



AGENDA

SPECIAL CITY COUNCIL MEETING

Tuesday, March 6, 2012 – 6:40 p.m.

Hillside Conference Room

REGULAR CITY COUNCIL MEETING

Tuesday, March 6, 2012 – 7:00 p.m.

City Council Chambers

SPECIAL CITY COUNCIL MEETING – CLOSED SESSION

Tuesday, March 6, 2012 – Immediately Following the Municipal Services Corporation Meeting

Hillside Conference Room

Meeting Location

El Cerrito City Hall

10890 San Pablo Avenue, El Cerrito

Bill Jones – Mayor

Mayor Pro Tem Greg Lyman
Councilmember Rebecca Benassini

Councilmember Ann Cheng
Councilmember Janet Abelson

6:40 p.m. ROLL CALL

CONVENE SPECIAL CITY COUNCIL MEETING

ORAL COMMUNICATIONS FROM THE PUBLIC

Comments are limited to 3 minutes per person and to this special agenda only.

COMMISSION INTERVIEWS, STATUS AND APPOINTMENTS

Conduct interviews of candidates for city boards and commissions. Interviews may result in an announcement of appointment at the meeting. The City Council may also discuss scheduling of future interviews.

ADJOURN SPECIAL CITY COUNCIL MEETING

ROLL CALL

7:00 p.m. CONVENE REGULAR CITY COUNCIL MEETING

1. **PLEDGE OF ALLEGIANCE TO THE FLAG** – led by Mayor Pro Tem Lyman.
2. **COUNCIL / STAFF COMMUNICATIONS** (*Reports of Closed Session, commission appointments and informational reports on matters of general interest which are announced by the City Council & City Staff.*)

3. **ORAL COMMUNICATIONS FROM THE PUBLIC**

All persons wishing to speak should sign up with the City Clerk. Remarks are limited to 3 minutes per person. Please state your name and city of residence for the record. Comments regarding non-agenda, presentation and consent calendar items will be heard first. Comments related to items appearing on the Public Hearing or Policy Matter portions of the Agenda are taken up at the time the City Council deliberates each action item. Individuals wishing to comment on any closed session scheduled after the regular meeting may do so during this public comment period or after formal announcement of the closed session.

4. **PRESENTATIONS**

- A. **RecycleMore Household Hazardous Waste Program Video** – Nicole Forte, Programs Manager, RecycleMore

5. **ADOPTION OF THE CONSENT CALENDAR – Item Nos. 5A through 5D**

Consent Calendar items are considered to be routine by the City Council and will be enacted by one motion unless a request for removal for discussion or explanation is received prior to the time Council votes on the motion to adopt.

- A. **Minutes for Approval**

Approve the February 21, 2012 Special City Council Closed Session and Regular City Council meeting minutes.

- B. **Proclamation proclaiming March 2012 as Red Cross Month**

Approve a proclamation proclaiming March 2012 as American Red Cross Month in the City of El Cerrito and encouraging all residents to support this organization and its noble humanitarian mission.

- C. **Defense of Bay Delta Issues From a Regional Perspective**

At the request of Mayor Jones, adopt a resolution identifying the City of El Cerrito as a stakeholder with other County, Contra Costa County cities, Special Districts and other agencies and organizations, for the purpose of articulating mutual interests on Bay-Delta issues and as a stakeholder to resolve to work together to defend Bay-Delta related interests from a regional perspective. The resolution also identifies principles of mutual interest.

- D. **Confirm Committee on Aging Appointment**

Approve a Committee on Aging recommendation to appoint Vera Gibbs Winston to the Committee on Aging, effective March 7, 2012.

6. **PUBLIC HEARINGS** – None

7. POLICY MATTERS

A. I-80 Integrated Corridor Mobility Project Memorandum of Understanding

Adopt a resolution authorizing the City Manager or his designee to execute the I-80 Integrated Corridor Mobility Project, Memorandum of Understanding (Exhibit A to the Resolution) and to make non-substantive changes subject to the review of the City Attorney.

B. Authorization to Cast Ballots for the 2012 Clean Water Program

Adopt a resolution authorizing the City Manager to cast ballots for the 2012 Community Clean Water Initiative in the affirmative for all parcels owned by the City of El Cerrito, and to submit those ballots to the proper authority by April 6, 2012.

8. COUNCIL ASSIGNMENTS/LIAISON REPORTS

A. Mayor Jones Assignments: Contra Costa County Mayors' Conference, Crime Prevention Committee, Design Review Board, Disaster Preparedness Council Delegate, Municipal Service Corporation Chair, Oversight Board of the Successor Agency for the Former El Cerrito Redevelopment Agency, Pension Board Chair, Temporary Permits Committee, Tom Bates Regional Sports Field JPA, Underground Utilities Committee, West County Integrated Waste Management Authority Alternate and West County Mayors' & Supervisors' Association.

B. Mayor Pro Tem Lyman Assignments: Commission/Committee Rules Subcommittee, Contra Costa County Mayors' Conference Alternate, Disaster Preparedness Council Alternate, Economic Development Board, Municipal Services Corporation Vice-Chair, Pension Board Alternate, Planning Commission, Tree Committee, West County Integrated Waste Management Authority Delegate and West County Mayors' & Supervisors' Association Alternate.

C. Councilmember Abelson Assignments: Association of Bay Area Governments (ABAG) General Assembly Alternate, Committee on Aging, Contra Costa Transportation Authority, Environmental Quality Committee, League of California Cities East Bay Division Delegate and West Contra Costa Transportation Advisory Committee Delegate.

D. Councilmember Benassini Assignments: Arts and Culture Commission, Park and Recreation Commission, Redevelopment Agency Vice-Chair, and Tom Bates Regional Sports Field JPA Alternate.

E. Councilmember Cheng Assignments: Association of Bay Area Governments (ABAG) General Assembly Delegate, Commission/Committee Rules Subcommittee, Financial Advisory Board, Human Relations Commission, League of California Cities East Bay Division Alternate, Redevelopment Agency Chair and West Contra Costa Transportation Advisory Committee Alternate.

9. ADJOURN REGULAR CITY COUNCIL MEETING

The next City Council meeting is scheduled on Tuesday, March 20, 2012 at 7:00 p.m. The meeting will take place in the City Council Chambers at City Hall, 10890 San Pablo Avenue, El Cerrito. *A meeting of the Municipal Services Corporation follows immediately after this Concurrent City Council/Successor Agency to the El Cerrito Redevelopment Agency meeting.*

10. RECESS TO ATTEND THE MUNICIPAL SERVICES CORPORATION MEETING (Noticed by separate agenda)

11. CONVENE SPECIAL CITY COUNCIL MEETING – CLOSED SESSION

ROLL CALL

ANNOUNCEMENT OF CLOSED SESSION

Conference with Labor Negotiators *(Pursuant to Government Code Section 54957.6)*

Agency Designated Representatives: Scott Hanin, City Manager, Glenn Berkheimer, Labor Negotiator, Sky Woodruff, City Attorney and Sukari Beshears, Employee Services Manager

Employee Organizations: Service Employees International Union Local 1201 and Unrepresented Employees

ORAL COMMUNICATIONS FROM THE PUBLIC *(Comments are limited to three minutes and to items on this Special City Council Closed Session agenda only.)*

RECESS INTO CLOSED SESSION

POSSIBLE REPORT OUT OF CLOSED SESSION

ADJOURN SPECIAL CITY COUNCIL MEETING – CLOSED SESSION

The City of El Cerrito serves, leads and supports our diverse community by providing exemplary and innovative services, public places and infrastructure, ensuring public safety and creating an economically and environmentally sustainable future.

- Council Meetings can be heard live on FM Radio, KECG – 88.1 and 97.7 FM and viewed live on Cable TV - KCRT- Channel 28. The meetings are rebroadcast on Channel 28 the following Thursday and Monday at 12 noon, except on holidays. Live and On-Demand Webcast of the Council Meetings can be accessed from the City's website <http://www.el-cerrito.org/ind-ex.aspx?NID=114>. Copies of the agenda bills and other written documentation relating to items of business referred to on the agenda are on file and available for public inspection in the Office of the City Clerk, at the El Cerrito Library and posted on the City's website at www.el-cerrito.org prior to the meeting.
- In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk, (510) 215-4305. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.102-35.104 ADA Title I).
- ***The Deadline for agenda items and communications*** is eight days prior to the next meeting by 12 noon, City Clerk's Office, 10890 San Pablo Avenue, El Cerrito, CA. Tel: 215-4305 Fax: 215-4379, email cmorse@ci.el-cerrito.ca.us
- IF YOU CHALLENGE A DECISION OF THE CITY COUNCIL IN COURT, YOU MAY BE LIMITED TO RAISING ONLY THOSE ISSUES YOU OR SOMEONE ELSE RAISED AT THE COUNCIL MEETING. ACTIONS CHALLENGING CITY COUNCIL DECISIONS SHALL BE SUBJECT TO THE TIME LIMITATIONS CONTAINED IN CODE OF CIVIL PROCEDURE SECTION 1094.6.
- The City Council believes that late night meetings deter public participation, can affect the Council's decision-making ability, and can be a burden to staff. City Council Meetings shall be adjourned by 10:30 p.m., unless extended to a specific time determined by a majority of the Council.



Special City Council Meeting
6:40 p.m.

Date: March 6, 2012
To: Honorable Mayor and Members of the City Council
From: Cheryl Morse, City Clerk *CSM*
Subject: Commission Interviews

MARCH 6 INTERVIEW SCHEDULE

Staff recommends that Council make an appointment to the Arts & Culture Commission this evening. Previous interviews of Arts & Culture Commission candidates occurred on January 3, January 17 and February 6, 2012. Tonight's interview schedule is as follows:

6:40 p.m.	Cristin Sethi	[ACC 1 st , TC 2 nd , DRB 3 rd]
6:55 p.m.	Deliberation	

BACKGROUND

The City Council will complete its annual commission candidate interviews this evening. A summary of the status of appointments and remaining vacancies is outlined below.

ARTS & CULTURE COMMISSION (ACC) [Two vacancies]

There are two existing vacancies on this commission for terms ending January 1, 2013. Cristin Sethi listed the Arts & Culture Commission as her first choice, Tree Commission 2nd and Design Review Board 3rd, and is scheduled for an interview this evening. Heidi Rand and Luis Zavala listed the Arts Commission as their first and only choice and were interviewed on February 6. Dianne Brenner, interviewed on January 17, 2012 listed the Arts Commission as her first and only choice and Robert Abele, interviewed on January 3, 2012 and appointed to the HRC, listed the Arts and Culture Commission as his third choice (EQC 1st, HRC 2nd).

DESIGN REVIEW BOARD (DRB) [No vacancies]

There was one vacancy for the Design Review Board due to Gary Hill's second term expiration and Christophe Laverne was appointed December 19, 2011 to the Design Review Board filling the vacancy. Cristin Sethi (ACC 1st, TC 2nd, DRB 3rd) listed the DRB as her 3rd choice and is scheduled for an interview tonight.

Special City Council Meeting Commission Applicant Interviews

Other Vacancies and Status

CITIZENS STREET OVERSIGHT COMMITTEE (CSOC) [No vacancies]

Council reappointed Aurelia Schultz on January 17, 2012 to this committee filling the last vacancy. Committee members Lynne Kessler and Al Miller completed their first term and were reappointed on January 3, 2012.

CIVIL SERVICE COMMISSION (CSC) [No vacancies.]

There are currently no vacancies on the CSC. Michael Aaronian and Eric Luttrell's first term ended January 1, 2012 and both were reappointed January 17 filling the two vacancies on the Civil Service Commission. Kim Marlia, interviewed on January 3, 2012 listed this Commission as his 1st and only choice.

ECONOMIC DEVELOPMENT BOARD (EDB) [Three vacancies]

The Economic Development Board has three vacancies. Carla Hansen, who listed the EDB as her third choice, was interviewed December 19 and appointed by the City Council to the Planning Commission on January 3, 2012.

