dublin         4         1.05           Somerset Ln/N Dublin Ranch Dr         Central Parkway         Dublin         4         0.688           Somerset Ln/N Dublin Ranch Dr         Central Parkway         Dublin         4         0.688           SR 84/Isabel Ave         Murrita Blvd         County         4         0.688           Murrita Blvd         S. Livermore Ave         Livermore         4         0.46           Sulvermore Ave         Imman St         Livermore         4         0.46           Sulvermore Ave         Murrita Blvd         Livermore         4         0.46           Murrita Blvd         SR 84/Isabel Ave         County         4         0.46           Murrita Blvd         Hopyard Rd         Hopyard Rd         4         0.46           Murrita Blvd         Hopyard Rd         Hopyard Rd         0.43         0.43           Murrita Blvd         Hopsand Rd         Hopsand Rd         0.43         0.43           Murrita Blvd         Hopsand Rd         Hopsand Rd         0.43         0.43           Murrita Blvd         Hopsand Rd         Hopsand Rd         0.43         0.43           Murrita Blvd         W. Las Positas Blvd </td <td>164</td> <td>Tassajara Road-SB</td> <td>County Line</td> <td>Fallon Rd</td> <td>Alameda County</td> <td>4</td> <td>0.50</td> <td></td> <td>9</td> <td>39.3</td>	164	Tassajara Road-SB	County Line	Fallon Rd	Alameda County	4	0.50		9	39.3
Somerset Ln/N Dublin Ranch Dr.         Central Parkway         Dublin         4         0.68           Central Parkway         WB I-580 OFF ramp         Dublin         4         0.63           SR 84/isabel Ave         Murrita Blvd         County         4         0.68           Murrita Blvd         Inman St         Livermore         4         1.07           S Livermore Ave         Inman St         Livermore         4         0.46           Imman St         S Livermore Ave         Livermore         4         0.46           Imman St         S Livermore Ave         Livermore         4         0.46           S Livermore Ave         Murrita Blvd         Livermore         4         0.46           Murrita Blvd         Murrita Blvd         Livermore         4         0.46           Murrita Blvd         Murrita Blvd         Ave Salvisabel Ave </td <td>165</td> <td>Tassajara Road-SB</td> <td>Fallon Rd</td> <td>Somerset Ln/N Dublin Ranch Dr</td> <td>Dublin</td> <td>4</td> <td>1.05</td> <td></td> <td>9</td> <td>37.5</td>	165	Tassajara Road-SB	Fallon Rd	Somerset Ln/N Dublin Ranch Dr	Dublin	4	1.05		9	37.5
Central Parkway         WB I-580 OFF ramp         Dublin         4         0.63           SR 4/Isabel Ave         Murrita Blvd         Livermore         4         0.08         8           Murrita Blvd         S Livermore Ave         Livermore         4         0.46         8           Inman St         Livermore Ave         Livermore         4         0.46         8           Inman St         S Livermore Ave         Livermore         4         0.46         8           Murrita Blvd         Murrita Blvd         Livermore         4         0.46         8           Murrita Blvd         Hotypard Rd         Pleasanton         4         0.98         9           Murrita Blvd         Hotypard Rd         Pleasanton         4         0.43         9           Hotypard Rd         Hotypard Rd         Pleasanton         4         0.43         9           Hotypard Rd         Hotypard Rd         Pleasanton         4         0.43         9           M. Las Positas Blvd         Santa Rta Road         Pleasanton         4         0.77         9           W. Las Positas Blvd         W. Las Positas Blvd         Hotypard Rd         Hotypard Rd         0.43         1           W. Las Po	166	Tassajara Road-SB	Somerset Ln/N Dublin Ranch Dr	Central Parkway	Dublin	4	0.68		9	26.0
SR 84/Isabel Ave         Murria Blvd         County         A 0.98           Murria Blvd         S Livermore Ave         Livermore         4         0.06           S Livermore Ave         Imman St         Livermore         4         0.46           Imman St         Livermore         4         0.46           S Livermore Ave         Murria Blvd         4         0.46           Murria Blvd         S R4/Isabel Ave         Clivermore         4         0.04           Murria Blvd         S R4/Isabel Ave         Clivermore         4         0.05           Murria Blvd         SR 44/Isabel Ave         Clivermore         4         0.05           Hacienda Dr         Hacienda Dr         Pleasanton         4         0.03           Hacienda Dr         W. Las Postias Blvd         Pleasanton         4         0.77           W. Los Postias Blvd         EB 1-580 ON         Pleasanton         4         0.73           W. Los Postias Blvd         EB 1-580 ON         Pleasanton         4         0.74           W. Los Postias Blvd         Hacienda Dr         Hacienda Dr         A         0.64           W. Las Postias Blvd         Hacienda Dr         Hacienda Dr         Hacienda Dr         A         0.49 </td <td>167</td> <td>Tassajara Road-SB</td> <td>Central Parkway</td> <td>WB I-580 OFF ramp</td> <td>Dublin</td> <td>4</td> <td>0.63</td> <td></td> <td>9</td> <td>16.5</td>	167	Tassajara Road-SB	Central Parkway	WB I-580 OFF ramp	Dublin	4	0.63		9	16.5
Sulvermore Ave         Livermore         4         1.07           Sulvermore Ave         Inman St         Livermore         4         0.46           Sulvermore Ave         Livermore         4         0.46           Sulvermore Ave         Livermore         4         0.46           Sulvermore Ave         Murrita Blvd         4         0.46           Sulvermore Ave         Murrita Blvd         4         0.09           Murrita Blvd         SR 84/Isabel Ave         Pleasanton         4         0.09           Hopyard Rd         Hocked Dr.         Hopyard Rd         Pleasanton         4         0.09           Hopyard Rd         Hocked Dr.         W. Las Positas Blvd         Pleasanton         4         0.29           W. Las Positas Blvd         W. Los Positas Blvd         Pleasanton         4         0.77           W. Los Positas Blvd         Bel +580 ON         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.64           W. Los Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr.         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr. </td <td>168</td> <td>E. Stanley Blvd - Railroad Avenue - 1st Street-NB</td> <td>SR 84/Isabel Ave</td> <td>Murrita Blvd</td> <td>Pleasanton, Alameda County</td> <td>4</td> <td>0.98</td> <td></td> <td>Ŋ</td> <td>28.6</td>	168	E. Stanley Blvd - Railroad Avenue - 1st Street-NB	SR 84/Isabel Ave	Murrita Blvd	Pleasanton, Alameda County	4	0.98		Ŋ	28.6
S Livermore Ave         Livermore         4         0.46           Inman St         S Livermore Ave         Livermore         4         0.46           S Livermore Ave         Murrita Blvd         Livermore         4         0.46           Murrita Blvd         Radicabel Ave         County         4         0.38           MB L-850 OFF Ramp         Hoppard Rd         Pleasanton         4         0.33           MB L-850 OFF Ramp         Hoppard Rd         Pleasanton         4         0.49           MB L-850 OFF Ramp         W. Las Positas Blvd         Pleasanton         4         0.49           W. Las Positas Blvd         Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.73         1         0.29           Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.74         1           W. Los Positas Blvd         W. Los Positas Blvd         Pleasanton         4         0.64         1           W. Los Positas Blvd         Hacienda Dr         Hacienda Dr         Hacienda Dr         0.64         1           W. Los Positas Blvd         Hacienda Dr         Hacienda Dr         1<	169	E. Stanley Blvd - Railroad Avenue - 1st Street-NB	Murrita Blvd	S Livermore Ave	Livermore	4	1.07		2	23.1
S Livermore Ave         Livermore         4         0.46           S Livermore Ave         Murrita Blvd         Livermore         4         1.07           Murrita Blvd         SR 84/Isabel Ave         County         4         0.58           Murrita Blvd         Hopyard Rd         Pleasanton         4         0.53           Mb Le80 OFF Ramp         Hocked Dr         W. Las Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.43           W. Los Positas Blvd         Santa Rita Road         Pleasanton         4         0.77           EB I-580 ON         W. Los Positas Blvd         Pleasanton         4         0.73           W. Los Positas Blvd         Pleasanton         4         0.73           W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Hacienda Dr         Hacienda Dr         4         0.43           W. Los Positas Blvd         Hacienda Dr         Hacienda Dr         4         0.43           W. Los Positas Blvd         Hacienda Dr         Hacienda Dr         4         0.64           W. Los Positas Blvd         Hacienda Dr <td>170</td> <td>E. Stanley Blvd - Railroad Avenue - 1st Street-NB</td> <td>S Livermore Ave</td> <td>Inman St</td> <td>Livermore</td> <td>4</td> <td>0.46</td> <td></td> <td>2</td> <td>22.2</td>	170	E. Stanley Blvd - Railroad Avenue - 1st Street-NB	S Livermore Ave	Inman St	Livermore	4	0.46		2	22.2
S Livermore Ave         Murrita Blvd         Livermore         4         1.07           Murrita Blvd         SR 84/Isabel Ave         County         4         0.98           NB L-680 OFF Ramp         Hopyard Rd         Pleasanton         4         0.93           Hacienda Dr         W. Las Positas Blvd         Pleasanton         4         0.49           Hacienda Dr         W. Las Positas Blvd         Pleasanton         4         0.49           W. Las Positas Blvd         Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         EB L-580 ON         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.74         0.29           W. Los Positas Blvd         Pleasanton         4         0.74           W. Las Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr         Hacienda Dr         A         0.64           W. Las Positas Blvd         Hacienda Dr         Hacienda Dr         A         0.64           W. Las Positas Blvd	171		Inman St	S Livermore Ave	Livermore	4	0.46		9	14.6
Murrita Blvd         SR 84/lsabel Ave         County         4         0.98           NB L680 OFF Ramp         Hopyard Rd         County         4         0.93           Hopyard Rd         Hacienda Dr         Pleasanton         4         0.64           Hacienda Dr         W. Las Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Pleasanton         4         0.77           W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.74           W. Las Positas Blvd         W. Las Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr         Hacienda Dr         4         0.64           Hacienda Dr         Hopyard Rd         NB L680 OFF Ramp         Pleasanton         4         0.64           Bernal Ave/Nineyard         Ray/Vineyard         Pleasanton         4         0.64	172		S Livermore Ave	Murrita Blvd	Livermore	4	1.07		9	17.4
NB Le80 OFF Ramp         Hopyard Rd         Hoesanton         4         0.93         Person Hopyard Rd           Hopyard Rd         Hacienda Dr         Hacienda Dr         4         0.49         Person Rd           Hecienda Dr         W. Las Positas Blvd         Pleasanton         4         0.64         P           W. Las Positas Blvd         Eb L-580 ON         Pleasanton         4         0.29         P           W. Los Positas Blvd         Eb L-580 ON         Pleasanton         4         0.77         P           W. Los Positas Blvd         W. Los Positas Blvd         Pleasanton         4         0.77         P           W. Los Positas Blvd         W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.74         P           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.49         P         P           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64         P	173	E. Stanley Blvd - Railroad Avenue - 1st Street-SB	Murrita Blvd	SR 84/Isabel Ave	Pleasanton, Alameda County	4	0.98		9	39.8
Hopyard Rd         Hacienda Dr         Pleasanton         4         0.49           Hacienda Dr         W. Las Positas Blvd         Pleasanton         4         0.64         8           W. Las Positas Blvd         Santa Rita Road         Pleasanton         4         0.29         8           W. Los Positas Blvd         EB I-580 ON         W. Los Positas Blvd         Pleasanton         4         0.77         8           W. Los Positas Blvd         Santa Rita Road         Pleasanton         4         0.74         8           W. Los Positas Blvd         Santa Rita Road         Pleasanton         4         0.73         8           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64         8           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.65         8           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.66         8           W. Las Positas Blvd         Bernal Ave         Ray/Vineyard         Pleasanton         4         0.66         8           NB I-680 OFF         Bernal Ave/Valley Ave         Bernal Ave/Valley Ave         Pleasanton         4         0.64         8           Bernal Ave/Valley Ave	174	Stoneridge Drive-EB	NB I-680 OFF Ramp	Hopyard Rd	Pleasanton	4	0.93		9	25.2
Hacienda Dr         W. Las Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Santa Rita Road         Pleasanton         4         0.43           Stoneridge Dr/Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.29           W. Los Positas Blvd         EB I-580 ON         Pleasanton         4         0.77           W. Los Positas Blvd         Pleasanton         4         0.77           W. Los Positas Blvd         Pleasanton         4         0.73           W. Las Positas Blvd         Pleasanton         4         0.29           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64           Hacienda Dr         Hopyard Rd         Pleasanton         4         0.65           Hopyard Rd         NB I-680 OFF Ramp         Pleasanton         4         0.64           Bernal Ave         Ray/Vineyard         Ray/Vineyard         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.64           Bernal Ave/Valley Ave         Ray/Sabel Ave         Pleasanton, Alameda         4         0.84	175	Stoneridge Drive-EB	Hopyard Rd	Hacienda Dr	Pleasanton	4	0.49		9	36.8
W. Las Positas Blvd         Santa Rita Road         Pleasanton         4         0.43           Stoneridge Dr/Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.29           W. Los Positas Blvd         EB I-580 ON         Pleasanton         4         0.77           EB I-580 ON         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         W. Las Positas Blvd         Pleasanton         4         0.73           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64           Hopyard Rd         Hopyard Rd         Pleasanton         4         0.66           NB I-680 OFF         Bernal Ave         Bernal Ave/Valley Ave         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton         4         0.64         1.22           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.64         1.22           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.84         1.22	176	Stoneridge Drive-EB	Hacienda Dr	W. Las Positas Blvd	Pleasanton	4	0.64		9	25.9
Stoneridge Dr/Santa Rita Road         W. Los Positas Blvd         Pleasanton         4         0.29           W. Los Positas Blvd         EB I-580 ON         Pleasanton         4         0.77           EB I-580 ON         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.29           W. Los Positas Blvd         Pleasanton         4         0.64           W. Las Positas Blvd         Hacienda Dr         4         0.64           Hacienda Dr         Hopyard Rd         Pleasanton         4         0.64           Hopyard Rd         NB I-680 OFF Ramp         Pleasanton         4         0.66           NB I-680 OFF         Bernal Ave         Ray/Vineyard         Ray/Vineyard         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Ray/Valley Ave         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.64	177	Stoneridge Drive-EB	W. Las Positas Blvd	Santa Rita Road	Pleasanton	4	0.43		9	12.0
W. Los Positas Blvd         EB I-580 ON         Pleasanton         4         0.77           EB I-580 ON         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Pleasanton         4         0.29         Pleasanton           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64         Pleasanton           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64         Pleasanton           Hacienda Dr         Hacienda Dr         Pleasanton         4         0.64         Pleasanton           NB I-680 OFF         Bernal Ave         Ray/Vineyard         Pleasanton         4         0.64           Ray/Vineyard         Ray/Vineyard         A         0.64         B	178	Stoneridge Drive-EB	Stoneridge Dr/Santa Rita Road	W. Los Positas Blvd	Pleasanton	4	0.29		9	15.2
EB I-580 ON         W. Los Positas Blvd         Pleasanton         4         0.74           W. Los Positas Blvd         Santa Rita Road         Pleasanton         4         0.29           Santa Rita Road         W. Las Positas Blvd         Pleasanton         4         0.43           W. Las Positas Blvd         Hacienda Dr         Pleasanton         4         0.64           Hacienda Dr         Hopyard Rd         Pleasanton         4         0.49           Hopyard Rd         NB I-680 OFF Ramp         Pleasanton         4         0.66           NB I-680 OFF         Bernal Ave         Pleasanton         4         0.64           Ray/Vineyard         Ray/Vineyard         Ray/Rabel	179	Stoneridge Drive-EB	W. Los Positas Blvd	EB I-580 ON	Pleasanton	4	0.77		9	32.3
W. Los Positas Blvd         Santa Rita Road         Pleasanton         4         0.29           Santa Rita Road         W. Las Positas Blvd         Pleasanton         4         0.43         Pleasanton           W. Las Positas Blvd         Hacienda Dr         Hacienda Dr         Pleasanton         4         0.64         Pleasanton           Hopyard Rd         NB I-680 OFF Ramp         Pleasanton         4         0.66         Pleasanton           NB I-680 OFF         Bernal Ave         Ray/Vineyard         Pleasanton         4         0.64         Pleasanton           Ray/Vineyard         Ray/Vineyard         Pleasanton         4         0.64         Pleasanton           Ray/Vineyard         Ray/Vineyard         Pleasanton         4         0.64         Pleasanton           Ray/Vineyard         Ray/Vineyard         Pleasanton         4         0.64         Pleasanton	180	Stoneridge Drive-WB	EB I-580 ON	W. Los Positas Blvd	Pleasanton	4	0.74		9	32.6
Santa Rita Road         W. Las Positas Blvd         Pleasanton         4         0.43         Pleasanton         4         0.64         Pleasanton         4         0.64         Pleasanton         4         0.64         Pleasanton         4         0.64         Pleasanton         4         0.49         Pleasanton         Pleasanton         4         0.66         Pleasanton         Pleasanton         4         1.22         Pleasanton         Pleasanton         4         1.22         Pleasanton         Pleasanton         Andrew	181	Stoneridge Drive-WB	W. Los Positas Blvd	Santa Rita Road	Pleasanton	4	0.29		9	35.2
W. Las Positas Blvd         Hacienda Dr         Hacienda Dr         Pleasanton         4         0.64         Pleasanton         4         0.69         Pleasanton         4         0.49         Pleasanton         4         0.49         Pleasanton         Pleasanton         4         0.66         Pleasanton         Pleasanton         A         1.22         Pleasanton         Pleasanton         A         1.22         Pleasanton         Pleasanton         A         0.64         Pleasanton         Pleasanton         Pleasanton         A         0.64         Pleasanton         <	182	Stoneridge Drive-WB	Santa Rita Road	W. Las Positas Blvd	Pleasanton	4	0.43		9	19.7
Hacienda Dr         Hopyard Rd         Pleasanton         4         0.49           Hopyard Rd         NB I-680 OFF Ramp         Pleasanton         4         0.66           NB I-680 OFF         Bernal Ave         Pleasanton         4         1.22           Bernal Ave         Ray/Vineyard         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.84           Bernal Ave/Valley Ave         SR 84/Isabel Ave         County         4         2.91	183	Stoneridge Drive-WB	W. Las Positas Blvd	Hacienda Dr	Pleasanton	4	0.64		9	24.9
Hopyard Rd         NB I-680 OFF Ramp         Pleasanton         4         0.66           NB I-680 OFF         Bernal Ave         Pleasanton         4         1.22         1.22           Bernal Ave         Ray/Vineyard         Pleasanton         4         0.64         1.22           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton         4         0.64         1.22           Bernal Ave/Valley Ave         Bernal Ave/Valley Ave         Pleasanton, Alameda         4         0.84         1.22           Bernal Ave/Valley Ave         SR 84/Isabel Ave         County         4         2.91         1.22	184	Stoneridge Drive-WB	Hacienda Dr	Hopyard Rd	Pleasanton	4	0.49		9	19.4
NB I-680 OFF         Bernal Ave         Pleasanton         4         1.22           Bernal Ave         Ray/Vineyard         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton         4         0.84           Bernal Ave/Valley Ave         SR 84/Isabel Ave         County         4         2.91	185	Stoneridge Drive-WB	Hopyard Rd	NB I-680 OFF Ramp	Pleasanton	4	99.0		9	29.2
Bernal Ave         Ray/Vineyard         Pleasanton         4         0.64           Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton         4         0.84           Bernal Ave/Valley Ave         SR 84/Isabel Ave         County         4         2.91	186	Sunol Blvd 1st Street- Stanley BlvdNB	NB I-680 OFF	Bernal Ave	Pleasanton	4	1.22		7	24.8
Ray/Vineyard         Bernal Ave/Valley Ave         Pleasanton         4         0.84           Pleasanton, Alameda         Pleasanton, Alameda         County         4         2.91	187		Bernal Ave	Ray/Vineyard	Pleasanton	4	0.64		7	21.6
Pleasanton, Alameda SR 84/Isabel Ave County 4 2.91	188	Sunol Blvd 1st Street- Stanley BlvdNB	Ray/Vineyard	Bernal Ave∕Valley Ave	Pleasanton	4	0.84		7	26.1
-	189	Sunol Blvd 1st Street- Stanley BlvdNB		SR 84/Isabel Ave	Pleasanton, Alameda County	4	2.91		7	43.5

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	Draft R	Draft Results for 2012 LOS Monito	2 LOS Monitoring Study for the Tier 2 CMP Roadways - PM Peak Period	<b>MP Roadways - PI</b>	<b>II</b> Peak Po	eriod			
	CMD Tier 3 Poute	Segme	Segment Limits	acitoipaian	Cor A neld		No of	2012 LOS Results	Results
		From	앤			(miles)	Lanes	# Runs	Speed*
_	190 Sunol Blvd 1st Street- Stanley BlvdSB	SR 84/Isabel Ave	Bernal Ave/Valley Ave	Pleasanton, Alameda County	4	2.91		9	44.6
~	191 Sunol Blvd 1st Street- Stanley BlvdSB	Bernal Ave/Valley Ave	Ray/Vineyard	Pleasanton	4	0.85		9	24.9
_	192 Sunol Blvd 1st Street- Stanley BlvdSB	Ray/Vineyard	Bernal Ave	Pleasanton	4	0.63		9	15.6
_	193 Sunol Blvd 1st Street- Stanley BlvdSB	Bernal Ave	NB I-680 OFF	Pleasanton	4	1.23		9	34.2
	Note								
	* - Upon completion of Free Flow Speed Survey in Fall 2012, will be reported.		classification of the Tier 2 roadways will be determined and the service levels (LOS letters) based on the classifciation and 2012 speed	and the service levels (	LOS letters)	based on the	classifcia	tion and 201	2 speed
		Highlighted areas indicate segment	indicate segments with speed data based on less than the regular six base runs	the regular six base run	S				