FINANCIAL ADVISORY BOARD (FAB) [One vacancy]

Rick Murphy submitted an application for the Financial Advisory Board and was appointed to the FAB on February 6, 2012. Carla Hansen (PC 1st choice, FAB 2nd, and EDB 3rd) was interviewed on December 19 and appointed by the City Council to the Planning Commission on January 3. Regrettably, current member, Sean Jackson, recently resigned from the FAB. Staff has noticed this new vacancy.

PARKS AND RECREATION (PRC) [One vacancy]

Seth Kaplan's first term expired on January 1, 2012. Mr. Kaplan was reappointed on January 17, 2012 to fill the single vacancy. He also listed the EQC as his 2nd choice. Michael Aaronian who was interviewed January 3, 2012 and appointed to the Civil Service Commission, listed the Parks Commission as his second choice (CSC 1st and CPC 3rd). Regrettably, Michelle Jawad's departure from the commission creates an additional vacancy. Staff has noticed this new vacancy.

Attachments:

1. Applicant Matrix
2. Candidate Applications
3. Interview questions for consideration
4. Current Vacancy and Appointment List

2011- 2012 Board and Commission Applicant Matrix – Updated 2/29/12

[illegible]



**March 6, 2012
Special City Council Meeting**

Commission Interviews – Attachments 2 & 3

Documents are also available for review at:

Office of the City Clerk
10890 San Pablo Avenue
El Cerrito, CA
(510) 215-4305

and

The El Cerrito Library
6510 Stockton Avenue
El Cerrito, CA

2012 EL CERRITO BOARD AND COMMISSION APPOINTMENT LIST

Arts & Culture Commission (2 Vacancies)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
_____	_____	1/1/2013
_____	_____	1/1/2013

Citizens Street Oversight Committee (No Vacancies)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Al Miller	1/3/12	1/1/2016
Lynne Kessler	1/3/12	1/1/2016
Aurelia Schultz	1/17/12	1/1/2016

Civil Service Commission (No Vacancies)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Michael Aaronian	1/17/12	1/1/2016
Eric Luttrell	1/17/12	1/1/2016

Design Review Board (No Vacancy)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Christophe Laverne	12/19/11	1/1/2016

Economic Development Board (3 Vacancies)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
_____	_____	1/1/2013
_____	_____	1/1/2016
_____	_____	1/1/2016

**Commission Interviews
Attachment 4**

Financial Advisory Board (1 Vacancy)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Vacancy	_____	1/1/2013 ¹
Rick Murphy	2/6/12	1/1/2016

Human Relations Commission (No Vacancies)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Gabriel Quinto	1/3/12	1/1/2016
Robert Abele	1/3/12	1/1/2016

Parks & Recreation Commission (1 Vacancy)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Vacancy	_____	1/1/2014
Seth Kaplan	1/17/12	1/1/2016

Planning Commission (No Vacancies)

<u>NAME</u>	<u>DATE APPOINTED</u>	<u>TERM EXPIRATION</u>
Time Pine	12/19/11	1/1/2016
Carla Hansen	1/3/12	1/1/2016

Updated: February 29, 2012

¹ Staff recommends updating the FAB enabling legislation at a future date to extend two terms so that appointments are staggered.

EL CERRITO CITY COUNCIL

MINUTES

SPECIAL CITY COUNCIL CLOSED SESSION

Tuesday, February 21, 2012 – 6:00 p.m.
Hillside Conference Room

REGULAR CITY COUNCIL MEETING

Tuesday, February 21, 2012 – 7:00 p.m.
City Council Chambers

Meeting Location

El Cerrito City Hall
10890 San Pablo Avenue, El Cerrito

Bill Jones – Mayor

Mayor Pro Tem Greg Lyman
Councilmember Rebecca Benassini

Councilmember Ann Cheng
Councilmember Janet Abelson

6:00 p.m. ROLL CALL

Present: Councilmembers Abelson, Benassini, Lyman and Mayor Jones.

Absent: Councilmember Cheng.

CONVENE SPECIAL CITY COUNCIL CLOSED SESSION

Mayor Jones convened the Special City Council Closed Session at 6:03 p.m.

ANNOUNCEMENT OF CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Pursuant to Government Code Section 54956.9(b): One potential case

ORAL COMMUNICATIONS FROM THE PUBLIC – No comments.

RECESSED INTO CLOSED SESSION at 6:05 p.m.

POSSIBLE REPORT OUT OF CLOSED SESSION – No report.

ADJOURNED SPECIAL CITY COUNCIL MEETING at 6:59 p.m.

ROLL CALL

Present: Councilmembers Abelson, Benassini, Lyman and Mayor Jones.

Absent: Councilmember Cheng.

7:00 p.m. CONVENE CITY COUNCIL MEETING

Mayor Jones convened the City Council meeting at 7:05 p.m.

1. PLEDGE OF ALLEGIANCE TO THE FLAG was led by Councilmember Benassini.

2. COUNCIL / STAFF COMMUNICATIONS

Mayor Jones reported that the City Council had just met in closed session pursuant to Government Code Section 54956.9(b) to discuss anticipated litigation and noted that no direction was given at this time.

Councilmember Abelson reported on her attendance at the League of California Cities Policy Committee (Administrative Services Policy and Community Services Policy) meetings on January 19-20, 2012. The state budget and redevelopment were discussed at both meetings. Members of the Community Services Policy Committee also discussed AB 1312, exemption from licensure for public recreation childcare programs and the HEALS Program (Healthy Eating and Active Living Campaign). Members of the Administrative Services Policy Committee discussed a variety of topics including elections and local government and reviewed the California Forward initiative. Councilmember Abelson also took a tour of the League of California Cities building which was rebuilt to LEED standards.

Councilmember Benassini invited all to a reception in the art gallery located upstairs at City Hall on February 25, 2012 from 2:00-4:00 p.m. The gallery exhibits a new installation featuring the art of Evie Groch.

3. ORAL COMMUNICATIONS FROM THE PUBLIC – No speakers.

4. PRESENTATIONS**A. Proclamation in Recognition of Pumpsie Green**

Approve and present a proclamation recognizing Mr. Elijah "Pumpsie" Green for his distinguished stature in baseball history as the first African-American ever to play for the Boston Red Sox, the last team in the major leagues to integrate.

Action: Proclamation presented.

B. El Cerrito Citizens' Street Oversight Committee Annual Report to City Council – *Presented by Al Miller, Chair, Citizens' Street Oversight Committee.*

Action: Received presentation.

C. Doctors Hospital Stroke Outreach Program – *Presentation by Susila Patel, Doctors Hospital*

Action: Received presentation.

5. ADOPTION OF THE CONSENT CALENDAR – Item Nos. 5A through 5F

Moved, seconded (Lyman/Abelson; Ayes – Councilmembers Abelson, Benassini, Lyman and Mayor Jones; Noes – None; Absent – Councilmember Cheng) and carried to adopt Consent Calendar Item Nos. 5A through 5E in one motion as indicated below. Consent Calendar Item No. 5F was withdrawn from the Consent Calendar by Mayor Jones. At the request of City Manager Hanin, Chief of Police Moir introduced Officer Shillinger, spoke of his achievements within the Police Department and congratulated him on his recognition as Richmond Elks

Officer of the Year.

A. Minutes for Approval

Approve the February 6, 2012 Special City Council and Regular City Council meeting minutes.

Action: Approved minutes.

B. Proclamation Commending and Congratulating Officer Schillinger for his Recognition as Richmond Elks Lodge No. 1251 Officer of the Year

Approve a proclamation commending and congratulating Officer Schillinger on the occasion of his recognition by the Richmond Elks Lodge No. 1251 Peace Officer appreciation night.

Action: Approved proclamation.

C. Reclassification of Building Division Staff

Adopt a resolution approving the reclassification of the Administrative Clerk position in the Building Division to Permit Technician I.

Action: Adopted Resolution No. 2012-12.

D. Annual Review of Financial Policy (*Held over from the meeting of January 17, 2012.*)

Adopt a resolution approving a revised Comprehensive Financial Policy and Investment Policy and rescinding Resolution No. 2011-05.

Action: Adopted Resolution No. 2012-13.

E. Authorization for Tipping Wall Solid Waste Registration Permit Application

Adopt a resolution authorizing the City Manager or his designee to sign and submit a Registration Permit Application to the Local Enforcement Agency regarding operation of the new solid waste tipping wall at the Recycling Center.

Action: Adopted Resolution No. 2012-14.

F. Defense of Bay Delta Issues From a Regional Perspective

At the request of Mayor Jones, adopt a resolution identifying the City of El Cerrito as a stakeholder with other County, Contra Costa County cities, Special Districts and other agencies and organizations, for the purpose of articulating mutual interests on Bay-Delta issues and as a stakeholder to resolve to work together to defend Bay-Delta related interests from a regional perspective. The resolution also identifies principles of mutual interest.

Action: Withdrawn from the Consent Calendar by Mayor Jones.

6. PUBLIC HEARINGS – *None*

7. POLICY MATTERS

A. City Council Policy Matters

1) Mid Year Budget Review Workshop

Review and discuss the Fiscal Year 2011-12 budget at mid-year and provide direction to staff as

appropriate.

Presenter: Mary Dodge, Administrative Services Director.

Action: Received presentation.

2) Financial Review of Dissolution of the El Cerrito Redevelopment Agency

Receive a staff report on the dissolution of the El Cerrito Redevelopment Agency.

Presenter: Lori Treviño, Redevelopment Manager and Hilde Myall, Senior Housing Project Specialist.

Action: Received presentation.

3) Appointment and Approval of City Appointed Members to the Successor Agency Oversight Board

Request that the Mayor appoint an individual to the Oversight Board of the Successor Agency to represent the City of El Cerrito;

Request that the Mayor appoint Hilde Myall to the Oversight Board of the Successor Agency to represent employees of the former El Cerrito Redevelopment Agency; and

Adopt a resolution ratifying the Mayor's appointment of the aforementioned two members to the Oversight Board of the Successor Agency to the former El Cerrito Redevelopment Agency.

Presenter: Scott Hanin, City Manager.

Action: Mayor Jones appointed himself and Hilde Myall, Senior Housing Project Manager, to the Oversight Board of the Successor Agency to the El Cerrito Redevelopment Agency.

Moved, seconded (Lyman/Benassini; Ayes – Councilmembers Abelson, Benassini, Lyman and Mayor Jones; Noes – None; Absent – Councilmember Cheng) to adopt Resolution No. 2012–15 ratifying the appointment of Bill Jones and Hilde Myall to the Oversight Board.

B. City Acting as Successor Agency to the El Cerrito Redevelopment Agency

1) Review and Authorization to Submit Initial Draft Recognized Obligations Payment Schedule

Adopt a Successor Agency Resolution reviewing and authorizing submittal of the initial draft Recognized Obligations Payment Schedule required under AB1x26.

Presenter: Lori Treviño, Redevelopment Agency Manager.

Action: Moved, seconded (Abelson/Lyman; Ayes – Councilmembers Abelson, Benassini, Lyman and Mayor Jones; Noes – None; Absent – Councilmember Cheng) and carried to adopt Successor Agency Resolution No. 2012–01.

8. COUNCIL ASSIGNMENTS/LIAISON REPORTS

A. Mayor Jones reported that he attended the Integrated Waste Management Authority Board meeting as an alternate. The Authority Board discussed consulting however the primary focus is on whether the Waste Management Authority should exist after 2014. Cities and the Board are analyzing whether it is in the best interests of cities to keep the Integrated Waste Management Joint Powers Authority going.

B. Mayor Pro Tem Lyman reported that the Integrated Waste Management Authority Board received a presentation and video on Household Hazardous Waste that will also be shown at a future City Council meeting. The Board is meeting this Thursday to discuss and consider some of the contracting that is ongoing at the Waste Management Board within the context of consulting services for the future of contracts associated with collection and processing.

C. Councilmember Abelson reported that she was elected vice chair of the Contra Costa Transportation Authority last week. The Committee on Aging received a presentation from Ashby Village, an organization that provides a variety of services to seniors, such as changing a light bulb, painting or plumbing. Services are available by membership and are performed by senior volunteers. This concept is being used in different parts of the United States. There are some residents in El Cerrito that are a part of this group.

D. Councilmember Benassini reported that the Arts and Culture Commission met earlier in the month regarding the San Pablo Avenue public art program. The Commission preliminarily selected the following potential locations for placement of icons on light poles along San Pablo Avenue: Carlson, City Hall, Potrero, Del Norte, and Conlon Avenue. The icons and the potential locations will be discussed at a public hearing of the Commission on March 21 or 22, 2012. The Commission is interested in having members of the public provide input. Additionally, the City will issue a Request for Proposal for public art at the Recycling Center soon. The concept at this time is to request proposals for functional art pieces that are needed at the Recycling Center such as shelving and gates.

E. Councilmember Cheng – Absent. *No report.*

SUPPLEMENTAL REPORTS AND COMMUNICATIONS

Item No. 2 Council/Staff Communications

1. Ashby Village Brochure – *Submitted by Councilmember Abelson*
2. League of California Cities Building Brochure: Sustainable Design Features – *Submitted by Councilmember Abelson.*

9. ADJOURNED CITY COUNCIL MEETING at 8:39 p.m.

A meeting of the El Cerrito Municipal Services Corporation followed immediately after this City Council meeting.

CITY OF EL CERRITO PROCLAMATION
March 2012 is American Red Cross Month

WHEREAS, the American Red Cross has touched many lives in El Cerrito, as well as across the country and around the world and during American Red Cross Month, we thank those who contribute to the mission of the Red Cross, whether through time, money or blood, and we invite others to support the Red Cross in helping people in need; and

WHEREAS, the American Red Cross is synonymous with helping people, and has been doing so for more than 130 years. Throughout the past year, the American Red Cross launched hundreds of disaster relief operations in the United States to help people affected by fires, floods, hurricanes and tornadoes. The American Red Cross also supported major international disasters, including the Japan earthquake and tsunami response, while continuing its work on the 2010 Haiti earthquake response and recovery; and

WHEREAS, in El Cerrito, the American Red Cross Bay Area Chapter works tirelessly through its nearly 1,000 volunteers to support us when disaster strikes, when someone needs life-saving blood, or the comfort of a helping hand. It provides 24-hour support to members of the military, veterans and their families, and provides training in CPR, aquatics safety, and first aid; and

WHEREAS, the American Red Cross Bay Area Chapter helped over 1,405 people with temporary housing, clothing, food and mental health counseling during 392 local disasters last year alone; trained over 117,345 people in lifesaving CPR, First Aid, and water safety and over 173,555 individuals received preparedness training. The local Bay Area Chapter also provided emergency communications, counseling, financial assistance and a caring presence to over 1,810 local military families; and supported 31 Bay Area hospitals, providing them with nearly 150,000 units of red cells, platelets and plasma to patients in need; and

WHEREAS, for nearly 100 years, United States Presidents have called on the American people to support the Red Cross and its humanitarian mission. Our community depends on the American Red Cross and because it is not a government agency, the Red Cross depends on support from the public to continue its humanitarian work. This is especially important in these challenging economic times – which impact the Red Cross and many people in our community and across the nation.

NOW THEREFORE, the City Council of the City of El Cerrito hereby proclaims March 2012 as American Red Cross Month in the City of El Cerrito and encourages all residents to support this organization and its noble humanitarian mission.

Dated: March 6, 2012

William C. Jones, III, Mayor

RESOLUTION 2012-X

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL CERRITO REGARDING
WATER, ECOSYSTEM HEALTH AND OTHER ISSUES RELATED TO THE SAN
FRANCISCO BAY AND SACRAMENTO – SAN JOAQUIN RIVER DELTA

WHEREAS, the San Francisco Bay and the Sacramento-San Joaquin River Delta (“the Delta”) are at risk from many factors, and the State is proposing large scale changes to water conveyance through and around the Delta to address state-wide water supply needs, changes to the Delta ecosystem to address declining ecosystem health and fish populations, changes to land use authority within the Delta, and changes to water rights, statewide water management and many other aspects related to the Delta that will impact the areas in and around the Delta; and

WHEREAS, each city and town in Contra Costa County will be adversely impacted by planned actions in the Delta through reduction in water quality and health of the San Francisco Bay-Delta and the resulting increase in storm water (NPDES) permit requirements; and

WHEREAS, the El Cerrito City Council believes there is value in developing an initiative on issues concerning the Delta, its watershed and the greater San Francisco Bay-Delta estuary; and

WHEREAS, the El Cerrito City Council wishes to join with other cities, towns, special districts, organizations and agencies (“Stakeholders”) in articulating the issues and interests from the perspective of the Delta region itself, from the people who call the Delta home and best understand the tremendous resource the Delta represents; and

WHEREAS, the City of El Cerrito joins with other stakeholders in recognizing the efforts and value of the Delta Counties Coalition and a need for joint action and advocacy on Delta-related issues, and has identified a mutual interest.

NOW THEREFORE, BE IT RESOLVED by the City of El Cerrito, as a Stakeholder, adopts this Resolution for the purpose of articulating mutual interests on Bay-Delta issues. Furthermore, the City of El Cerrito joins other stakeholders in resolving to work together to defend Bay-Delta related interests from a regional perspective and to use a unified voice to advocate on behalf of local government in available forums at all levels. Our principles of mutual interest are as follows:

- 1. Local Government Authority.** Recognition of the authority and responsibility given to local government related to land use, urban and agricultural water supply, wastewater treatment and recycling, water resource development, flood management, public health and safety, economic development and sustainable growth, agriculture stability, recreation, and environmental protection.

2. **Delta Ecosystem.** Protection and restoration of a healthy sustainable Delta ecosystem including adequate water quality, outflow, and water supply, to support fisheries, wildlife and habitat in perpetuity.
3. **Existing System Reliability.** Support immediate improvements to the existing Through-Delta Conveyance and improvements to protect key regionally important infrastructure, such as trans-delta aqueducts, as part of a complete strategy for the State's water management and to ensure reliability of the existing water supply system.
4. **Delta Outflows.** Ensure adequate Delta outflows to San Francisco Bay to support fisheries, wildlife, habitat, water quality and other beneficial uses.
5. **Regional Self-Sufficiency.** Incorporation of sustainable approaches for improved water supply, water quality and reliability through the overarching principle of regional self-sufficiency to reduce reliance on exports from the Delta and reduce the current impacts on the Bay-Delta ecosystem.
6. **Delta Area Communities.** Protect the economic viability of industry, recreation, tourism, and agriculture, and the ongoing vitality of communities throughout the Delta and immediately adjacent to the Delta, and along the shoreline of the greater San Francisco Bay-Delta.
7. **Fair Representation.** Represent and include local government in any new governance structure for the Delta.
8. **Flood Protection.** Support funding and implementation of urban and non-urban flood protection, at the appropriate level of protection, through rehabilitation, improvement and maintenance of flood control levees and structures.

I CERTIFY that at a regular meeting on February 21, 2012, the City Council of the City of El Cerrito passed this Resolution by the following vote:

AYES:	COUNCILMEMBERS:
NOES:	COUNCILMEMBERS:
ABSENT:	COUNCILMEMBERS:

IN WITNESS of this action, I sign this document and affix the corporate seal of the City of El Cerrito on February XX, 2012.

Cheryl Morse, City Clerk

APPROVED:

William C. Jones III, Mayor



Contra Costa County
Public Works
D e p a r t m e n t

Julia R. Bueren, Director

Deputy Directors

R. Mitch Avalon

Brian M. Balbas

Stephen Kowalewski

Memo

February 7, 2012

TO: Public Managers Association
FROM: Mitch Avalon, Deputy Director
SUBJECT: STAFF REPORT IN SUPPORT OF A RESOLUTION ON DELTA ISSUES

For the last four or five years there has been a tremendous amount of activity in the Delta that will have far reaching impacts throughout the State. To provide comments and articulate the perspective of Delta counties, Contra Costa, Solano, Yolo, Sacramento, and San Joaquin counties formed the Delta Counties Coalition. The Coalition believes now is the time to reach out to their cities and other interested agencies to increase support for advocacy on Delta issues. The purpose of the attached resolution is to increase awareness and communication on current issues in the Delta and to increase influence at legislative, political, and other levels by having a greater number of agencies that are interested and supportive on Delta issues.

Background

There are several broad initiatives that are underway in the Delta that will have impacts within, around, and outside of the legal Delta boundary. In Contra Costa County the cities of Pittsburg, Antioch, Oakley, and Brentwood are within the legal Delta boundary. The following is a brief discussion of each of these initiatives and the impacts they will have on cities within Contra Costa County.

1. Central Valley Flood Protection Plan

SB 5 enacted in 2007 requires cities and the County in the Delta area to provide 200 year flood protection for new development starting in July 2015. This and other land use requirements are being incorporated into the Central Valley Flood Protection Plan, which is being prepared by the Department of Water Resources (DWR) and is to be adopted by July 2012. Once the Plan is adopted, cities and counties in the Delta will have to amend their General Plans and Zoning Ordinances to be consistent. The Plan will also include new levee design standards currently being developed by DWR. These new standards will need to be incorporated into land use entitlement processes.

"Accredited by the American Public Works Association"

255 Glacier Drive Martinez, CA 94553-4825

TEL: (925) 313-2000 • FAX: (925) 313-2333

www.cccpublicworks.org

2. Delta Plan

In November 2009, the legislature enacted the Delta Reform Act (SBX7-1). This legislation established the Delta Stewardship Council, an independent State agency, and required the Council to develop a Delta Plan by January 2012. The Delta Plan is a long-term management plan for the Delta and Suisun Marsh. Plan implementation is to achieve the co-equal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. These two co-equal goals are to be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. The Plan generally covers six topic areas and goals:

- 1) Increased water supply reliability.
- 2) Restoration of the Delta ecosystem
- 3) Improved water quality
- 4) Reduced risks of flooding in the Delta
- 5) Protection and enhancement of the Delta as an evolving place.
- 6) Regulatory changes in which some local land use decisions will be subject to review and overturning by the Delta Stewardship Council ("covered actions.")

The Council itself will not construct, own or operate any facilities, however, the Plan sets forth regulatory policies and recommendations that will influence the actions, activities, and projects of cities, counties, the State, Federal and other local agencies. The Delta Plan enforces its policies through defining and processing approval of "covered actions". A covered action is any plan, program or project that meets all of the following conditions:

- 1) Will occur in whole or in part within the boundaries of the Delta or Suisun Marsh.
- 2) Will be carried out, approved or funded by the State or a local public agency.
- 3) Is covered by one or more provisions of the Delta Plan.
- 4) Will have a significant impact on achievement of one or both of the co-equal goals or the implementation of government sponsored flood control programs to reduce risks to people, property, and State interests in the Delta.

For the purposes of the Delta Plan "project" has the same meaning as it is used for CEQA, although it does not include CEQA's exemptions, except for ministerial projects. For any covered-action projects, the local jurisdiction must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with the Delta Plan and submit that

certification to the Council. Projects that an agency believes are consistent with the Delta Plan could be appealed to the Council by anyone who opposes the project.

3. Bay Delta Conservation Plan

The Bay Delta Conservation Plan (BDCP) is a plan to develop a new water conveyance project to get more water to the Central Valley and Southern California, along with habitat conservation projects in the Delta and Suisun Bay. The BDCP is co-sponsored by the state and federal governments and water agencies from around California that receive water from the Delta. The BDCP will be prepared to cover a proposed "isolated conveyance" facility. This facility will be a canal around the Delta (Peripheral Canal) or a tunnel under the Delta. The canal or tunnel will pick up Sacramento River water downstream of Sacramento and convey it to Clifton Court Forebay. When the Plan is adopted it will provide the take Permit under the Endangered Species Act for construction of the conveyance facility. It will also provide a body of studies to obtain a water quality certification and other environmental permits. Part of the BDCP effort includes planning for mitigation in the neighborhood of 100,000 acres of tidal marsh, floodplain, terrestrial, and riparian habitats.