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From Too  San Pablo Ave We Broadway  1-580  Broadway San Pablo Ave Nebster Lake Merrit Blvd Slvd Lake Merrit Blvd Slvd Lake Merrit Blvd Slvd Lake Merrit Blvd Ramp Lake Merrit Blvd Ramp Strest Slvd Lake Merrit Blvd Russell St Russell St Bancroft Way Fussell St S1st Street S1st Street S1st Street S1st Street S1st Street S1st Street Grand Ave Sth St/Broadway Futh St Sth St/Broadway Sth St/Broadway Sth St/Broadway Sth St/Broadway College Ave College Ave Shaby Ave Ramp Ramp S24 OFF Ramp Broadway/College Ave Shaby Ave Bancroft Way/College Ave Shattuck Bancroft Way/College Ave Shattuck Shattuck Shattuck Smap/52nd St SR 24 Off Ramp/52nd St	Jurisdiction Plan	Plan Area Length		2012 LOS Results*	Results
EB       I-80/Maritime St       San Pablo Ave       Broadway         I:B       San Pablo Ave       I-580         I:B       Broadway       I-580         VB       I-580       Broadway         VB       San Pablo Ave       I-80/Maritime St         VB       San Pablo Ave       I-80/Maritime St         VB       San Pablo Ave       I-80/Maritime St         VBS San Pablo Ave       I-80 OFF Ramp         Ramp       Lake Merrit Blvd       Lake Merrit Blvd         Lake Merrit Blvd       Lake Merrit Blvd       Lake Merrit Blvd         Lake Merrit Blvd       Webster       Lake Merrit Blvd         Lake Merrit Blvd       Webster       Lake Merrit Blvd         Lake Merrit Blvd       Webster       Lake Merrit Blvd         Ramp       Lake Merrit Blvd       Webster         Russell St       Ramp Ave       Sth St/Broadway         Grand Ave       Sth St/Broadway       1-880 OFF Ramp         Grand Ave       Sth St/Broadway       1-880 OFF Ramp         HAth St       Sth St/Broadway       1-800 OFF Ramp         Grand Ave       Sth St/Broadway       1-800 OFF Ramp         Grand Ave       Shattuck       Shattuck         Shattuck       S		(miles)	es) Lanes	# Runs	Speed
Broadway Broadway Broadway I-580 I-580 Broadway Broadway Broadway Broadway Broadway Broadway Broadway San Pablo Ave I-80/Maritime St I-80 OFF Ramp/Brush St I-84 Merrit Blvd Ramp Lake Merrit Blvd Ramp Lake Merrit Blvd Russell St Broadway/College Ave Grand Ave Grand Ave Grand Ave Grand Ave Sh St/Broadway I-880 OFF Ramp I-880 OFF Ramp Sth St/Broadway Sth St/Broadway I-880 OFF Ramp Sth St/Broadway I-880 OFF Ramp Sth St/Broadway I-880 OFF Ramp Miles Ave/SR 24 OFF Ramp Miles Ave/SR 24 OFF Ramp Broadway/College Ave Broadway/College Ave Shattuck Shattuck College Ave Shaby Ave Broadway/College Ave Broadway/College Ave Broadway/College Ave Shaby Ave Broadway/College Ave Broadway/College Ave Broadway/College Ave Shaby Ave Broadway/College Ave Shaby Ave Ashby Ave Broadway St 24 Off Ramp/Sznd St Broadway Broadway Broadway St 24 Off Ramp/Sznd St Alattaz Ave.	Oakland	1.09	60	2	17.9
Broadway         1-580           VB         I-580         Broadway           VB         Broadway         Broadway           VB         San Pablo Ave         I-80/Maritime St           VB         San Pablo Ave         I-80/Maritime St           I-980 OFF Ramp/Brush St         Webster         Lake Merrit Blvd           Lake Merrit Blvd         Lake Merrit Blvd         Webster           Lake Merrit Blvd         Webster         Lake Merrit Blvd           Lake Merrit Blvd         Webster         Russell St           Russell St         Bancroft Way         Russell St           Russell St         Bancroft Way         Russell St           Broadway/College Ave         Grand Ave         Grand Ave           Grand Ave         Sth St/Broadway         14th St           5th St/Broadway         1-880 OFF Ramp         Stand Ave           Grand Ave         Broadway/College Ave         Broadway/College Ave           Shatuck         Broadway/College Ave         Ramp           Miles Ave/SR 24 OFF Ramp         Broadway/College Ave         Ramp           Miles Ave/SR 24 OFF Ramp         Broadway/College Ave         Shatuck           SR 24 Off Ramp/Sznd St         Broadway           Broadway         S	Oakland	1 0.40	<u></u>	2	20.1
VB         I-580         Broadway           VB         Broadway         San Pablo Ave           VB         San Pablo Ave         I-80/Maritime St           I-980 OFF Ramp/Brush St         I-86 Merrit Blvd           Lake Merrit Blvd         Lake Merrit Blvd           Lake Merrit Blvd         Lake Merrit Blvd           Lake Merrit Blvd         Ramp           Lake Merrit Blvd         Ramp           Lake Merrit Blvd         Ramp           Lake Merrit Blvd         Ramp           Ramp         Lake Merrit Blvd           Ramp         Ramp           Russell St         Russell St           Bancroft Way         Russell St           Broadway/College Ave         Grand Ave           Grand Ave         Sth St/Broadway           Sh St/Broadway         14th St           Grand Ave         Broadway/College Ave           Shattuck         Ashby Ave           Ashby Ave         Ramp           Miles Ave/SR 24 OFF Ramp         Ramp           Miles Ave/SR 24 OFF Ramp         Broadway/College Ave           Broadway/College Ave         Shattuck           SR 24 Off Ramp/52nd St         Broadway           SR 24 Off Ramp/52nd St         Shattuck	Oakland	1 1.62	32	2	25.8
VB         Broadway         San Pablo Ave           VB         San Pablo Ave         I-80/Maritime St           I-980 OFF Ramp/Brush St         Webster           Webster         Lake Merrit Blvd           Lake Merrit Blvd         Lake Merrit Blvd           Ramp         Mespster           Russell St         Russell St           Bancroft Way/College Ave         Sth St/Broadway           Grand Ave         Grand Ave           Shattuck         Shattuck           Shattuck         Ashby Ave           Miles Ave/SR 24 OFF Ramp         Ramp           Miles Ave/SR 24 OFF Ramp         Shattuck           SR 24 Off Ramp/52nd St         Shattuck           Shattuck         Shattuck           Shattuck <td>Oakland</td> <td>1.62</td> <td>32</td> <td>80</td> <td>24.4</td>	Oakland	1.62	32	80	24.4
VB San Pablo Ave I-80/Maritime St 1-980 OFF Ramp/Brush St Webster Webster Lake Merrit Blvd Webster 1-980 OFF Ramp/Brush St 51st Street Brosell St Bancroft Way Bancroft Way Russell St Bancroft Way Bancroft Way Broadway/College Ave Grand Ave Grand Ave Grand Ave Grand Ave Sth St/Broadway Sth St/Broadway/College Ave Broadway/College Ave Broadway/College Ave Broadway/College Ave Broadway/College Ave Bancroft Way/College Ave Bancroft Way/College Ave Bancroft Way/College Ave Stay Ave Bancy Ave Bancy Ave Bancy Ave Bancy Ave Bancy Ave Stay Off Ramp/S2nd St Stay Off Ramp/S2nd St Stat College Ave. Shattuck Stat Stat College Ave. S	Oakland	1 0.40	0:	6	14.8
1-980 OFF Ramp/Brush St   Webster	Oakland	1.09	6(	6	18.0
Webster         Lake Merrit Blvd         Ramp           Lake Merrit Blvd         Lake Merrit Blvd           Lake Merrit Blvd         Lake Merrit Blvd           Lake Merrit Blvd         Webster           Webster         1-980 OFF Ramp/Brush St           51st Street         Bancroft Way           Bancroft Way         Russell St           Bancroft Way         15ts Street           Bancroft Way         6rand Ave           Grand Ave         Grand Ave           5th St/Broadway         1-880 OFF Ramp           5th St/Broadway         1-880 OFF Ramp           5th St/Broadway         1-880 OFF Ramp           6 Grand Ave         Grand Ave           8 Broadway/College Ave         Ashby Ave           Ashby Ave         Ramp           Miles Ave/SR 24 OFF Ramp         Ramp           Miles Ave/SR 24 OFF Ramp         Ashby Ave           Miles Ave/SR 24 OFF Ramp         Ashby Ave           Miles Ave/SR 24 OFF Ramp         Ashby Ave           College Ave         Shattuck           SR 24 Off Ramp/52nd St         Broadway	Oakland	1 0.46	91	9	16.3
Lake Merrit BlvdRampRampLake Merrit BlvdLake Merrit BlvdLake Merrit BlvdWebsterWebster1-980 OFF Ramp/Brush St51st StreetBancroft WayBancroft WayRussell StBancroft Way151st StreetBroadway/College AveGrand AveGrand AveGrand AveGrand Ave5th St/Broadway5th St/Broadway14th St14th StGrand AveGrand AveSth St/Broadway5th St/Broadway14th StGrand AveBroadway/College AveShatuckCollege AveShatuckCollege AveBancroft Way/College AveRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampAshby AveCollege AveBroadway/College AveAshby AveRampMiles Ave/SR 24 OFF RampAshby AveCollege AveShattuckSR 24 Off Ramp/52nd StShattuckSR 24 Off Ramp/52nd StSt 24 Off Ramp/52nd StAbroadwayAshby AveBroadwaySR 24 Off Ramp/52nd StAbroadwayAshby Ave	Oakland	1 0.59	69	7	23.1
RampLake Merrit BlvdLake Merrit BlvdLake Merrit BlvdWebsterWebster1-980 OFF Ramp/Brush St51st StreetRussell StRussell StBancroft WayBancroft WayRussell StBroadway/College AveGrand AveGrand Ave14th St5th St/Broadway5th St/Broadway5th St/Broadway1-880 OFF Ramp5th St/Broadway5th St/Broadway5th St/Broadway14th StGrand AveBroadway/College AveShattuckCollege AveAshby AveRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampRampAshby AveRampMiles Ave/SR 24 OFF RampRampAshby AveBancroft Way/College AveCollege AveRampMiles Ave/SR 24 OFF RampAshby AveSR 24 Off Ramp/52nd StShattuckSR 24 Off Ramp/52nd StShattackShattackShattackShattackAlcataza AveAlcataza AveAlcataza Ave	Oakland	1.24	4	7	17.5
Lake Merrit BlvdWebsterWebsterI-980 OFF Ramp/Brush St51st StreetRussell StRussell StBancroft WayBancroft WayRussell StBroadway/College Ave51st StreetGrand AveGrand Ave5th St/Broadway14th St5th St/Broadway5th St/Broadway5th St/Broadway14th StGrand AveSth St/Broadway5th St/Broadway14th StGrand AveGrand AveShatuckCollege AveAshby AveRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampRampAshby AveRampMiles Ave/SR 24 OFF RampRampAshby AveBancroft Way/College AveMiles Ave/SR 24 OFF RampAshby AveAshby AveBancroft Way/College AveCollege AveBancroft Way/College AveMiles Ave/SR 24 OFF RampAshby AveBroadwaySR 24 Off Ramp/52nd StBroadwaySR 24 Off Ramp/52nd StStattaz AveAlcattaz Ave	Oakland	1.20	0.	9	17.7
WebsterI-980 OFF Ramp/Brush St51st StreetRussell StRussell StBancroft WayBancroft WayRussell StRussell StBancroft WayBancroft Way51st StreetGrand AveGrand Ave5th St/Broadway5th St/Broadway5th St/Broadway14th St5th St/Broadway14th St6rand AveSth St/Broadway7th StGrand Ave8ancroft Way/College AveBroadway/College Ave8ancroft Way/College AveRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampAshby AveBroadway/College AveRampMiles Ave/SR 24 OFF RampAshby AveSR 24 Off Ramp/52nd StBroadwaySR 24 Off Ramp/52nd StBroadwaySR 24 Off Ramp/52nd StSr 24 Off Ramp/52nd StAlcatraz Ave.Alcatraz Ave.	Oakland	1 0.61	31	9	17.6
Russell St Bancroft Way Bancroft Way Bancroft Way Bancroft Way Bancroft Way Broadway/College Ave Grand Ave Grand Ave Grand Ave Grand Ave Sth St/Broadway Str St OFF Ramp Broadway/College Ave Broadway/College Ave Broadway/College Ave Broadway/College Ave Shatuck SR 24 OFF Ramp Shatuck SR 24 Off Ramp/52nd St Broadway SR 24 Off Ramp/52nd St S	Oakland	1 0.51	51	9	19.2
Russell St Bancroft Way Bancroft Way Bancroft Way Bussell St Russell St Broadway/College Ave Grand Ave Broadway/College Ave Broadway/College Ave Broadway/College Ave Ashby Ave Broadway/College Ave Broadway Br	Oakland, Berkeley	1.31	31	8	16.4
Bancroft WayRussell StRussell St51st StreetBroadway/College AveGrand AveGrand Ave14th St14th St5th St/Broadway5th St/Broadway1-880 OFF Ramp1-880 OFF Ramp5th St/Broadway5th St/Broadway14th StGrand AveGrand AveGrand AveBroadway/College AveShattuckCollege AveAshby AveRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampRampMiles Ave/SR 24 OFF RampAshby AveBroadway/College AveBancroft Way/College AveCollege AveBancroft Way/College AveSR 24 Off Ramp/52nd StBroadwayBroadwaySR 24 Off Ramp/52nd StBroadwaySR 24 Off Ramp/52nd StAlcatraz AveAlcatraz Ave	Oakland, Berkeley	1 0.81	31	8	19.9
Broadway/College Ave   Grand Ave	_	1 0.75	.5	7	15.8
Broadway/College Ave Grand Ave Grand Ave 14th St 14th St 14th St 14th St 15th St/Broadway 1-880 OFF Ramp 1-840	Oakland, Berkeley	1 1.50	90	7	20.7
Grand Ave         14th St           14th St         5th St/Broadway           5th St/Broadway         1-880 OFF Ramp           1-880 OFF Ramp         5th St/Broadway           1-880 OFF Ramp         14th St           5th St/Broadway         14th St           6rand Ave         Grand Ave           6rand Ave         Broadway/College Ave           8hancroft Way/College Ave         Ramp           Miles Ave/SR 24 OFF Ramp         Ramp           Miles Ave/SR 24 OFF Ramp         Ashby Ave           Broadway/College Ave         Bancroft Way/College Ave           College Ave         Bancroft Way/College Ave           SR 24 Off Ramp/52nd St         Broadway           SR 24 Off Ramp/52nd St         Broadway           Broadway         SR 24 Off Ramp/52nd St           Broadway         SR 24 Off Ramp/52nd St	Oakland	1 1.91	11	9	16.2
5th St/Broadway 5th St/Broadway 1-880 OFF Ramp 1-880 OFF Ramp 1-880 OFF Ramp 5th St/Broadway 5th St/Broadway 5th St/Broadway 5th St/Broadway 6trand Ave 6rand Ave 6rand Ave 6rand Ave 7 Shattuck 8 Bancroft Way/College Ave 8 Ashby Ave 8 Broadway/College Ave 8 Ashby Ave 8 Broadway/College Ave 8 Ramp 8 Miles Ave/SR 24 OFF Ramp 8 Miles Ave/SR 24 OFF Ramp 8 Ashby Ave 8 College Ave 8 Ashby Ave 8 College Ave 8 Bancroft Way/College College Ave 8 SR 24 Off Ramp/52nd St 8 Broadway 8 51 st 8 Alcatraz Ave.	Oakland	1 0.55	35	7	12.5
5th St/Broadway  1-880 OFF Ramp  1-880 OFF Ramp  5th St/Broadway  5th St/Broadway  14th St  6rand Ave  Grand Ave  Grand Ave  Shattuck  Bancroft Way/College Ave  Ashby Ave  Broadway/College Ave  Ramp  Miles Ave/SR 24 OFF Ramp  Miles Ave/SR 24 OFF Ramp  Ashby Ave  Ashby Ave  Ashby Ave  Ashby Ave  Ashby Ave  College Ave  Ramp  Miles Ave/SR 24 OFF Ramp  SR 24 Off Ramp/52nd St  Broadway  Broadway  Broadway  Broadway  SR 24 Off Ramp/52nd  SR 24 Off Ramp/52nd  SR 24 Off Ramp/52nd  Altatrax Ave.  SR 24 Off Ramp/52nd  Altatrax Ave.	Oakland	1 0.48	89	7	11.8
1-880 OFF Ramp   5th St/Broadway   5th St/Broadway   14th St   14th St   14th St   Grand Ave   Grand Ave   Grand Ave   Grand Ave   Bnoadway/College Ave   Shattuck   Shattuck   Shattuck   Ashby Ave   Ramp   Broadway/College Ave   Ramp   Broadway/College Ave   Ramp   Broadway/College Ave   Ramp   Miles Ave/SR 24 OFF Ramp   Ashby Ave   Bancroft Way/College   College Ave   Bancroft Way/College   College Ave   Shaby Ave   Bancroft Way/College   College Ave   Shaby Ave   Shaby Ave   Shaby Ave   Shattuck   SR 24 Off Ramp/52nd   Shattuck	Oakland	1 0.06	90	3	14.4
5th St/Broadway       14th St         14th St       Grand Ave         Grand Ave       Broadway/College Ave.         Shattuck       College Ave.         Ashby Ave       Ashby Ave         Miles Ave/SR 24 OFF Ramp       Broadway/College Ave         Miles Ave/SR 24 OFF Ramp       Ramp         Miles Ave/SR 24 OFF Ramp       Ashby Ave         Ashby Ave       Bancoft Way/College         College Ave       Shattuck         SR 24 Off Ramp/52nd St       Broadway         Broadway       SR 24 Off Ramp/52nd         Broadway       SR 24 Off Ramp/52nd         Altst       Alcatraz Ave.	Oakland	1 0.07	7(	9	23.0
14th St   Grand Ave   Grand Ave   Grand Ave   Broadway/College Ave   Shattuck   College Ave   Ashby Ave   Ramp   Ramp   Miles Ave/SR 24 OFF Ramp   Ramp   Miles Ave/SR 24 OFF Ramp   Ashby Ave   Ashby Ave   Ashby Ave   Ashby Ave   Ashby Ave   Bancroft Way/College College Ave   Bancroft Way/College   College Ave   Shattuck   SR 24 Off Ramp/52nd St   Broadway   Broadway   SR 24 Off Ramp/52nd   ST 24 Off Ramp/52nd   S	Oakland	1 0.48	18	9	12.5
Grand Ave Broadway/College Ave. Shattuck College Ave. Bancroft Way/College Ave Ashby Ave Ashby Ave Ramp Broadway/College Ave Broadway/College Ave Ramp Broadway/College Ave Broadway/College Ave Ramp Ashby Ave Ashby Ave Bancroft Way/College College Ave. SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd SA 24 Off Ramp/52nd SA 24 Off Ramp/52nd SA 24 Off Ramp/52nd SA 24 Off Ramp/52nd	Oakland	1 0.55	25	9	16.0
Shattuck Bancroft Way/College Ave Bancroft Way/College Ave Ashby Ave Miles Ave/SR 24 OFF Ramp Broadway/College Ave Broadway/College Ave Miles Ave/SR 24 OFF Ramp Ashby Ave Ashby Ave College Ave. SR 24 Off Ramp/52nd St Broadway Broadway Broadway SR 24 Off Ramp/52nd St Broadway SR 24 Off Ramp/52nd St Alcatraz Ave.	Oakland	1 1.91	11	9	15.7
Ashby Ave Ashby Ave Miles Ave/SR 24 OFF Ramp Broadway/College Ave Miles Ave/SR 24 OFF Ramp Broadway/College Ave Miles Ave/SR 24 OFF Ramp Ashby Ave Ashby Ave College Ave. SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd St Broadway SR 24 Off Ramp/52nd St Aleatraz Ave. Aleatraz Ave. Aleatraz Ave. Aleatraz Ave. Aleatraz Ave. Aleatraz Ave.	Berkeley	1 0.73	'3	7	14.4
Ashby Ave  Miles Ave/SR 24 OFF Ramp Broadway/College Ave Broadway/College Ave Miles Ave/SR 24 OFF Ramp Miles Ave/SR 24 OFF Ramp Ashby Ave Ashby Ave College Ave. Shattuck SR 24 Off Ramp/52nd St Broadway Broadway Broadway SR 24 Off Ramp/52nd St Alcatraz Ave.	Oakland	1 0.79	.9	7	13.2
Miles Ave/SR 24 OFF Ramp Broadway/College Ave Broadway/College Ave Ramp Miles Ave/SR 24 OFF Ramp Ashby Ave Ashby Ave Bancroft Way/College College Ave. Shattuck SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd	Oakland, Berkeley	1 0.83	33	9	15.7
Broadway/College Ave Ramp Miles Ave/SR 24 OFF Ramp Ashby Ave Ashby Ave Bancroft Way/College College Ave. Shattuck SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd ST 24 Off Ramp/52nd	Berkeley	1 0.60	30	9	16.0
Miles Ave/SR 24 OFF Ramp Ashby Ave Ashby Ave Bancroft Way/College College Ave. Shattuck SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd SR 24 Off Ramp/52nd SR 24 Off Ramp/52nd	Berkeley	1 0.60	30	9	16.1
Ashby Ave Bancroft Way/College College Ave. Shattuck SR 24 Off Ramp/52nd St Broadway Broadway SR 24 Off Ramp/52nd ST 24 Off Ramp/52nd ST 24 Off Ramp/52nd Alcatraz Ave.	Oakland, Berkeley	1 0.83	33	9	12.5
College Ave.   Shattuck   SR 24 Off Ramp/52nd St   Broadway   SR 24 Off Ramp/52nd   SR 24 Off Ramp/52nd   SI ST 24 Off	Oakland	1 0.98	98	9	15.9
SR 24 Off Ramp/52nd St Broadway  Broadway SR 24 Off Ramp/52nd St St Off Ramp/52nd St Off R	Berkeley	1 0.73	'3	9	14.8
le-NB 51st Alcatraz Ave.	Oakland	1 0.81	31	9	15.4
51st	Oakland	1 0.00	00	9	16.9
VI	Oakland, Berkeley	1 0.81	31	10	22.4
Shattuck Avenue-INB Alcatraz Ave.	Berkeley	1 0.70	.0	10	18.4
37 Shattuck Avenue-SB Adeline St. Alcatraz Ave.	Berkeley	1 0.70	.0	6	18.8
38 Shattuck Avenue-SB Alcatraz Ave. 51st	Oakland, Berkeley	1 0.8	81	6	14.5

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CMP Tier 2 Route	Segment Limits	t Limits	liricaliction	Dian Area	Length	No of	2012 LOS Results*	s Re
		To			(miles)	Lanes	# Runs	Speed
39 Powel Street-Stanford Avenue-EB	NB I-80 OFF Ramp	San Pablo Ave	Emeryville	-	0.75		7	
40 Powel Street-Stanford Avenue-EB	San Pablo Ave	MLK Jr Way	Emeryville, Berkeley	_	0.76		7	
41 Powel Street-Stanford Avenue-WB	MLK Jr Way	San Pablo Ave	Emeryville, Berkeley	1	0.76		9	
42 Powel Street-Stanford Avenue-WB	San Pablo Ave	NB I-80 OFF Ramp	Emeryville	-	0.75		9	
43 40thStreet-Shellmound Avenue-EB	Powell St)	40th St	Emeryville	-	0.82		9	
44 40thStreet-Shellmound Avenue-EB	40th St	San Pablo Ave	Emeryville	-	0.64		9	
45 40thStreet-Shellmound Avenue-WB	San Pablo Ave	40th St	Emeryville	-	0.64		9	
46 40thStreet-Shellmound Avenue-WB	40th St	Powell St)	Emeryville	-	0.82		9	
47 International Boulevard-NB	42nd Ave	Fruitvale Ave	Oakland	-	0.62		9	
48 International Boulevard-NB	Fruitvale Ave	14th Ave	Oakland	-	1.38		9	
49 International Boulevard-NB	14th Ave	Lake Merrit Blvd	Oakland	-	0.88		9	
50 International Boulevard-SB	Lake Merrit Blvd	14th Ave	Oakland	-	0.88		9	
51 International Boulevard-SB	14th Ave	Fruitvale Ave	Oakland	-	1.38		9	
52 International Boulevard-SB	Fruitvale Ave	42nd Ave	Oakland	-	0.62		9	
53 Foothill Boulevard-NB	International Blvd/73rd Ave	73rd Ave/Foothill Blvd	Oakland	-	1.07		9	
54 Foothill Boulevard-NB	73rd Ave/Foothill Blvd	Seminary Ave	Oakland	-	1.01		9	
55 Foothill Boulevard-NB	Seminary Ave	High Street	Oakland	-	1.22		9	
56 Foothill Boulevard-NB	High Street	Fruitvale Ave	Oakland	-	0.89		9	
57 Foothill Boulevard-NB	Fruitvale Ave	14th Ave	Oakland	1	1.32		9	
58 Foothill Boulevard-NB	14th Ave	1st Ave/Lake Shore Blvd	Oakland	1	0.87		9	
59 Foothill Boulevard-SB	1st Ave/Lake Shore Blvd	14th Ave	Oakland	-	0.99		9	
60 Foothill Boulevard-SB	14th Ave	Fruitvale Ave	Oakland	1	1.30		9	
61 Foothill Boulevard-SB	Fruitvale Ave	High Street	Oakland	1	0.89		9	
62 Foothill Boulevard-SB	High Street	Seminary Ave	Oakland	1	1.22		9	
63 Foothill Boulevard-SB	Seminary Ave	73rd Ave/Foothill Blvd	Oakland	1	1.01		9	
64 Foothill Boulevard-SB	73rd Ave/Foothill Blvd	International Blvd/73rd Ave	Oakland	-	1.04		9	
65 E. 15th Street-SB	1st Avenue	14th Avenue	Oakland	1	66.0		9	
66 High Street-EB	Otis Drive	Central Ave	Alameda	1	0.58		8	
67 High Street-EB	Central Ave	Fernside Blvd	Alameda	-	0.48		∞	
68 High Street-EB	Fernside Blvd	NB I-880 OFF Ramp	Alameda, Oakland	1	0.49		8	
69 High Street-EB	NB I-880 OFF Ramp	Foothill Blvd	Oakland	1	0.62		8	
70 High Street-EB	Foothill Blvd	OFF Ramp	Oakland	-	1.30		80	
71 High Street-WB	Ramp	Foothill Blvd	Oakland	-	1.73		80	
72 High Street-WB	Foothill Blvd	NB I-880 OFF Ramp	Oakland	-	0.62		80	
73 High Street-WB	NB I-880 OFF Ramp	Fernside Blvd	Alameda, Oakland	-	0.49		8	
	Fernside Blvd	Central Ave	Alameda	1	0.48		8	
75 High Street-WB	Central Ave	Otis Drive	Alameda	_	0.58		8	

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#### Attachment 8

	CMB Tier 3 Boute	Segmen	gment Limits	doitoidairiil	Dian Area	Length	No of	2012 LO	2012 LOS Results*
	CIMIL LIEI Z KOULE	From	70	Jarrisaiction	rian Area	(miles)	Lanes	# Runs	Speed
77	77 Crow Canyon Road-NB	A Street/Redwood Road	Way	Alameda County	2	0.93		7	31.6
78	78 Crow Canyon Road-NB	Way	Cull Canyon	Alameda County	2	0.83		7	20.3
79	79 Crow Canyon Road-NB	Cull Canyon	Cold Water Dr	Alameda County	2	0.89		7	34.1
80	80 Crow Canyon Road-NB	Cold Water Dr	New Checkpoint (Driver to identify)	Alameda County	2	1.48		7	41.9
81	81 Crow Canyon Road-NB	New Checkpoint (Driver to identify)	County Line	Alameda County	2	3.90		7	43.9
82	82 Crow Canyon Road-SB	County Line	New Checkpoint (Driver to identify)	Alameda County	2	3.90		9	45.8
83	83 Crow Canyon Road-SB	New Checkpoint (Driver to identify)	Cold Water Dr	Alameda County	2	1.48		9	44.8
84	84 Crow Canyon Road-SB	Cold Water Dr	Cull Canyon	Alameda County	2	0.89		9	29.3
85	Crow Canyon Road-SB	Cull Canyon	Way	Alameda County	2	0.83		9	22.8
86	86 Crow Canyon Road-SB	Way	A Street/Redwood Road	Alameda County	2	0.93		9	21.6
87	87 Winton Avenue - D Street-EB	Hesperian Blvd.	SB I-880 ON Ramp	Hayward	2	0.41		9	25.8
88	88 Winton Avenue - D Street-EB	SB I-880 ON Ramp	Santa Clara St	Hayward	2	0.33		9	18.7
83	89 Winton Avenue - D Street-EB	Santa Clara St	Soto Rd	Hayward	2	0.55		9	19.4
90	90 Winton Avenue - D Street-EB	Soto Rd	Foothill Boulevard/D St	Hayward	2	0.91		9	10.7
91	91 Winton Avenue - D Street-WB	Foothill Boulevard/D St	Soto Rd	Hayward	2	0.91		9	16.0
92	92 Winton Avenue - D Street-WB	Soto Rd	Santa Clara St	Hayward	2	0.55		9	22.9
93	93 Winton Avenue - D Street-WB	Santa Clara St	SB I-880 ON Ramp	Hayward	2	0.33		9	18.7
94	94 Winton Avenue - D Street-WB	SB I-880 ON Ramp	Hesperian Blvd.	Hayward	2	0.41		9	25.5
92	95 A Street-EB	Foothill Boulevard/A St	Redwood Rd/Grove Way	Hayward	2	0.80		9	17.3
96	96 A Street-EB	Redwood Rd/Grove Way	Way	Hayward	2	0.41		9	24.4
97	97 A Street-WB	Way	Redwood Rd/Grove Way	Hayward	2	0.41		9	19.1
98	98 A Street-WB	Redwood Rd/Grove Way	Foothill Boulevard/A St	Hayward	2	08'0		9	8.9
66	99 Hesperian Boulevard-Union City Blvd-NB	Union City/Alvarado Blvd	Whipple Rd	Union City	3	0.98		9	23.1
100	100 Hesperian Boulevard-Union City Blvd-NB		Hesperian/Union City Blvd/overbridge	Union City	3	0.30		9	34.2
101	101 Hesperian Boulevard-Union City Blvd-NB	Hesperian/Union City Blvd/overbridge	Industrial Blvd	Union City	ဗ	0.57		9	22.6
102	102 Hesperian Boulevard-Union City Blvd-NB	Industrial Blvd	Tennyson/Hesperian	Union City	ю	1.04		9	22.8
103	103 Hesperian Boulevard-Union City Blvd-SB	Tennyson/Hesperian	Industrial Blvd	Union City	က	1.03		9	24.4
104	104 Hesperian Boulevard-Union City Blvd-SB	Industrial Blvd	Hesperian/Union City Blvd/overbridge	Union City	က	0.57		9	23.9
105	105 Hesperian Boulevard-Union City Blvd-SB	Hesperian/Union City Blvd/overbridge	Whipple Rd	Union City	3	0:30		9	26.9
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Attachment 8

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CMP Tier 2 Route	Segment Limits	: Limits	lirisdiction	Plan Area	Length	No of	2012 LOS Results*	Results*
20000	From	To			(miles)	Lanes	# Runs	Speed
108 Alvarado BlvdNB	0	Deep Creek Rd/SB I-880 OFF Ramp	Union City	3	0.21		9	26.5
109 Alvarado BlvdNB	Deep Creek Rd/SB I-880 OFF Ramp	Fair Ranch Rd	Union City	3	1.42		9	20.2
110 Alvarado BlvdNB	Fair Ranch Rd	Union City/Alvarado Blvd	Union City	က	0.52		9	16.2
111 Alvarado BlvdSB	Union City/Alvarado Blvd	Fair Ranch Rd	Union City	က	0.52		9	19.1
112 Alvarado BlvdSB		_	Union City	ю	1.43		9	21.3
113 Alvarado BlvdSB	Deep Creek Rd/SB I-880 OFF Ramp		Union City	က	0.21		9	29.8
114 Fremont Boulevard-NB	NB I-880 OFF Ramp	Automall Parkway	Fremont	က	1.27		9	25.2
115 Fremont Boulevard-NB	Automall Parkway	Blacow Rd	Fremont	က	06.0		9	25.6
116 Fremont Boulevard-NB	Blacow Rd	Adams Ave	Fremont	က	0.38		9	31.2
117 Fremont Boulevard-NB	Adams Ave	Stevenson Rd	Fremont	က	1.17		9	22.5
118 Fremont Boulevard-NB	Stevenson Rd	Mowry Ave	Fremont	က	1.00		9	22.5
119 Fremont Boulevard-NB	Mowry Ave	Peralta Blvd	Fremont	က	1.21		9	22.0
120 Fremont Boulevard-NB	Peralta Blvd	Thornton Ave	Fremont	က	0.32		9	15.6
Fremont Boulevard-NB	Thornton Ave	Decoto Rd	Fremont	က	1.34		9	20.2
122 Fremont Boulevard-NB	Decoto Rd	Paseo Padre Pkwy	Fremont	က	0.55		9	30.1
123 Fremont Boulevard-NB	Paseo Padre Pkwy	SB I-880 OFF Ramp	Fremont	3	0.61		9	33.2
124 Fremont Boulevard-SB	SB I-880 OFF Ramp	Paseo Padre Pkwy	Fremont	3	0.40		9	23.6
125 Fremont Boulevard-SB	Paseo Padre Pkwy	Decoto Rd	Fremont	3	0.55		9	17.3
126 Fremont Boulevard-SB	Decoto Rd	Thornton Ave	Fremont	3	1.34		9	21.7
127 Fremont Boulevard-SB	Thornton Ave	Peralta Blvd	Fremont	3	0.32		9	20.9
128 Fremont Boulevard-SB	Peralta Blvd	Mowry Ave	Fremont	3	1.21		9	20.5
129 Fremont Boulevard-SB	Mowry Ave	Stevenson Rd	Fremont	3	1.00		9	34.9
130 Fremont Boulevard-SB	Stevenson Rd	Adams Ave	Fremont	3	0.24		9	29.1
131 Fremont Boulevard-SB	Adams Ave	Blacow Rd	Fremont	3	0.38		9	20.1
132 Fremont Boulevard-SB	Blacow Rd	Automall Parkway	Fremont	က	06.0		9	18.8
133 Fremont Boulevard-SB	Automall Parkway	NB I-880 OFF Ramp	Fremont	ო	1.25		9	26.9
134 Automall Parkway-EB	NB I-880 OFF Ramp	Fremont Blvd	Fremont	3	0.85		9	26.8
135 Automall Parkway-EB	Fremont Blvd	NB I-680 ON Ramp	Fremont	ო	0.75		9	28.2
136 Automall Parkway-WB	NB I-680 ON Ramp	Fremont Blvd	Fremont	က	0.75		9	27.4
137 Automall Parkway-WB	Fremont Blvd	NB I-880 OFF Ramp	Fremont	က	0.77		9	28.1
139 Vasco Road-NB	WB I-580 OFF Ramp	Scenic Ave	Livermore	4	0.51		9	23.6
140 Vasco Road-NB	Scenic Ave	Line	Livermore	4	69.0		9	35.5
141 Vasco Road-NB	Dalton Ave/City-County Line	N. Vasco Rd/Vasco Rd	Livermore	4	1.75		9	43.7
142 Vasco Road-NB	N. Vasco Rd/Vasco Rd	underpass/County Line	Livermore	4	2.80		9	53.3
143 Vasco Road-SB	underpass/County Line	N. Vasco Rd/Vasco Rd	Livermore	4	2.80		9	24.3
144 Vasco Road-SB	N. Vasco Rd/Vasco Rd	Line	Livermore	4	1.75		9	23.9
145 Vasco Road-SB	Dalton Ave/City-County Line	Scenic Ave	ivermore	_	000		ď	220

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	CMD Tive C	Segment Limits	t Limits	201401001211	-imits Length No	Length	No of	2012 LOS	Results*
		From	To	Salisalication	riali Alea	(miles)	Lanes	# Runs	Speed
	146 Vasco Road-SB	Scenic Ave	WB I-580 OFF Ramp	Livermore	4	0.51		9	16.6
	Dublin BlvdEB	San Ramon Road		Dublin	4	0.73		2	20.8
	148 Dublin BlvdEB	Village Parkway		Dublin	4	0.81		2	26.4
	149 Dublin BlvdEB	Dougherty Rd	Hacienda Dr	Dublin	4	1.20		9	31.4
	150 Dublin BlvdEB	Hacienda Dr	Tassajara Dr	Dublin	4	0.88		9	22.9
	151 Dublin BlvdWB	Tassajara Dr	Hacienda Dr	Dublin	4	0.88		9	29.8
	152 Dublin BlvdWB	Hacienda Dr	q	Dublin	4			9	
	153 Dublin BlvdWB	Dougherty Rd	Village Parkway	Dublin	4	1.10		9	23.9
	154 Dublin BlvdWB	Village Parkway	San Ramon Road	Dublin	4	0.73		9	22.2
	San Ramon Road-NB	WB I-580 OFF ramp	Silvergate Dr	Dublin	4	0.67		9	18.0
	San Ramon Road-NB	Silvergate Dr	je e	Dublin	4	0.98		9	28.8
	157 San Ramon Road-SB	Dr/County Line		Dublin	4	0.98		9	33.9
	San Ramon Road-SB	Silvergate Dr	F ramp	Dublin	4	0.67		9	21.4
10	159 Dougherty Road-NB	WB I-580 OFF ramp		Dublin	4	1.15		8	38.5
	160 Dougherty Road-NB	Amador Valley Blvd on SB	_	Dublin	4	0.78		8	44.0
10	Dougherty Road-SB	Line	Amador Valley Blvd on SB	Dublin	4	0.78		8	28.9
10	Dougherty Road-SB	Amador Valley Blvd on SB	dmr	Dublin	4	1.15		8	21.3
L_	Tassajara Road-NB	EB I-580 OFF ramp		Dublin	4	0.49		7	23.6
1 1	Tassajara Road-NB	Central Parkway	Jublin	Dublin	4	0.68		7	23.3
L_	Tassajara Road-NB	Dr	Fallon Rd	Dublin	4	1.05		7	35.1
L-	Tassajara Road-NB	Fallon Rd	County Line	Alameda County	4	0.50		7	39.8
L	Tassajara Road-SB	County Line	Fallon Rd	Alameda County	4	0.50		6	40.5
	Tassajara Road-SB	Fallon Rd	Somerset Ln/N Dublin Ranch Dr	Dublin	4	1.05		6	35.4
	Tassajara Road-SB	Dr		Dublin	4	0.68		6	22.4
IL '		Central Parkway	WB I-580 OFF ramp	Dublin	4	0.46		6	16.7
	E. Stanley bivd - Kalifoad Avenue - 1st Street-NB	SR 84/Isabel Ave	Murrita Blvd	Pleasanton, Alameda County	4	0.98		8	20.4
	E. Stanley Bivd - Railfoad Avenue - 1st Street-NB	Murrita Blvd	S Livermore Ave	Livermore	4	1.07		œ	21.9
11	. Stanley Bivd - Kailroad Avenue - 1st treet-NB	S Livermore Ave	Inman St	Livermore	4	0.46		∞	14.2
11 /2	E. Stanley BIVd - Railroad Avenue - 1st Street-SB	Inman St	S Livermore Ave	Livermore	4	0.46		9	20.1
11 /2	E. Stanley Blvd - Railroad Avenue - 1st Street-SB	S Livermore Ave		Livermore	4	1.07		9	20.1
	E. Stanley Bivd - Railload Avenue - 1st 176 Street-SB	Murrita Blvd	SR 84/Isabel Ave	Pleasanton, Alameda County	4	0.98		9	38.6
100	Stoneridge Drive-EB	NB I-680 OFF Ramp		Pleasanton	4	0.93		7	19.7
~	178 Stoneridge Drive-EB	Hopyard Rd	Hacienda Dr	Pleasanton	4	0.49		7	22.4
~	Stoneridge Drive-EB	Hacienda Dr	W I as Positas Blvd	Diagonton	_	, 00		1	0 10
			W. Eds. Collaboration	i easainoi	4	0.64		,	5.62