Impacts on Cities

1. Land Use

Prior to approving land use projects, cities within the Delta boundary must show that the development has 200 year level of protection. The current maximum level of protection anywhere in Contra Costa County is 100 years. Some public projects and private projects approved by a city within the Delta boundary, will have to make a determination of consistency with the Delta Plan. The amount of effort this entails depends on how the Delta Stewardship Council administers their covered action program.

2. Water Quality

The NPDES stormwater permit for each city is issued by the Regional Water Quality Control Board. The requirements of the stormwater permit are developed in part based upon the water quality of the bodies of water that our streams and creeks drain into, such as the Delta, Carquinez Straits or San Francisco Bay. If the water quality of these water bodies degrades then our stormwater permit requirements increase. There are proposed scenarios in the Delta that would replumb the current flow regime to direct more pollutant laden south Delta water through to San Francisco Bay and direct higher quality Sacramento River water south to the pumps at Clifton Court Forebay. This would decrease the quality of water through the Carquinez Straits and into San

Francisco Bay. If water quality decreases the Regional Water Quality Control Board can adjust an existing TMDL or develop a new TMDL for a particular pollutant of concern. These requirements would be folded into our next stormwater permit. A TMDL (Total Maximum Daily Load) establishes limits or concentrations of a particular pollutant and actions to be taken that will reduce concentrations.

3. Delta Outflow

Ninety percent of the flows coming into San Francisco Bay come from the Delta. The recently released State of the San Francisco Bay 2011 Report indicated that the fresh water inflow index was "very poor" for the water year 2010. Eight of the last ten years have resulted in drought conditions for San Francisco Bay when comparing the fresh water flows during these eight years to flows prior to the construction of dams or diversions. The State Water Resources Control Board and biologists from US Fish and Wildlife Service have both indicated recently that additional flows need to drain through the Delta and into San Francisco Bay for a healthy Delta and San Francisco Bay Estuary. As the health of the Delta goes so goes the health of San Francisco Bay. Reduced outflow is a stressor on the overall health of San Francisco Bay.

4. Economic

To a certain extent the attraction that each city in the County has for bringing in or retaining development and business is due to our location in the Bay Area. The Bay Area is fortunate to have the unparalleled resource of San Francisco Bay and the adjacent Delta, the largest estuary system on the West coast of North and South America. If this national resource diminishes in quality that impact will be felt at many levels throughout the Bay Area, including an impact to the local economy in each community in Contra Costa County.

Latest Developments

On February 2, 2012, the Contra Costa County Mayors' Conference voted unanimously to support the Resolution. On February 7, 2012 the Contra Costa County Board of Supervisors also unanimously adopted the Resolution. The Board's action also established the "Contra Costa County Delta Stakeholders Coalition" as a countywide forum for discussion of issues outlined in the Resolution. The Board also directed County staff to work with the cities/towns and special districts in Contra Costa County and assist them in joining this stakeholders coalition.

Recommendations

Recommendation A: It is recommended that the City/Town Council adopt the Resolution on Water, Ecosystem Health and Other Issues Related to the San Francisco Bay, and Sacramento/San Joaquin River Delta.

Recommendation B: Authorize the City/Town to join the Contra Costa County Delta Stakeholders Coalition and authorize the Mayor/Council Member/City Manager/Town Manager to work with the County on Delta issues as necessary to convey the City's/Town's interest and support to State and Federal elected officials and other committees working on Delta issues.

RMA:iz

G:\Admin\Mitch\Public Mgrs Assoc\Delta Issues 2-7-12 final.doc



AGENDA BILL

Agenda Item No. 5(D)

Date: March 6, 2012
To: El Cerrito City Council
From: Ellen Paasch, Adult Programs Supervisor/Liaison to the Committee on Aging
Subject: Committee on Aging Appointment

ACTION REQUESTED

At the request of the Committee on Aging, approve a recommendation to appoint Vera Gibbs Winston to the Committee on Aging, effective March 7, 2012.

BACKGROUND

During the regular Committee Meeting on January 18, 2012, the Committee on Aging unanimously voted to recommend to the City Council that Vera Gibbs Winston be appointed to the Committee.

Ms. Winston has resided in El Cerrito since 1968. She retired after a long career as a Pharmacist with Kaiser Hospitals. Ms. Winston is a graduate of Xavier University, Louisiana and is also a long time member of Delta Sigma Theta Sorority, an organization based on religious principles, community, health, and support for scholarships. Her hobbies include choir music, duplicate bridge, and cymbidium orchids.

Ms. Winston is looking forward to serving the community by being on the Committee on Aging and plans on playing an active role in improving life for seniors in El Cerrito

Reviewed by:

Scott Hanin
City Manager

Attachment:

1. Application



**March 6, 2012
Regular City Council Meeting**

**Agenda Item No. 5(D)
Att. 1 - Application**

Documents are also available for review at:

Office of the City Clerk
10890 San Pablo Avenue
El Cerrito, CA
(510) 215-4305

and

The El Cerrito Library
6510 Stockton Avenue
El Cerrito, CA



AGENDA BILL

Agenda Item No. 7(A)

Date: March 6, 2012
To: El Cerrito City Council
From: Yvetteh Ortiz, Engineering Manager
Jerry Bradshaw, Public Works Director / City Engineer
Subject: I-80 Integrated Corridor Mobility Project, Memorandum of Understanding

ACTION REQUESTED

Adopt a resolution authorizing the City Manager or his designee to execute the I-80 Integrated Corridor Mobility Project, Memorandum of Understanding (Exhibit A to the Resolution) and to make non-substantive changes subject to the review of the City Attorney.

BACKGROUND

Traffic Conditions

Interstate 80 (I-80), between the Carquinez Bridge and the Bay Bridge, is one of the most congested corridors in the San Francisco Bay Area. Traffic demands on the freeway far exceed the roadway capacity, causing severe congestion, unreliable travel times, and traffic diversion to the local arterials. During the peak periods, the majority of the corridor operates with significant congestion and delays. The congestion on the roadway network contributes to an increase in incident rates, including rear-end collisions on both the freeway and local arterials.

With projected increase in travel demand, congestion will get worse. As congestion along the corridor increases, incident rates will increase causing additional congestion. Along I-80, about half of the collisions that occur during the peak period appear to be congestion-related/end-of-queue crashes. Currently, when there is an incident on I-80, the amount of time the freeway is affected (referred to as "recovery time") is directly related to how quickly emergency services, and/or roadside assistance, can reach the incident and clear blocked lanes. Because emergency response is also hindered by congestion, the recovery time increases as congestion levels increase.

Project Description

The I-80 Integrated Corridor Mobility (ICM) Project is a \$93 million project intended to enhance the effectiveness of the existing transportation network, including the freeway, San Pablo Avenue, crossing arterials and bus transit in Alameda and Contra Costa

Agenda Item No. 7(A)

Counties. The project has been developed through a partnership among multiple jurisdictions and transportation agencies including Alameda County Transportation Commission (ACTC), Contra Costa Transportation Authority (CCTA), West Contra Costa Transportation Advisory Committee (WCCTAC), Caltrans, AC Transit, WestCat, Contra Costa County, the Cities of Hercules, Pinole, Richmond, San Pablo, El Cerrito, Albany, Berkeley, Emeryville and Oakland. The ACTC (formerly the Alameda Congestion Management Agency) is the lead agency for the implementation of the project.

The project is primarily funded through the 2006 California Infrastructure Bond Act (State Proposition 1B), including \$55.3 million from the Corridor Mobility Improvement Account (CMIA) and \$21.4 million from the Traffic Light Synchronization Program (TLSP). Contra Costa Measure J is also a contributing fund for project development. In order to secure the TLSP funds for arterial and transit improvements along San Pablo Avenue and crossing arterials, jurisdictions along the I-80 corridor approved resolutions of support for the project in late 2007 through early 2008. The City of El Cerrito City Council adopted Resolution No 2007-91 on November 19, 2007.

The I-80 ICM Project is aimed to optimize the use of the existing transportation infrastructure by implementing state-of-the-practice technologies to improve safety, reduce congestion, shorten travel times, and provide real time information to motorists. The scope of the project includes the following five major components:

- Adaptive ramp metering;
- Incident management;
- Information to travelers regarding transit and traffic;
- Improvements along San Pablo Avenue and other arterials; and
- System Integration

The project provides tools for Caltrans and local agencies to manage traffic in an integrated manner along I-80, San Pablo Avenue and crossing arterials, including:

- Monitoring/measuring devices such as cameras, video detection systems and loop detectors;
- Communication links to a central location including signal interconnect and wireless modems;
- Traffic control devices;
- Intelligence in the form of software and algorithms to respond to changing traffic conditions on ramps and freeway; and
- Tools to communicate traffic/transit information back to drivers such as Changeable Message Signs, Variable Advisory Speed Signs, Lane Use Signs, and Highway Advisory Radio.

The anticipated benefits of the I-80 ICM Project include:

- Improved travel time within the existing transportation network;
- Improved safety and operation of the existing transportation network;
- Reduced traffic congestion by expediting incident clearance and recovery;
- Improved air quality; and
- Enhanced real-time traveler information.

Construction Phasing

To expedite the project delivery and benefits, the project will be constructed in phases. The first two phases of the projects are now under construction:

- Installation of Traffic Operations System (TOS) elements along I-80: Construction started in Spring 2011.
- Arterial and transit improvements along San Pablo Avenue: Construction started in late 2011 as previously reported in the City Manager Update dated November 9, 2011.

Remaining phases of the project, which are scheduled to begin in Spring 2012 and be completed in 2014, include installation of ramp metering equipment, installation of other devices on the freeway mainline, procurement of specialty materials, software development and system integration.

ANALYSIS

Over the past several months, all partner agencies have worked closely to develop a Memorandum of Understanding (MOU) for the project to ensure all project elements are operated and maintained in an integrated manner and that the project provides benefits to all travelers along the corridor. More specifically, the MOU serves the following purposes:

- Confirm support from all project partners, particularly local support for ramp metering and other freeway elements;
- Articulate key operations and maintenance (O&M) principles for continuing project development;
- Clarify ownership, O&M, and management responsibilities;
- Clarify the distribution of costs and funding sources;
- Outline the framework for multi-agency cooperation, collaboration, and conflict resolution;
- Identify which existing I-80 Smart Corridor devices will be made part of the I-80 ICM project; and
- Signify the ongoing commitment of the project partners to deliver the project and make it a success.

Allocation of approximately \$45 million in remaining State Proposition 1B funds by the California Transportation Commission is contingent upon execution of the MOU.

Over the course of the project, many issues/concerns brought up by the project stakeholders were resolved by the project partners through the project design, regional collaboration and inclusion of the appropriate language in the MOU. They include:

- *O&M Funding:* Although Caltrans will be the primary operator of the I-80 ICM system and equipment, they cannot fund O&M outside of the State right-of-way. As such, the MOU commits the CCTA to provide up to \$2 million to fund O&M costs in Contra Costa outside the State right-of-way. In addition, much of the old equipment, such as traffic signal controllers, will be replaced, which will lower the existing O&M costs. O&M costs are not expected to be incurred until 2015, a year after the project is fully operational, and the CCTA funding is anticipated to be sufficient through 2030. Note that Caltrans is responsible for O&M costs for equipment located in the State portion of San Pablo Avenue (State Route 123).
- *Traffic Signal Synchronization:* Several jurisdictions expressed concern that traffic signals at the ramp intersections, controlled by Caltrans, are currently not synchronized with other signals along the crossing arterials. The ability to synchronize with Caltrans signals was added to the system. In addition, optimizing traffic signal timing plans along San Pablo Avenue and crossing arterials, including ramp intersections, will be completed toward the end of the project.
- *Obstruction of Local Traffic Flow:* Many jurisdictions expressed concern about ramp metering impacts on adjacent streets traffic flow. The project was designed to include end-of-queue detection along each on-ramp. These detectors will be used to monitor and contain the queues within the on-ramps. Once queues extend beyond the queue detector, the ramp meter rate will increase or rest on green to avoid queuing that obstructs local traffic flow. In addition, Caltrans will work with each jurisdiction to make any necessary adjustment to the metering rates during the roll-out period for the project.
- *Actively Diverting Traffic to San Pablo Avenue:* The project will not actively divert freeway traffic to San Pablo Avenue. However, freeway traffic will continue to overflow onto San Pablo Avenue and other local arterials as it has in the past during major incidents on the freeway. When that happens, the project is designed to flush out freeway traffic that naturally diverts to San Pablo Avenue back to I-80 past the incident location. This will be accomplished through the use of special signal timing plans (called flush plans) and trailblazer signs (directional signs). By improving travel time on I-80, freeway traffic is encouraged to stay on the freeway. Through the use of flush plans and efficient

Agenda Item No. 7(A)

guidance of traffic back to I-80, the local arterials will recover more quickly from the impact of an incident.

- *Encourage Use of Transit:* The project was originally defined to include high-occupancy vehicle (HOV) preferential lanes at seven out of eight ramps used by buses. Several entities still expressed concern that the project may delay buses at the on-ramps due to metering. To resolve this, the project was modified to include transit signal priority (TSP) equipment at the on-ramp meters, where HOV preferential lanes are added, so that when transit vehicles are detected in the queue, the green time for the HOV lane is extended to allow the buses to bypass congested lanes. Furthermore, TSP equipment will be added in WestCAT service area and extended along San Pablo Avenue (from Richmond Parkway to Contra Costa College) to improve transit travel times. By improving travel time reliability along I-80 and San Pablo Avenue, buses will better adhere to their schedules. Providing motorists with information such as next BART arrival time, transit travel times, and/or available parking spaces will encourage more use of transit in the corridor.
- *Formation of a Policy Committee:* The project MOU includes the formation of a Policy Advisory Committee (PAC) to provide input on any issues that may arise that require additional input from communities along the corridor. The PAC will be comprised of three members including the Caltrans District 4 Director, one elected official from a jurisdiction in Alameda County who may serve on the Alameda CTC Board, and one elected official appointed by WCCTAC. In addition, all project partners are expected to participate in the Technical Coordinating Committee to provide oversight and input into the project operations.
- *Before/After Studies:* The project team intends to conduct before/after studies to assess the project benefits/impacts.
- *Metering of Traffic in Solano County:* It is anticipated that ramp metering will be activated along all freeways in the Bay Area. Caltrans is currently in the process of installing ramp metering equipment along I-80 in Solano County. Ramp metering along portions of I-880, I-580 and US101 has already been activated.

As part of the public information effort for the project, an open house was held on February 13, 2012 to provide detailed information about the project and to answer questions from the public. The public raised questions similar to the issues discussed above, particularly regarding the impact of the project on local streets. The MOU addresses these issues and provides policies and procedures for resolving them.

FINANCIAL CONSIDERATIONS

Execution of the MOU will not burden the City with additional O&M costs because it commits the CCTA to provide for or seeking funding for O&M within Contra Costa County and outside of State right-of-way. The MOU requires that the CCTA provide up

to \$2 million to fund O&M costs of about \$135,000 per year for approximately 15 years. In the MOU, the CCTA is also committed to seek funding beyond the \$2 million amount from other sources. More specifically, the CCTA anticipates applying for funding from the Freeway Performance Initiative (FPI) Program, sponsored by the Metropolitan Commission, and other regional sources.

LEGAL CONSIDERATIONS

The City Attorney has reviewed the draft MOU. The final MOU will be substantially in the form attached and subject to the review of the City Attorney.

Reviewed by:



Scott Hanin, City Manager

Attachment:

1. Accompanying Resolution
2. I-80 ICM MOU - Exhibit A to the Resolution

RESOLUTION 2012-XX

RESOLUTION OF THE EL CERRITO CITY COUNCIL AUTHORIZING THE CITY MANAGER OR HIS DESIGNEE TO EXECUTE THE I-80 INTEGRATED CORRIDOR MOBILITY PROJECT, MEMORANDUM OF UNDERSTANDING AND TO MAKE NON-SUBSTANTIVE CHANGES SUBJECT TO THE REVIEW OF THE CITY ATTORNEY

WHEREAS, I-80 is one of the most congested corridors in the San Francisco Bay Area; and

WHEREAS, with projected increase in travel demand, congestion will get worse and incident rates will increase causing additional congestion; and

WHEREAS, I-80 Integrated Corridor Mobility (I-80 ICM Project) is a \$93 million project along I-80, San Pablo Avenue and connecting arterials aimed to optimize the use of existing infrastructure by implementing state-of-the-practice technologies to improve safety, reduce congestion, shorten travel times, and provide real time information to motorists; and

WHEREAS, the I-80 ICM Project is primarily funded through the 2006 California Infrastructure Bond Act (State Proposition 1B), including \$55.3 million from the Corridor Mobility Improvement Account (CMIA) and \$21.4 million from the Traffic Light Synchronization Program (TLSP); and

WHEREAS, the City of El Cerrito City Council adopted Resolution No. 2007-91 in support of the project conditioned upon receiving the TLSP funds for arterial and transit improvements along San Pablo Avenue and crossing arterials; and

WHEREAS, the scope of the project includes five major components: adaptive ramp metering; incident management; traveler information; arterial and transit improvements along San Pablo Avenue and crossing arterials; and system integration where all project components are coordinated; and

WHEREAS, the anticipated benefits of the I-80 ICM Project include improved travel time within the existing transportation network; improved safety and operation of the existing transportation network; reduced traffic congestion by expediting incident clearance and recovery; improved air quality; and enhanced real-time traveler information; and

WHEREAS, the project will be constructed in phases – two of which are already underway, including improvements along San Pablo Avenue and connecting arterials to I-80; and

WHEREAS, operation and maintenance costs of the project components within Contra Costa County and outside the State right-of-way will be funded by the Contra Costa Transportation Authority; and

Agenda Item No. 7(A)
Attachment 1

WHEREAS, over the past several months, staff from all partner agencies, worked closely to develop the I-80 ICM Memorandum of Understanding (MOU); and

WHEREAS, the I-80 ICM MOU sets the framework for cooperation among all partner agencies along the corridor in implementing the project and addressing any issues that may arise such as impacts on local streets from ramp metering and flush plans; and

WHEREAS, allocation of approximately \$45 million in remaining State Proposition 1B funds is contingent upon execution of the MOU.

NOW THEREFORE, BE IT RESOLVED, that the City Council of the City of El Cerrito authorizes the City Manager or his designee to execute the I-80 ICM MOU, incorporated by reference and attached hereto as Exhibit A, and to make non-substantive changes subject to the review of the City Attorney.

BE IT FURTHER RESOLVED, that this Resolution shall become effective immediately upon its passage and adoption.

I CERTIFY that at a regular meeting on March 6, 2012 the City Council of the City of El Cerrito passed this Resolution by the following vote:

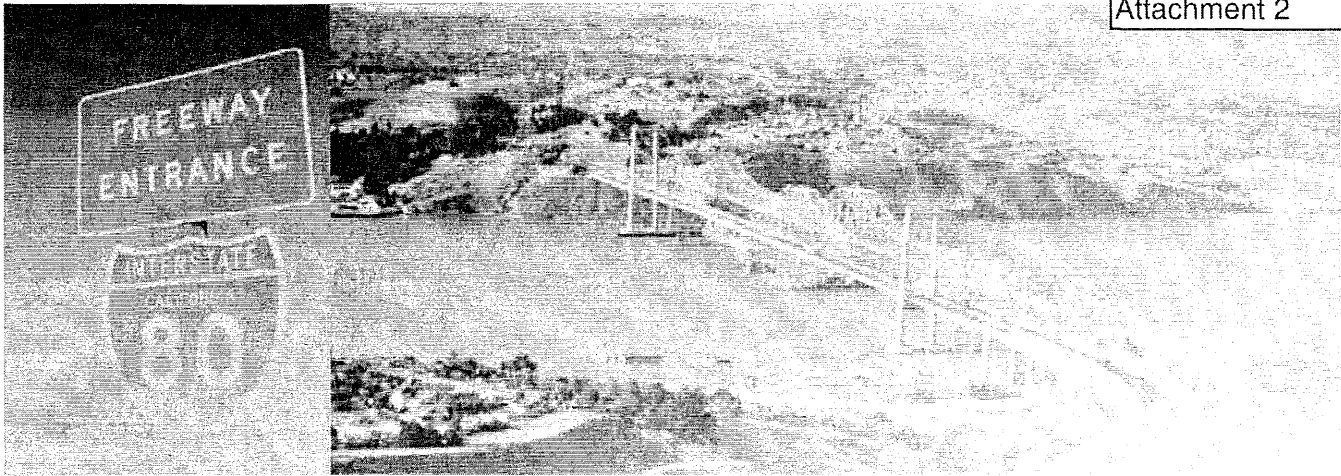
AYES:	COUNCILMEMBERS:
NOES:	COUNCILMEMBERS:
ABSENT:	COUNCILMEMBERS:

IN WITNESS of this action, I sign this document and affix the corporate seal of the City of El Cerrito on March XX, 2012.

Cheryl Morse, City Clerk

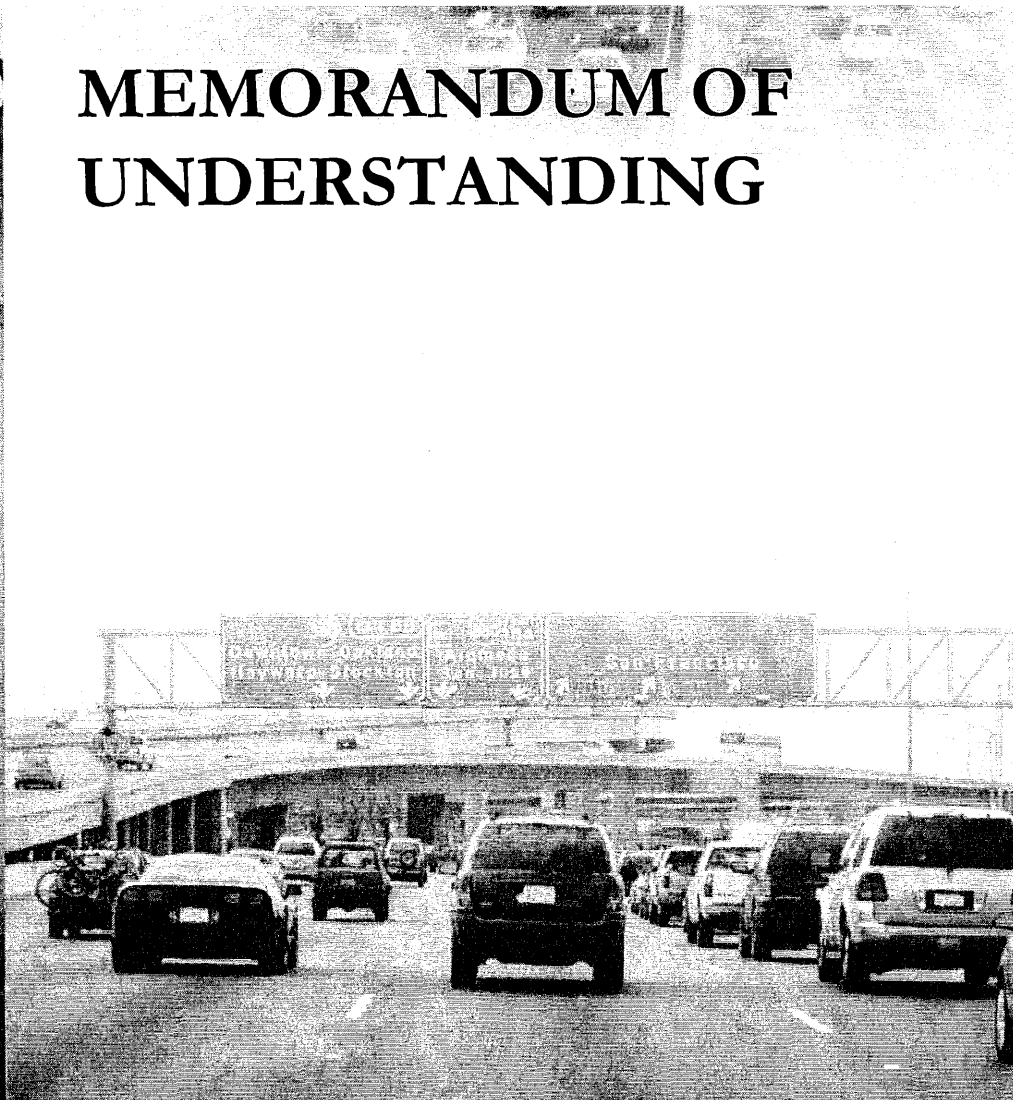
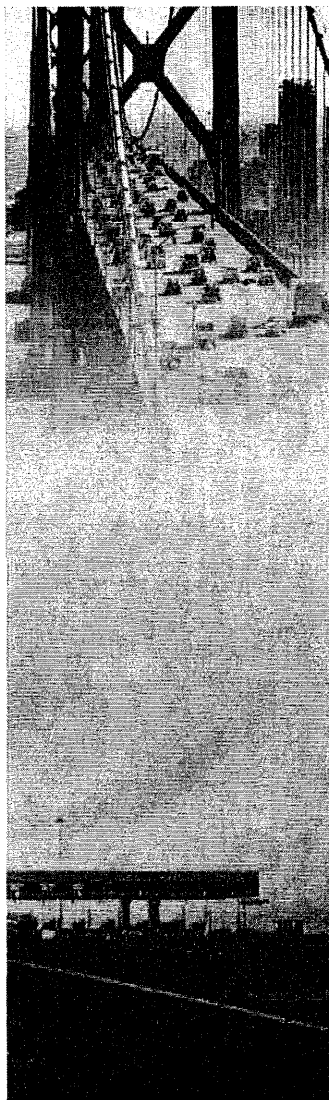
APPROVED:

William C. Jones III, Mayor



I-80 ICM

MEMORANDUM OF UNDERSTANDING



**INTERSTATE 80 CORRIDOR
MEMORANDUM OF UNDERSTANDING (MOU)**

**CALIFORNIA DEPARTMENT OF
TRANSPORTATION (CALTRANS)
&
LOCAL AND REGIONAL AGENCIES**

***FOR INTEGRATED CORRIDOR MOBILITY STRATEGIES
IN ALAMEDA AND CONTRA COSTA COUNTIES***

This MOU is a compilation of the goals, policies, and procedures intended to be followed by the parties working together in a coordinated manner to enhance traffic operations along the Interstate 80 (I-80) corridor in Alameda and Contra Costa Counties. This MOU is intended to identify the overall commitment and responsibilities regarding ownership, operations, and maintenance of the various equipments installed as part of the I-80 Integrated Corridor Mobility (ICM) Project. The following entities are parties to this MOU:

California Department of Transportation (Caltrans), Alameda County Transportation Commission (ACTC), Contra Costa Transportation Authority (CCTA), West Contra Costa Transportation Advisory Committee (WCCTAC), Contra Costa County, AC Transit, WestCAT, Cities of Oakland, Emeryville, Albany, Berkeley, El Cerrito, Richmond, San Pablo, Pinole, and Hercules.

Table of Contents

I. BACKGROUND.....	4
II. DEFINITION AND EXPLANATION OF TERMS.....	6
III. PURPOSE OF MOU, PROJECT DESCRIPTION, AND PROJECT GOVERNANCE	9
IV. PROJECT GOALS & OBJECTIVES	14
V. OPERATIONS STRATEGIES AND PRINCIPLES	15
VI. EQUIPMENT OWNERSHIP & MAINTENANCE.....	20
VII. PROJECT DEVELOPMENT PRINCIPLES	21
VIII. COSTS & FUNDING.....	25
IX. FUTURE MOU MODIFICATIONS	29

ATTACHMENTS

ATTACHMENT A.....	Ramp Metering Locations
ATTACHMENT B.....	Project Devices; Ownership & Maintenance
ATTACHMENT C.....	Operations & Maintenance Costs

I. BACKGROUND

Interstate 80, between the Carquinez Bridge and the San Francisco Oakland Bay Bridge, is one of the most congested corridors in the San Francisco Bay Area. Traffic demands on the freeway far exceed the roadway capacity, causing severe congestion, unreliable travel times, and traffic diversion to the local arterials. During the peak periods, the majority of the corridor operates with significant congestion and delays. The congestion on the roadway network contributes to an increase in incident rates, including rear-end collisions on both the freeway and local arterials. Congestion and associated incidents in this corridor are expected to increase over the next 20 years. By 2015, delay for westbound I-80 will increase by 50% in the AM peak, while delay for eastbound I-80 will increase by 100% in the PM peak.

The San Pablo Avenue corridor is approximately 20 miles long and is the major travel corridor parallel to I-80. This corridor extends from 17th Street in downtown Oakland to Hercules, through the cities of Emeryville, Berkeley and Albany in Alameda County; and the cities of El Cerrito, Richmond, San Pablo, Pinole, Hercules, and unincorporated portions of Contra Costa County. There are approximately 85 traffic signals along the project corridor. San Pablo Avenue is State Route 123 from West McArthur Boulevard in Emeryville to Cutting Boulevard in Richmond.

The East Bay SMART Corridor Program, which includes San Pablo Avenue, is an existing multi-modal Advanced Transportation Management System (ATMS) along the corridor. The program, which took effect in 2003, is a cooperative effort by the California Department of Transportation (Caltrans), the Metropolitan Transportation Commission (MTC), the Alameda County Transportation Commission (Alameda CTC), Contra Costa Transportation Authority (CCTA) and 15 local agencies.

Components of the SMART Corridor include Closed Circuit TV (CCTV), Vehicle Detection System (VDS), Emergency Vehicle Preemption (EVP), and Transit Signal Priority (TSP). These technologies are used to improve the performance of transportation systems, by promoting efficient use of the existing roadway and transit systems. The goal of the SMART Corridor is to allow local agencies to better manage congestion and incidents, improve transportation safety, mobility and efficiency along San Pablo Avenue, and efficiently operate and manage emergency services and transit resources.

In order to improve the efficiency of the entire transportation corridor, the I-80 ICM project will expand and integrate the San Pablo Avenue portion of the SMART Corridor with new elements on San Pablo Avenue, I-80 and crossing arterials. The primary goal of the I-80 ICM project is to enhance the effectiveness of the existing transportation network, including the freeway, ramps, parallel arterials, and the crossing arterials in Alameda and Contra Costa Counties, as well as the transit service.

The Project provides tools for Caltrans and local agencies to manage traffic, including:

- Monitoring/measuring devices such as cameras, video detection systems and loop detectors;
- Communication links to a central location: signal interconnect, wireless modems;
- Traffic control devices;
- Intelligence in form of software and algorithms to respond to changing traffic conditions on ramps and freeway; and
- Tools to communicate traffic/transit information back to drivers

The Project includes five major components:

- Adaptive ramp metering;
- Incident management;
- Information to motorists regarding transit and traffic travel time;
- Improvements along San Pablo Avenue and other arterials; and
- System Integration.

The Project benefits include:

- More reliable travel time within the existing transportation network by optimizing the use of existing capacity.
- Improved safety and operation of the transportation network.
- Reduced traffic congestion by expediting incident clearance and recovery.
- Improved air quality associated with reduced traffic congestion, and.
- Enhanced real-time traveler information.

The I-80 ICM project is a \$93 million project that is primarily funded with Corridor Mobility Improvement Account (CMIA) and Traffic Light Synchronization Program (TLSP) funds secured in 2007. Contra Costa Measure J is a contributing fund for project development. Other local funds, including Alameda County 2000 Measure B funds, are also programmed for this project.

This project is developed through a partnership among Caltrans, the ten municipalities along the corridor (Oakland, Emeryville, Albany, Berkeley, El Cerrito, Richmond, San Pablo, Pinole, Hercules, and Contra Costa County), AC Transit, WestCAT, Alameda County Transportation Commission, Contra Costa Transportation Authority, West Contra Costa Transportation Advisory Committee, Metropolitan Transportation Commission, and the California Highway Patrol (CHP).

II. DEFINITION AND EXPLANATION OF TERMS

Active Traffic Management (ATM) – The use of technology for real-time management of traffic flow and communication of travel information to drivers in an effort to reduce congestion and to increase throughput along a corridor.

Adaptive Ramp Metering (ARM) – The use of freeway mainline, ramp, and local street traffic volumes to adjust metering rates for traffic entering the freeway on a real-time basis.

Closed Circuit Television (CCTV) Cameras – Fixed and pan-tilt-zoom cameras mounted on poles to monitor freeway, on-ramp, and local street traffic flow conditions as a way to confirm actual conditions and to implement appropriate traffic management strategies.

Changeable Message Signs (CMS) – Technology to provide advisory traveler information such as incidents, events, construction, maintenance, road closures, parking availability and travel times so that travelers can make informed choices of their travel mode or route.

Corridor Steering Committee (CSC) - The I-80 CSC will be comprised of executive staff or designees of all member agencies to address any issues not resolved by the I-80 Technical Coordinating Committee (I-80 TCC).

Emergency Vehicle Preemption (EVP) – Devices on emergency vehicles communicate with devices at traffic signals to provide a green traffic signal phase for emergency vehicles approaching an intersection.

End-of-Queue Detection – Detection at the entrance to the on-ramp to monitor the length of queued vehicles waiting for the ramp meter and alerts the ramp meter controller if the queue is approaching the adjacent local intersection. Monitoring could be in terms of occupancy (on the loop) or volume differential (vehicles in vs. vehicles out).

Highway Advisory Radio (HAR) – Radio system used to convey real-time traveler information to drivers during incidents or special events.

Incident Condition – An operational scenario as agreed upon by partnering agencies such as loss of fifty-percent of the through lanes on the freeway for 30 minutes or more.

Information Display Boards (IDB) – Large electronic signs used to display real-time traveler information with color and graphic capability to more efficiently communicate with drivers than is possible using traditional Changeable Message Signs.

Trailblazer Signs – Devices that are located at critical decision points along potential local routes to efficiently guide traffic that has left the freeway along a dedicated route past an incident.

Lane Use Signs (LUS) – An ATM device used to display graphic or text information relative to each specific lane, facilitating clear communication with motorists and dynamic lane management as needed for incident management or planned highway work.

Microwave Vehicle Detection System (MVDS) – Uses microwave motion sensor to detect a moving vehicle.

I-80 Policy Advisory Committee (I-80 PAC) – A committee formed to provide guidance and direction on any issues that may arise that require additional input from communities within the I-80 corridor.

Signal Coordination – A traffic operations strategy of setting traffic signal timing plans and offsets such that a platoon of vehicles can travel along a corridor under a green phase as they approach each intersection. (See also Signal Flush Plans)

Signal Flush Plans – Special traffic signal timing plans that would be implemented at local intersections during freeway incidents in which a large amount of traffic would be expected to leave the freeway and use local streets to bypass an incident. Flush plans provide a long green phase for major traffic route during an incident. Plans are stored in the local traffic signal controller and called out by a plan number. These could be a series of timing plans used for different incident severity, are triggered under specified traffic volume thresholds, and will only be in effect until congestion dissipates on the local streets. (See also Signal Coordination)

Signal Interconnect – Connecting traffic signals along a corridor using copper, fiber, or wireless media to enable data transfer and communication.

Signal Timing Plans – Parameters for allowing green timing for each movement.