Tier 2 Arterials 2012 - AM

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	Draft Result	Draft Results for 2012 LOS Monito	Monitoring Study for the Tier 2 CMP Roadways - AM Peak Period	er 2 CMP Roadw	ays - AM I	Peak Peri	po		
	CMD Tier 2 Boute	Segment Limits	Limits	acitoicaini	Cor A neld	Length	No of	2012 LOS Results*	Results*
		From	To			(miles)	Lanes	# Runs	Speed
181	181 Stoneridge Drive-EB	Road	W. Los Positas Blvd	Pleasanton	4	0.29		7	15.6
182	182 Stoneridge Drive-EB	W. Los Positas Blvd	WB I-580 OFF Ramp	Pleasanton	4	0.88		7	34.5
183	183 Stoneridge Drive-WB	WB I-580 OFF Ramp	W. Los Positas Blvd	Pleasanton	4	0.92		9	25.5
184	184 Stoneridge Drive-WB	W. Los Positas Blvd	Santa Rita Road	Pleasanton	4	0.29		9	27.6
185	185 Stoneridge Drive-WB	Santa Rita Road	W. Las Positas Blvd	Pleasanton	4	0.43		9	25.5
186	186 Stoneridge Drive-WB	W. Las Positas Blvd	Hacienda Dr	Pleasanton	4	0.64		9	28.5
187	187 Stoneridge Drive-WB	Hacienda Dr	Hopyard Rd	Pleasanton	4	0.49		9	20.1
188	188 Stoneridge Drive-WB	Hopyard Rd	NB I-680 OFF Ramp	Pleasanton	4	99.0		9	21.9
189	189 Sunol Blvd 1st Street- Stanley BlvdNB	NB I-680 OFF	Bernal Ave	Pleasanton	4	1.22		8	28.8
190	190 Sunol Blvd 1st Street- Stanley BlvdNB Bernal Ave	Bernal Ave	Ray/Vineyard	Pleasanton	4	0.64		8	19.5
191	191 Sunol Blvd 1st Street- Stanley BlvdNB	Ray/Vineyard	Bernal Ave/Valley Ave	Pleasanton	4	0.84		8	26.1
192	192 Sunol Blvd 1st Street- Stanley BlvdNB	Bernal Ave/Valley Ave	SR 84/Isabel Ave	County	4	2.91		8	46.7
193	193 Sunol Blvd 1st Street- Stanley BlvdSB	SR 84/Isabel Ave	Bernal Ave/Valley Ave	County	4	2.91		9	38.3
194	194 Sunol Blvd 1st Street- Stanley BlvdSB	Bernal Ave/Valley Ave	Ray/Vineyard	Pleasanton	4	0.85		9	31.1
195	195 Sunol Blvd 1st Street- Stanley BlvdSB	Ray/Vineyard	Bernal Ave	Pleasanton	4	0.63		9	11.8
196	196 Sunol Blvd 1st Street- Stanley BlvdSB	Bernal Ave	NB I-680 OFF	Pleasanton	4	1.23		6	26.2
	Note								
	* - Upon completion of Free Flow Speed Survey in Fall 2012, classification and 2012 speed will be reported.		classification of the Tier 2 roadways will be determined and the service levels (LOS letters) based on the	will be determined ar	id the service	levels (LOS	letters) b	ased on the	
		Highlighted areas indicate segments with speed data based on less than the regular six base runs	ments with speed data based	d on less than the rec	jular six base	runs			

_																			
Speed	56.8	48.0	23.1																
# of Rins	9	9	9																
No of	10	10	10																
Length (miles)	2.06	1.15	0.79																
Plan	- F	_	-																
lurisoliction	Oak	Oak	Emery - Berk																
Ĕ	Toll Plaza	I-580 SB Merge	Powell																
801	SF County Line	Toll Plaza	I-80/I-580 (Merge)																
CMP Route	216		3 I-80 - EB																

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																									Α	СТА	C	M		٩g	en	da	a l	te	m	5C
	s	ros	A	4	A	Α	В	၁	4	A	Α	A	ပ	4	⋖	A	A	Α	A	Α	Α	⋖	D	F(30)	F(20)	F(30)	⋖		4	C	ပ ပ	ac <sub>m</sub>	nr ∢	ne ∢	ent ∢	∢
	2012 LOS results	Speed	70.5	68.3	69.2	6.09	27.7	54.2	68.4	8.69	74.6	64.8	49.8	92.9	62.4	2.99	6.79	64.1	68.4	75.3	9.79	9.19	47.1	21.1 F	13.2 F	23.2	8		68.5	52.2	53.5	58.1	61.9	8.59	9.69	73.8
	2012	# of Runs	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9		9	9	9	9	9	9	9	9
Period	No of	Lanes 1	8	8	8	8	8	8	80	8	8	8	8	8	80	8	8	8	8	8	8	80	8	8	8	4	4		9	9	9	9	9	9	9	9
- Weekend Peak Period	Length	(miles)	2.30	2.52	1.76	1.78	1.16	2.87	0.69	4.75	2.28	1.94	1.24	0.95	0.69	2.25	2.15	4.09	4.33	4.42	3.89	2.36	2.21	1.16	69.0	0.77	1.07		2.20	1.34	1.54	0.89	0.82	2.64	1.13	0:30
	Plan	Area	4	4	4	4	4	4	4	4	4	2	_	_	_	1	1	1	2	2	1	_	_	_	1	-	-		က	က	က	3	3	3	3	က
Study for Freeways		Jurisdiction	Liv - Uninc	Liv	Liv - Plea	Plea	Plea	Plea	Plea - Uninc	Plea - Uninc	Plea - Uninc	Unincorp	Oak	Oak	Oak	Oak	Oak	Foothill	SL - Hay	Oak -SL	Oak -SL	Oak	Oak	Oak	Oak	Alb	Alb		Fre	Fre	Fre	Fre	Unincorp	Unincorp	Unincorp	Unincorp
oring	Segment Limits	То	1st St	Portola Ave	SR 84/Airway Blvd	Fallon Rd/El Charro	Tassajara	089-1	San Ramon Rd	Eden Caynon	Center St	1-580/238	1-980	Harrison	Lakeshore	Coolidge	SH 13 Off	MacArthur	1-580/238	Foothill/MacArthur	SH 13 Off	Fruitvale	Harrison	SH 24 On-ramp	I-80/580 Split	1-80 Jct	Central		Rt 262/Mission	Durham Rd	Washington Blvd	Rt 238/Mission	Vargas Rd	Andrade Rd	Calaveras	Rt.84/Vallecitos
Draft Results for 2012 LOS Monito		From	Greenville Rd	1st St	Portola	SR 84/Airway Blvd	Fallon Rd/El Charro	Tassajara Rd	I-680	San Ramon Rd	Eden Canyon	Center	I-80	I-980	Harrison	Lakeshore	Coolidge	SH 13 Off	MacArthur	I-238	Foothill/MacArthur	SH 13 Off	Fruitvale	Harrison	SH-24 On-ramp	Central	I-80 Jct		Scott Creek Rd	Rt 262/Mission	Durham Rd	Washington Blvd	SR 238/Mission	Vargas Rd	Andrade Rd	Calaveras
		CMP Route	I-580 - WB	I-580 - WB	36 I-580 - WB	I-580 - WB	I-580 - WB		40 I-580 - WB	41 I-580 - WB	42 I-580 - WB	43 I-580 - WB	44 I-580 - EB	45 I-580 - EB	46 I-580 - EB	51 I-580 - WB	52 I-580 - WB	I-580 - WB	I-580 - WB	I-580 - WB	I-580 - WB	I-580 - EB	I-580 - WB		59 I-680 - NB	60 I-680 - NB	I-680 - NB	I-680 - NB	63 I-680 NB	64 I-680 NB		66 I-680 NB				
			34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	20	51	52	53	54	22		22	28		29	09	61	62	63	64	92	99

FREEWAYS 2012 -Weekend Peak Period

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ACTAC Meeting - 07/03/12

Agenda Item 5C

#### Attachment 9 FOS ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ В ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ ⋖ C ⋖ ⋖ Δ ⋖ ⋖ 2012 LOS results Speed 64.3 68.5 8.99 65.3 65.3 8.79 9.79 65.4 68.6 65.9 68.7 64.8 69.2 65.0 65.0 69.5 61.3 67.0 59.7 65.4 69.0 65.2 75.2 8.89 60.7 54.9 65.0 72.2 56.4 61.4 70.1 63.1 72.1 65.1 Runs 9 9 9 9 9 9 9 9 9 ω 8 ω 9 9 9 9 9 9 9 9 9 9 9 9 $\infty$ 9 9 9 9 # of Draft Results for 2012 LOS Monitoring Study for Freeways - Weekend Peak Period No of Lanes 9 9 9 9 9 9 9 9 9 ဖ 9 9 9 9 9 9 ω ω ω ω ω ω ω $\infty$ $\infty$ ω ω $\infty$ $\infty$ ω $\infty$ Length (miles) 1.32 3.45 1.52 0.84 1.83 1.84 2.55 1.31 3.82 1.39 0.81 1.08 1.04 1.52 1.67 2.08 2.44 1.54 4.04 1.17 1.17 2.65 1.14 1.52 1.82 2.66 0.79 1.88 2.47 1.06 2.64 Area Plan 4 က က က က က က က 3 က က က က က 4 4 4 4 4 4 4 4 က က N $\alpha$ $\sim$ N 2 a Jurisdiction Plea - Uninc Plea - Uninc Fre - Un Cty Un Cty - Hay Fre- Uni Cty Unincorp Unincorp Unincorp Unincorp Unincorp Unincorp Unincorp Oak - SL Oak -SL Oak - SL Plea Plea Plea Plea Qnp Нау qnq Нау Oak Fre Fre Fre Fre Fre Fre e E Oak Oak Fre Alvarado-Niles Blvd Washington Blvd Rt 2262/Mission SR 238/Mission SR 262/Mission Scott Creek Rd AutoMall Pkwy Alvarado Blvd SR 112/Davis Stoneridge Dr Stoneridge Dr Hegenberger Sheridon Rd 23rd (1st on) Andrade Rd Marina Blvd **Durham Rd** Jct 980 (off) Bernal Ave Vargas Rd Sunol Blvd Sunol Blvd Stevenson High/42nd Tennyson Segment Limits Alcosta Decoto **SR 84 SR 92** Bernal 1-580 I-238 1-580 A St SR 84 (Niles Canyon) Washington Blvd -880/1238 (split) SR262/Mission Rt 238/Mission Rt 262/Mission 23RD (1ST on) AutoMall Pkwy Alcarado Blvd SR 112/Davis Stoneridge Dr Stoneridge Dr Hegenberger Sheridon Rd Andrade Rd Dix Landing Marina Blvd **Durham Rd** Bernal Ave. **Bernal Ave** Sunol Blvd. Sunol Blvd. Vargas Rd Stevenson High/42nd **Fennyson** Alv-Niles Alcosta Decota **SR** 92 **SR 84** -580 -580 A St **CMP Route** I-680 - SB I-680 - SB I-880 - NB **I-880 - NB** I-880 - NB I-880 - NB I-880 - NB I-880 - NB 93 I-880 - NB 94 I-880 - NB **GN** - 088-I I-880 - NB **GN** - 088-I I-880 - NB I-680 - NB I-680 - SB I-680 - SB **I-680 - SB I-880 - NB** I-880 - NB BN - 088-I I-880 - NB I-680 NB I-680 NB I-680 SB I-680 SB I-680 NB I-680 SB I-680 SB I-680 SB 78 I-680 SB I-680 NB I-680 SB I-680 SB 74 90 92 95 96 97 69 70 71 72 73 75 9/ 77 79 80 81 85 86 87 88 89 91 66 67 68 82 83 84

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			Draft Results for 2012	12 LOS Monitoring Study for Freeways - Weekend Peak Period	for Freeways	- Wee	kend Peak	ς Perio	_		
			Segment L	nt Limits		Plan	Length	No of	2012 1	LOS results	lts
		<b>CMP Route</b>	From	То	Jurisdiction	Area	(miles)	Lanes	# of Runs	Speed	ros
	101	I-880 - NB	Jct 980 (off)	I-880/I-80 split	Oak	-	2.38	8	9	62.9	A
	103	103 I-880 - SB	1-880/I-80 split	1-880/ -80 merce	Oak	-	1 63	α	Œ	616	۵
	104	104 I-880 - SB	I-880/I-80 merge	Jct 980	Oak		2.65	∞	9	82.7	<
	105	I-880 - SB	086-1	23rd	Oak	-	2.79	8	9	58.6	В
	106	I-880 - SB	23rd St	High/42nd	Oak	-	1.35	∞	9	73.5	4
	107	I-880 - SB	High/42nd	Hegenberger	Oak	-	2.27	∞	9	61.3	A
	108	I-880 - SB	Hegenberger	SR 112/Davis	Oak - SL	_	1.69	∞	9	58.4	В
	109	I-880 - SB	SR 112/Davis	Marina Blvd	Oak - SL	_	0.87	∞	9	68.8	۷
	110	110 I-880 - SB	Marina Blvd	SR 238 WB (merge)	Oak - SL	_	2.41	∞	9	0.99	۷
	111	I-880 - SB	1-238	A St	SL-Uninc	2	2.03	∞	9	65.7	۷
	112	I-880 - SB	A St	Rt 92	Нау	2	1.81	8	9	63.3	Α
	113	I-880 - SB	Rt 92	Tennyson	Нау	7	96.0	∞	9	61.0	∢
	114	I-880 - SB	Tennyson	Alv-Niles	Hay - NC	2	2.49	∞	8	63.1	∢
	115	_	Alvarado-Niles	Alvarado	UC - Fre	2	1.37	∞	8	62.3	A
	116	I-880 - SB	Alvarado	Decoto	UC - Fre	2	1.17	∞	8	61.8	A
		I-880 -	Decoto	Stevenson	Fre	3	4.07	8	8	66.4	Α
		<b>-</b> 088-l	Stevenson	AutoMall Pkwy	Fre	2	1.26	8	9	62.4	Α
	119	I-880 - SB	AutoMall Pkwy	Rt 262/Mission	Fre	2	3.04	8	9	63.3	A
	120	I-880 - SB	SR 262/Mission	Dix Landing(off)	Fre	က	1.27	80	9	8.69	٨
ļ	_										
		I-980 - WB	SR 24 @ 580	30	Oak	1	2.27	8	2	0.99	Α
	122	I-980 - EB	I-880	SR 24 @ 580	Oak	-	2.32	∞	∞	62.8	A
	123 (	SR 13 - NB	Mountain On	Carson/Redwood (1) (off)	Oak	-	1.20	4	9	91.3	4
	124	SR 13 - NB	Carson/Redwood (1) (off)	Joaguin Miller	Oak	-	1.09	4	9	44.4	D
	125	SR 13 - NB	Joa Miller/Linc	Moraga Ave	Oak	1	1.77	4	9	56.3	В
	126	SR 13 - NB	Moraga Ave	Hiller (Sig)	Oak	-	1.57	4	9	30.1	Ш
	127	SR 13 - SB	Hiller Sig	Moraga Ave	Oak	1	1.66	4	5	9.09	Α
	128	128 SR 13 - SB	Moraga Ave	Joa Miller/Linc	Oak	1	2.04	4	5	74.2	Α
	129	SR 13 - SB	Joaq Miller/Lincoln	Redwood	Oak	1	1.34	4	5	64.0	Α
	130	SR 13 - SB	Redwood	Jct I-580 (EB Merge)	Oak	1	0.89	4	5	57.2	В
	131	SR 24 - EB	Jct I-580 (on)	Broadway/SR 13	Oak	1	2.08	8	8	42.9	D
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		Draft Results for 2012	12 LOS Monitoring Study for Freeways - Weekend Peak Period	for Freeways	- Wee	kend Peak	Period	_		
		Segment L			Plan	Length	No of		2012 LOS results	lts
	CMP Route	From	То	Jurisdiction	Area	(miles)	Lanes	# of Runs	Speed	ros
132	SR 24 - EB	Broadway/SR 13	Caldecott (enter)	Oak	l	1.41	8	8	43.0	D
133	133 SR 24 - EB	Caldecott (enter)	Fish Ranch Road	Oak	1	1.03	8	8	47.6	D
134	134 SR 24 - WB	Fisch Ranch Road (CC)	Caldecott (exit)	Oak	1	0.99	8	2	43.1	D
135	5 SR 24 - WB	Caldecott (exit)	Broadway	Oak	1	1.77	8	2	71.0	Α
136	136 SR 24 - WB	Broadway	Jct I-580 (on)	Oak	_	2.19	∞	2	58.7	Ф
137	137 SR 84 - EB	San M CL	Toll Plaza	Fremont	3	2.97	9	9	54.8	C
138	3 SR 84 - EB	Toll Plaza	Thornton	Fremont	3	0.27	9	9	60.1	Α
136	139 SR 84 - EB	Thornton Ave/Pascon Padre	Newark Blvd/Ardenwood Blvd	Newark	3	1.23	9	9	69.7	٨
140	140 SR 84 - EB	Newark Blvd/Ardenwood Blvd	I-880 NB (off)	Newark	3	0.97	9	9	44.6	D
141	141 SR 84 - WB	I-880 NB (off)	Ardenwood/Newark		3	0.99	9	9	44.5	D
142	142 SR 84 - WB	Ardenwood/Newark	Paseo Padre Pkwy		3	1.15	9	9	65.4	4
143	143 SR 84 - WB	Paseo Padre Pkwy	Toll Gate		က	0.75	9	9	46.6	Ω
144	144 SR 84 - WB	Toll Plaza	San M CL	Fremont	2	3.17	9	9	65.1	4
145	145 SR 92 - EB	San M CL	Toll Plaza	Uninc - Hay	2	2.61	9	7	65.1	⋖
146	146 SR 92 - EB	Toll Plaza	Clawiter	Uninc - Hay	2	1.76	9	7	62.3	Α
147	147 SR 92 - EB	Clawiter	I-880	Нау	2	2.10	9	7	67.4	۷
148	148 SR 92 - WB	I-880	Clawiter	Нау	2	2.01	9	9	58.9	В
148	149 SR 92 - WB	Clawiter	Toll Plaza	Uninc - Hay	2	1.87	9	9	49.0	ပ
150	150 SR 92 - WB	Toll Plaza	San M CL	Uninc - Hay	2	2.61	9	9	62.3	Α

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#### Memorandum

**DATE:** June 22, 2012

**TO:** Alameda County Technical Advisory Committee

**FROM:** Beth Walukas, Deputy Director of Planning

Saravana Suthanthira, Senior Transportation Planner

**SUBJECT:** Review of Draft 2011 Performance Report: State of Transportation in Alameda

County

#### Recommendation

This item is for information only and no action is requested.

#### **Summary**

Alameda CTC, as the Congestion Management Agency for Alameda County and as required by the Congestion Management legislation under Government Code Section 65088-65089.10, prepares a report on the performance of various modes of transportation in Alameda County using adopted performance measures and existing data sources. Existing data are collected from the local jurisdictions, transit operators, MTC and Caltrans along with data collected by Alameda CTC. Based on the 2012 Countywide Transportation Plan (CWTP), new performance measures adopted in the CWTP were incorporated into the Congestion Management Program (CMP), and therefore are incorporated and reported in the 2011 Performance Report, mostly under a new section titled Livable Communities.

Data collected on the county's multimodal transportation system for the year 2010-11 shows the continued impact of the economic downturn and associated budget cuts for transportation funding. Collisions on Alameda County roadways have generally decreased. As previously reported in the 2010 LOS Monitoring Study results, roadway congestion decreased between 2008 and 2010. Overall transit ridership declined and bus frequency reduced across the county in 2010-11 compared to the previous year; however, other measures such as the ridership per revenue vehicle mile and ridership per revenue vehicle hour either stayed same or reduced indicating efficiencies may have been gained in operations. There is a consistent and gradual progress in implementation of bicycle and pedestrian plans in the county. Bicycle and pedestrian counts across the county increased from 2002 to 2008 and bicycle and pedestrian rate of collisions decreased during this period.

ACTAC is requested to provide comments on the draft 2011 Performance Report detailing the performance of the Transportation System in Alameda County. The Draft Executive Summary is attached. The complete draft report will be distributed at the meeting. Comments are due by July 31st. Based on the comments received, the report will be finalized and a copy of the final report will be distributed to the Committees and the Commission in September.

#### Discussion

Alameda CTC develops transportation policies, programs and projects for Alameda County through the Countywide Transportation Plan and the Congestion Management Program. The legislatively required CMP includes five elements, and one of them is the Performance Element. In this regard, specifically, the CMP must contain performance measures that evaluate how highways and roads function, as well as the frequency, routing and coordination of transit services. Alameda CTC expanded the performance measures mentioned beyond those legislatively mandated to include monitoring of sustainability and climate change. New performance measures, adopted for use in the current update of the CWTP, were incorporated into the 2011 Congestion Management Program (CMP), and therefore are reported in the Performance Report beginning with the 2011 report. Most of the new measures are related to Sustainability and Climate Change and therefore are grouped under a new section called "Livable Communities."

Existing data are collected from the local jurisdictions, transit operators, MTC and Caltrans along with Level of Service data collected by Alameda CTC biennially. Data for the new measures are derived from the Countywide Travel Demand Model or using off-model tools as there are no existing data sources available for these measures. Attachment 1 shows the complete list of performance measures used to report the performance of the transportation system by mode in the 2011 Performance Report and also identifies the newly added measures. Attachment 2 is the Executive Summary of the Draft Performance Report. The following are the highlights of the performance of each mode/section as reported in the draft report.

#### Roadways

The data for roadways were previously reported using the 2010 Level of Service Monitoring Study results. Because the 2012 LOS Monitoring efforts are currently underway, the new roadway data will be reported in the 2012 Performance Report. Regarding the measures for which new data was collected:

- Regarding the measure on 'roadways in need of rehabilitation', freeways show improvement with 11% reduction in roadway lane-miles in need of rehabilitation; however, other state routes show degradation with 22% increase across the county on all state routes.
- Collisions on Alameda County freeways generally decreased with the largest reduction on I-238.
- As reported previously, 2010 showed the highest rate of uncongested roadways (66% of freeways and 80% of arterials performing at LOS A or B) in Alameda County in the afternoon peak period. Between 2008 and 2010 travel time between selected origin-destination pairs by auto increased and by transit slightly reduced.
- The average pavement condition for Alameda County roadways has remained relatively consistent since 2006, with a Pavement Condition Index (PCI) of approximately 66, close to the 60-point threshold at which deterioration begins to accelerate.

#### Transit

Transit ridership by rail (BART and ACE) and ferry increased in the last year while LAVTA and AC Transit showed a decline. Annual total transit ridership in Alameda County continued to decline in 2010-11, which began in 2003/04, with the largest decrease experienced by AC Transit. Even though gross ridership on AC Transit fell - the result of service cuts over the last several years - other indicators such as Ridership per Revenue Vehicle Hour and Ridership per Revenue Vehicle Mile that either increased or stayed the same compared to previous years reflect an increased efficiency in operations.

#### Bicycle

High Priority Projects identified in the Bicycle Plan are making steady progress in implementation. As of 2011, 13 of 15 jurisdictions in Alameda County had an adopted a stand-alone bicycle plan or combined Pedestrian/Bicycle Plan and one jurisdiction is in the process of developing a bicycle plan. Bicycle counts have increased countywide by 50% between 2002 and 2009. During the same period, the number of collisions increased by only 14 percent, suggesting that the rate of collisions, which is a more accurate indicator of safety of bicycling, has actually declined.

#### Pedestrians

There is also a steady progress observed in the adoption of local pedestrian plans. As of 2011, 11 of the 15 jurisdictions in Alameda County had either adopted a pedestrian plan (stand-alone or combined) or is in the process of developing one. Similar to bicycle counts, pedestrian counts have also increased countywide, 41% between 2002 and 2009. During the same 8-year period, the number of collisions decreased by 31 percent, suggesting that the rate of collisions, which is a more accurate indicator of safety of walking, has significantly declined countywide.

#### **Livable Communities**

Many new performance measures were identified to track the progress of performance of the countywide transportation system and land use development in terms of meeting the climate change and sustainability goals adopted in the Countywide Transportation Plan. Since this is the first time data is reported for these measures, these will be used as reference points to track progress in the future.

Based on the 2010 American Community Survey, 67% of Alameda County workers drove alone to work and 27% used alternative modes and 5% worked at home. In 2005, the average bicycle trip in the county took 17 minutes while the average walk trip took about 23 minutes. The off-model tools for year 2005 show that the lowest income households in the county have better access to activity centers compared to others and frequent transit service. In terms of air quality, the daily CO2 emission in Alameda County in 2005 was 12,727 tons/day (18.6 pounds/capita) and the PM2.5 was 2.3 tons/day.

The Draft 2011 Performance Report will be distributed to ACTAC at or before the meeting. Comments are due by July 31, 2012. Based on the comments received, a final report will be prepared and distributed to the Committees and the Commission in September.

#### **Fiscal Impact**

None.

#### **Attachments**

Attachment 1 – List of Performance Measures by Mode

Attachment 2 – Draft Executive Summary

#### Attachment 1 – List of Performance Measures by Mode

Model/Section	Performance Measures
Roadways	Duration of Traffic Congestion
•	Average Speed
	Travel Time*
	Ratio of Peak to Off-Peak Travel Time
	Roadway Maintenance
	Roadway Collisions*
Transit	Transit Ridership
	Coordination of Transit Service
	Transit Vehicle Maintenance
	Transit Routing
	Transit Frequency
Bicycle	Completion of High Priority Projects
	Bicycle Counts
	Bicycle Collisions
	Local Bicycle Plan Status
Pedestrians	Completion of High Priority Projects
	Pedestrian Counts
	Pedestrian Collisions
	Local Pedestrian Plan Status
Livable Communities	Trips by Alternative Modes*
	Average Daily Travel Time for Bicycle and Pedestrian
	Trips*
	Low Income Households near Activity Centers*
	Low Income Households near Transit*
	CO <sub>2</sub> Emissions*
	Fine Particulate Emissions*

<sup>\*</sup> Denotes new or expanded existing performance measure resulting from integrating the measures from the 2012 CWTP Update process.







Alameda CTC

2011 Performance Report



DRAFT July 2012

Alameda County Transportation Commission 1333 Broadway, Suites 220 & 300 Oakland CA, 94612 www.AlamedaCTC.org

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## **Executive Summary**

The Alameda County Transportation Commission (Alameda CTC) develops the Countywide Transportation Plan (CWTP) and the Congestion Management Program (CMP) to assist in guiding the improvement of the transportation system in Alameda County. Based on the adopted goals in the CWTP and CMP, specific performance measures were developed to provide an objective and technical means to measure how well projects and programs performed together to meet those goals.

The legislatively required CMP includes five elements; one is the Performance Element. In this regard, specifically, the CMP must contain performance measures that evaluate how highways and roads function, as well as the frequency, routing, and coordination of transit services. The performance measures should support mobility, air quality, land

use, and economic objectives and be used in various facets of the CMP. Alameda CTC, with a progressive approach, expanded the performance measures beyond what is required by the CMP legislation, to monitor the multi-modal transportation system performance as well as from the point of view of sustainability and addressing climate change.

The Alameda CTC tracks progress toward the goals through two documents: the annual State of Transportation – Performance Report, and the biennial Level of Service Monitoring Report. The Performance Report—this document—summarizes how well the transportation system functions in Alameda County. This report is organized around the annual performance of roadways and transit, and the bicycle and pedestrian networks. Starting with this year, the report also includes a section on livable

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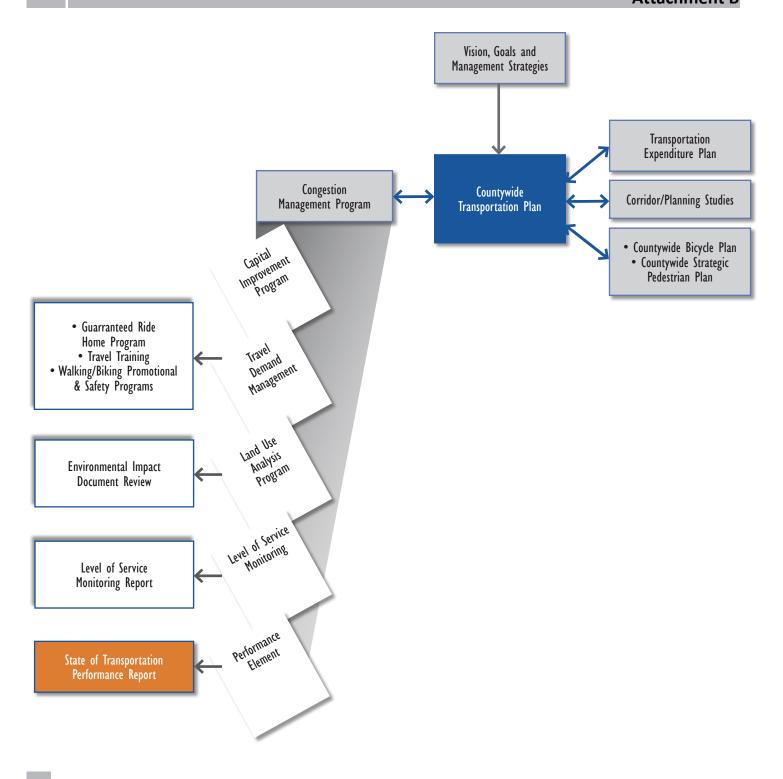


Figure ES1 Relationship of Performance Report with Other Plans and Documents

communities. Figure ES1 illustrates the relationship of the Performance Report with other Alameda CTC plans and documents.

This Performance Report covers Fiscal Year 2010-11. Since that time, the state budget has further reduced transportation funds, with even less funding going to roadway improvements and transit; therefore, the Performance Report may not show the current, full

effect of state budget cuts on the state of Alameda County's transportation system.

This section presents major findings about how the different transportation modes performed in Alameda County in 2010-11 as compared to previous years. The data are categorized by performance measures identified in the CMP that includes the measures from the CWTP.



## Roadways

Alameda County's roadways are the backbone of its transportation system, facilitating regional travel

and connecting the county with major Bay Area destinations as well as communities within the county. It is important to remember that although roadways are most often associated with auto trips, they are also essential for carrying all modes of travel, including freight, auto, transit, bike, and pedestrian trips.

A variety of methods are used to measure the performance of roadways in Alameda County.

Regarding data for assessing performance of roadways, with the exception of data on collisons nad roadway lane miles in need of rehabilitation, no new data are available. Data related to travel time and congestion measures were based on the 2010 Level of Service (LOS) Monitoring Study and were already reported in the 2009-10 Performance Report Executive Summary published as part of the 2011 CMP. The 2012 LOS Monitoring Study is currently underway, and its data will be reported in the 2011-12 Performance Report.

For the measure on 'Roadways in need of rehabilitation', while freeways show improvement with 11 percent reduction in roadway lane-miles in need of rehabilitation, other state routes show degradation with 22 percent increase across the county on all state routes. Collisions on Alameda County freeways generally decreased with the largest reduction on I-238. As reported previously, 2010 showed the higest rate of uncongested roadways (66 percent of freeways and 80 percent of arterials performing at LOS A or B) in Alameda County in the afternoon peak period. Travel time between selected origin-destination pairs by auto has increased and by transit has slightly reduced between 2008 and 2010. The average pavement condition for Alameda County roadways has remained relatively consisitent since 2006, approximately at 66 Pavement Condition Index (PCI), close to the 60-point threshold at which deterioration begins to accelerate.

## **Duration and Amount of Congestion**

Prepared biennially (even-numbered years), the CMP requires that LOS standards be established and monitored on the CMP-designated roadway system. This measure determines how much traffic congestion is on county freeways and arterial roadways. Objectives of this monitoring effort are the following:

 Determine the existing average travel speeds and LOS.

- Identify roadway segments in the county that are operating at LOS F (severely congested).
- Identify long-term trends in traffic congestion on the CMP network.

The CMP roadways were last monitored during spring 2010. As mentioned previously, data from the 2012 LOS Monitoring Study that is underway will be reported in the next performance report. LOS is measured from A

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to F (Appendix A1), with A representing no congestion and F representing the most congestion.

Overall, findings indicate congestion was reduced between 2008 and 2010. This is likely due to the continued economic downturn and high price of gasoline. Below are highlights from the 2010 LOS Monitoring Report as compared to 2008 findings:

- Year 2010 showed the highest rate of non-congested freeways performing at LOS A since 2000.
- The percentage of freeways performing at LOS F increased from 11 to 13 percent in 2010, indicating localized congestion increase in few locations.

• The percentage of uncongested arterials improved from 72 percent in 2008 to 80 percent in 2010 and is the highest since 2010.

In addition to LOS analysis, the Metropolitan Transportation Commission (MTC) has been collecting information since 2004 on how much time travelers are delayed because of congestion on freeways in Alameda County and the Bay Area. Caltrans collected this information prior to 2004. However, no new data has been collected since 2008, so updated freeway congestion data will be reported as it becomes available.

## Average Speed

This measure assesses the speed of the vehicles traveling on county roadways. Average speed is the average vehicular travel speed over specified roadway segments during the peak period.

Over the last 10 years, travel time during the afternoon peak, as measured by speed, remained relatively stable. Travel time during the morning peak has steadily increased since 2000.

Between 2008 and 2010, the travel time surveys showed a 0.8 mile per hour (mph) increase in average speeds on the freeway system and a 3.0 mph increase in speeds on the arterials during the afternoon peak period. The few freeway corridors that experienced degradation in service levels were mostly caused by construction activity occurring in the county.