I-80 Technical Coordinating Committee (I-80 TCC) – Committee comprising of technical staff from agencies in the I-80 ICM Corridor, responsible for day-to-day transportation service, operations and management of their respective systems within the I-80 corridor.

Transit Signal Priority (TSP) – Equipment installed on transit vehicles that communicates with equipment at the traffic signal to grant an early green or green extension.

Transportation Management Center (TMC) – Central facility at Caltrans or local agencies that houses software, workstations, and staff to operate the system.

Variable Advisory Speed Signs (VASS) – Device that provides timely information to motorists on suggested reduced speeds in advance of downstream congestion or changing conditions. Also used for End of Queue Warning on the freeway. VASS could also be used for speed harmonization. Speed harmonization is a strategy of dynamically and automatically adjusting speed limits approaching areas of traffic congestion, collision, or special events to help maintain traffic flow and reduce risk of collisions due to speed differentials.

III. PURPOSE OF MOU, PROJECT DESCRIPTION, AND PROJECT GOVERNANCE

PURPOSE OF MOU

This MOU serves the following purposes:

- Confirm support from all project partners, particularly local support for ramp metering and other freeway elements;
- Articulate key operations and maintenance (O&M) principles for continuing project development;
- Clarify ownership, O&M, and management responsibilities;
- Clarify the distribution of costs and funding sources;
- Outline the framework for multi-agency cooperation, collaboration, and conflict resolution;
- Identify which Smart Corridor devices will be made part of the I-80 ICM project; and
- Signify the ongoing commitment of the project partners to deliver the project and make it a success.

PROJECT DESCRIPTION

The I-80 ICM Project is located in Alameda and Contra Costa Counties, on a segment of I-80 approximately 20 miles long, from just north of the I-80/580/880 Interchange to just south of the Carquinez Bridge, on San Pablo Avenue from MacArthur Blvd. in Oakland to Cummings Skyway in Contra Costa County (portions of which are also designated as State Route 123), and on other local arterials along the corridor that connect I-80 and San Pablo Avenue. The I-80 ICM Project consists of five major components, as described below:

a. Adaptive Ramp Metering

Adaptive ramp metering (ARM) will be implemented at 44 on-ramps for both directions of the freeway during the weekday peak periods and weekends as needed (refer to Attachment A). ARM manages traffic volumes at the freeway on-ramps during recurring congestion and freeway incidents. Incident-related congestion can be managed through the use of more restrictive metering upstream and less restrictive metering downstream of the incident. The ARM algorithm can adjust metering rates at each on-ramp based on the prevailing or real-time corridor traffic conditions, both on the freeway and the adjacent local arterial.

b. Incident Management

During an incident, Active Traffic Management (ATM) strategies will be deployed to reduce delay and to prevent secondary incidents on the freeway, and to also manage incident traffic on local arterials. This will be accomplished through specific incident response plans (IRP), to be developed in coordination with the local agencies, that employ the I-80 ICM project elements (i.e. CMS, CCTV, LUS, VASS) and San Pablo Avenue East Bay SMART Corridor devices (i.e. CCTV and MVDS) to expedite incident detection, response, and clearance while also minimizing incident impacts via enhanced motorist information.

c. Transit and Traffic Motorist Information

Real-time information for the transportation network, including travel speeds, travel time and transit options, will be provided to motorists and transit passengers via IDBs, CMS, HAR, and 511. This will assist motorists to make timely, informed, and personal decisions earlier in their journey through the corridor, thus, enhancing motorists' trip quality and convenience. This can also at times reduce traffic demand within the corridor by encouraging travelers to use available transit options or to postpone their travel to times when congestion is lower.

d. Improvements along San Pablo Avenue Corridor and Other Arterials

The I-80 ICM Project includes upgraded traffic signal hardware, software and interconnect enhancements, and installation of arterial management components such as closed-circuit television (CCTV) cameras, trailblazer signs, CMS and communication and detection equipment on San Pablo Avenue from MacArthur Boulevard in Oakland to Cummings Skyway in Contra Costa County and local arterials. Other improvements include: extended transit signal priority along San Pablo Avenue Corridor and crossing arterials; extended emergency vehicle preemption; and installation of pedestrian push buttons and countdown signal heads at traffic signals in Pinole, minor traffic signal modification in El Cerrito, intersection striping improvements for transit near El Cerrito del Norte BART Station, and installation of two new traffic signals in Richmond.

e. System Integration

System integration provides for coordinated operations between all of the above project components and sharing of corridor traffic and transit

information among various agencies relative to I-80, San Pablo Avenue and other key local arterials.

GOVERNANCE

It is the intent that all technical and operational matters be resolved among the partnering agencies at the lowest working level. In general, the I-80 integrated corridor management activities will be directed through three bodies of governance, in the following order of hierarchy, from low to high:

Technical Coordinating Committee (I-80 TCC):

The I-80 TCC will be comprised of technical staff responsible for day-to-day transportation service, operations and management of their respective systems within the I-80 corridor. The I-80 TCC will consist of representatives from Caltrans/District 4, the California Highway Patrol (CHP), Metropolitan Transportation Commission (MTC), Alameda County Transportation Commission (Alameda CTC), AC Transit, Contra Costa Transportation Authority (CCTA), Contra Costa County (CCC), the West Contra Costa Transportation Advisory Committee (WCCTAC), WestCAT, and the Cities of Hercules, Pinole, San Pablo, Richmond, El Cerrito, Albany, Berkeley, Emeryville, and Oakland. The I-80 TCC will develop operational strategies needed for integrated corridor system management, ultimately to be adopted by the I-80 Corridor Steering Committee (CSC) as appropriate.

The I-80 TCC will ensure efficient monitoring and enhanced day-to-day freeway and arterial operations, incident management, and timely dissemination of real-time multimodal traffic data to travelers.

The I-80 TCC will directly interact, communicate, and exchange information and cooperatively assist in resolving issues. In the course of these activities, operational protocols will be developed to best serve ramp metering, incident management, signal operations, and transit service.

While Caltrans will be responsible for 24/7 emergency deployment of the ICM components, The I-80 TCC members will, on an ongoing basis, provide input and concurrence on operational strategies such as ramp metering rates or operational periods, flush plans, traffic signal modifications & coordination, and activation of trailblazer signs on local arterials during incidents or major events that affect transportation.

The I-80 TCC will meet monthly or as needed. At these meetings, the I-80 TCC will review available traffic data and recommend solutions to issues relating to the integrated corridor management, including ramp metering and incident response. For example, Caltrans' representative(s) will provide a status report on the operations of ramp metering in both counties. The status report will include a list of operational issues that were reported by the local agencies and how these issues were resolved. If needed, the Caltrans I-80 TCC representative will lead the I-80 TCC meetings and help formulate recommended changes to the daily operations of the system within the I-80 Corridor.

Corridor Steering Committee (I-80 CSC):

The I-80 CSC will be comprised of executive staff or designees from all member agencies. The I-80 CSC will meet as needed, to address issues unresolved by the I-80 TCC.

Policy Advisory Committee (I-80 PAC):

A Policy Advisory Committee (I-80 PAC) will provide guidance and direction on any issues that may arise that require additional input from communities within the corridor. The I-80 PAC will be comprised of three members: the Caltrans District 4 Director, one elected official from an Alameda County jurisdiction within the corridor appointed by the Alameda CTC, and one elected official appointed by WCCTAC. The I-80 PAC meetings will be held on an as-needed basis.

Table 1 below shows all of the partner agencies that will be represented by the three bodies.

Table 1: I-80 ICM Member Agencies

Member Agencies
California Department of Transportation (Caltrans)
California Highway Patrol (CHP)
Metropolitan Transportation Commission (MTC)
Alameda County Transportation Commission (Alameda CTC)
Contra Costa County
Contra Costa Transportation Authority (CCTA)
Western Contra Costa Transportation Advisory Committee (WCCTAC)
AC Transit
WestCAT
City of Albany
City of Berkeley
City of El Cerrito
City of Emeryville
City of Hercules
City of Oakland
City of Pinole
City of Richmond
City of San Pablo

IV. PROJECT GOALS & OBJECTIVES

The ICM strategies pursued herein shall:

1. Provide traffic operation on the corridor that is equitable and balanced for both the freeway and arterials.
2. Integrate transportation system management activities to enhance safety and mobility for all travel modes within the corridor.
3. Enhance overall transit travel time along corridor routes during normal operations.
4. Enhance trip reliability by providing consistent and predictable travel times on the freeway and local arterials.
5. Avoid impacts on local arterials while managing access at on-ramps during peak periods on weekdays and weekends.
6. Efficiently guide traffic naturally diverted to local arterials during major freeway incidents back to the freeway.
7. Cooperatively operate, manage and maintain all elements installed as part of the I-80 ICM project in an integrated and coordinated manner.
8. Cooperatively develop, implement, evaluate and revise strategies to ensure balanced benefits to local, regional, and inter-regional travelers.
9. Cooperatively identify and address any adverse impacts in a timely fashion.
10. Ensure on-going communication among partnering agencies for timely review and adjustment of activities as needed.
11. Ensure timely and appropriate communication with the public, media, and elected officials.
12. Monitor, evaluate, and report on project performance to ensure compliance with goals and objectives.
13. Facilitate cooperative activities that ensure the sustainability of benefits from the project.

V. OPERATIONS STRATEGIES AND PRINCIPLES

a. OPERATIONAL SCENARIOS & LEAD AGENCIES

Table 2 below illustrates the operational strategies that will initially be deployed as part of the I-80 ICM Project and the agencies that will take the lead in implementing the strategies.

Table 2 – Operational Strategies

Facility	Operational Strategy (Lead Agency or Agencies)	
	<i>Normal Operations</i>	<i>Incident Management / Special Events</i>
Freeway & Ramps	Adaptive Ramp Metering (Caltrans) Transit Priority (AC Transit & WestCAT)	Adaptive Ramp Metering (Caltrans) Lane Use Signals (Caltrans) Variable Advisory Speed Signs/ End-of-Queue Warning (Caltrans) Transit Priority (AC Transit & WestCAT)
San Pablo Avenue	Signal Coordination (Local & Caltrans) Transit Priority (AC Transit & WestCAT) Emergency Vehicle Preemption (1 st Resp.)*	Flush Plans (Caltrans) Trailblazers (Caltrans) Transit Priority (AC Transit & WestCAT) Emergency Vehicle Preemption (1 st Resp.)*
Crossing Arterials	Signal Coordination (Local & Caltrans) Transit Priority (AC Transit & WestCAT) Emergency Vehicle Preemption (1 st Resp.)*	Flush Plans (Caltrans) Trailblazers (Caltrans) Transit Priority (AC Transit & WestCAT) Emergency Vehicle Preemption (1 st Resp.)*

Note: The project will add and upgrade Emergency Vehicle Preemption (EVP) receivers along San Pablo Avenue and crossing arterials connecting to I-80, as shown in Attachment B, for use by first responders. Emergency vehicle response will continue to be operated by the first responders.

Normal Operations

Under normal conditions, ramp metering will function under adaptive control. This means that traffic conditions along the entire corridor (freeway, ramps, and local streets) will be considered when determining metering rates at each ramp. Each ramp will have an end-of-queue detector to monitor the queue length of vehicles waiting on the on-ramp using either occupancy or volume differential between end-of-queue detector and ramp output loop. If the end of queue approaches the cross street, the ramp meter controller will increase the metering rate up to the maximum rate in order to reduce the queue. If the queue is not dissipating, the ramp meter controller will change the meter to rest on green until the queue is dissipated. At ramp HOV bypass lanes, TSP will allow equipped buses to obtain priority by expediting or flushing out any queue ahead of the bus. Ramp metering will be operated by Caltrans.

On San Pablo Avenue and crossing arterials (connecting San Pablo Avenue to I-80), signal coordination and transit signal priority will be used to improve traffic flow throughout the corridor during normal operating conditions. Much of San Pablo Avenue already has traffic signal interconnect that allows for efficient signal timing coordination and progression. Additional signal interconnect on several crossing arterials will improve the flow of traffic between San Pablo Avenue and I-80. The I-80 ICM project will provide an update to the signal timing along the corridor for normal operating conditions. In the future, signal timing updates will be achieved through other programs, such as those administered by MTC. Local traffic signals will be controlled by the local agency during normal operations. As discussed below, Caltrans will have the ability to control certain signals if required during a special event or following an incident.