#### Travel Time

This measure determines the time it takes to travel from one location to another using the county's multi-modal transportation system. Since 1996, travel times have been compared for automobile and transit for 10 origin-destination pairs in Alameda County.

Travel times for automobile have increased, while transit travel times for transit have decreased since 2008 monitoring. However, compared to 2002, auto travel time has improved on seven routes and transit travel time has degraded on six routes. Significant improvements in both auto and transit travel times are seen for travel between Fremont and San Jose.

#### Ratio of Peak to Off-Peak Travel Time

Ratio of Peak-to-Off-Peak travel time is one of the new performance measures added based on the adopted measures from the 2012 CWTP. It measures the reliability of the county transportation system for auto, transit and truck modes and indicates whether the user can count on getting to their destination on time. Alternatively, this measure indicates the additional time spent on a trip made during peak traffic hours when compared to an identical off-peak trip. A travel time index value of 1.2 means that a 30 minutes free flow trip will take 36 minutes (20 percent additional time) during

the peak hour period or a 20 percent delay due to congestion and hence affecting the reliability of travel during the peak period.

Data from the countywide model for year 2005 for selected origin-destination pairs shows that peak period travel time is longer for almost all of the time periods, with the exception of travel between East Alameda County and Central San Jose, indicating travel during peak period as less reliable.

#### Road Maintenance

This measure evaluates the quality of roadway pavement throughout the county.

MTC monitors the quality of pavement on local streets throughout the county and ranks all roadway types ranging between excellent and poor. The MTC also weights the average Pavement Condition Index (PCI) for the general pavement condition in the county, as well as for each jurisdiction. PCI is rated from 1 to 100, with 100 representing new roads. Appendix A2 shows PCI by jurisdiction.

In 2010, approximately 70 percent of all the roadways in Alameda County were reported to be in fair to excellent condition. Pavement in poor to very poor condition represented 30 percent of the county's roadways.

Overall, the average PCI on Alameda County roadways for 2010 was 65.6, and has remained relatively consistent

since 2006. However, the average Alameda County PCI represents pavement conditions throughout 15 jurisdictions. This average covered a range from 56 to 82 as shown in Appendix A 3.

As shown in Appendix A 3 and A 4, Alameda County has a \$3.2 billion and \$5.7 billion shortfalls for the local streets and roads funding through 2035 to maintain the existing PCI, and for the State of Good Repair (PCI 75), respectively.

For state facilities, road quality is measured by the number of lane-miles needing rehabilitation. The 2010 Caltrans Pavement Survey showed that 93 lane-miles of freeways are in need of rehabilitation in Alameda County. The freeway with the greatest improvement shown in 2010 is I-680.

#### Collisions

This measure looks at the number and location of vehicular collisions occurring in the county. Although collision rates on Alameda County freeways generally declined over the past year, collisions along SR-13, I-680, and I-980 increased. Along SR-13, collisions more than doubled during the first nine months of 2010 as compared to the same period in 2009. Ongoing

construction (widening) along the segment may have contributed to this increase. Of all the freeways, I-238 had the largest reduction of collisions (more than 50 percent). SR-24 and SR-84 also had relatively large reductions in collisions (20 percent and 35 percent, respectively).



#### **Transit**

Transit service in Alameda County includes multiple modes (rail, bus, ferry, and shuttle) and is provided by a number

of public and private operators. The two major operators in the county—Bay Area Rapid Transit (BART) and Alameda County Transit (AC Transit)—account for the

majority of transit usage. Shuttles also play a significant role in the county's transit network, as they often bridge gaps between activity centers and transit. A variety of methods was used to measure the level of transit use in Alameda County.

Transit ridership by rail (BART and ACE) and ferry increased in the last year, while LAVTA and AC Transit showed a decline. Annual total transit ridership in Alameda County continued to decline in 2010-11 that began in 2003-04, likely contributed by AC Transit, which has the largest share of transit ridership in the County. Even though gross ridership on AC Transit fell - likely the result of service cuts over the last several years - other indicators such as ridership per revenue vehicle hours and ridership per revenue vehicle mile that either increased or stayed the same compared to previous years reflect an increased efficiency with their operation.

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Overall, it can be expected that as the economy begins to rebound—and if the state budget continues to result in cuts in transportation—Alameda County will not be

able to keep pace with needed transit investments and improvements.

## Ridership

Through four different measures (annual ridership, weekday boardings, ridership per revenue vehicle miles, and ridership per revenue vehicle hour), ridership quantifies the number of people that use transit. Overall, transit ridership has declined more than 2 percent between 2009 and 2010. Livermore-Amador Valley Transportation Agency (LAVTA) maintained fairly level ridership numbers compared to the previous year. BART, Union City Transit, Alameda Harbor Bay Ferry, and Altamont Commuter Express experienced increased ridership while AC Transit experienced a decrease.

For the two major transit operators in the county - AC Transit and BART - weekday boardings compared to 2009-10 dropped for AC Transit by 3.3 percent and BART experienced an increase in ridership by 4.3 percent in 2010-11. However, ridership per revenue vehicle mile increased slightly for AC Transit from 2.9 to 3.0 and remained same for BART at 1.7, and ridership per revenue vehicle hour improved for both operators - showing efficiency in service operations - 2.5 for AC Transit from 33.0 to 35.5, and 1.7 for BART from 59.6 to 61.3.

#### Service Coordination

Service coordination measure determines how well the services provided by different operators are being coordinated among destinations to provide better transfer opportunities for the travelers. Alameda County continues to provide multiple locations as transfer points, where riders can connect between various transit providers. Such coordination serves a number of transportation terminals during peakcommute periods, excluding school breaks. To date, the greatest numbers of transfer opportunities are found along the BART lines. In addition, Hayward Greyhound, AC Transit, and LAVTA continue to make strides to expand connectivity.

#### Vehicle Maintenance

This measure evaluates how often and to what extent transit vehicles need repairs, and how vehicle maintenance affects transit service. Bus and rail operators use different indicators to manage vehicle maintenance: bus operators report on Miles between Mechanical Road Calls, and rail operators report on the Mean Time between Failures. Improvements in vehicle maintenance are generally attributed to aggressive maintenance programs and operational improvements, while declines in maintenance are primarily due to aging fleets.

In Alameda County, bus operators include AC Transit, LAVTA, and Union City Transit. During 2010-11, AC Transit reported a 23 percent decrease in Miles between Mechanical Road Calls (compared to 2009–10), while LAVTA and AC Transit showed a 30 percent and a 70 percent increase, respectively.

Rail operators include BART and Altamont Commuter Express (ACE). In 2010-11, BART had a 7 percent increase in the Mean Time between Failures, while ACE showed an 11 percent decrease.

#### Routing

Using directional route miles, service coverage and total annual passenger boardings, routing quantifies how much transit service is provided.

In general although service has varied year to year, year 2010-11 shows continued decline in all three measures compared to 2008-09. Directional Route Miles and Annual Passenger Boardings are almost the lowest in

the last 10 years, while Directinal Route Miles peaker in 2008-09 and Annual Passenger Boardings in 2003-

04 was the highest, crossing the 100 million boardings mark.

## Frequency

Frequency is measured by how often transit service is provided on each route. For example, BART and bus service are typically measured by the number of minutes between vehicles, and Capitol Corridor and ACE service is measured by the number of train lines provided throughout the day. Frequency of train service has remained fairly stable in the last 10 years, with 2.5

to 15 minute service during peak period. Bus frequency in the county peaked 10 years ago, and has declined since then. Last two years experienced the lowest bus frequency compared to previous years. During the peak commute hours, 18 percent (19 routes) buses in 2010-11, as opposed to 30 percent (39 routes) in 2001-02, arrived every 15 minute or less.



## **Bicycles**

The Countywide Bicycle Plan (the Bicycle Plan) was adopted in 2001, amended in 2006, and is currently being updated by Alameda CTC.

The Performance Report measures progress towards implementing the Bicycle Plan using four measures. Four methods are used to measure progress toward meeting the 2006 Bicycle Plan's goals.

The County is making progress in implementing the High Priority Projects identified in the Bicycle Plan. As of 2011, 13 of 15 jurisdictions in Alameda County had an adopted stand-alone bicycle plan or combined Pedestrian/Bicycle Plan and one jurisdiction is in the process of developing a plan. Bicycle counts have increased countywide by 50 percent between 2002 and 2009. During the same period, the number of collisions increased by only 14 percent, suggesting that the rate of collisions, which is a more accurate indicator of safety of bicycling, has actually declined.

## Completed High Priority Projects

This measure reports how many high priority projects were constructed in 2010-11. The Bicycle Plan includes a list of 16 High Priority projects, or projects expected to be completed by 2010 (within four years of adoption of the Bicycle Plan).

As of the end of FY 2009-10, one project had been constructed. In FY 2010-11, local jurisdictions reported

progress on 9 of the 15 High Priority projects, including partial completion of one project—bicycle lanes on Fremont Boulevard from West Warren Avenue to the street's southern terminus (totaling 1.5 miles). Of the Bicycle Plan's 549-mile Vision Network, 240 miles have been constructed (about 44 percent of the Vision Network).

## Bicycle Counts

This measure reports how many people traveled by bicycle. Between 2002 and 2010, bicycling increased by 50 percent, as shown in weekday evening bicycle counts conducted by the Alameda CTC at nine locations. Since 2010, the Alameda CTC and MTC have coordinated with local jurisdictions to monitor the number of

bicyclists traveling through several major intersections in Alameda County. Additional countywide bicycle counts have also been conducted through other partnerships—all with the goal of measuring the levels of bicycle activity and countywide trends over time.

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From 2008 to 2010, bicycle counts increased by 20 percent. Although there was an overall increase in counts at the set of nine locations, counts increased at six sites and decreased at three. In 2010, the counts for

a two-hour period ranged from a high of 476 bicyclists (Hearst/Milvia in Berkeley) to a low of 6 bicyclists (Stoneridge/Hopyard in Pleasanton).

## Bicycle Collisions

Between 2008 and 2009, bicyclist collisions resulting in injuries and fatalities decreased by 2 percent (from 669 to 653 collisions). Since 2002, the number of bicycle collisions has varied, but overall it has risen by 14

percent. There were two fatalities in 2009, which was slightly below the eight-year average of three fatalities per year.

## Local Bicycle Plan Status

This measure assesses how many jurisdictions have bicycle plans. As of 2011, 13 of the 15 jurisdictions in Alameda County had an adopted stand-alone bicycle plan or

combined pedestrian/bicycle plan, and one jurisdiction (Newark) was in the process of developing a plan.

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#### **Pedestrians**

The first Countywide Strategic Pedestrian Plan (the Pedestrian Plan) was adopted in 2006 and is currently

being updated. The Pedestrian Plan identifies and prioritizes pedestrian improvements and programs

that increase walking and improve safety countywide. Performance measures to monitor progress toward the Pedestrian Plan's goals and objectives are being developed, and include the four measures reported below.

As of 2011, nine of the 15 jurisdictions in Alameda County had an adopted stand-alone pedestrian plan or combined pedestrian/bicycle plan, and two more jurisdictions were in the process of developing a plan. Pedestrian counts have increased countywide by 41 percent between 2002 and 2009. During the same 8-year period, the number of collisions decreased by 31 percent, suggesting that the rate of collisions, which is a more accurate indicator of safety of walking, has significantly declined countywide.

## **Completed Projects**

This measure reports how many improvements to pedestrian access were completed. Capital projects in the Pedestrian Plan are focused in areas of countywide significance, which is defined as "places that serve pedestrians traveling to and from a variety of locations through Alameda County and beyond." The three targeted areas are transit, activity centers, and interjurisdictional trails.

Nine projects of countywide significance were completed in FY 2010-11, including seven that made improvements to accessing transit and four projects along trails (the Bay Trail and Iron Horse Trail), and Atlantic/Webster Streets Intersection Improvements in Alameda.

#### Pedestrian Counts

Pedestrian counts are collected to monitor the trend in terms of how many people walk at key intersections between 4:00 and 6:00 p.m. Between 2009 and 2010, walking increased by 15 percent, as shown in weekday evening pedestrian counts conducted by the Alameda CTC at 21 locations. Since 2002, a variety of countywide pedestrian counts have been conducted to

measure levels of pedestrian activity and countywide trends.

Six locations in the county were counted in 2002 and again in 2010. Over these eight years, there was a 41 percent increase in the number of pedestrians counted, showing a long-term overall upward trend in walking in the county.

#### Pedestrian Collisions

From 2008 to 2009, pedestrian collisions—resulting in injuries and fatalities—decreased by 18 percent to 591 pedestrians. The number of pedestrian fatalities also decreased to 10 people in 2009, which was much lower

than the 8-year average of 23 fatalities per year. This is an overall trend of decreasing pedestrian collisions, even as the number of people walking increases.

#### Local Pedestrian Plan Status

This measure appraises how many jurisdictions have pedestrian plans. As of 2011, 9 of the 15 jurisdictions in Alameda County had an adopted stand-alone pedestrian plan or combined pedestrian/bicycle plan,

and two more jurisdictions were in the process of developing a plan. Four jurisdictions neither had a local pedestrian master plan nor was one under development: Dublin, Hayward, Livermore, and Piedmont.



#### Livable Communities

This is a new section added in this performance report. Many legislative and regulatory changes have led to a

new focus on coordinating transportation planning and investment decisions with existing and future land use patterns. Many new performance measures were identified to track progress of the performance of the countywide transportation system and land use developments in terms of meeting the climate change and sustainability goals adopted in the CWTP. Since this is the first time data is reported for these measures, these will be used as reference points to track progress

in the future. There are six measures that establishes the baseline data and are intended to track the adopted goals regarding sustainability and Greenhouse Gas reduction:

- Trips by Alternative Modes,
- Average Daily Travel Time for Bicycle and Pedestrian Tips,
- Low Income Households Near Activity Centers,
- · Low Income Households Near Transit,
- CO, Emissions, and
- Fine Particulate Emissions.

Based on 2010 American Community Survey, 67 percent of Alameda County workers drove alone to work and 27 percent used alternative modes and 5 percent worked at home. In 2005, the average bike trip in the county took 17 minutes while the walk was about 23 minutes. The lowest income households in the county have the most access to activity centers. In terms of air quality, the daily CO2 emissions in Alameda County in 2005 was 12,727 tons/day (18.6 pounds/capita) and the PM 2.5 was 2.3 tons/day.

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Data for the measure 'Low Income Households Near Transit' will be reported in the 2012 Performance Report.

## Trips by Alternative Modes

This measure evaluates how many trips are taken by walking, biking, or using transit. In 2010, American Community Survey reported that 67 percent of

Alameda County commuters drove alone to work, followed by 27 percent of trips made by alternative modes of transit, carpool, walking, or biking.

## Average Daily Travel Time for Bicycle and Pedestrian Trips

In addition to the share of bike and walk trips to all modes of travel assessed in "travel by alternative modes" mmeasure above, the average travel time by these modes is also measured to monitor how long these trips are made. Longer travel time will indicate more willingness of the travelers to travel far by these modes getting out of their automobile and also contribution to better health. Based on results from the countywide travel demand model, in 2005, average walk trips took 23 minutes and bike trip was 17 minutes.

## Low-Income Households Near Activity Centers

This measure identifies how many low-income households are near activity centers. It is estimated that the lowest households have the most access to activity centers with the level of access declining as household income increases.

## CO<sub>2</sub> Emissions

This measure reports the amount of  $\mathrm{CO}_2$  emissions being released by cars and light-duty trucks through use of the county roadways. Assembly Bill 32 and Senate Bill 375 set new targets for reducing  $\mathrm{CO}_2$  emissions from transportation.

For 2005, the daily CO<sub>2</sub> emissions estimated is 12,726.6 tons/day (18.6 poiunds per capita) in Alameda County, which forms the baseline for CO2 emissions going forward. Next countywide model update, anticipated to begin later this year, will incorporate year 2010 data. Therefore, data representative of conditions in year 2010 will be included in the subsequent performance report.

#### Fine Particulate Emissions

This measure reports the amount of fine particulate matter released by vehicles using the county roadways and is related to a wide range of health and environment impacts. Similar to the CO<sub>2</sub> emissions measure above,

field data is not available for this performance measure. However, the Alameda Countywide Transportation Model provides an estimate of 2.29 tons of PM<sub>2.5</sub> pollutant emissions per day for year 2005.



#### Memorandum

**DATE:** June 26, 2012

TO: Alameda County Technical Advisory Committee (ACTAC)

**FROM:** Beth Walukas, Deputy Director of Planning

Rochelle Wheeler, Countywide Bicycle and Pedestrian Coordinator

**RE:** Review of Countywide Bicycle and Pedestrian Plans

#### Recommendation

This item is for information only. No action is requested.

#### **Summary**

The Draft Countywide Bicycle and Pedestrian Plans were released for public review and comment on June 25, 2012, and are posted on the Alameda CTC website (<a href="www.AlamedaCTC.org">www.AlamedaCTC.org</a>). Together, these plans lay out the vision and steps for making Alameda County a safe and convenient place for walking and bicycling. The executive summaries for both plans (Attachments A and B) provide a concise summary of each plan, including its purpose; the recommended countywide priorities for capital projects, programs and plans; total costs to implement the plan; and expected revenues for the 28-year plan life.

Staff are taking the draft plans to Alameda CTC committees and the Board in July for comment, and will return to the committees in September with final draft plans for the Alameda CTC Board to consider for adoption. In addition to comments made at the meeting, ACTAC members are encouraged to submit any written comments on the draft plans to Rochelle Wheeler using the attached comment sheet (Attachment C; also posted on the Alameda CTC web address listed above), or by email (rwheeler@alamedaCTC.org), by Friday, July 27, 2012, at 5:00 p.m.

#### **Background**

The Alameda CTC's predecessor agencies approved the first Countywide Pedestrian Plan, and the first update to the Countywide Bicycle Plan, in 2006. Since then, these plans have been used to guide bicycle and pedestrian grant fund programming and the Alameda CTC bicycle and pedestrian program.

In June 2010, the agency launched a planning process to update both the Pedestrian and Bicycle Plans, focused on updating the existing conditions; reviewing how Alameda CTC policies and practices can be enhanced to address walking and bicycling; re-evaluating the Bicycle Plan priority capital projects and bringing more focus to improved bike access to transit; and establishing capital project priorities for the Pedestrian Plan. One over-arching goal was to make the two plans consistent, as appropriate, and parallel in their layout.

The draft Countywide Bicycle and Pedestrian Plans, which have been updated to meet the above objectives, each consist of six chapters and an executive summary. Because of the close coordination

of these plans, one joint Appendices was developed. The full plans are posted online, and the tables of contents and executives summaries are attached (Attachments A and B).

#### Countywide Priorities

Both plans establish countywide capital projects, programs and plans that are intended to implement the plan's vision and goals. These priorities, which have been made consistent between the plans as appropriate, will guide countywide discretionary funding decisions. For the Pedestrian Plan, they include a "vision system" of pedestrian facilities throughout the county, while the Bicycle Plan includes a "vision network" of countywide bicycle facilities.

The countywide pedestrian vision system totals 3,183 miles of pedestrian facilities. The system has five components:

- access to transit,
- access within central business districts,
- access to activity centers,
- access to Communities of Concern, and
- a network of inter-jurisdictional trails.

The bicycle vision network consists of 775 miles of bikeways, of which, approximately 374 miles (48%) have been built while 401 miles (52%) are still to be constructed. The network, like the pedestrian vision system, has five components, focused on:

- an inter-jurisdictional network that provides connections between jurisdictions (this is largely the vision network from the 2006 Bicycle Plan),
- access to transit,
- access to central business districts,
- an inter-jurisdictional trail network, and
- access to Communities of Concern.

Both plans describe a set of priorities within the vision system or network, on which to focus limited countywide funding. They include a largely overlapping and robust set of priority programs to promote and support walking and bicycling, and the creation and updating of local pedestrian and bicycle master plans.

#### Costs and Revenue

As stand-alone plans, the cost to implement all components of the Bicycle Plan between 2012 and 2040 totals \$945 million, while the cost for the Pedestrian Plan is \$2.8 billion. The revenue anticipated over the next 28 years for the Bicycle Plan is \$324 million; for the Pedestrian Plan, it is approximately \$500 million. Together, the two plans include some duplicating costs for the multi-use trails. If these costs are split evenly between the two plans, the total, non-duplicating cost, to implement both the Pedestrian and Bicycle Plans is approximately \$3.1 billion, and the expected revenue is \$820 million. These costs are higher than those in the previous Bicycle and Pedestrian Plans for several reasons, but mainly because they are more comprehensive and have been expanded as follows:

#### • Bicycle Plan:

- o For construction costs, expanded vision network from 549 miles to 778 miles with a significant part of this mileage increase due to adding more routes to connect to transit.
- o More comprehensive maintenance costs.
- Expanded number of educational/promotional programs and included the full program costs.
- o Inclusion of local master plans, which were not included in the 2006 plan.

- o For construction costs, expanded pedestrian vision system to include one central business district (CBD) per jurisdiction and added the communities of concern category.
- o Inclusion of maintenance costs for the first time.
- Expanded number of educational/promotional programs and included the full program costs.

Combined Bicycle and Pedestrian Plans non-duplicating costs and revenue, 2012–2040 In millions; rounded to nearest \$100,000

	Bicycle Plan	Pedestrian Plan	Total (non- duplicating) costs
Costs	\$ 617.2	\$2,463.4	\$3,080.6
Construction of capital projects			
<ul> <li>Shared costs for multi-use trails</li> </ul>	\$ 265.9	\$ 265.9	\$ 531.8
<ul> <li>Remaining Plan construction costs</li> </ul>	\$ 158.1	\$1,470.8	\$1,628.9
Maintenance of capital projects			
<ul> <li>Shared costs for multi-use trails</li> </ul>	\$ 59.9	\$ 59.9	\$ 119.8
<ul> <li>Remaining Plan maintenance costs</li> </ul>	\$ 56.3	\$ 585.5	\$ 641.8
Programs implementation	\$ 71.6	\$ 75.9	\$ 147.5
Local master plans	\$ 5.4	\$ 5.4	\$ 10.8
Revenue	\$ 324.3	\$ 495.7	\$ 820.0

#### Input to date

During the two year plan development process, the Countywide Bicycle and Pedestrian Advisory Committee (BPAC) and the Bicycle Pedestrian Plans Working Group (PWG) were the primary two groups to review and give input on the plans. They have reviewed almost every chapter of the plan in its initial draft form. The PWG met eight times to provide input on the plans, and will meet a ninth time in July to review the full draft plans.

The PWG, whose initial membership structure was recommended by ACTAC, includes a primary and alternate member from each county planning area, as appointed by ACTAC, in addition to representatives of transit agencies, advocacy organizations, the public health department, the Paratransit Advisory Committee (PAPCO), along with staff from the Bay Trail, Caltrans, East Bay Regional Parks District, and MTC. In addition, at the recommendation of the PWG itself, the group includes those who regularly attended the PWG meetings and also represent a public agency, non-profit, advocacy group, or other interested and applicable committee.

The majority of the BPAC and PWG meetings during the planning process focused on developing the countywide priorities for capital projects. This topic was brought to the ACTAC for input in June 2011, and was also the focus of four the PWG's nine meetings. In addition to these meetings, during this critical stage, Alameda CTC staff met, by planning area, with agency staff and also attended four local BPAC meetings around the county, to gather input from them and the public. In addition, during the entire planning process, staff have maintained and updated a mailing list of interested people, and kept this group informed of opportunities for public input and posted information on the agency's website. The list of interested members of the public and local BPACs has been notified of the draft plans availability.

## ACTAC Meeting - 07/03/12 Agenda Item 5E

The Draft Plans were released on Monday, June 25<sup>th</sup>, and are available for public review and comment through Friday, July 27<sup>th</sup>. During this five week period, a number of Alameda CTC Committees, and the Board, will have the opportunity to provide input on the plans at their meetings, as follows:

June 25, 2012 Paratransit Advisory and Planning Committee (PAPCO)

July 3, 2012 Alameda County Technical Advisory Committee (ACTAC)

July 9, 2012 Planning, Policy, and Legislation Committee (PPLC)

July 11, 2012 Bicycle and Pedestrian Plans Working Group (PWG)

July 12, 2012 Bicycle and Pedestrian Advisory Committee (BPAC)

July 26, 2012 Alameda CTC Board

In August, all comments will be considered and incorporated, as appropriate, into the final draft plans. Both plans will then be presented to the Board and its Committees for their input and consideration for adoption and incorporation, by reference, into the Countywide Transportation Plan.

#### **Attachments:**

Attachment A: Draft Countywide Bicycle Plan: Table of Contents and Executive Summary

Attachment B: Draft Countywide Pedestrian Plan: Table of Contents and Executive Summary

Attachment C: Comment Sheet

Agenda Item 5E Attachment A

# ALAMEDA COUNTYWIDE BICYCLE PLAN





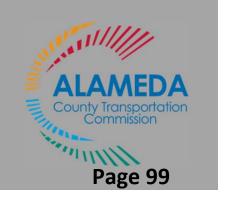




## Draft

June 25, 2012

Submitted by the Eisen | Letunic team



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#### **Appendices**

See document entitled "Appendices to the Alameda Countywide Pedestrian and Bicycle Plans"

## **EXECUTIVE SUMMARY**

#### Background and plan purpose

Bicycling is a key component of vibrant, livable, healthy communities, and an integral part of a complete transportation system. Alameda County's first Countywide Bicycle Plan was published in 2001 by the Alameda County Congestion Management Agency, one of the two predecessor agencies to the Alameda County Transportation Commission (Alameda CTC). It was updated in 2006, concurrent with the development of the first Alameda Countywide Pedestrian Plan, by the Alameda County Transportation Improvement Authority, the other Alameda CTC predecessor agency. From 2010 to 2012—as these two agencies merged to form Alameda CTC—both plans were updated, this time in very close coordination. Alameda CTC has updated this plan to identify and prioritize bicycle projects, programs and planning efforts of countywide significance. The plan provides the background, direction and tools needed to increase the number of cyclists and bicycling trips in Alameda County while improving bicycling safety.

#### Key findings

The chapters on "Existing Conditions" and "Evaluation of Plans, Policies and Practices" contain a wealth of data, statistics, findings and other

information about the state of bicycling in Alameda County. Below are some of the key findings:

- In 2000 (the latest year for which such data is available), approximately 593,000 bike trips were made every week in Alameda County, or almost 85,000 trips daily. This represented 2% of all trips.
- The bike mode share in Alameda County (2%) is double that of the Bay Area (1%). The number of bike commuters in Alameda County increased by 21% from 2000 to 2006–2008 (compared to an increase of only 2% for all commuters).
- The most common purposes for bike trips in Alameda County are social/recreational (34%), work (19%) and shopping (19%).
- From 2001 to 2008, there was an annual average of 3 bicycle fatalities in Alameda County and 538 bicyclists injured seriously.
- Over the past eight years, bicyclists have made up 2.6% of all traffic fatalities in Alameda County; this is roughly consistent with the county's bike mode share (2%).
- Since 2006, four cities have updated their bicycle or bicycle/pedestrian plan; two cities adopted their first plan, as did the County (for the unincorporated areas). Only one city—Piedmont remains without a bicycle plan.

Executive summary

- Local jurisdictions estimated the cost of their capital bicycle and pedestrian project needs to be \$520 million; of this, \$219 million, or more than 40%, was from the county's largest city, Oakland.
- The jurisdictions' annual maintenance expenditure for bicycle and pedestrian facilities is \$6.7 million. The annual funding gap is much larger, \$17.2 million; this likely indicates substantial deferred maintenance due to insufficient funds.
- The major obstacles to improving the bicycling environment that were most commonly cited by local agency staff were inadequate funding, shortage or absence of trained staff and implementation conflicts with other public agencies.
- Four policy areas have emerged or advanced in recent years that will likely contribute significantly to improving the policy landscape for bicycling: complete streets, climate action, smart growth and active transportation.
- A number of policies and practices exist at all levels of government that could be modified to better integrate bicycling into the transportation system.

#### Plan vision, goals and strategies

The plan articulates a vision statement of what bicycling in Alameda County could be like by 2040, with the investments proposed in the plan:

Alameda County is a community that inspires people of all ages and abilities to bicycle for everyday transportation, recreation and health, with an extensive network of safe, convenient and interconnected facilities linked to transit and other major destinations.

In addition, the plan establishes five goals to guide the actions and decisions of Alameda CTC in implementing the plan and a set of more than 40 specific, detailed and implementable strategies designed to attain the plan's goals. Together, the goals and strategies generally define the roles and responsibilities of Alameda CTC in implementing the Bicycle Plan. The five goals are:

#### Infrastructure and design

Create and maintain a safe, convenient, well-designed and continuous countywide bicycle network, with finergrained connections around transit and other major activity centers.

#### Safety, education and enforcement

Improve bicycle safety through engineering, education and enforcement, with the aim of reducing the number of bicycle injuries and fatalities, even as the number of people bicycling increases.

#### Encouragement

Support programs that encourage people to bicycle for everyday transportation and health, including as a way to replace car trips, with the aim of raising the percentage of trips made by bicycling.

#### Planning

Integrate bicycling needs into transportation planning activities, and support local planning efforts to encourage and increase bicycling.

#### • Funding and implementation

Maximize the capacity for implementation of bicycle projects, programs and plans.

Lastly, the plan establishes performance measures to be used to monitor progress toward attaining the plan goals:

- Percentage of all trips and commute trips made by
- Number of bicycle injuries and fatalities
- Number of bicyclists counted in countywide bicycle counts
- Miles of local and countywide bicycle network built
- Number of local jurisdictions with up-to-date bicycle master plans

#### Countywide priorities

The Countywide Bicycle Plan establishes countywide capital projects, programs and plans that are intended to implement the plan's vision and goals. They include a "vision network" of countywide bicycle facilities (see Table E.1), a set of priority programs to promote and support bicycling (see Table E.2), and the creation and updating of local bicycle master plans. Because

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Attachment A

funding is limited, the plan also creates a more constrained "priority network" of capital projects on which to focus capital funding, and proposes to stagger the implementation of the programs.

Table E.1 | Vision network mileage

Planning area	Built	Unbuilt	Total
North	107	143	249
Central	61	68	129
South	118	49	168
East	89	141	230
Total	374	401	775

Table E.2 | Priority programs

Encouragement and pro	motion
-----------------------	--------

- Countywide bicycling promotion
- 2. Individualized travel marketing
- 3. Programs in community-based transportation plans

#### Safety, education and enforcement

- 4. Safe routes to schools
- 5. Bicycle safety education
- 6. Multi-modal traffic school
- 7. Countywide safety advertising campaign

#### Technical support and information sharing

- 8. Technical tools and assistance
- Agency staff training and information sharing
- 10. Multi-agency project coordination
- 11. Collaborative research

#### Infrastructure support

#### 12. Bike sharing

The vision network consists of 775 miles of bikeways that provide connections between jurisdictions, access to transit, access to central business districts, an interjurisdictional trail network and access to "communities of concern" (communities with large concentrations of low-income populations and inadequate access to transportation). Of the total

mileage, approximately 374 miles (48%) has been built while 401 miles (52%) is still to be constructed.

As detailed in the "Implementation" chapter, the estimated cost to implement the Countywide Bicycle Plan is approximately \$945 million (see Table E.3). This includes the costs to construct and maintain the bicycle network, to implement the bicycling programs and also to develop and update the bicycle master plans of local agencies. In the next 28 years, Alameda County jurisdictions and agencies can expect approximately \$325 million in funding for bicycle projects and programs included in this plan. The difference between estimated costs and projected revenue for projects in this plan—the funding gap—is \$620 million. Put another way, the projected revenue for countywide projects is only 34% of the estimated costs. Changing any of the assumptions for the estimates will change the figures somewhat but will not change the fact that the cost greatly exceeds projected revenue. To begin to address this funding gap, Alameda CTC, through its planning and funding processes, will need to prioritize projects and project types so that the most critical needs are funded first.



Compared to the 2006 Countywide Bicycle Plan vision network which was 549 miles, this 2012 network is 40% larger, which is one of the main reasons that the plan costs and funding gap are significantly higher. This considerable growth in the size of the network is mainly due to making bicycling access to transit a higher priority, which resulted in adding new bikeways to access all major transit stops and stations, and also incorporating the full mileage of the three major countywide trails. Other reasons why total plan costs have increased include using a more detailed methodology for calculating maintenance costs and a large increase in the number of programs. At the same

time as the plan costs went up, revenue projections also increased three-fold.

Table E.3 | Costs and revenue, 2012–2040 In millions; rounded to nearest \$100,000

Costs*	\$ 943.3
Construction of capital projects	\$ 689.9
Maintenance of capital projects	\$ 176.3
Programs implementation	\$ 71.6
Local master plans	\$ 5.4
Revenue	\$ 324.3
Funding gap (costs minus revenue)	\$ 619.0

<sup>\*</sup> Include some shared costs with the Countywide Pedestrian Plan.

#### **Next Steps**

The plan's "Implementation" chapter describes 14 priority activities that Alameda CTC will undertake in the first five years of the plan's life (2012–2016). These activities will begin to make the plan a reality in the near term and set the stage for implementing the plan's medium- and long-term efforts. The activities, which are listed in Table E.4, fall into three categories: funding, technical assistance and countywide initiatives.

Table E.4 | Next steps

#### Funding

- Dedicate funding and staff time to implement the Countywide Bicycle Plan
- 2. Fund the development and updating of local bicycle master plans
- 3. Coordinate funding with supportive land use decisions
- 4. Seek additional funding for bikeway maintenance

#### Technical assistance

- 5. Help local jurisdictions revise their design standards
- Help local jurisdictions overcome CEQA-related obstacles
- 7. Help local jurisdictions develop Complete Streets policies

#### Countywide initiatives

- Continue or begin implementing the near-term priority programs
- 9. Adopt an internal Complete Streets policy
- Explore modifications to the countywide travel demand model
- 11. Explore revisions to the Congestion Management Program to enhance bicycle safety and access
- Maximize opportunities for linking bicycling and public health initiatives
- 13. Monitor implementation of the Countywide Bicycle
- Conduct research to inform future plan updates and countywide planning

#### Plan organization

The Countywide Bicycle Plan consists of six chapters:

#### Chapter 1: Introduction

Describes the plan purpose, explains the relationship of the plan to the Countywide Pedestrian Plan and the Countywide Transportation Plan, and describes in more detail each of the plan chapters.

#### Chapter 2: Existing conditions

Describes the current state of bicycling in Alameda County, with data and statistics on the number of bicyclists and bicycle trips. It also includes sections on bicycle safety; local planning efforts, support programs and advocacy efforts; and implementation of the 2006 plan.

#### Chapter 3: Evaluation of plans, policies and practices

Summarizes the key plans, policies and practices at all levels of government that affect bicycling (and walking) in Alameda County and evaluates how they promote or hinder nonmotorized transportation, with a focus on the role of Alameda CTC, as the plan's implementing agency. It also discusses practical challenges encountered by agencies in implementing their plans, policies and projects, and suggests ways to overcome those challenges.

#### Chapter 4: Vision and goals

Establishes a desired vision of bicycling in Alameda County in the year 2040; a set of goals, or broad

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statements of purpose meant to enable the vision to be realized; and under each goal, more specific and detailed strategies for attaining that goal.

#### Chapter 5: Countywide priorities

Establishes the bicycle capital projects, programs and plans needed to implement the plan's vision. This chapter also defines the kinds of improvements in each category that will be eligible for funding, and establishes general priorities among them. The capital projects make up a "vision" countywide network of bicycle facilities focused on the following areas: crosscounty corridors, access to transit, access to central business districts, inter-jurisdictional trails and access to communities of concern.

#### Chapter 6: Implementation

Estimates the cost to deliver the bicycle projects, programs and plans of countywide significance, the revenue expected to be available in Alameda County for these efforts through the plan's 28-year horizon, and the near term actions needed to begin plan implementation.

#### Plan development and adoption

The Alameda Countywide Bicycle Plan was developed by Alameda CTC in collaboration with several advisory groups, including Alameda CTC's standing Bicycle and Pedestrian Advisory Committee and an ad hoc technical committee convened for this project, the Bicycle and Pedestrian Plans Working Group. The plan was also reviewed and commented on by Alameda CTC's Alameda County Technical Advisory Committee (ACTAC) and the Paratransit Advisory and Planning Committee (PAPCO).

Alameda CTC gathered public input primarily by bringing the proposed countywide priorities to local Bicycle and Pedestrian Advisory Committees in all parts of the county for input, and keeping interested people informed about the planning process. This plan update was developed concurrently with the Alameda Countywide Pedestrian Plan update. Alameda CTC adopted both plans, incorporating them by reference into the Countywide Transportation Plan, and will use them as a guide for planning and funding bicycle and pedestrian projects throughout the County. The plan will continue to be periodically updated, every four to five years.

Agenda Item 5E Attachment B

# ALAMEDA COUNTYWIDE PEDESTRIAN PLAN





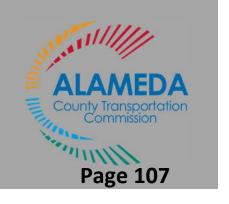




# Draft

June 25, 2012

Submitted by the Eisen | Letunic team



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#### **Appendices**

See document entitled "Appendices to the Alameda Countywide Pedestrian and Bicycle Plans"

## **EXECUTIVE SUMMARY**

#### Background and plan purpose

Everyone walks (or uses a mobility device) each day, whether to school, to visit a neighbor, for exercise, for errands, or to catch a bus. Walking is an essential component of vibrant, livable, healthy communities, and an integral part of a complete transportation system. The Alameda County Transportation Improvement Authority, one of the two predecessor agencies to the Alameda County Transportation Commission (Alameda CTC), published the first Alameda Countywide Pedestrian Plan in 2006. Concurrently, the first update to the Alameda Countywide Bicycle Plan, was developed by the Alameda County Congestion Management Agency, the other Alameda CTC predecessor agency. From 2010 to 2012—as these two agencies merged to form Alameda CTC-both plans were updated, this time in very close coordination. Alameda CTC has updated this plan to identify and prioritize pedestrian projects, programs and planning efforts of countywide significance. The plans provides the background, direction and tools needed to increase the number of pedestrians and walking trips in Alameda County while improving pedestrian safety.

#### Key findings

The chapters on "Existing Conditions" and "Evaluation of Plans, Policies and Practices" contain a wealth of data, statistics, findings and other information about the state of walking in Alameda County. Below are some of the key findings:

- In Alameda County, as in the Bay Area as a whole, walking is the second most common means of transportation, after driving, representing 11% of all trips.
- In 2000, approximately 3.3 million trips were made primarily on foot every week in the county. This translates to more than 470,000 daily walk trips, or one trip for every three county residents.
- The number of pedestrian commuters increased by 14% from 2000 to 2006–2008 and the walk mode share for commute trips rose from 3.2% to 3.6%.
- From 2000 to 2008, there was an annual average of 25 pedestrian fatalities in Alameda County and 710 pedestrians injured seriously or visibly.

- Pedestrians made up 24% of all traffic fatalities in Alameda County; this is more than twice the county's walk mode share (11%).
- Since 2006, four cities have developed pedestrian master plans (either stand-alone or combined with a bicycle plan). Another four cities remain without such a plan.
- Local jurisdictions estimated the cost of their capital pedestrian and bicycle project needs to be \$520 million; of this, \$219 million, or more than 40%, was from the county's largest city, Oakland.
- The jurisdictions' annual maintenance expenditure for pedestrian and bicycle facilities is \$6.7 million. The annual funding gap is much larger, \$17.2 million; this likely indicates substantial deferred maintenance due to insufficient funds.



- The major obstacles to improving the walking environment that were most commonly cited by local agency staff were inadequate funding, shortage or absence of trained staff and implementation conflicts with other public agencies.
- Four policy areas have emerged or advanced in recent years that will likely contribute significantly to improving the policy landscape for walking: complete streets, climate action, smart growth and active transportation.
- A number of policies and practices exist at all levels of government that could be modified to better integrate walking into the transportation system.

#### Plan vision, goals and strategies

The plan articulates a vision statement of what walking in Alameda County could be like by 2040, with the investments proposed in the plan:

Alameda County is a community that inspires people of all ages and abilities to walk for everyday transportation, recreation and health. A system of safe, attractive and widely accessible walking routes and districts is created by interconnected pedestrian networks, strong connections to transit and pedestrianfriendly development patterns.

In addition, the plan establishes five goals to guide the actions and decisions of Alameda CTC in implementing the plan and a set of more than 40 specific, detailed and implementable strategies designed to attain the plan's goals. Together, the goals and strategies generally define the roles and responsibilities of Alameda CTC in implementing the Pedestrian Plan. The five goals are:

#### Infrastructure and design

Create and maintain a safe, convenient, well-designed and inter-connected pedestrian system, with an emphasis on routes that serve transit and other major activity centers and destinations.

#### Safety, education and enforcement

Improve pedestrian safety and security through engineering, education and enforcement, with the aim of reducing the number of pedestrian injuries and fatalities, even as the number of people walking increases.

#### Encouragement

Support programs that encourage people to walk for everyday transportation and health, including as a way to replace car trips, with the aim of raising the number and percentage of trips made by walking.

#### Planning

Integrate pedestrian needs into transportation planning activities, and support local planning efforts to encourage and increase walking.

#### 5 Funding and implementation

Maximize the capacity for implementation of pedestrian projects, programs and plans.

Lastly, the plan establishes performance measures to be used to monitor progress toward attaining the plan goals:

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- Percentage of all trips and commute trips made by walking
- Number of pedestrian injuries and fatalities
- Number of pedestrians counted in countywide pedestrian counts
- Number of completed countywide pedestrian projects
- Number of local jurisdictions with up-to-date pedestrian master plans

#### Countywide priorities

The Countywide Pedestrian Plan establishes countywide capital projects, programs and plans that are intended to implement the plan's vision and goals. They include a "vision system" of pedestrian facilities throughout the county, a set of priority programs to promote and support walking (see Table E.1), and the creation and updating of local pedestrian master plans. Because funding is limited, the plan also creates a more constrained "priority system" of capital projects on which to focus capital funding, and proposes to stagger the implementation of the programs.

The countywide vision system totals 3,183 miles of pedestrian facilities. The system has five components: projects that provide or facilitate access (i) to transit, (ii) within central business districts, (iii) to activity centers, (iv) to "communities of concern" (communities with large concentrations of low-income populations and inadequate access to transportation); and, (v) a network of inter-jurisdictional trails.

Table E.1 | Priority programs

Encouragement and promotion
Countywide walking promotion
2. Individualized travel marketing
3. Programs in community-based transportation plans
Safety, education and enforcement
4. Safe routes to schools
5. Safe routes for seniors
Multi-modal traffic school
7. Countywide safety advertising campaign
Technical support and information sharing

- 8. Technical tools and assistance
- 9. Agency staff training and information sharing
- Multi-agency project coordination
- 11. Collaborative research

As detailed in the "Implementation" chapter, the estimated cost to implement the Countywide Pedestrian Plan is approximately \$2.8 billion. This includes the costs to construct and maintain the pedestrian system, to implement the pedestrian programs and also to develop and update the pedestrian master plans of local agencies. In the next 28 years, Alameda County jurisdictions and agencies can expect approximately \$500 million in funding for pedestrian projects and programs. The difference between estimated costs and projected revenue for projects in this plan—the funding gap—is \$2.3 billion. Put another way, the projected revenue for countywide projects is only 18% of the estimated costs. Changing any of the assumptions for the estimates will change the figures somewhat but will not change the fact that the cost greatly exceeds projected revenue. To begin to address this funding gap, Alameda CTC, through its planning and funding processes, will need to prioritize projects and project types so that the most critical needs are funded first.

Table E.2 | Costs and revenue, 2012–2040 In millions, rounded to nearest \$100,000; 2012 dollars

Costs*	\$ 2	2,789.2
Construction of capital projects	\$ 2	2,002.6
Maintenance of capital projects	\$	705.3
Programs implementation	\$	75.9
Local master plans	\$	5.4
Revenue	\$	495.7
Funding gap (costs minus revenue) \$ 2,293.5		

<sup>\*</sup> Include some shared costs with the Countywide Bicycle Plan (see "Implementation" chapter).

Although the size of this plan's vision system is only slightly larger than the 2006 Countywide Pedestrian Plan vision system, the overall plan costs have increased three-fold and the funding gap has increased substantially. However, because projected

revenues have also increased, the percent of costs covered by expected revenue is about the same as in the 2006 plan. The main reasons for the large increase in costs are: a new area of countywide significance, communities of concern, was added; cost estimates for the three major countywide trails were improved; maintenance costs were added, which were not in the 2006 plan; and the program costs have been more fully developed.



#### **Next Steps**

The plan's "Implementation" chapter describes 14 priority activities that Alameda CTC will undertake in the first five years of the plan's life (2012–2016). These activities will begin to make the plan a reality in the near term and set the stage for implementing the plan's medium- and long-term efforts. The activities, which are listed in Table E.3, fall into three categories: funding, technical assistance and countywide initiatives.

#### Table E.3 | Next steps

#### Funding

- Dedicate funding and staff time to implement the Countywide Pedestrian Plan
- Fund the development and updating of local pedestrian master plans
- 3. Coordinate funding with supportive land use decisions
- 4. Develop innovative sources of funding for sidewalk maintenance

#### Technical assistance

5. Help local jurisdictions revise their design standards

- Help local jurisdictions overcome CEQA-related obstacles
- Help local jurisdictions develop Complete Streets policies

#### Countywide initiatives

- Continue or begin implementing the near-term priority programs
- 9. Adopt an internal Complete Streets policy
- Explore modifications to the countywide travel demand model
- 11. Explore revisions to the Congestion Management Program to enhance pedestrian safety and access
- 12. Maximize opportunities for linking walking and public health initiatives
- 13. Monitor implementation of the Countywide Pedestrian Plan
- Conduct research to inform future plan updates and countywide planning

#### Plan organization

The Countywide Pedestrian Plan consists of six chapters:

#### Chapter 1: Introduction

Describes the plan purpose, explains the relationship of the plan to the Countywide Bicycle Plan and the Countywide Transportation Plan, and describes in more detail each of the plan chapters.

#### Chapter 2: Existing conditions

Describes the current state of walking in Alameda County, with data and statistics on the number of pedestrians and walking trips. It also includes sections on pedestrian safety; local planning efforts, support programs and advocacy efforts; and implementation of the 2006 plan.

#### Chapter 3: Evaluation of plans, policies and practices

Summarizes the key plans, policies and practices at all levels of government that affect walking (and bicycling) in Alameda County and evaluates how they promote or hinder nonmotorized transportation, with a focus on the role of Alameda CTC, as the plan's implementing agency. It also discusses practical challenges encountered by agencies in implementing

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their plans, policies and projects, and suggests ways to overcome those challenges.

#### Chapter 4: Vision and goals

Establishes a desired vision of walking in Alameda County in the year 2040; a set of goals, or broad statements of purpose meant to enable the vision to be realized; and under each goal, more specific and detailed strategies for attaining that goal.

#### Chapter 5: Countywide priorities

Establishes the pedestrian capital projects, programs and plans needed to implement the plan's vision. This chapter also defines the kinds of improvements in each category that will be eligible for funding, and establishes general priorities among them. The capital projects make up a "vision" countywide system of pedestrian facilities focused on the following five areas: access to transit, access within central business districts, access to activity centers, inter-jurisdictional trails and access to communities of concern.

#### Chapter 6: Implementation

Estimates the cost to deliver the pedestrian projects, programs and plans of countywide significance, the revenue expected to be available in Alameda County for these efforts through the plan's 28-year horizon, and the near term actions needed to begin plan implementation.

#### Plan development and adoption

The Alameda Countywide Pedestrian Plan was developed by the Alameda CTC in collaboration with several advisory groups, including Alameda CTC's standing Bicycle and Pedestrian Advisory Committee and an ad hoc technical committee convened for this project, the Bicycle and Pedestrian Plans Working Group. The plan was also reviewed and commented on by Alameda CTC's Alameda County Technical Advisory Committee (ACTAC) and the Paratransit Advisory and Planning Committee (PAPCO). Alameda CTC gathered public input primarily by bringing the proposed countywide priorities to local Bicycle and Pedestrian Advisory Committees in all parts of the county for input, and keeping interested people informed about the planning process. This plan update was developed concurrently with the Alameda Countywide Bicycle Plan update. Alameda CTC adopted both plans, incorporating them by

reference into the Countywide Transportation Plan, and will use them as a guide for planning and funding pedestrian and bicycle projects throughout the County. The plan will continue to be periodically updated, every four to five years.

ACTAC Meeting 07/03/12 Attachment C		
	Prepared By:	
	<b>Comments on:</b> Draft Alameda Countywide Bicycle and Pedestrian Plans	

Agency/Organization:

Rochelle Wheeler, rwheeler@alamedactc.org

Comments due by: Friday, July 27, 2012, 5:00pm to

Reviewer Comments							
PLAN: BIKE, PED, OR BOTH							
PAGE # (if applicable)							

ACTAC Meeting - 07/03/12
Agenda Item 5E
Attachment C

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#### Memorandum

**DATE:** June 26, 2012

**TO:** Alameda County Technical Advisory Committee

**FROM:** Beth Walukas, Deputy Director of Planning

Rochelle Wheeler, Countywide Bicycle and Pedestrian Coordinator

**RE:** Review of Annual Countywide Pedestrian and Bicycle Count Program, Count Sites and

2012 Counts Report (2002-2011)

#### Recommendation

This item is for information only. No action is requested.

#### **Summary**

Alameda CTC has been conducting bicycle and pedestrian counts in some form since 2002 at locations throughout the county. In 2010, a set of 63 count locations was selected for an annual count program, in an effort to track trends in walking and bicycling in the county. These counts took place in September and October of 2010, and again in 2011. ACTAC is requested to provide input on the two items related to the count program, as follows:

- 1. <u>Counts Report</u>: The data from 2011, plus the countywide trends since 2002, is presented in the Draft Pedestrian and Bicycle Manual Count Report for Alameda County (2002-2011), in Attachment A. Staff have addressed the input received from the committees on the first counts report, developed last year, into this year's report, as feasible.
- 2. <u>List of Count Sites</u>: Staff are recommending that the list of the 63 sites counted in 2010 and 2011 be modified slightly, to respond to changed infrastructure at one site and a re-evaluation of the usefulness of another site, based on committee input received on the list in 2011 (see Attachment B). In the future, additional count locations will be recommended, to increase the overall reliability of the count data.

#### **Background**

Since 2002, Alameda CTC, along with the Metropolitan Transportation Commission (MTC), and SafeTREC at U.C. Berkeley, has conducted manual bicycle and pedestrian counts throughout Alameda County. Count data has been collected at a total of 99 different sites, however only selected sites have been counted multiple times and during the same time periods. Over the past several years, the Alameda CTC has had the goal of counting bicyclists and pedestrians around the county at the same locations every year, in an effort to see countywide trends in walking and bicycling. Counts of both bicyclists and pedestrians have been conducted on annual basis since 2008. In 2010 and 2011, the same set of 63 sites was counted. This includes 50 locations selected by Alameda CTC, and an additional 13 Alameda

County locations selected by MTC in consultation with Alameda CTC, as part of a regional annual count effort. These 63 sites are listed in the appendices of the Counts Report (Attachment A).

#### Counts Report

The Draft Pedestrian and Bicycle Manual Count Report for Alameda County (2002 to 2011), in Attachment A, was developed by building on the first version of the Counts Report created last year, adding the 2011 collected data, and incorporating comments received on the first report. Overall, the data continues to show increases in bicycling in the county, both since 2010 and since 2002. The pedestrian data shows an increase since 2002, but the recent trend, from 2010 to 2011, is stable with little to no changes in pedestrians counted.

Last fall, the first Counts Report with historical count data was developed, and brought to the committees for input. Many comments were received which staff have addressed in the current Counts Report, to the extent feasible. The comments on the count program and Counts Report, and responses to them are included in the Counts Report. One major addition to this year's report is a section that compares the counts data trends to other data trend lines, including collisions, population and gas prices.

#### Approach to 2012 Counts and List of Count Sites

Alameda CTC will continue to count at 63 locations in 2012, and explore expanding the program to include up to 100 sites around the county in 2013 and beyond. Input was received in 2011, and at the April 2012 BPAC meeting, that the number of count locations should be increased, to improve the reliability of the data. A rough national standard for representative counts is to count one location for every 15,000 people. If followed, this would result in 100 count locations needed in Alameda County to most accurately reflect trends. In order to allow the data to be analyzed at the planning area level, these counts would need to be distributed throughout the county based on population of planning areas, similar to how the 63 locations currently are distributed.

While staff agrees that counting at additional locations is desirable, it is recommended that this effort to analyze and consider the selection of additional count sites take place during the 2012-2013 fiscal year. This will allow the Countywide Bicycle and Pedestrian Plans to be finalized (anticipated in September 2012), which will establish new pedestrian and bikeway networks. All existing count sites are located on one or both of the current countywide networks, and a selection of these sites will also be evaluated further for their usefulness. Furthermore, staff will have adequate time to work with the bicycle and pedestrian and other local agency staff to determine the best new count locations for all parties, and to develop mapping tools that will assist in selecting locations that meet specific criteria, such as proximity to schools and transit.

For the list of 63 locations, staff are recommending deleting and replacing two locations, as detailed in Attachment B, which includes a list of the proposed 63 count locations for 2012. These changes respond to input received from the committees on the count sites in 2011. Staff also recommend exploring the possibility of counting during the morning period at a subset of the 63 count locations that are near schools, to determine if it would be more beneficial and informative to count at these locations during this time period, as opposed to, or in addition to, the 2:00 to 4:00 p.m. period as is currently done. If it is desired, staff will use a portion of the available funds to conduct morning counts. This will not impact the current count locations or ability to develop trend data.

The 2012 counts will take place in September and October. As it has done for the past two years, Alameda CTC will most likely partner with MTC to conduct the counts, assuming MTC has funding for

this effort in 2012. MTC has conducted regional bicycle/pedestrian counts for the past two years, and 5F has allowed Alameda CTC to partner with it to use the same count contractor.

#### **Attachments**

Attachment A: Draft Pedestrian and Bicycle Manual Count Report for Alameda County (2002 to 2011)

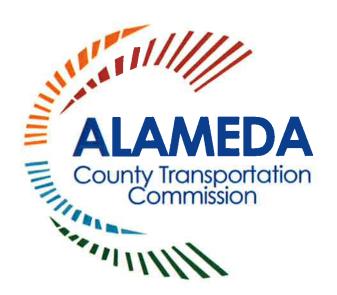
Attachment B: Draft List of Manual Pedestrian Bicycle Count Locations and Rationale for Changes

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# **DRAFT**

# Pedestrian and Bicycle Manual Count Report for Alameda County

2002 to 2011



June 2012

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## **Executive Summary**

The Alameda County Transportation Commission (Alameda CTC), along with several regional agencies and educational institutions, has been collecting data on the number of bicyclists and pedestrians throughout the county since 2002. This data, while useful, was not all collected in a consistent manner. In 2010, the Alameda CTC established an annual count program with the selection of 63 sites at which to conduct counts every year using the same methodology. The primary goal of the count program is to provide countywide trends in bicycling and walking over time. Where there is sufficient data, the goal is also to assess trends by area of the county.

In 2011, Alameda CTC published the first report analyzing data collected from 2002 to 2010. This report updates the previous one and includes count data collected in September and October 2011.

#### **Data Sources and Methodology**

The count data used in this report was collected during three distinct periods, as shown below.

Figure 1: Standard Time Periods

Period	Standard Times		
Mid-day	12 to 2 PM		
School	2 to 4 PM		
PM	4 to 6 PM		

For both the bicycle and pedestrian data, there are two groupings of data that serve different purposes (see Figure 2 for a summary of the years counted and number of sites, by time periods):

- Near-term "annual data" uses the 63 locations, or a subset of them, that were selected in 2010 for the annual count program, and were counted again in 2011. As time goes on, this larger set of data will provide more accurate trends in walking and bicycling throughout the county and at the planning area level.
- Longer-term "longitudinal data" describes historic trends over either a four or ten year
  period, using a smaller set of count locations that are available for comparison. Sites where
  data was collected during the same time periods and the same years are considered
  comparable for the PM period, these are limited to six common sites for pedestrians and
  nine for bicyclists. Although they represent a small number of locations, they are useful for
  tracking the long-term trends, since the earliest year data points allow observing a ten-year
  trend line.

Figure 2: Annual and longitudinal data sets

	Annual Data		Longitudinal Data	
Count Period	Comparison Years	# of Sites	Comparison Years	# of Sites
Pedestrian				
PM	2010, 2011	62 sites*	2002, 2003, 2010, 2011	6
Mid-day	2010, 2011	44 sites	2008, 2010, 2011	9
School	2010, 2011	17 sites	N/A	N/A
Bicycle				Ser Port St
РМ	2010, 2011	62 sites*	2002, 2004, 2006, 2008, 2010, 2011	9
Mid-day	2010, 2011	44 sites	2008, 2010, 2011	9
School	2010, 2011	17 sites	N/A	N/A

Note: Although counts were conducted at 63 locations in 2011, given changes in the configuration of one intersection, the data for this site was not comparable to the previous year.

#### **Pedestrian Data**

While the number of pedestrians counted has increased substantially in the past ten years, since 2002, there was little change in the counts between 2010 and 2011, at the countywide level.

#### Annual Count Data - 2010 to 2011

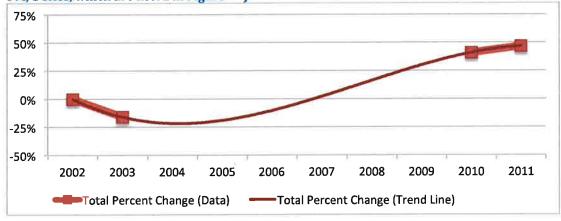
- Pedestrian counts have remained stable from 2010 to 2011 across all time periods.
- The PM period data shows essentially no change in the last year.
- Mid-day period pedestrian counts also show essentially no change, with an overall 2% increase.
- School period data, based on counts collected at 17 sites that are all within a half-mile of at least one K-12 school, shows no change in pedestrians counted.
- By area of the county, the percent change in pedestrians from 2010 to 2011 shows significant increases in the eastern and southern parts of the county, with the northern and central parts showing little to no increases, respectively.

#### Longitudinal Count Data - 2002 to 2011

• The long-term trend in PM period pedestrian counts continues to be upward. From 2002 to 2011, pedestrian counts increased by 47% at a set of six common sites (Figure 3 below, and Figure 16, which lists the count sites).

The longitudinal data trends for pedestrians are shown below as the percentage change relative to 2002, with a trend line between 2003 and 2010, when no data is available.

Figure 3: Percent change in PM pedestrian counts relative to 2002 (2002, 2003, 2010, 2011; weekday PM, 6 sites, which are listed in Figure 16)



#### **Bicyclist Data**

The bicycle data shows clear, significant increasing trends across all time periods, both between 2010 and 2011, and historically over the last 10 years.

#### Annual Count Data - 2010 to 2011

- Bicyclists counted from in the PM period increased by 27%.
- The mid-day period counts show a 36% increase.
- The school period saw a more modest increase of 6%, at the 17 common count sites.
- While the trend in bicycle counts is clearly upward across all time periods, there is considerable variability at the count site and time period level.

#### Longitudinal Data - 2008 to 2011

• The mid-day period counts show a 143% increase from 2008 to 2011 at the nine common sites.

#### Longitudinal Count Data - 2002 to 2011

• The PM period has the longest trend data available, and shows an overall 75% increase in bicycle counts from 2002 to 2011, at nine common sites.

Figure 4 below shows the percentage increase of PM period counts relative to 2002, as well as a trend line that best fits this data. While there was a slight decrease in counts between 2002 and 2004, since 2004 the numbers of bicyclists counted has increased steadily and significantly each year.

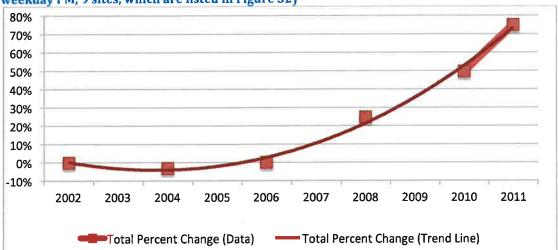


Figure 4: Percent change in PM bicyclist counts relative to 2002 (2002, 2004, 2006, 2008, 2010, 2011; weekday PM, 9 sites, which are listed in Figure 32)

#### **Gender and Helmet Data**

- Females made up only 30% of cyclists counted in 2011. However, the proportion of female cyclists has risen steadily and significantly over the last four years, from 18% in 2008. Increases in female bicyclists were seen during all time periods and in all four of areas of the county.
- Helmet usage increased between 2010 and 2011 from 51% to 58%. Increases in helmet usage were seen in all time periods and areas of the county.

## **Background**

#### **Purpose**

The primary goal of the Alameda CTC bicycle and pedestrian count program is to provide overall countywide trends in bicycling and walking over multiple years. Where there is sufficient data, the goal is also to assess trends at the sub-county levels of north, central, south and east. Having consistent walking and bicycling data is important for many reasons, including:

- **Baseline Data**: To have a consistent methodology over multiple years so as to compare accurately the trends across the county.
- **Safety**: To understand the changes in collision rates, i.e. the number of bicycle/pedestrian collisions relative to their volumes.
- **Timely data**: To see trends as they are happening. Annual count data shows trends more immediately than other data sources, which are conducted less frequently.
- **Modeling**: To assist with enhancing the regional and countywide transportation models' ability to predict walking and biking trips.
- Multi-modal LOS: To have better multi-modal metrics to use in assessing climate protection policies.
- Return on Investment/Planning: Although there are many factors contributing to walking and bicycling rates, counts can help to understand the impact of bicycle/pedestrian capital facilities and programs so as to improve decision-making. For example, it may be possible to assess the changes in school trips as a result of Safe Routes to Schools programs.

Although counting at selected intersections captures only a small subset of people who are biking and walking, it is standard practice to use a set of locations to extrapolate the number of people using these modes. The intent is not to count everyone who is on foot or bike, or even those places with the highest number of bicyclists and pedestrians, at any one time. Rather, the goal is to paint a picture of changes over time.

#### **Manual Count Locations**

Since 2002, Alameda CTC and other agencies have collected manual count data for countywide purposes at 99 different locations around the county. Some of these counts were of bicyclists only, some were in different time periods, and the same sites were not counted in each year. Therefore, there is no trend line for all 99 sites. The historic counting efforts included:

 The (former) Alameda County Congestion Management Agency's biennial Level of Service (LOS) Monitoring Report included bicyclist counts at 12 locations, which were conducted by local jurisdictions throughout the county in 2002, 2004, 2006 and 2008.

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- The Metropolitan Transportation Commission (MTC) conducted regional bicyclist and pedestrian counts in 2002 and 2003 at 13 and 6 locations, respectively, in Alameda County.
- UC Berkeley's Safe Transportation Research & Education Center's (SafeTREC) formerly
  Traffic Safety Center with funding from the Alameda CTC, conducted bicycle and
  pedestrian counts at a combined 79 locations in 2008 and 2009 to assist in developing a
  model to predict pedestrian and bicyclist volumes. These locations were mainly, but not
  exclusively, on Caltrans facilities, since this was the focus of the research project.

In 2010, 63 count locations were selected for an annual count program, most of which were a subset of the 99 counts described above. These 63 sites, or a subset of them, are the focus of this report. The 63 count locations (listed in Appendices A and B, and shown below in Figure 5 and Figure 6) were selected based on a set of criteria that includes the following:

#### Primary Criteria (in order of importance)

- Locations where counts have been conducted historically, especially those counted in earlier years
- On the Countywide Bicycle or Pedestrian Network. All locations are on one or both networks.
- Distribution of sites by area of the county, based on population (to follow national best practices on the number of counts needed to accurately reflect walking and biking)

#### Secondary Criteria

- Variety of land uses commercial, residential, industrial and offices
- Variety of land use density (within ¼-mile radius) high, medium and low
- Variety of street types
- · Variety of types of crossings: signalized and un-signalized
- Some locations near transit (within a ¼-mile radius)
- Some locations near multi-use trails (within a ¼-mile radius)
- Some locations near schools (within a ½ -mile radius)
- Minimum distance between count locations of ¼ mile to reduce interdependence between the sample locations

Walnut Measure Creek Cre

Figure 5: Map of count locations: North and Central Alameda County

Source: Google Maps.

Note: Marker colors refer to the entity conducting the counts (MTC or Alameda CTC).



Figure 6: Map of count locations: South and East Alameda County

Source: Google Maps.

Note: Marker colors refer to the entity conducting the counts (MTC or Alameda CTC).

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#### **Data Sources and Methodology**

As noted previously, in 2010, a set of 63 sites was established at which to conduct annual counts. In September and October of 2011, data was collected at these same 63 locations. (At one count site in Hayward, the intersection was under construction during the count period, so this data was not used in this report, except for in the gender and helmet use sections. Therefore, the total number of sites used for most analysis in this report is 62.)

In the first Counts Report for Alameda County (published in 2011), after just one year of counting at the 63 sites, a maximum of only 44 pedestrian and 28 bicycle count sites could be compared between years. At the time-period level, few comparisons were available with more than ten sites and the more years covered, the fewer sites with comparable data there were. Because the accuracy of the trend analysis increases with the number of sites that can be compared for each year and time-period, there is a benefit to maintaining as many count sites as possible from year to year. It was for this reason that the data collection sites used in 2011 matched all of the sites used in 2010, providing a wealth of comparable data that was not available previously.

For both the bicycle and pedestrian data, there are two groupings of data that serve different purposes:

- Near term "annual count data" is based on the 63 locations selected in 2010 for annual counts. This larger grouping of locations have now been counted in two years 2010 and 2011 and, with some minor changes, will continue to be counted into the future. As time goes on, this larger set of data will provide more accurate trends in walking and bicycling throughout the county, and at the planning area level. All of the 63 count locations are counted during the PM period. They have also been counted during a second time period either the mid-day or the school period, depending on their location (see Figure 7 for explanation of time periods).
- Longer-term "longitudinal data" describes historic trends over either a four or ten-year period, using a smaller set of count locations that are available for comparison. Sites where data was collected during the same time periods and the same years are considered comparable for the PM period, these are limited to six common sites for pedestrians and nine for bicyclists. Although they represent a small number of locations, they are useful for tracking the long-term trends, since the earliest year data points allow observing a ten-year trend line.

Figure 7: Annual and Longitudinal data sets

	Annual Dat	a	Longitudinal Data	
Count Period	Comparison Years	# of Sites	Comparison Years	# of Sites
Pedestrian		iren Sila	医皮肤 水体 的形式外	
PM (4-6 PM)	2010, 2011	62 sites	2002, 2003, 2010, 2011	6
Mid-day (12-2 PM)	2010, 2011	44 sites	2008, 2010, 2011	9
School (2-4PM)	M) 2010, 2011 17 sites		N/A	N/A
Bicycle				
PM (4-6 PM) 2010, 2011 62 sites		62 sites	2002, 2004, 2006, 2008, 2010, 2011	9
Mid-day (12-2 PM)	2010, 2011	44 sites	2008, 2010, 2011	9
School (2-4PM)	2010, 2011	17 sites	N/A	N/A

Although morning and weekend counts were conducted as some sites prior to 2010, the more recent counts have focused on the mid-day, school, and PM time periods. Therefore, AM and weekend counts are not discussed in this report.

Additional information on the historical manual count data, including the year, lead agency, time period, and data collected, are shown in Appendix C.

#### **Automated count program**

In addition to conducting manual counts, Alameda CTC owns five automated bicycle/pedestrian counters, which allow data to be collected at a variety of locations 24 hours a day. The East Bay Regional Parks District (EBRPD) also has 23 automated bicycle/pedestrian counters deployed on trails throughout their district, and will be installing more as new trails are built. Data from these counters has not been incorporated into this report, but will be included in future reports to portray a more robust picture of walking and biking in the county. In particular, the data will show multi-use trail use around the county. While often used for utilitarian purposes, trails are also heavily used recreationally, and so can help track recreational bicycling and walking.

Alameda CTC and EBRPD currently have one or more counters on the following trails in the county with a goal of covering even more trails, and more fully covering each trail, in the future:

- Bay Trail
- Alameda Creek Trail
- Iron Horse Trail
- Encinal Point Trail
- San Leandro Creek Trail

- Oyster Bay Trail
- Tassajara Creek Trail

Alameda CTC is coordinating with the EBRPD and other jurisdictions within Alameda County that currently have or may develop automated count programs in the future, to share data and ensure the most effective usage and siting of the counters.

#### **Input and Responses on 2011 Counts Report**

When the first Counts Report (published in 2011) was developed, it was brought to several Alameda CTC committees and the Board for input, along with an overview of the countywide count program. The following input was provided on the count sites and the overall count program in the Fall of 2011. The comments have been addressed in this report, or the overall count program, as indicated.

Figure 8: Count program comments from fall 2011 BPAC, ACTAC and PPLC meetings

Comment	Response/Follow Up
Many questions on the goals and purposes of the count program.	Expanded description in this report.
Concerns that total number of bicyclists and pedestrians counted will influence funding decisions.	Expanded description of goals of count program in the report.  The main goal is to measure overall countywide trends across time, and not the absolute number of people walking and biking, or to make funding decisions based on absolute numbers.
Many questions on why the 63 count locations were selected, in particular: signalized versus unsignalized locations, locations with low volumes, and locations that had more usage before improvements were made to nearby routes.	The 63 count sites were reviewed, based on committee and Board input, and some changes are recommended to the 2012 count locations.
Count locations should reflect where people are biking/walking, which may change over time.	Staff will monitor the count locations over time, and add or delete locations based on that evaluation.

Comment	Response/Follow Up
May be better to add in new sites, rather than continuing to count at historic locations that are less desirable.	A balance is needed. It is important to keep many of the count locations the same to allow comparability over time. However, some sites are being, and will be, modified, as per the above responses.
Work with local staff and organizations on assessing and incorporating their goals for the count program.	As the count program is expanded, input will be gathered from all stakeholders.
Consider how the count locations could be used to assess the effectiveness of Safe Routes to Schools (SR2S) programs, possibly by adding more count locations near schools with active programs.	Some current locations are near schools with SR2S programs, but there may not be enough at a single school, or they may not be close enough to the school, to accurately detect travel changes at a single school location. As the count program is expanded, sites near schools with SR2S programs will be considered for inclusion, and this data will be analyzed more closely.
Consider counting at BART stations.	Some current locations are near BART, or other major transit hubs. As the count program is expanded, sites near BART will be considered for inclusion. In addition, BART conducts detailed station access surveys at all stations every ten years, to assess long term trends. This data on bicycle and pedestrian access to BART for 1998 and 2008 is included in the "Contextual Data and Trends" section of this report.
Include recreational cycling in counts.	Some current locations are along the Bay Trail, or other recreational routes. Also, Alameda CTC and the East Bay Regional Parks District have a number of automated bike/ped counters deployed along trails and this data will be added to future reports. As the counts program is expanded, sites along non-trail recreational cycling routes will be considered for inclusion.
Consider newer technologies to make it more effective and efficient to count bicycles and pedestrians than with manual counts.	Movable camera technology, and using video to count, are emerging technologies with great capabilities. Staff is monitoring these technologies, and will consider using them as they develop to meet the needs of the count program and become cost-effective.

Comment	Response/Follow Up
Include collision, population, and overall auto traffic count data trends over the same time periods, to see how these trends compare with the bike/ped count trends.	Collision, population, and gas price trend data has been added to this report in the "Contextual Data and Trends" section. Staff was unable to find readily available and comparable data on auto traffic over similar time periods, but will continue to explore this.
Information on helmet use by gender may be useful for insight and future planning purposes.	While this data is being collected, and will continue to be collected in a manner that will allow this analysis, it has not been prioritized for analysis over the many other core pieces of data. Future reports could include this analysis.

#### **Progress on Recommendations in 2011 Counts Report**

In addition, a number of recommendations were included in the 2011 Counts Report. The table below (Figure 9) describes each of them, and how both the count program and the 2012 Counts Report have been able to respond to them.

Figure 9: Recommendations from 2011 Report, and follow-up

Figure 9: Recommendations from 2011 Report, an	d follow up
Recommendations from 2011 Report	Follow-up
Overall, maintain the same methodology, count sites, time periods, data collection details, etc. (as further described in the 2011 Report), as for the 2010 counts	All recommendations were completed.
Analyze the data by planning area and possibly, by city	Data has been analyzed by planning area for the first time in this report.
Apply pedestrian adjustment factors developed by SafeTREC to improve usability of historic data	This analysis was not conducted, as it was not prioritized over other key analyses, but will continue to be explored in the future.
Include the automated count data currently being collected throughout Alameda County in the data analysis reports	While the automated count program has been further developed during the 2011/2012 fiscal year, a summary of data has not yet been developed and included in this report, in part because complete data was not available, and also it was not prioritized over other key analyses. It will be included in a future report.

## **Pedestrian Count Trends**

There was little to no change in pedestrian counts between 2010 and 2011, across all time periods. Longer-term trends show considerable growth in the last decade, with pedestrian numbers increasing by 47% from 2002 to 2011.

Pedestrian count data was collected during three time periods titled "PM," "mid-day," and "school," as described in the "Background" chapter above, and shown in Figure 10 below. For each of these time periods, two sets of data were analyzed. Annual data, collected in 2010 and 2011, includes the full set of 62 sites for the PM time period. Each site was counted a second time in either the mid-day or school period. The longitudinal data set compares the more recent annual data with historic counts, where available.

Figure 10: Pedestrian data sets

	Annual Data		Longitudinal Data		
Count Period	Comparison Years	# of Sites	Comparison Years	# of Sites	
PM (4-6 PM)	2010, 2011	62 sites	2002, 2003, 2010, 2011	6	
Mid-day (12-2 PM)	2010, 2011	44 sites	2008, 2010, 2011	9	
School (2-4 PM)	2010, 2011	17 sites	N/A	N/A	

#### PEDESTRIAN Weekday PM (4-6pm)

#### Annual Data (2010 and 2011)

As seen in Figure 11, between 2010 and 2011 the number of pedestrians counted remained essentially unchanged, with a mean decrease of 1.4%. Overall, these small fluctuations may be statistically insignificant.

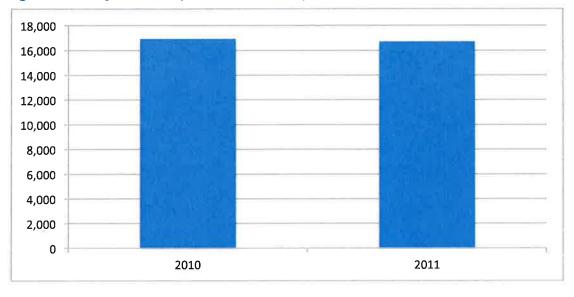


Figure 11: Total pedestrians (2010, 2011; weekday PM; 62 sites)

While there was little change in the number of pedestrians counted countywide, the changes at the planning area show a different picture, with significant increases in the south and east areas.

Figure 12 shows the percent change in the number of pedestrians from 2010 to 2011 by planning area; Figure 13 graphs the absolute change by planning area; and Figure 14 compares the two in table form. Most notably, while relatively more people were counted walking in the South and East planning areas, as compared to the previous year, the absolute number of people walking in these areas is significantly less than in the north planning area.

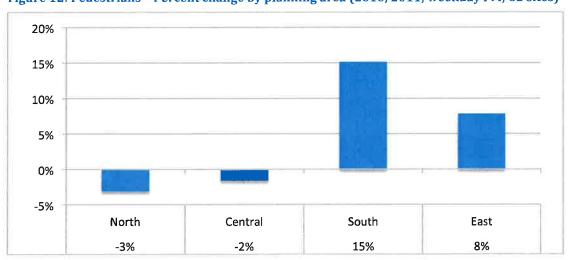


Figure 12: Pedestrians - Percent change by planning area (2010, 2011; weekday PM; 62 sites)

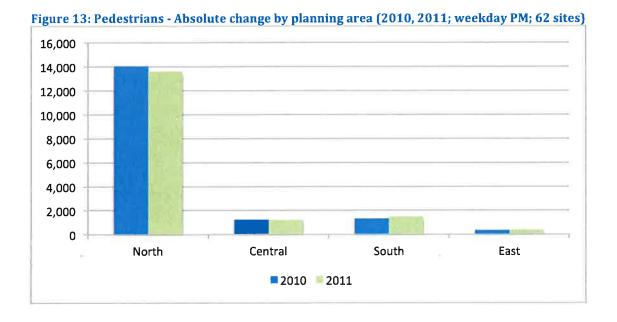


Figure 14: Pedestrians - Absolute and percent change by planning area (weekday PM; 62 sites)

	Peds Counted 2010	Peds Counted 2011	Difference between 2011 and 2010	% Change	# Sites Counted
North	14052	13615	-437	-3%	30
Central	1234	1214	-20	-2%	13
South	1307	1505	198	15%	11
East	346	373	27	8%	8

Just as there is variability at the planning area level, there is also variability at the site level, as shown Figure 15. Of the 62 sites counted in 2011, 35 (or 56%) either increased or showed no change in pedestrian numbers, while at 27(or 44%) the number of pedestrians decreased.

Figure 15: Pedestrians-Site level variability in data from 2010 to 2011 (weekday PM; 62 sites)

Site with Greatest % Increase	
(Paseo Padre and Decoto Road, Fremont)	288%
Site with Greatest % Decrease	
(Warm Springs and Grimmer, Fremont)	-60%
Number (and percent) of sites that increased **	25 (40%)
Number (and percent) of sites with no change in usage*	10 (16%)
Number (and percent) of sites that decreased	27 (44%)

<sup>\*</sup> Sites that showed increase were defined as having a percent change of 5% or greater. Sites with no change in usage were defined as having a percent change between 5% and -5%. Sites with a decrease in usage were defined as having a percent change of -5% or less.

#### Longitudinal Data (2002 to 2011)

The PM period, with four years of comparable data covering a ten year time period, is the most longitudinal data available for pedestrians. While there is a gap in the data from 2003 to 2010, it allows a point of comparison for seeing the longer-term trends, which show overall increasing numbers of pedestrians.

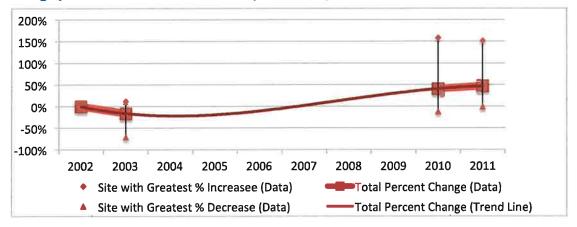
Historically, as seen in Figure 16, the numbers of pedestrian counted at six common sites increased by 47% between 2002 and 2011. During this period, there was a drop in pedestrian numbers from 2002 to 2003 and then a rise between 2003 and 2010 (of 68%). The data between 2010 and 2011 mirrors the only slight change previously discussed in the annual count data from 2010 to 2011; in this case, with these six sites, there was a 4% increase in counts over these two years.



Figure 16: Total pedestrians (2002, 2003, 2010, 2011; weekday PM; 6 sites)

Figure 17, below shows the variability in the site level for the longitudinal data. While the six sites show an overall average increase from 2002 to 2011, the individual sites vary quite a bit. In 2011, the site with the maximum increase (66th Ave. and San Leandro St. in Oakland) was 152% higher relative to the 2002 count. The site with the minimum change (Grand Ave. and Staten Ave. in Oakland), showed a decrease of only 1% from 2002.

Figure 17: Pedestrians - Percent change relative to 2002, showing sites with maximum and minimum change (2002, 2003, 2010, 2011; weekday PM; 6 sites)

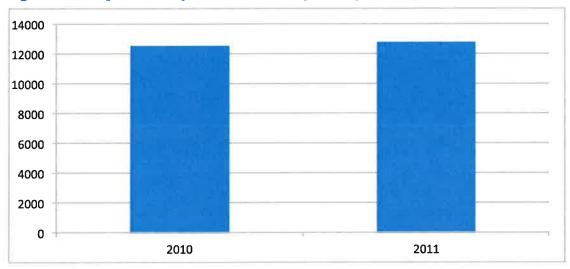


### PEDESTRIAN Weekday Mid-day (12 to 2pm)

### Annual Data (2010 and 2011)

From 2010 to 2011, there was a slight increase of 2% in pedestrian counts over the 44 sites counted during the mid-day period, as shown in Figure 18.

Figure 18: Total pedestrians (2010, 2011; weekday mid-day; 44 sites)



The table in Figure 19 shows the variability in the counts on a site-level basis. Overall, counts at 30 sites (or 68% of all sites) either increased or did not change.

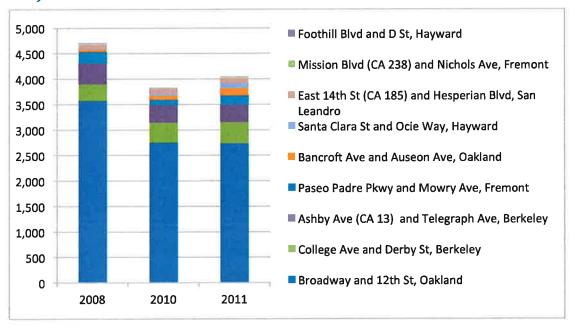
Figure 19: Pedestrians - Variability in data by site (2010 to 2011; weekday mid-day; 44 sites	Figure 19: Pedestrians	<ul> <li>Variability in data by sit</li> </ul>	e (2010 to 2011: weekd:	av mid-day: 44 sites)
---	------------------------	--	-------------------------	-----------------------

Site with Greatest % Increase	
(Santa Clara and Ocie Way, Hayward)	197%
Site with Greatest % Decrease	
(Dublin Blvd and Scarlett Drive (Iron Horse Trail), Dublin)	-32%
Number (and percent) of sites that increased	21 (48%)
Number (and percent) of sites with no change in usage*	9 (20%)
Number (and percent) of sites that decreased*	14 (32%)

### Longitudinal Data (2008 to 2011)

For the mid-day period, the longitudinal data set includes data from nine (of the 44) sites for 2010 and 2011, and also from 2008 (see Figure 20). This longitudinal data shows that from 2008 to 2010, there was a 19% drop in pedestrians counted, while the number counted in 2011 rose 6% from 2010, but still not to the levels seen in 2008.

Figure 20: Total pedestrians, including Broadway/12th St. (2008, 2010, 2011; weekday mid-day; 9 sites)



The high pedestrian volumes at the Broadway and 12th Street count site in Oakland dominate the longitudinal data set, so it is useful to show the analysis without that site's data (see Figure 21). Excluding Broadway and 12th Street, the eight remaining sites show a 22% increase from 2010 to

<sup>\*</sup> Sites that showed increase were defined as having a percent change of 5% or greater. Sites with no change in usage were defined as having a percent change between 5% and -5%. Sites with a decrease in usage were defined as having a percent change of -5% or less.

2011, which more than exceeds the 5% decrease in pedestrians counted between 2008 and 2010 for this same group of eight locations.

1,400 ■ Foothill Blvd and D St, Hayward 1,200 Mission Blvd (CA 238) and Nichols Ave, Fremont 1,000 East 14th St (CA 185) and Hesperian Blvd, San Leandro 800 Santa Clara St and Ocie Way, Hayward Bancroft Ave and Auseon Ave, Oakland 600 Paseo Padre Pkwy and Mowry Ave, Fremont 400 Ashby Ave (CA 13) and Telegraph Ave,

2011

Figure 21: Total pedestrians - excluding Broadway/12th St. (2008, 2010, 2011; weekday mid-day; 8 sites)

### PEDESTRIAN Weekday School (2-4pm)

2010

### Annual Data (2010 and 2011)

2008

200

0

There was essentially no change between 2010 and 2011 in the number of pedestrians counted during the school period, as shown in Figure 22. All 17 sites included in this analysis are within a half-mile of at least one school, and some of them are near more than one school. Additionally, seven of these count sites are within a quarter mile of at least one school.

Berkeley

College Ave and Derby St, Berkeley

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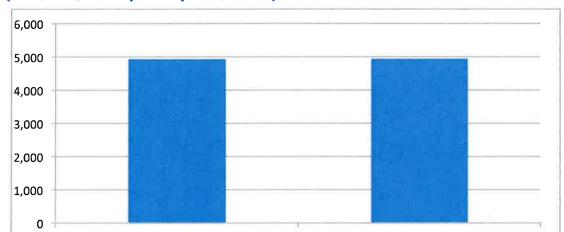


Figure 22: Total pedestrians, at intersections within a half-mile of a school – Weekday school period (2010, 2011; weekday school period; 17 sites)

There was significant variability among the school period sites, as shown in Figure 23, with 29% of the sites showing an increase in pedestrians from 2010 to 2011, 29% showing no change and 41% showing a decrease.

2011

Figure 23: Pedestrians, at count sites within a half-mile of a school – Variability in data by site (2010 to 2011; weekday school period; 17 sites)

to zoll, wooding, bondon poston, livering,	
Site with Greatest % Increase	
(Paseo Padre Parkway and Decoto Rd, Fremont)	214%
Site with Greatest % Increase	
(Grand Ave and Oakland Ave, Oakland)	-37%
Number (and percent) of sites that increased*	5 (29%)
Number (and percent) of sites with no change in usage*	5 (29%)
Number (and percent) of sites that decreased*	7 (41%)

2010

### **Longitudinal Data**

There is no longitudinal analysis for the school period due to the lack of historic count data collected during the time period.

<sup>\*</sup> Sites that showed increase were defined as having a percent change of 5% or greater. Sites with no change in usage were defined as having a percent change between 5% and -5%. Sites with a decrease in usage were defined as having a percent change of -5% or less.

### **PEDESTRIAN Gender Distribution**

The average male-female ratio for pedestrians varied within only a few percentage points between 2008 and 2011. However even within this small amount of variation, the percent of females rose, from 47% in 2008 to 50% in 2011.

60% 55% 50% 51% 50% 52% 50% 53% 49% 48% 47% 45% 40% 2008 2009 2010 2011 Female Pedestrians Male Pedestrians

Figure 24: Pedestrian male - female ratio, by year (all time periods, 63 sites)

Note: Percentage scale does not begin with zero - it shows values from 40% to 60% only.

There is greater variation when this data is assessed by planning area. Figure 25 shows the malefemale ratio, by planning area, combining data from all four years that data was collected (2008 through 2011). This shows the greatest percent of female pedestrians in the northern part of the county, at 49%, while the east part of the county shows the lowest percent, 43%, of female pedestrians.

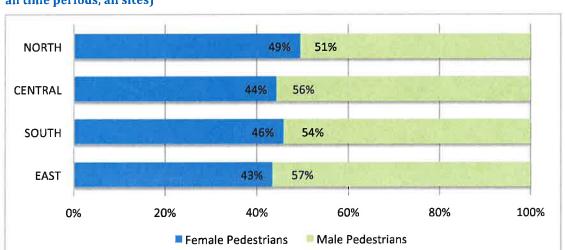


Figure 25: Pedestrian male - female ratio, by planning area (2008, 2009, 2010, and 2011 combined; all time periods, all sites)

## **Bicyclist Count Trends**

Bicycle counts increased significantly between 2010 and 2011 during all time periods, continuing the steady trend in increasing bicycling seen since 2002. Notably, the increase in female bicycling has continued, with an increase from 26% to 30% from 2010 to 2011.

Bicycle count data was collected during three time periods titled "PM," "mid-day," and "school," as described in the "Background" chapter above, and shown in Figure 26 below. For each of these time periods, two sets of data were analyzed. Annual data, collected in 2010 and 2011, includes the full set of 62 sites for the PM time period. Each site was counted a second time in either the mid-day or school period. The longitudinal data set compares the more recent annual data with historic counts, where available.

Figure 26: Bicycle data sets

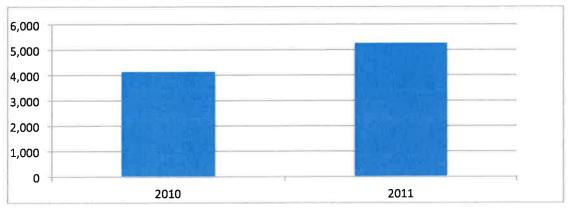
	Annual Data		Longitudinal Data		
Count Period	Comparison Years	# of Sites	Comparison Years	# of Sites	
PM (4-6 PM)	2010, 2011	62	2002, 2004, 2006, 2008, 2010, 2011	9	
Mid-day (12-2 PM) 2010, 2011		44	2008, 2010, 2011	9	
School (2-4 PM)	2010, 2011	17	N/A	N/A	

### **BICYCLIST Weekday PM (4-6pm)**

### Annual Data (2010 and 2011)

For the 62 count sites, there was a 27% countywide increase in bicyclist counts from 2010 to 2011, as shown in Figure 27.

Figure 27: Total bicyclists, (2010, 2011; weekday PM; 62 sites)



While there were increases in bicyclists counted in every part of the county, the changes varied by planning area (see Figure 28). The southern part of the county showed the greatest percent change, with a 112% increase in bicyclists from 2010 to 2011. The rest of the county also showed increases, of 17% in the north area of the county, 53% in the central area, and 1% in the eastern planning area.

120%
100%
80%
60%
40%
20%
North Central South East
17% 53% 112% 1%

Figure 28: Percent change - by planning area from 2010 to 2011 (weekday PM; 62 sites)

Figure 29 graphs the absolute change by planning area and Figure 30 compares percentage change and absolute change in table form.

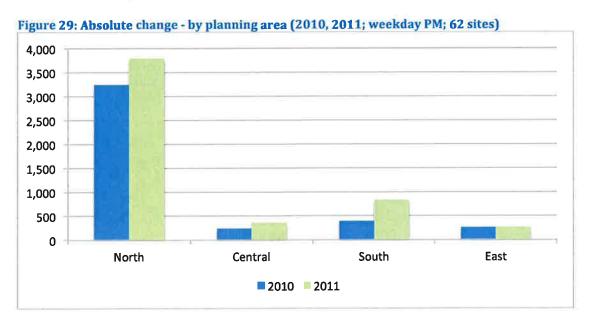


Figure 30: Absolute and Percent change - by planning area (2010, 2011; weekday PM; 62 sites)

S.E.	Bicyclists Counted 2010	Bicyclists Counted 2011	Difference between 2011 and 2010	% Change	# Sites Counted
North	3244	3796	552	17%	30
Central	237	363	126	53%	11
South	394	836	442	112%	13
East	261	264	3	1%	8

Similar to the planning area level, the site level data is also variable. The table in Figure 31 shows the variability in the PM data. Notably, 52 out of the 62 sites (or 84%) show either an increase or no change relative to 2010.

Figure 31: Bicyclists - Variability in data by site (2010 to 2011; weekday PM; 62 sites)

igure 31. Dicychists - Variability in data by site (2010 to 2011, weekday 114, 02				
Site with Greatest % Increase				
(Thornton Ave and Willow St, Newark)	567%			
Site with Greatest % Decrease				
(Atlantic Ave and Webster St, Alameda)	-68%			
Number (and percent) of sites that increased*	42 (68%)			
Number (and percent) of sites with no change in usage*	10 (16%)			
Number (and percent) of sites that decreased*	10 (16%)			

### Longitudinal Data (2002 to 2011)

The weekday PM is the period for which there is the most longitudinal data, both in terms of the number of comparable sites and the number of years of data that is available. From 2002 to 2011 there was a 75% increase in bicyclists counted at nine sites. While there was a slight decrease in bicyclists from 2002 to 2004, the numbers steadily increased from 2004 to 2011, as shown in Figure 32. Significantly, since 2006, every set of counts, in 2006, 2008, 2010, and 2011, has shown a 25% increase relative to 2002, from the prior count.

<sup>\*</sup> Sites that showed increase were defined as having a percent change of 5% or greater. Sites with no change in usage were defined as having a percent change between 5% and -5%. Sites with a decrease in usage were defined as having a percent change of -5% or less.

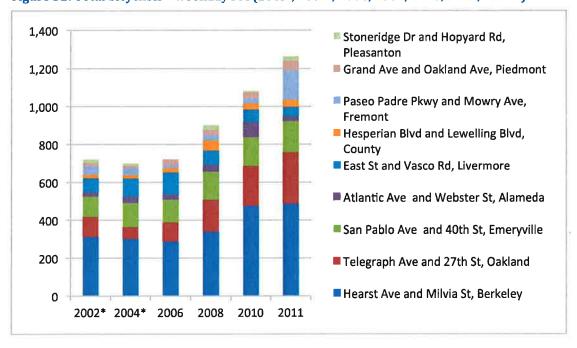


Figure 32: Total bicyclists - weekday PM (2002\*, 2004\*, 2006, 2008, 2010, 2011; 9 sites)

While the general trend in the number of bicyclists is strongly increasing, Figure 32 and Figure 33 provide some insight into how the individual sites vary. Figure 33, below, shows the sites with the maximum increase and decrease, relative to 2002 indicating that while in the aggregate bicycle use is growing steadily throughout the county, it is considerably more varied at the site level from year to year. In 2011, the site with the maximum increase relative to 2002 (Paseo Padre Parkway and Mowry Avenue in Fremont) was 266% higher than the numbers counted there in 2002. The site with the largest decrease (East Street and Vasco Road, in Livermore), showed a decrease of -32% from 2002, and was the only site, of the nine locations, to decrease between 2002 and 2011.

<sup>\*</sup> Data for 2002 and 2004 were estimated to allow their inclusion in this comparison. While one set of data (2008, 2010 and 2011) was counted from 4-6pm, the biennial data from 2002 to 2008 was collected from 3-6pm. An hourly breakdown of the LOS monitoring data was available for the years 2006 and 2008 only. In order to create comparable data for the 2002 and 2004 years, the 2006 and 2008 hourly data was used to estimate the proportion of bicyclists counted during the two hour 4-6pm period..

300% 250% 200% 150% 100% 50% 0% -50% -100% -150% 2006 2007 2008 2009 2010 2011 2002 2003 2004 2005 Site with Greatest % Increase (Data) Total Percent Change (Data) Site with Greatest % Decrease (Data) Total Percent Change (Trend Line)

Figure 33: Bicyclists, percentage change relative to 2002, showing sites with maximum and minimum change (2002, 2004, 2006, 2008, 2010, 2011; weekday PM; 9 sites)

### **BICYCLIST Weekday Mid-day (12 to 2pm)**

### Annual Data (2010 and 2011)

There was a total increase in mid-day bicyclists of 36% from 2010 to 2011, calculated from 44 sites, as shown in Figure 34. Of these 44 sites, 34 (or 77%) of them increased or showed no change from 2010 to 2011, while only 10 (or 23%) showed a decrease, as shown in Figure 35.

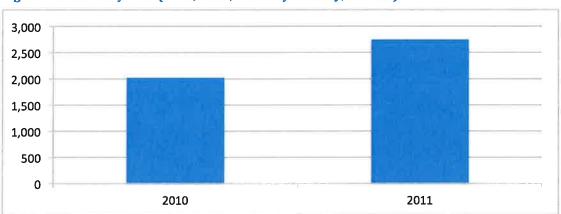


Figure 34: Total bicyclists (2010, 2011; weekday mid-day; 44 sites)

Figure 35: Bicyclists - Variability in data by site (2010 to 2011; weekday mid-day; 44 sites)

Site with Greatest % Increase	
(Santa Clara St and Ocie Way, Hayward)	1080%
Site with Greatest % Increase	
(Mowry Ave (CA 84) and Cherry Lane, Fremont)	-56%
Number (and percent) of sites that increased*	28 (64%)
Number (and percent) of sites with no change in usage*	6 (14%)
Number (and percent) of sites that decreased*	10 (23%)

### Longitudinal Data (2008 to 2011)

For the mid-day period, there is a smaller subset of locations that are available to show limited historic trends. This longitudinal data set includes nine (of the 44) sites for 2010 and 2011, but also includes data from 2008, when mid-day counts were conducted at common sites (see Figure 36).

The longitudinal mid-day data shows that bicycle trips increased by 143% from 2008 to 2011. This was after almost doubling between 2008 and 2010, with a total increase of 78%, and then increasing further from 2010 to 2011 by 37%, at these nine common sites.

Figure 36: Total bicyclists (2008, 2010, 2011; weekday mid-day; 9 sites) 700 Foothill Blvd and D St, Hayward 600 Mission Blvd (CA 238) and Nichols Ave, Fremont 500 East 14th St (CA 185) and Hesperian Blvd, San Leandro Bancroft Ave and Auseon Ave, Oakland 400 Santa Clara St and Ocie Way, Hayward 300 Ashby Ave (CA 13) and Telegraph Ave, Berkeley 200 Paseo Padre Parkway and Mowry Ave, Fremont 100 College Ave and Derby St, Berkeley 0 Broadway and 12th St, Oakland 2008 2010 2011

**BICYCLIST Weekday School (2-4pm)** 

### Annual Data (2010 and 2011)

The number of bicyclists counted during the weekday school period increased from 2010 to 2011 by 6% countywide, as shown in Figure 37. There was, however, significant variability at the site

<sup>\*</sup> Sites that showed increase were defined as having a percent change of 5% or greater. Sites with no change in usage were defined as having a percent change between 5% and -5%. Sites with a decrease in usage were defined as having a percent change of -5% or less.

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level, with 13 of the 17 sites (or 76%) either showing an increase or no change in bicyclists and only 4 (or 24% of all sites) showing a decrease, as shown in Figure 38. All of the 17 sites included in this analysis are within a half-mile of at least one school, and seven of these are within a quartermile of at least one school.

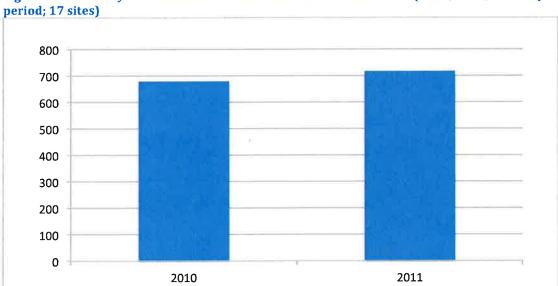


Figure 37: Total bicyclists at intersections within half mile of a school (2010, 2011; weekday school

Figure 38: Bicyclists at intersections within half mile of a school - Variability in data by site (2010 to 2011; weekday school period; 17 sites)

Site with Greatest % Increase	
(Chatham Rd and 13th Ave, Oakland Ave)	650%
Site with Greatest % Increase	
(Broadway (CA 61) and Calhoun St, Alameda)	-70%
Number (and percent) of sites that increased*	7 (41%)
Number (and percent) of sites with no change in usage*	6 (35%)
Number (and percent) of sites that decreased*	4 (24%)

### **Longitudinal Data**

There is no longitudinal analysis for the school period due to the lack of historic count data collected during the time period.

<sup>\*</sup> Sites that showed increase were defined as having a percent change of 5% or greater. Sites with no change in usage were defined as having a percent change between 5% and -5%. Sites with a decrease in usage were defined as having a percent change of -5% or less.

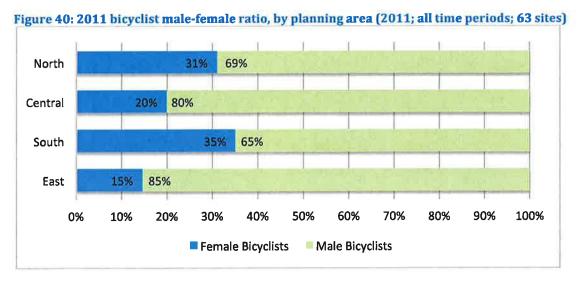
### **BICYCLIST Gender Distribution**

Males are far more likely to bicycle in Alameda County than females, however this is changing. From 2010 to 2011, the percentage of female bicyclists counted increased from 26% to 30% countywide (see Figure 39). This continues a steady trend of increasing numbers of female bicyclists. The number of women bicycling has increased every year since 2008, when 18% of all bicyclists counted were women.



Figure 39: Bicyclist male-female ratio, by year (2008, 2009, 2010, 2011; all time periods; 63 sites)

There are significant differences in the distribution of female bicyclists throughout the county, with the highest percentages in the 2011 data shown in the South (35%) and North (31%) planning areas. Female bicyclists made up only 20% of the total in the Central planning area and 15% in the Eastern planning area.



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### **BICYCLIST Helmet Use**

Between 2010 and 2011, helmet use increased from 51% to 58% according to counts at 63 locations around the county, as shown in Figure 41.

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2010 2011

Figure 41: Helmet use (2010, 2011; all time periods; 63 sites)

Helmet use increased across all planning areas and all time periods between 2010 and 2011, as shown in Figure 42 and Figure 43. Significantly, the planning areas that showed the lowest rates of helmet use in 2010 also showed the greatest increases between 2010 and 2011. Data on helmet use was only collected in 2010 and 2011 so historic data is not available.

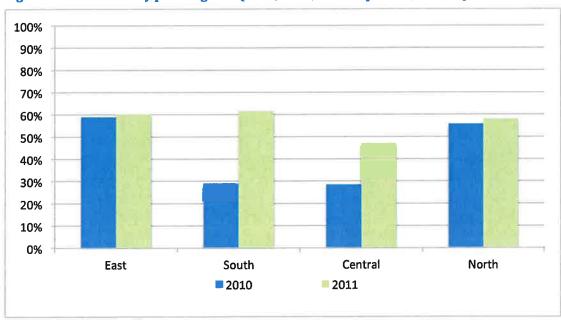
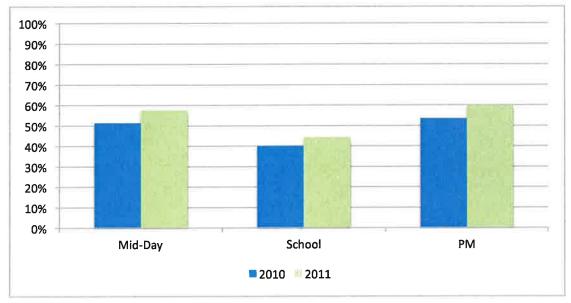


Figure 42: Helmet use by planning area (2010, 2011; all time periods; 63 sites)

Figure 43: Average helmet use by time period (2010, 2011; 63 sites)



### **Contextual Data and Trends**

It is useful to look at the pedestrian and bicycle count data and trends as they compare to other trends. This section compares the longitudinal bicycle and pedestrian count data to trends in county population, pedestrian and bicycle collisions, pedestrian and bicycle access to BART stations, and gasoline prices. Other trends may be interesting to compare to the pedestrian and bicycle count trends, but have not yet been done since the data is not readily available.

### **Population**

Some portion of growth in pedestrian and bicycle usage could be due simply to population growth in Alameda County between 2002 and 2011. However, the part that population has played in changes in walking and biking must be small since the total increase in population during these ten years was 3.7%, as compared to the 47% and 75% increases in pedestrian and bicycle counts, respectively (see Figure 44). Even when the county population dropped by almost 50,000 people in 2010, pedestrian numbers remained stable, and the number of bicyclists continued to rise at an even faster pace. This suggests that population changes may have a greater impact on the number of people walking than those biking. It also shows that regardless of population growth or contraction, bicycling is very clearly on the rise.

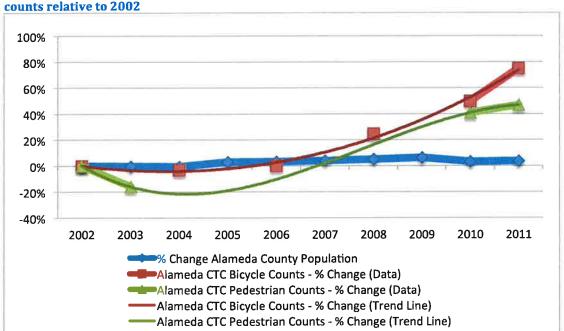


Figure 44: Alameda County population compared with percentage change in bicycle and pedestrian counts relative to 2002

Source: Population - US Census Bureau, California Department of Finance, Demographic Research Unit; Alameda CTC Bicycle and pedestrian counts - longitudinal data, PM period.

### **Collisions**

Collision data from Statewide Integrated Traffic Records System (SWITRS) was used to compare the trends in bicycle and pedestrian volumes to injuries and fatalities to these two groups. From 2002 to 2009 (the year for which there is the most recent collision data), pedestrian collisions have fallen by 31%. While no counts were conducted in 2009 to directly compare to this collision trend period, between 2002 and 2010, pedestrian volumes in the PM period increased by 41% at six sites. This suggests a significant decline in the pedestrian collision rate, or the number of collisions per pedestrian. Figure 45 shows the percent change in injuries and fatalities resulting from collisions compared with the percent change in pedestrian volumes, both relative to 2002.

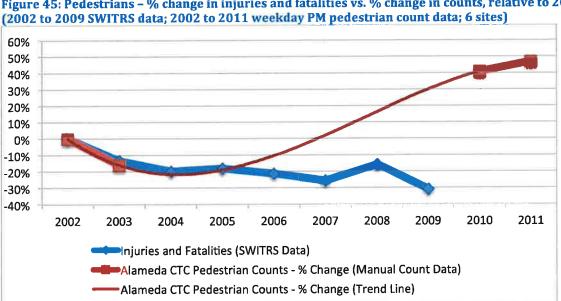
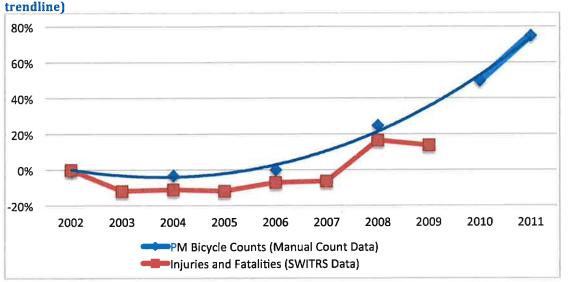


Figure 45: Pedestrians - % change in injuries and fatalities vs. % change in counts, relative to 2002

Source: Statewide Integrated Traffic Records System (SWITRS); Alameda CTC pedestrian counts - longitudinal data, PM period.

From 2002 to 2009, the total number of bicycle collisions has varied, but overall it has risen by 14%. While no counts were conducted in 2009 to directly compare to this collision trend period, between 2002 and 2008, bicyclist volumes increased by 25% and between 2002 and 2010 they increased by 50%. So, while collisions have increased, they have done so at a slower pace than the increase in bicycling, suggesting that collision rates, or the number of collisions per bicyclist, have dropped. Figure 46 shows the percent change in injuries and fatalities resulting from collisions compared with the percent change in bicycle volumes, both relative to 2002.

Figure 46: Bicyclists – percent change in injuries and fatalities vs. percent change in counts, relative to 2002 (2002 to 2009 SWITRS data; 2002 to 2011 weekday PM bicycle count data, 9 sites showing a

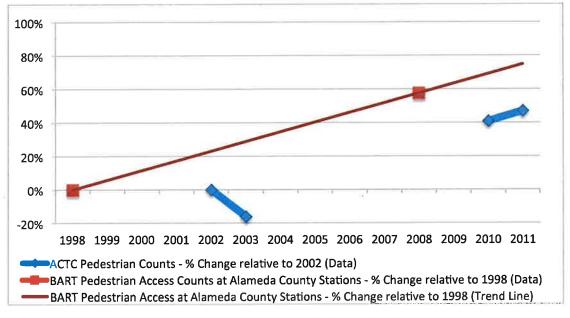


Source: Statewide Integrated Traffic Records System (SWITRS); Alameda CTC Bicycle counts - longitudinal data, PM period.

#### **Access to BART**

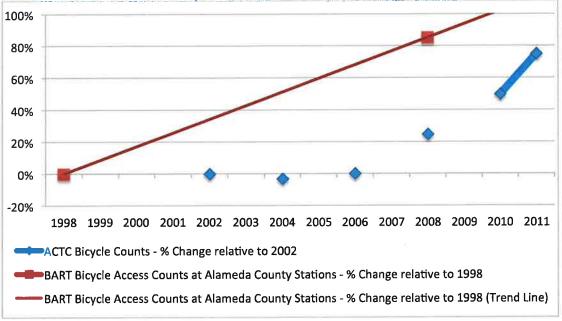
Approximately every ten years, BART collects data on how people access their stations. Figure 47 and Figure 48 show data on bicycle and pedestrian access from the BART 1998 and 2008 Station Profile Studies, as compared to changes in pedestrian and bicycle use throughout Alameda County over a similar time period. As seen in these figures, as pedestrian and bicycle use grows, people are using these modes also as a way to access regional transit, addressing first/last mile transit issues.

Figure 47: BART Pedestrian Access to Alameda County Stations - % change relative to 1998 compared with PM Pedestrian Counts - % change relative to 2002 (Alameda CTC: 2002, 2003, 2010, 2011; weekday PM; 6 sites; BART: 1998, 2008; 19 Stations)



Source: BART's 1998 and 2008 Station Profile Study, Alameda Countywide Pedestrian and Bicycle Plans

Figure 48: BART Bicycle Access per average weekday to Alameda County Stations - % change relative to 1998 compared with PM Bicycle Counts - % change relative to 2002 (Alameda CTC: 2002, 2004, 2006, 2008, 2010, 2011; weekday PM; 9 sites; BART: 1998, 2008; 19 Stations)

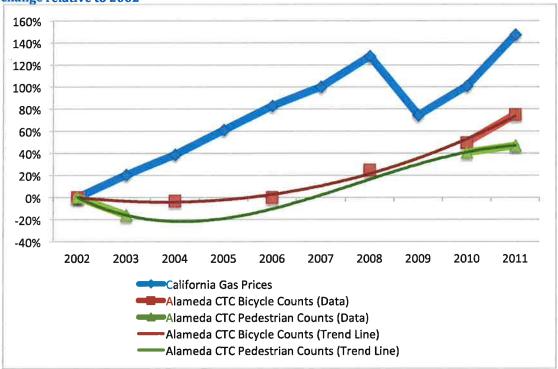


Source: BART Draft Bicycle Plan 2012

### California Gasoline Prices

One factor often cited as a reason that people switch from driving to walking or biking is higher gas prices. Figure 49 below shows the percent change in annual California retail gasoline prices (not including inflation) juxtaposed with the percentage change in Alameda County biking and walking numbers, using the PM period longitudinal data. From 2002 to 2011, gas prices rose by 147%, as compared to the 47% and 75% increases in pedestrian and bicycle counts, respectively, suggesting that increasing gas prices could be influencing the changes in walking and biking.





Source: Gas prices - Energy Information Administration, Department of Energy 2012; California all grades, all formulations retail gasoline prices (dollars per gallon; uninflated). Bicycle and pedestrian counts - Alameda CTC longitudinal data, PM period.

### Recommendations

During the process of organizing and analyzing the data in this report, the following recommendations were developed for future data collection and analysis efforts. By implementing these recommendations, Alameda CTC can maintain high quality data, take better advantage of the data already collected and being collecting, and better allocate resources in the future.

### **Count Sites and Data**

Collecting the most useful longitudinal data requires:

- Counting at the same key sites Sites that have been counted several times in the past should continue to be counted unless the site is being "retired."
- Using standard time periods, seasons, and days of week To ensure comparability, continue
  using time periods that have been used in the past and/or time periods that are standard
  with other jurisdictional data.
- Maintaining data in fine increments, and at least hourly This approach allows the use of at least a portion of the data, even if the standard time periods shift over time.
- Ensuring contextual data is collected, such as date, time, weather, and temperature.
- Continuing to collect auxiliary data such as gender and helmet use.
- Evaluating sites to ensure that sites with major physical, land use or transportation infrastructure changes are either retired, or data is modified, and that new, relevant sites are added, as feasible.

### **Additional Recommendations**

- Summarize and include the automated 24-hour bicycle and pedestrian count data currently being collected throughout Alameda County, to supplement manual count data and show a better picture of recreational walking and bicycling, in particular.
- Investigate increasing the number of annual count sites, so that the number of sites matches national best practices on the best representation of changes in walking and bicycling.
- Migrate data into a geographic database (GIS) to improve geographically related analysis
  capabilities such as distance from schools or transit, main roads, land-use density, Priority
  Development Areas (PDAs), etc. This will also allow improved visual representations of
  trends, and selection of additional count sites.
- Explore the possibility of conducting weekend manual counts to better capture recreational riding. Weekend data was collected in 2008 at 47 count locations and in 2009 at 36 count locations. Counts were conducted on Saturdays during one of three two-hour count periods

# ACTAC Meeting - 07/03/12 Agenda Item 5F Attachment A

**DRAFT REPORT: JUNE 2012** 

between 9am and 4pm. Initial research suggests that weekend counts are no more expensive to collect than weekday counts on a time-period basis.

- Analyze data for locations near transit and also in PDAs, and track trends over time.
- Compare count trends to changes in bicycle and pedestrian commute modes over time.
- Segregate and analyze those count locations near schools with active Safe Routes to Schools (SR2S) programs, and also compare count data to evaluation data collected by the SR2S program.
- Explore possible ways to collect data via automation, such as at traffic signals, using video detection. This may allow increased data collection throughout the county at a lower cost.
- Apply adjustment factors to existing collected data. Adjustment factors are being developed and refined by academics and others, which can be applied to existing data that was not collected during the identical time periods, days of week, and seasons. Applying these factors allows the conversion of much more of the existing data into a comparable form. This includes adjusting for season, extreme temperatures, time period, and land use. These adjustment factors are currently available for Alameda County only for pedestrian data but hopefully they will soon be developed for bicycle data, as well. Although it may be time intensive to apply them, these adjustments would be useful for allowing more data points to more accurately be compared, creating more refined trends in walking and bicycling.

## **Appendices**

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					Attachment B
ID#	Street	Cross street	City	Dianning Area	
	Atlantic Avenue	Cross street Webster Street	<b>City</b> Alameda	Planning Area North	
				North	
	Broadway (CA 61)	Calhoun Street	Alameda		
	Central Avenue	Fifth Street	Alameda	North	
	Park Street	Otis Drive	Allameda	North	
	Solano Avenue	Masonic Ave(Ohlone Trail)	Albany	North	
	Buchanan Street	Jackson Street	Albany	North	
	Ashby Avenue (CA 13)	Hillegass Avenue	Berkeley	North	
	Ashby Avenue (CA 13)	Telegraph Avenue	Berkeley	North	
	College Avenue	Derby Street	Berkeley	North	
	Hearst Avenue	Milvia Street	Berkeley	North	
	San Pablo Avenue	Virginia Street	Berkeley	North	
	Hesperian Boulevard	Lewelling Boulevard	County	Central	
	Mission Boulevard (CA 185)	Grove Way	County	Central	
	Redwood Road	Castro Valley Boulevard	County	Central	
	Dublin Boulevard	Scarlett Drive (Iron Horse Trail)	Dublin	East	
	Dublin Boulevard	Hacienda Drive	Dublin	East	
	Powell Street	Christie Avenue	Emeryville	North	
31	San Pablo Avenue	40th Street	Emeryville	North	
32	Fremont Blvd	Mowry Avenue	Fremont	South	
33	Fremont Boulevard (CA 84)	Peralta Boulevard	Fremont	South	
34	Mission Boulevard (CA 238)	Nichols Avenue	Fremont	South	
35	Mowry Avenue (CA 84)	Cherry Lane	Fremont	South	
36	Paseo Padre Parkway	Mowry Avenue	Fremont	South	
38	Warm Springs	Grimmer	Fremont	South	
98	Fremont Blvd (Washington)	Union Street	Fremont	South	
99	Paseo Padre Parkway	Decoto Rd	Fremont	South	
39	Foothill Boulevard	D Street	Hayward	Central	
45	Santa Clara Street	Ocie Way	Hayward	Central	
47	Winton Avenue	Amador Street	Hayward	Central	
97	C Street	Grand Street	Hayward	Central	
New	Tennyson Rd	Whitman Street	Hayward	Central	
49	East Street	Vasco Road	Livermore	East	
50	Railroad Avenue	First Street	Livermore	East	
52	Thornton Avenue	Willow Street	Newark	South	
New	Newark Blvd	Jarvis Ave	Newark	South	
53	66th Avenue	San Leandro St	Oakland	North	
55	Bancroft Avenue	Auseon Avenue	Oakland	North	
56	Broadway	12th Street	Oakland	North	
57	Broadway	20th Street	Oakland	North	
58	Chatham Road	13th Avenue	Oakland	North	
59	Doolittle Drive (CA 61)	Airport Access Road	Oakland	North	
62	Fruitvale Avenue	Foothill Blvd	Oakland	North	
63	Fruitvale Avenue	Alameda Ave	Oakland	North	
64	Grand Avenue	Staten Ave	Oakland	North	
	Grand Avenue	Lake Park	Oakland	North	
	MacArthur Boulevard	38th Avenue	Oakland	North	
	Mandela Parkway	14th Street	Oakland	North	
	Mountain	La Salle	Oakland	North	
	Telegraph Avenue	27th Street	Oakland	North	
	Webster Street	7th Street	Oakland	North	

### Agenda<sup>A</sup>Item 5F Attachment B

					Attaciiiieiit b
ID#	Street	Cross street	City	Planning Area	
96	Telegraph Avenue	40th Street	Oakland	North	
79	Grand Avenue	Oakland Avenue	Piedmont	North	
80	Main St	Bernal Ave	Pleasanton	East	
81	Owens Drive	Andrews Drive	Pleasanton	East	
82	Santa Rita Road	Francisco Street	Pleasanton	East	
83	Stoneridge Drive	Hopyard Road	Pleasanton	East	
85	Bancroft Avenue	Estudillo Avenue	San Leandro	Central	
87	Davis Street (CA 61)	Pierce Avenue	San Leandro	Central	
88	East 14th Street (CA 185)	Hesperian Boulevard	San Leandro	Central	
89	East 14th Street (CA 185)	Maud Avenue	San Leandro	Central	
92	Alvarado-Niles Road	Dyer Street	Union City	South	
93	Decoto Road	Alvarado-Niles Road	Union City	South	
94	Decoto Road	7th Street	Union City	South	
Remo	oved Sites				Reasons
					<ul> <li>Intersection re-configured from 4 legs to 3 legs, which resulted in the 2011 data not being comparable to previous year counts.</li> <li>Jefferson Street very short street, a few blocks long only, and, to the southeast, it dead ends at BART/rail right of way.</li> <li>Nearby street, Calhoun was suggested as alternative, it is a bike route but there are only a few blocks of urban area before it become</li> </ul>
41	Mission Boulevard	Jefferson Street	Hayward	Central	a rural bikeway.
51	Ardenwood Boulevard (CA 84)	Newark Boulevard (E side interchange ramp)	Newark	South	- Ardenwood Blvd in this location is a limited access state route (CA 84), and the count site is at an off/on-ramp The site location is essentially a screen-line count for bicyclists and pedestrians, and does not take advantage of our resources to count of the full intersection. Also, it is not within the nearby commerical area Newark Blvd is designated as a bikeway on the Countywide Bicycle Plan and is also a Bay Trail alignment Newark Blvd is also in the Countywide Pedestrian Plan, as a Bay Trail alignment and access to transit (Dumbarton Express).
	, ,				
	I C'I				
	d Sites Tennyson Rd	Whitman Street	Hayward	Central	Reasons  -Replaces Mission Blvd and Jefferson St, in HaywardNear two schools and South Hayward BART stationAt intersection of two existing bikeways designated in the local and countywide bicycle plansIn Countywide Pedestrian Plan, since it's within a half-mile of BART and bus corridor on MissionNo other count sites nearby.
					-Replaces CA 84 and Newark Blvd, in NewarkOnly one block south of current site of Ardenwood Blvd (CA 84) and Newark BlvdBoth streets are designated as bikeways in the Countywide Bicycle Plan (as Bay Trail alignment), and site is also in Countywide Pedestria Plan (Bay Trail alignment and access to transit) Jarvis Ave has existing bicycle lanes; Newark Blvd has bike lanes just south of Jarvis Ave.



#### Memorandum

**DATE:** June 22, 2012

**TO:** Alameda County Technical Advisory Committee

**FROM:** Beth Walukas, Deputy Director of Planning

Diane Stark, Senior Transportation Planner

SUBJECT: Review of Plan Bay Area Notice of Preparation (NOP) for a Draft

**Environmental Impact Report (EIR)** 

### Recommendation

This item is for information only. No action is requested.

### **Summary**

The Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) are about to prepare a Draft Environmental Impact Report (EIR) for Plan Bay Area, an integrated Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) Plan that seeks to integrate land use and transportation through 2040. The Draft EIR will analyze the environmental impacts of land use scenarios and transportation investments that will be considered for Plan Bay Area. The Notice of Preparation (NOP) for the Draft EIR was released on June 11, 2012 and comments are due by July 11, 2012. A copy of the NOP is in Attachment A. Scoping meetings are being held by MTC and ABAG in June, as shown in the attached NOP. Alameda CTC will be submitting comments after seeking input from ACTAC and the Committees.

### **Discussion:**

MTC and ABAG are preparing a program-level Draft EIR for the Plan Bay area in accordance with the California Environmental Quality Act (CEQA). Plan Bay Area is the first Bay Area Regional Transportation Plan that is subject to state legislation, SB 375, which requires greenhouse emission gas reductions through an integrated RTP and SCS with a focus on integrating transportation improvements with housing and job growth. MTC and ABAG are jointly preparing and certifying the EIR for the Plan Bay Area.

The Plan Bay Area EIR will be a program EIR, which according to CEQA Guidelines will consider broad, regional impacts of a program of actions. It will, therefore, focus on the entire set of projects and programs in the Plan, rather than on individual projects. Plan Bay Area EIR will evaluate potentially significant and cumulative environmental impacts and will include mitigation measures to reduce potentially significant impacts. It will also be the basis for subsequent tiered CEQA documents for project-specific or site-specific environmental review conducted by implementing agencies as land use and transportation projects in the Plan are

defined and studies are prepared. Potential impacts that will be analyzed include those on transportation, air quality, land use and housing. The analysis of transportation impacts will include the potential increase in vehicle miles traveled on facilities experiencing level of service F, potential increase in per-capita vehicle miles traveled (VMT) and potential decrease in the average number of jobs within 15, 30 or 45 minutes from home by automobile or transit.

The EIR will review five project (Plan Bay Area) alternatives listed below and described in Attachment B:

- 1) No Project
- 2) Jobs Housing Connection (Proposed Project)
- 3) Lower Concentration of PDA Growth
- 4) Eliminate Inter-Regional Commuting
- 5) Environment, Equity and Jobs

MTC and ABAG will hold scoping sessions requesting input on the scope and content of the EIR in June 2012 including answers to the following questions:

- o Are there potential environmental issues that MTC and ABAG should analyze that are not identified in Attachment A to this notice?
- o Are than any alternatives that MTC and ABAG should evaluate that are not identified in Attachment A to this notice?
- o What types of mitigation measures should be considered that would help avoid or minimize potential environmental impacts of the proposed Project and alternatives?
- o What elements of this EIR would help your agency with CEQA exemptions and tiering?

Alameda CTC will be submitting comments after seeking input from ACTAC. Initial comments are presented below.

### <u>Initial Comments on the Scope of Work for the Draft EIR</u>

- Environmental analysis of significant transportation impacts at PDAs should consider multi-modal level of service and mitigation measures and should consider the use and monitoring of transportation demand management (TDM) strategies as mitigation measures.
- An additional alternative should be analyzed that includes the preferred transportation investments identified in the "Proposed Project" alternative in Plan Bay Area with the existing land use.
- The EIR should address how transit will be supported by the High Occupancy Toll Lane (HOT) network.
- o Transportation impacts should include the impact on and mitigation measures for the efficient movement of freight in and out of PDAs that include commercial land uses.

A Draft EIR is expected be released December 2012, along with the Draft SCS/Regional Transportation Plan. In April 2013, the EIR is scheduled to be certified and Plan Bay Area is planned to be adopted. See Attachment C for the EIR development schedule.

### **Attachments**

Attachment A: Plan Bay Area NOP for a Draft EIR
Attachment B: Plan Bay Area EIR Alternatives
Attachment C: Plan Bay Area EIR Milestones

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### **Notice of Preparation**

To:

Interested Agencies, Organizations, and Individuals

Subject:

Notice of Preparation of a Draft Environmental Impact Report

for Plan Bay Area

### **Lead Agencies:**

Metropolitan Transportation Commission & Association of Bay Area Governments Joseph P. Bort MetroCenter 101 Eighth Street Oakland, CA 94607-4700

### **Contact Person:**

Ashley Nguyen, EIR Project Manager Metropolitan Transportation Commission

Phone: 510.817.5809 Fax: 510.817.5848

Email: anguyen@mtc.ca.gov

The Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) are co-lead agencies for preparing a program-level Draft Environmental Impact Report (EIR) for the Plan Bay Area in accordance with the California Environmental Quality Act (CEQA).

This Notice of Preparation (NOP) is intended to seek comments with specific detail about the scope and content of the environmental information that will be evaluated in the EIR. Agencies who have statutory responsibilities in connection with the project to be evaluated should share their views. Such agencies will use the EIR prepared by MTC and ABAG when considering a permit or other approval of a discrete project from Plan Bay Area. Local jurisdictions and transportation agencies may also elect to use this program-level EIR for tiering in second-tiered EIRs covering land use projects or transportation plans, projects, or programs.

MTC and ABAG seek your input on the following questions:

- Are there potential environmental issues that MTC and ABAG should analyze that are not identified in Attachment A to this notice?
- Are there any alternatives that MTC and ABAG should evaluate that are not identified in Attachment A to this notice?
- What types of mitigation measures should be considered that would help avoid or minimize potential environmental impacts of the proposed Project and alternatives?
- What elements of this EIR would help your agency with CEQA exemptions and tiering?

Four regional scoping meetings will be held to solicit input on the scope of the Draft EIR:

Wednesday, June 20, 2012 6:00 p.m. to 8:00 p.m. Joseph P. Bort MetroCenter MTC Auditorium 101 Eighth Street Oakland, CA 94607

Tuesday, June 26, 2012
10:00 a.m. to Noon
San Francisco Planning + Urban
Research (SPUR)
Public Assembly Hall – 2<sup>nd</sup> Floor
654 Mission Street
San Francisco, CA 94105

Thursday, June 21, 2012 10:00 a.m. to Noon Dr. Martin Luther King, Jr. Library Room 255/257 150 East San Fernando Street San Jose, CA 95112

Wednesday, June 27, 2012 1:30 p.m. to 3:30 p.m. Embassy Suites Hotel Novato/Larkspur Room 101 McInnis Parkway San Rafael, CA

All interested agencies, organizations and individuals are welcome to participate in the scoping meetings. Oral and written comments will be accepted at the scoping meetings. Due to the time limits mandated by State law, your response must be sent at the earliest possible date but *no later than 30 days* after receipt of this notice. Please send your response to Ashley Nguyen, EIR Project Manager by <u>July 11, 2012</u> through any of the following methods. Remember to include a return address and the name of the contact person.

Mail	Fax	E-mail
Ashley Nguyen, EIR Project Manager		
Metropolitan Transportation Commission	=	
Joseph P. Bort MetroCenter	510.817.5848	eircomments@mtc.ca.gov
101 Eighth Street		,
Oakland, CA 94607-4700		

The project description, location and the potential environmental effects are contained in the attached materials. An Initial Study is not required and thus not prepared.

# ACTAC Meeting - 07/03/12 Agenda Item 5G Attachment A

**Project Title:** 

Environmental Impact Report for Plan Bay Area

**Project Location:** 

San Francisco Bay Area Region, California

(Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo,

Santa Clara, Solano, and Sonoma Counties)

Attachment:

Attachment A: Project Description & Scope of Environmental Analysis

Date:

June 11, 2012

Steve Heminger

MTC Executive Director

Pat Jones

**ABAG Assistant Executive Director** 

## ATTACHMENT A PROJECT DESCRIPTION & SCOPE OF ENVIRONMENTAL ANALYSIS

#### **NOTICE OF PREPARATION**

The Notice of Preparation (NOP), along with this Attachment A, is being issued to interested agencies, organizations and individuals, to solicit comments that will assist in the preparation of the Draft Environmental Impact Report (EIR) for Plan Bay Area. As a result of the responses to the NOP and staff analysis, the project description and scope of the environmental analysis described herein will likely be revised and then further refined through the course of preparing the EIR.



#### **BACKGROUND**

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area (which includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties). Created by the State Legislature in 1970, MTC functions as both the regional transportation planning agency (RTPA)—a state designation—and for federal purposes, as the region's metropolitan planning organization (MPO). As required by State legislation (Government Code Section 65080 et. seq.) and by federal regulation (Title 23 USC Section 134), MTC is responsible for preparing the Regional Transportation Plan

(RTP) for the San Francisco Bay Area Region. An RTP is a long-range plan that identifies the strategies and investments to maintain, manage, and improve the region's transportation network.

In the past, MTC has undertaken the task of regional transportation planning somewhat separately from the regional population and employment projections and regional housing needs allocation processes conducted by the Association of Bay Area Governments (ABAG). ABAG is a joint powers agency formed in 1961 pursuant to California Government Code §§ 6500, et seq., and is the council of governments (COG) for the San Francisco Bay Area. ABAG prepares demographic and economic forecasts, and prepares the state-mandated Regional Housing Needs Allocation for the Bay Area. Consistent with the requirements of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), MTC and ABAG are jointly developing a Regional Transportation Plan and Sustainable Communities Strategy, known as Plan Bay Area. In addition, MTC and ABAG are jointly preparing and certifying the EIR for Plan Bay Area.

### **SENATE BILL (SB) 375**

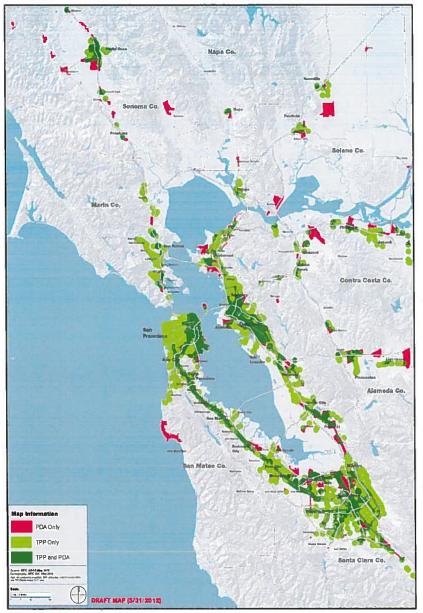
Senate Bill (SB) 375 went into effect in 2009 to help achieve the goal of reducing greenhouse gas (GHG) emissions to levels established by the California Air Resources Board and mandated under Assembly Bill (AB) 32. The Bay Area's per-capita GHG emission reduction targets are -7 percent in 2020 and -15 percent in 2035 from 2005 levels. The primary purpose of SB 375 is to integrate land-use and transportation planning to help lower GHG emissions and vehicle miles traveled through the development of a Sustainable Communities Strategy (SCS). If the SCS is unable to achieve the GHG emission reduction targets, an Alternative Planning Strategy (APS) must be developed to demonstrate how the targets could be achieved.

To help ensure its success, the SCS is developed in collaboration among many partners and stakeholders, including local jurisdictions, Congestion Management Agencies (CMAs), Caltrans, transit agencies, business and community organizations, and members of the public. Because SB 375 establishes new RTP land use elements, input from local jurisdictions with land use authority is essential to create a feasible and effective SCS.

While MTC, along with other regional agencies, prepares Regional Airport and Seaport plans, the projects in these advisory plans do not require MTC funding or approvals. As such, these plans are separate from the proposed Plan Bay Area and are subject to separate review processes. Therefore, this EIR does not analyze the environmental effects of these plans.

### **SB 375 CEQA STREAMLINING**

SB 375 provides CEQA streamlining provisions for certain "residential/mixed use residential projects" and "transit priority projects" to encourage integrated land use and transportation planning. Below is a map of Transit Priority Project-eligible areas based on transit service compared to Priority Development Areas, which are locally-identified, infill development opportunity areas within existing communities.



To take advantage of these CEQA streamlining provisions, projects must pre-qualify based on two criteria:

- A project must be consistent with the land use designation, density, building intensity, and applicable policies in an approved SCS or APS.
- A project must be considered a Residential/Mixed Use Residential Project or a Transit Priority Project (TPP) (as defined in SB 375).

To qualify as a residential and mixed use project, at least 75% of the total building square footage of the project must consists of residential use.

To qualify as a TPP, a project must (1) contain at least 50 percent residential use, based on total building square footage, and if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not

less than 0.75; (2) provide a minimum net density of at least 20 dwelling units per acre; and (3) be within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan.

A project is considered to be within one-half mile of a major transit stop or high-quality transit corridor if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop or corridor and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from stop or corridor. A *major transit stop* is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. A *high-quality transit corridor* is defined as a corridor

with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

MTC and ABAG's role is to include the appropriate land use and transportation information in the Plan and EIR, including general land use designations, density, building intensities, and applicable policies, so that lead agencies/local jurisdictions can utilize SB 375 CEQA streamlining provisions for their projects and make their own consistency determinations with the Plan. In defining the alternatives, MTC and ABAG also intend to maximize opportunities to support residential/mixed use projects and TPPs so that lead agencies/local jurisdictions that wish to plan and implement a qualifying residential/mixed use project or TPP may take advantage of the SB 375 CEQA streamlining provisions.

During the EIR scoping process, MTC and ABAG are seeking input and comments on what elements of the Plan and EIR would be valuable to lead agencies/local jurisdictions for purposes of CEQA streamlining as called out in SB 375.

#### PLAN BAY AREA – THE PROPOSED PROJECT

Plan Bay Area is a joint effort led by MTC and ABAG and developed in partnership with the Bay Area's other two regional government agencies, the Bay Area Air Quality Management District (BAAQMD), and the Bay Conservation and Development Commission (BCDC). Plan Bay Area meets the requirements of SB 375 by developing an integrated RTP/SCS plan and strives to attain the per-capita GHG emission reduction targets of -7 percent by year 2020 and -15 percent by year 2035 from 2005 levels. Plan Bay Area, which covers the period through 2040, is the first Bay Area RTP that is subject to SB 375.

Plan Bay Area reinforces land use and transportation integration per SB 375 and presents a vision of what the Bay Area's land use patterns and transportation networks might look like in 2040. The vision for Plan Bay Area is guided by the three Es of sustainability: building a stronger economy, protecting the natural environment, and enhancing opportunities for Bay Area residents from all walks of life. Goals of Plan Bay Area include:

- Climate Protection
- Adequate Housing
- Healthy & Safe
   Communities
- Open Space & Agricultural Preservation
- Equitable Access
- Economic Vitality

Transportation System Effectiveness

The Bay Area is projected to add over 2 million people, 1.1 million new jobs, and 660,000 new housing units between 2010 and 2040. To plan for this future growth, Plan Bay Area calls for focused housing and job growth around high-quality transit corridors, particularly within areas identified by local jurisdictions as Priority Development Areas (PDAs). This land use strategy enhances mobility and economic growth by linking housing/jobs with transit, thus offering a more efficient land use pattern around transit and a greater return on existing and planned transit investments than today's.

Plan Bay Area includes a financially constrained transportation investment plan as required by state and federal planning regulations. It includes transportation projects and programs that would be funded through existing and future revenues that are projected to be reasonably available to the region over the 28-year horizon of the plan. A total of \$277 billion in revenues is available for the financially constrained Plan Bay Area. As such, the proposed Project and alternatives evaluated in the EIR must be financially constrained to the \$277 billion envelope.

For more information about Plan Bay Area, visit: <a href="http://www.onebayarea.org/plan\_bay\_area/">http://www.onebayarea.org/plan\_bay\_area/</a>.

For more information about Plan Bay Area EIR, visit: <a href="http://www.onebayarea.org/EIR/">http://www.onebayarea.org/EIR/</a>.

#### **SCOPE OF ENVIRONMENTAL ANALYSIS**

The EIR for Plan Bay Area will be prepared in compliance with the California Environmental Quality Act (CEQA) of 1970, as amended. In general, the purpose of the EIR is to:

- Analyze the potential environmental effects of the adoption of the Plan;
- Inform decision-makers, other responsible agencies, and members of the public as to the range of these environmental impacts of the Plan;
- Recommend a set of measures to mitigate any significant adverse regional impacts; and
- Analyze a range of reasonable alternatives to the proposed Plan.

Specifically, the EIR for Plan Bay Area will be a program EIR, which is a first-tier CEQA document designed to consider broad, regional impacts of a program of actions (CEQA Guidelines §15168). Therefore, the EIR will focus on the entire set of projects and programs contained in the Plan, rather than on individual projects. This EIR will evaluate potentially significant environmental impacts, and cumulative impacts, and will include mitigation measures to offset potentially significant effects. In addition, this EIR will be the basis for subsequent tiered CEQA documents for project-specific or site-specific environmental reviews that will be conducted by implementing agencies as land use and transportation projects in the Plan are more clearly defined and more detailed studies prepared. Specific analysis of localized impacts in the vicinity of individual projects is not included in this program level EIR.

Under CEQA, key impact categories identified for analysis in this EIR include:

#### <u>Transportation</u>

- Potential decrease in the average number of jobs within 15, 30, or 45 minutes from home by auto or transit
- Potential increase in vehicle miles traveled (VMT) on facilities experiencing level of service F
- Potential increase in per-capita VMT

#### Air Quality

- Potential increase in short-term construction-related emissions
- Potential net increase of emissions of criteria pollutants and toxic air contaminants from on-road mobile sources

- Potential increase in health risks due to increased particulate matter and toxic air contaminants from mobile and stationary sources within high-quality transit corridors
- Potential conflict with an applicable air quality plan or violation of applicable air quality standard or substantial contribution to an existing or potential air quality violation

## Land Use, Housing, Agriculture, and Physical Displacement

- Potential conversion of agricultural lands and open space to non-agricultural use
- Potential conflict with locally adopted land use plans, including general plans and zoning
- Potential disruption of residential or business uses or displacement of population and housing
- Potential alterations to the characteristics and qualities of an existing neighborhood or community by separating residences from community facilities and services

### Energy

- Potential increase in the consumption of electricity, natural gas, gasoline, diesel, or other non-renewable energy types
- Potential inconsistency with adopted plans or policies related to energy conservation

### Greenhouse Gases and Climate Change (including Sea Level Rise)

- Potential increase in net and per-capita CO<sub>2</sub> emissions from on-road mobile sources
- Potential vulnerability of land uses and transportation network to sea-level rise
- Potential conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

#### Noise

 Potential exposure to construction, highway, transit noise levels or ground borne vibration in excess of established standards

# **Geology and Seismicity**

- Potential increase in exposure of people or structures to the risk of property loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; and/or seismic-related ground failure
- Potential soil erosion or topsoil loss
- Potential location of projects on: a geologic unit or soil that is unstable or would become unstable as a result of the project; on expansive soils; or on weak, unconsolidated soils

#### **Water Resources**

- Potential violation of water quality standards or waste or storm water discharge requirements
- Potential interference with or reduced rates of groundwater recharge due to increased amount of impervious surfaces
- Potential erosion by altering the existing drainage patterns of a site

- Potential increase in non-point pollution of storm water runoff
- Potential increases in rates and amounts of runoff due to additional impervious surfaces
- Potential placement of structures within a 100-year flood hazard area which would impede or redirect flows
- Potential exposure of people to significant risk of loss, injury, or death involving flooding, seiche, tsunami, or mudflow

### **Biological Resources**

- Potential adverse effect on sensitive or special-status species
- Potential adverse effect on riparian habitat, protected wetlands, or other sensitive natural community
- Potential interference with the movement of any native resident, migratory fish, or wildlife species
- Potential conflict with adopted local conservation policies

#### Visual Resources

- Potential adverse effect on scenic vistas
- Potential damage to scenic resources within a scenic highway,
- Potential degradation of existing visual character
- Potential creation of a new source of substantial light or glare

### **Cultural Resources**

- Potential adverse change or damage to the significance of a historic resource, unique archaeological resource, and/or a unique paleontological resource/site
- Potential disruption of any human remains

# Public Utilities

 Potential adverse effect on water supply, wastewater/storm water facilities, and solid waste

#### **Growth-Inducing Impacts**

• Potential direct or indirect substantial, unanticipated increases in population beyond those currently projected

Impact categories not specifically addressed in this EIR include hazardous materials, public services, recreation and mineral resources because no significant impacts of regional importance are expected to occur in these areas. These impact areas will be addressed in project-specific environmental documents.

#### PROPOSED PROJECT AND ALTERNATIVES TO BE ANALYZED IN THE EIR

The proposed Project and preliminary draft alternatives that may be evaluated in this EIR are described below. MTC will use the latest planning assumptions in the EIR analysis, as well as the same regional growth control totals of 1,120,000 new people, 2,147,000 new jobs, and 660,000 new housing units except for Alternative 4 (see Alternative 4 for details). It is

important to note that more precise definitions of the alternatives, or new alternatives, will likely emerge as the EIR scoping and preparation process evolves.

### Alternative 1 – No Project

CEQA requires the evaluation of a No Project alternative. The No Project alternative addresses the effect of not implementing Plan Bay Area as required by Section 15126.6(e) (2) of the CEQA Guidelines. It includes "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Section 15126.6(e) (2)). The No Project alternative allows decision-makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project.

For purposes of this EIR, the No Project alternative consists of two elements: (a) the existing 2010 land uses plus continuation of existing land use policy as defined in adopted general plans, zoning ordinances, etc. from all jurisdictions in the region and (b) the existing 2010 transportation network plus a set of highway, transit, local roadway, bicycle and pedestrian projects that have either already received funding or are scheduled for funding and have received environmental clearance by May 1, 2011.

### **Alternative 2 – Jobs-Housing Connection (Proposed Project)**

The Jobs-Housing Connection alternative is the proposed Project, as approved by ABAG and MTC on May 17, 2012. This alternative lays out a land use pattern that is structured around four key elements: (1) over 200 locally selected Priority Development Areas (PDAs) that support job growth and accessibility as well as housing diversity and affordability, (2) the region's core transit network, (3) the Bay Area's network of open spaces and conservation land, including 100 Priority Conservation Areas (PCAs), and (4) a network of complete communities in which each community is supported by the appropriate services and amenities. To distribute future growth, regional growth factors were applied to address the changing economic, demographic and housing needs of the region.

- Employment Distribution: The approach for distributing new employment growth accounts for job growth by sector and is linked to transit infrastructure. Local planning and economic analysis regarding growing industries in the Bay Area informed focused growth in PDAs. Knowledge-sector jobs (such as information technology companies, legal or engineering firms, and biotechnology firms) are expected to grow based on current concentrations, specialization, and past growth as well as transit services and access. Population-based jobs (such as retail, stores, or restaurants) are expected to grow in a manner reflecting the distribution of future household growth. All other jobs (such as government, agriculture and manufacturing) are expected to grow according to the existing distribution of jobs in each of these sectors.
- Housing Distribution: The strategy for locating new housing begins with local plans at
  the county, city, and PDA levels. Housing growth in each place was then adjusted to
  ensure that regional goals were advanced based on five regional growth factors: (1)
  level of transit service, (2) vehicle-miles traveled per household, (3) employment by
  2040, (4) low-wage workers commuting from outside each place, and (5) housing value.

More housing growth was directed to locations near transit, jobs, and high-quality services.

As a result, PDAs are proposed to absorb about 80 percent of new housing and 66 percent of new jobs on about five percent of the total regional land area. Regional centers in Oakland, San Francisco, and San Jose account for about 14 percent of new housing and 17 percent of job growth. Medium size cities also play an important role by adding a mix of new housing, employment, and services in strategic locations. About 99 percent of the region's open space and agricultural land are retained and North Bay counties take a very small share of growth. Napa and Marin counties account for about 1 percent of each of the total regional housing growth and Sonoma and Solano, 5 and 3 percent, respectively.

The transportation investment strategy for the Jobs-Housing Connection alternative is financially constrained (as required by federal and state planning regulations) to the \$277 billion in federal, state, regional and local revenues forecasted to be reasonably available to the Bay Area over the next 28-years. Of the \$277 billion in revenues, 88 percent of the revenue (\$244 billion) is directed towards maintaining and operating the existing transit, roads and bridges, while the remaining 12 percent goes to transit and road expansions. Key new commitments funded with the \$56 billion (out of \$277 billion) in discretionary funds include:

- \$700 million towards Climate Policy Initiatives (such as clean vehicles, smart driving, carsharing, vanpools, etc.)
- \$24 billion towards maintaining existing pavement conditions for local streets and roads, highest-rated transit assets, and bridges, as well as fully funding operating needs for existing transit services
- \$14 billion towards the OneBayArea Grant framework that rewards jurisdictions that
  produce housing near transit, support planning efforts for transit-oriented
  development in PDAs, and support Priority Conservation Areas (PCAs)
- \$8 billion towards implementation of high-performing, cost-effective transportation projects, which includes the next generation of capital transit investments
- \$3 billion towards the Regional Express Lanes Network, San Francisco Pricing Program, and MTC's Freeway Performance Initiative
- \$500 million towards MTC's Transit Performance Initiative

### Alternative 3 – Lower Concentrations of PDA Growth

This alternative creates alternative land use patterns to that proposed in the Jobs-Housing Connection by lowering concentrations of PDA growth. This alternative will examine land uses surrounding transit-rich or other transit services that were not proposed by local government through the PDA process. Land use policy levers such as upzoning, incentives, fees, and growth boundaries will be considered to allow us to test the effects of placing growth in these areas.

The Lower Concentrations of PDA Growth alternative builds from the No Project alternative, and uses the same transportation investment strategy as contained in Alternative 2. The upzoning policy will be applied in transit-rich areas. For all other areas, assumptions based on the adopted general plan and zoning policies will remain unchanged. This alternative also

assumes tighter compliance of adopted urban growth boundaries (or similar urban service or limit lines) as defined by local jurisdictions as a means to further constrain greenfield development.

### Alternative 4 – Eliminate Inter-Regional Commuting

This alternative assumes that all Bay Area jobs will be filled by Bay Area workers (thereby eliminating in-commuting from neighboring regions). This alternative will test different ways to accommodate this in-commute growth.

This alternative tests a modified transportation investment strategy, which is different from the approved transportation investment strategy reflected in Alternatives 2 and 3. The modification redirects about \$6 billion in discretionary funding to increase transit service. The transit service to be implemented in this alternative is informed by Comprehensive Operations Analyses (COAs). These COAs were completed by major transit operators in San Francisco (i.e., Municipal Transit Authority) and Santa Clara County (i.e., Valley Transportation Authority), or conducted by MTC for the Inner East Bay (i.e., BART and AC Transit) as part of its Transit Sustainability Project. In addition, this alternative will not reflect the full implementation of the Regional Express Lanes network. It includes only projects that convert existing high-occupancy vehicle (HOV) lanes into high-occupancy toll (HOT) lanes.

### Alternative 5 – Environment, Equity and Jobs

This alternative is proposed for evaluation in this EIR by various Bay Area equity stakeholders. This alternative seeks to carry out two objectives: (a) provide affordable housing in job-rich communities, and (b) maximize transit services by restoring transit service cuts made after 2005. Land use policies such as upzoning, incentives and fees will be applied in this alternative as a means to provide more affordable housing in high job accessibility areas. This alternative also assumes tighter compliance with adopted urban growth boundaries (or similar urban service or limit lines) as defined by local jurisdictions as a means to further constrain greenfield development.

This alternative tests a modified transportation investment strategy. This alternative redirects about \$6 billion in discretionary funding towards restoring transit bus service to 2005 levels, and includes the latest 2010 rail network and transit capital expansion projects identified in the approved transit investment strategy from Alternative 2. The Regional Express Lanes Network contemplated in Alternative 4 will also be the same for this alternative.

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ACTAC Meeting - 07/03/12
Agenda Item 5G
Attachment A

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Plan Bay Area EIR Alternatives

EIR Alternative	Land Use Assumptions	Proposed Transportation Network
Alternative 1  No Project	Existing 2010 land uses plus continuation of existing land use policy as defined in adopted general plans, zoning ordinances, etc., from all jurisdictions.	Existing 2010 transportation network plus a set of highway, transit local roadway, bicycle and pedestrian projects that have already received funding or are scheduled for funding and have received environmental clearance by May 1, 2011.
Alternative 2 Jobs Housing Connection (Proposed Project)	Over 200 locally selected Priority Development Areas (PDAs) that support job growth and accessibility, and housing diversity and affordability.  Bay Area's network of open spaces and conservation land including 100 Priority Conservation Areas (PCAs).  Network of complete communities in which each community is support by the appropriate services and amenities.	Transportation investment strategy is financial constrained, including following:  O Climate Policy Initiative;  Maintaining existing pavement for streets and roads, highest rated transit assets and bridges, and fully fund operating needs for existing transit services (region's core transit network);  O One Bay Area Grant framework to reward producing housing near transit, and support planning in PDAs and PCAs;  O Implement high performing, cost effective transportation projects;  O Regional Express Lanes Network, MTC's Freeway Performance Initiative, and  O MTC's Transit Performance initiative.

Source: Plan Bay Area Notice of Preparation for Draft EIR, MTC and ABAG , June 6, 2012

EIR Alternative	Land Use Assumptions	Proposed Transportation Network
Alternative 3  Lower  Concentrations of PDA Growth	Land uses surrounding transit-rich or other transit services not proposed by local government through the PDA process. Includes policy levers like upzoning in transit-rich areas, incentives and fees. Assumptions in other areas are based on adopted general plan and zoning policies.	Same transportation investment strategy as that in Alternative 2.
	Tighter compliance of adopted urban growth boundaries or urban limit lines.	
Alternative 4  Eliminate Inter- Regional Commuting  Alternative 5  Environment, Equity and Jobs	Assumes all Bay Area jobs will be filled by Bay Area workers and eliminates in-commuting from neighboring regions. It is the only alternative with higher growth totals.  Provide affordable housing in job-rich communities.  Includes land use policies such as upzoning, incentives and fees as a means to provide more affordable housing in high job accessibility areas.	Modified transportation investment strategy. Redirect about \$6 billion in discretionary funding to increase transit service.  Does not fully implement Regional Express Lanes network — only those projects that convert existing high occupancy vehicle lanes into high occupancy toll lanes.  Modified transportation investment strategy. Redirects \$6 billion in discretionary funding towards maximizing transit services by restoring transit service cuts made after 2005.  Includes latest 2010 rail network and transit capital expansion projects in approved transit investment strategy from Alternative 2.
	limit lines to constrain Gr	Includes Regional Express Lanes Network in Alternative 4.

Source: Plan Bay Area Notice of Preparation for Draft EIR, MTC and ABAG , June 6, 2012

# TABLE 1

Dates	EIR Milestones
June 8	Present Draft Alternatives for review by Joint MTC Planning/ ABAG Administrative Committees
June 11	Release Notice of Preparation for 30-Day Public Review Period (Comment Period: June 11, 2012 – July 11, 2012)
June	Hold Regional Scoping Meetings  • June 20 – Oakland  • June 21 – San Jose  • June 26 – San Francisco  • June 27 – San Rafael
July 13	Present Final Alternatives for review by Joint MTC Planning/ABAG Administrative Committees and recommendation to the Commission and ABAG Executive Board
July 19	Commission and ABAG Executive Board approve Final EIR Alternatives
July - December	Prepare Draft EIR
December 14	Release Draft EIR for 45-Day Public Review Period by Joint MTC Planning/ABAG Administrative Committees (Comment Period: December 14, 2012 – January 31, 2013)
January 2013	Hold Public Hearings on Draft Plan and Draft EIR
February – March 2013	Prepare Final EIR (includes Response to Comments)
April 2013	Commission and ABAG Executive Board Certify Final EIR and Adopt Final Plan

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Attachment C

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#### Memorandum

**DATE:** June 18, 2012

**TO:** Alameda County Technical Advisory Committee (ACTAC)

**FROM:** Matt Todd, Manager of Programming

John Hemiup, Senior Transportation Engineer

**RE:** Review of Measure B Pass-Through Compliance Report Process for FY 2011-12

#### **Recommendations:**

This item is for information only. No action is requested.

### **Summary**

Based on staff's review of the compliance reports that Measure B pass-through fund recipients submit to Alameda CTC, staff recommends changes to the compliance report for fiscal year 2011-2012 (FY 11-12) to ensure that Measure B funds were utilized in conformance with the new Master Programs Funding Agreements (MPFA), effective April 1, 2012, and to incorporate Vehicle Registration Fee (VRF) funds into the reporting process. Staff seeks input from ACTAC members to improve the reporting process.

# **Background**

At the end of each calendar year prior to FY 11-12, Measure B pass-through fund recipients were required to submit a compliance report to Alameda CTC to document their Measure B pass-through fund expenditures and deliverables for four types of programs: bicycle and pedestrian, local streets and roads, mass transit, and paratransit. In addition to reporting Measure B pass-through funds, the compliance report documented the expenditures of Measure B discretionary funds and non-Measure B funds to produce a comprehensive report on the influence of tax measure funds on transportation in Alameda County.

The FY 11-12 compliance reports are due on December 31, 2012. Jurisdictions and agencies that receive Measure B and VRF pass-through funds are required to submit a hard-copy and electronic version of this end-of-year report along with electronic versions of all attachments.

Each year, staff works toward improving the compliance report process based on input from recipients, staff, and the Citizens Watchdog Committee (CWC). Staff seeks recommendations from fund recipients at this time to revise the compliance reports in advance of the distribution to recipients in September.

### **MPFA Requirements**

The current MPFA stipulates new audit and compliance reporting requirements that need to be taken into account in the forthcoming compliance report as follows:

- Vehicle Registration Fee (VRF) Funds VRF fund recipients will need to submit an audit report and a compliance report that are similar to the Measure B audit and compliance report. Both funds and the interest earned must be accounted for, and reported on, separately.
- Fund Reserve Policy This policy outlines three reserves for both Measure B and VRF funds to encourage the timely use of these monies: Capital Fund Reserve, Operations Fund Reserve, and Undesignated Fund Reserve. Fund recipients will establish these reserves starting in FY 11-12 and will be required to comply with the timeline that each reserve allocates.

### **Audit and Compliance Report Requirements**

An integral part of the compliance report is the recipients' audit and auditors' opinion on an actual "Balance Sheet" and "Statement of Revenues and Expenditures and Changes in Fund Balance" for each Measure B and VRF fund type. Fund statements should be comprised of all Measure B or VRF funds including pass-through and all discretionary funds such as grants, paratransit minimum service level grants, paratransit cash-flow stabilization grants, and interest earned on Measure B or VRF pass-through funds and should address the following specific items and be consistent with the compliance report by fund type:

- FY 2010-11 unspent pass-through balances equals prior year fund balance.
- FY 2011-12 summation of revenues (per type), equals total Measure B or VRF revenue.
- Interest on pass-through funds is reported separately and not combined with "other income" such as fares, etc.
- FY 2011-12 summation of funds expended (per type) equals total Measure B or VRF expenditures.
- Ending Measure B or VRF balance equals ending fund type balances.

In addition to reporting fund expenditures, recipients must document that they are current with the following deliverables:

- Annual certified number of maintained road miles within recipients' jurisdiction (not applicable to transit agencies).
- The Average Pavement Condition Index (PCI) within recipients' jurisdiction.
- Population within recipients' jurisdiction (not applicable to transit agencies).
- Public awareness program participation in partnership with the Commission and/or the CWC.
- Annual article published in recipients' newsletter or Alameda CTC's newsletter.
- Project information on recipients' website and a link to the Alameda CTC website.
- Description of signage, and number of signs, posted adjacent to projects and on vehicles.

# **Compliance Report Form**

Staff intends to revise the compliance report form for the 2011/12 reporting period as follows:

- Place more emphasis on the spreadsheet (Table 1) than on the PDF form and utilize multiple columns to clarify fund sources, enable a quick summation of values, and expand drop-down menus to provide uniform responses. The spreadsheet could also track fund reserves per fiscal year and be adjusted each fiscal year according to usage and carry over.
- Explore using a Microsoft Word-based form that will allow for expanded response boxes and utilize "track changes" for questions and answers, or incorporate the PDF questions into an expanded Table 1 report form. The final document could be converted to PDF.

• Since fund recipients cannot reserve or carry forward discretionary Measure B or VRF funds, focus questions on Measure B and VRF pass-through fund types only. For example, questions would not request revenues and expenditures of discretionary funds.

Staff would like to receive input from ACTAC members on any other changes that may improve the compliance reporting process.

### **Schedule**

The audit is due to the Alameda CTC on December 27, 2012, and the compliance report is due on December 31, 2012. The following schedule shows the reporting process milestones.

Deadline	Task
5/24/12	Distribute 2010/11 Compliance Report Executive Summary to
	Commission
6/28/12	Distribute 2010/11 Compliance Summary Report to Commission
6/30/12	Review existing audit and compliance report forms
8/15/12	Revise audit and compliance report forms
9/7/12	Distribute forms with instructions to agencies/jurisdictions
9/7/12	Post new forms to the website
9/20/12	Hold compliance workshop for agencies/jurisdictions
12/27/12	Receive audit report submissions
12/31/12	Receive compliance report submissions

Fiscal Impact: None

**Attachments:** None

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### Memorandum

**DATE:** June 21, 2012

**TO:** Alameda County Technical Advisory Committee

**FROM:** Matt Todd, Manager of Programming

Vivek Bhat, Senior Transportation Engineer

SUBJECT: Review of California Transportation Commission (CTC) June 2012 Meeting

**Summary** 

#### **Recommendations:**

This item is for information only. No action is requested.

# **Background:**

The California Transportation Commission is responsible for programming and allocating funds for the construction of highway, passenger rail, and transit improvements throughout California. The CTC consists of eleven voting members and two non-voting ex-officio members. The San Francisco Bay Area has three (3) CTC members residing in its geographic area: Bob Alvarado, Jim Ghielmetti, and Carl Guardino.

The June 27<sup>,</sup> 2012 CTC meeting is scheduled to be held at Ontario, CA. There are four (4) items on the agenda pertaining to Projects / Programs within Alameda County (Attachment A). Additional information on the results of the meeting will be available at the ACTAC meeting.

#### **Attachments:**

Attachment A: June CTC Meeting Summary for Alameda County Projects /Programs

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June 2012 CTC Summary for Alameda County Projects/ Programs

Sponsor	Program / Project	Item Description	CTC Action / Discussion
Alameda CTC	State Transportation Improvement Program (STIP) / Planning Programming Monitoring (PPM)	Allocation of \$1.56 Million PPM funds	
MTC	Corridor Mobility Improvement Account (CMIA) Program / Freeway Performance Initiative - Traffic Operation Systems (TOS) and Ramp Metering on I-680 between AutoMall and Mission	Allocation of \$7.0 Million for CON phase	
Alameda CTC	Traffic Congestion Relief Program (TCRP) / I-680 Sunol Grade NB & SB HOV Lane Phase Project	Allocation of \$10.0 Million for CON Phase	
Caltrans	Interregional Transportation Improvement Program (ITIP) / Oakland to San Jose Track Improvement Program Project	12 Month Project Allocation Deadline Extension	

http://www.dot.ca.gov/hq/transprog/ctcbooks/2012/0612/000\_Timed.pdf

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