TSP exists along much of San Pablo Avenue and serves routes such as AC Transit 72 Rapid. This equipment is also used for emergency vehicle preemption. The I-80 ICM project will add TSP for San Pablo Avenue in the WestCAT service area, and for crossing arterials for AC Transit and WestCAT service areas.

Incident / Special Events Management

Incident conditions will be defined by the I-80 Technical Coordinating Committee (TCC) (e.g. blockage of 50% of freeway lanes for 30 minutes or more). Under incident conditions, ramp metering will continue to operate under an adaptive control as described above. Since freeway conditions rapidly change following an incident, the ramp meter rates could frequently adjust in reaction to the changes. Ramp metering at on-ramps will still be operated such that spillbacks onto the crossing arterials are avoided.

LUS will be turned on based on specific incident conditions. Red X's, yellow diagonal arrows, or text messages will be displayed to convey downstream conditions and guide traffic through the incident scene. Lane use signs will be operated by Caltrans.

VASS will display an advisory reduced speed to reflect downstream congestion or end-of-queue. Initially these signs will only be used for end-of-queue warning; however, the signs could be used for speed harmonization in the future. Speed harmonization is a strategy of dynamically and automatically adjusting speed limits approaching areas of traffic congestion, collision, or special events to help maintain traffic flow and reduce risk of collisions due to speed differentials. Variable advisory speed signs will be operated by Caltrans.

During incident conditions, San Pablo Avenue and crossing arterials may become congested due to traffic that (naturally) leaves the freeway to use the local streets to bypass the incident. The project will not actively divert freeway traffic on to local streets. Trailblazer signs placed on San Pablo Avenue and local arterials will advise drivers where to return back to the freeway after passing the incident location. These signs are

meant to discourage the use of other local streets that could lead to more severe congestion on the local network.

Traffic signal timing along a relevant incident route will be modified during an incident to help increase the throughput of traffic along that route, and to reduce recovery time to normal conditions. The incident timing is referred to as a "signal flush plan". Caltrans will be responsible for executing the appropriate flush plans on affected traffic signals (Caltrans and local agency owned) when an incident occurs. Caltrans and local agencies will develop the Incident Response Plan to help formulate acceptable timing plans that increases the throughput without adverse delays to local traffic including bicycles, pedestrians and transit. The timing plans will be preapproved so activation of them during incidents will be efficient. TSP and emergency vehicle preemption will still be operational during an incident.

The Incident Response Plan will identify a specific subset of devices (ramp metering, VASS, CMS, LUS, Trailblazer signs, IDB, and traffic signals) that will be used to manage the network during an incident. Each scenario will be dependent on many different parameters including time of day, location, incident severity, and expected incident duration. Local agencies will review and approve the use of each strategy. When an incident occurs, Caltrans will determine the scenario that is most appropriate for the incident and deploy the appropriate strategy.

b. OPERATING PRINCIPLES

The following primary guidelines will be used in directing day-to-day transportation management and operational activities along the corridor:

1. General

- a. The project will not actively divert freeway traffic onto local streets in the event of an incident on the freeway.
- b. The I-80 Technical Coordinating Committee (I-80 TCC) members shall actively participate in monitoring operations within their jurisdictions and in on-going communication relative to the corridor management operations.
- c. Caltrans shall be responsible for 24/7 monitoring of ICM devices on the arterials and freeway, and during incidents, selecting and executing the appropriate pre-determined plans, protocols, and parameters in accordance with the IRP. Such activities will be undertaken from the Transportation Management Center (TMC) jointly operated by Caltrans and the California Highway Patrol (available via telephone at 510-286-

6915), located at 111 Grand Avenue, Oakland, and staffed on a 24/7 basis.

- d. During normal conditions, each local agency shall have primary control and will be responsible for operating all the project devices within their jurisdiction. Refer to Attachment B for the project devices. Local agencies may also operate signals on San Pablo Avenue within Caltrans jurisdiction upon prior agreements and protocols developed for local needs.
- e. Local jurisdictions shall provide contact information for a 24/7 dispatch and/or on-call personnel to be contacted for emergency activities or notification purposes.
- f. For safety reasons, only under exigent and unforeseen circumstances such as being directed by law enforcement or in reaction to secondary accidents, Caltrans may be required to make short-term, spot decisions without first consulting with local agencies. Under such circumstances, Caltrans shall promptly notify the local jurisdictions of the actions taken as soon as possible and practicable.

2. Adaptive Ramp Metering

- a. Ramp meters will be operating at the freeway on-ramps in both directions, during weekday and weekend peak periods. In addition, ramp meters may be activated during non-peak conditions, as needed, in response to prevailing traffic demand for special events or major incidents.
- b. Ramp metering will be operated in adaptive fashion, considering traffic demands and capacity on both the freeway and local arterials. During the metering periods, the implemented system will automatically adjust metering rates to ensure that queues at on-ramps do not extend beyond local agency-specified maximum end-of-queue locations, or shall rest on green for as long a time as necessary.
- c. End of queue detection will be used to monitor and contain the queues within the on-ramps, and when absolutely needed on the appropriate turn-lanes, as approved by local jurisdictions, on the local arterials specifically dedicated for freeway entry. Once queues extend beyond the end of queue detector, the ramp meter rate will increase or rest on green to avoid queuing that obstructs local traffic flow.

- d. Ramp metering rates will be based on the Adaptive Ramp Metering Algorithm which will consider parameters such as end of queue detection, communication failures, etc.
- e. If the ramp metering implementation or ramp metering plan modification does not perform as expected so that there would be excessive delays and queues impacting traffic operations on the local arterial, or results in excessive complaints, Caltrans will consider other options, such as, changing ramp metering rates or operating on-ramps on temporary "rest on green".
- f. Caltrans shall promptly respond to requests to modify ramp metering rates from local agencies for initial diagnosis of the issue. If the response times are not met or the operational issue results in significant or adverse impacts, the matter shall be referred to the I-80 TCC for immediate resolution.
- g. The metering rates will be developed to avoid delays to buses either at on-ramps or crossing arterials. For buses that are bound for the freeway, transit signal priority will be provided for the HOV by-pass lane ramp metering signal.

3. Local Arterials

- a. Under normal conditions, local agencies will have, within their jurisdictions, control of the ICM devices and traffic signals which will be coordinated upon project implementation.
- b. Under incident conditions, pre-approved Incident Response Plans (IRPs) will be implemented by Caltrans. Caltrans will assume control of the ICM devices until the incident is cleared. Typical daily signal operations will be resumed immediately upon incident clearance and stabilization of traffic conditions.
- c. The IRPs will be evaluated periodically to assess their effectiveness and need for adjustments. Any adjustments to the IRPs will be subject to approval by the TCC.

- d. Trailblazer signs installed on local arterials will direct motorists that have naturally diverted to the local streets, due to an incident on I-80, back to the freeway at appropriate location(s) downstream of the incident. Trailblazer signs will be activated only at locations where signal flush plans are turned on.
- e. TSP will be utilized at crossing arterials adjacent to on-ramps to provide priority for transit vehicles along those routes.

4. Public Outreach, Response to Inquiries and Complaints

- a. Caltrans shall address any and all public inquiries, complaints, and concerns in a timely manner via telephone hotline, e-mail, or correspondence, on an on-going basis, related to freeway operations or related to IRP.
- b. On local streets, the local jurisdiction will address any and all public inquiries, complaints, and concerns in a timely manner via telephone hotline, e-mail, or correspondence, on an on-going basis.
- c. Caltrans and local agencies will coordinate responses, as appropriate.

VI. EQUIPMENT OWNERSHIP & MAINTENANCE

The I-80 ICM project utilizes various equipment installed throughout the corridor, which are located within different jurisdictional rights-of-way. Table 5 in Section VIII provides a summary of ownership and maintenance responsibilities by type of equipment and right-of-way. Attachment B provides the location of each type of equipment to be utilized, grouped by operational strategy. Attachment B also delineates the ownership and operations responsibilities.

VII. PROJECT DEVELOPMENT PRINCIPLES

a. Project Documents

The following documents have been prepared to design the project:

Project Report:

Defines the purpose and need for the project, identifies the alternative selected, describes how that alternative was decided upon, and describes how consensus was reached among stakeholders.

Environmental Document:

For a capital project to proceed, it must receive official federal, state, and environmental approvals as well as consensus from all the stakeholders and the public.

Corridor Systems Management Plan (CSMP):

Overall corridor operational conditions, existing and future conditions, list of future projects, and recommendations.

Concept of Operations Report (Con Ops):

Concept for proposed system, user-oriented operational description, operational needs, system overview, operational and support environment, operational scenarios, summary of impacts.

Ramp Metering Plan (RMP):

Ramp Meeting operational plans, including metering rates.

Traffic Operations Analysis Report (TOAR):

Existing traffic conditions, proposed alternatives, traffic forecasts, modeling results.

The following documents will govern the implementation of the project:

Project Implementation Plan

Document identifying the staging and commissioning of each I-80 ICM project element (TOS, TLSP, ARM, and ATM).

Operations and Maintenance (O&M) Plan:

Operational scenarios and cost of operations, maintenance and management for each city along the corridor.

Incident Response Plan (IRP):

Overall incident response plan that defines various incident scenarios and procedures for managing traffic congestion during incidents, including signal flush plans.

System Integration Plan:

Specifies the procedures, methods and strategies to implement the required project elements based on project documents and system requirements.

Configuration Management Plan:

Details the process to establish and maintain the integrity and control of software and hardware products.

Outreach Plan:

Outlines strategies to disseminate periodic project information and updates to various stakeholders.

b. Construction

The project will be constructed in six contracts – four construction contracts, one material procurement contract, and one systems integration contract. While local business preference is not allowed for State-funded construction contracts, such as these, outreach will be conducted to encourage local participation.

PHASING AND IMPLEMENTATION SCHEDULE

For delivery purposes, the I-80 ICM project has been split into six contracts as shown in Table 3 below.

TABLE 3 – SCHEDULE OF CONSTRUCTION CONTRACT DELIVERY

I-80 ICM Construction Contracts	Tentative Construction Schedule		Implementing Agency for Construction & Procurement Contracts
	Start	End	
Project 1: Software Development / System Integration	March 2012	January 2015*	Alameda CTC
Project 2: Specialty Materials Procurement	October 2012	April 2014	Alameda CTC
Project 3: Traffic Operation Systems	April 2011	May 2012	Alameda CTC
Project 4: Adaptive Ramp Metering	May 2012	December 2013	Caltrans
Project 5: Active Traffic Management	May 2012	April 2014	Caltrans
Project 6: San Pablo Corridor Arterial and Transit Improvement Project	May 2011	December 2013	Alameda CTC

* Includes a 1-year rollout, implementation and commissioning period

The public will be notified as appropriate of imminent construction activities.

c. System Integration

The Project deploys a number of components and equipment that need to communicate with each other and with the TMC. In order to achieve such automated data flow, various components of the project are linked via a data network. The disaggregate components will be controlled and communicated utilizing a custom application (software) that will be developed by the System Integrator. The System Integrator working with the I-80 TCC will be responsible for developing a System Integration Plan for automated communications and interaction between the various devices and the TMC.

Phase I of System Integration integrates devices on San Pablo Avenue (existing devices from East Bay SMART Corridor and new devices installed under the project) and Phase II will address the I-80 devices and the interaction with San Pablo Avenue components system. System Integration provides for coordinated operations and sharing of corridor traffic and transit information among various agencies relative to I-80, San Pablo Avenue Corridor and other key local arterials. Software is provided to enable operations of all I-80 project elements from Caltrans TMC and share information with local agency TMC.

d. Implementation & Initial System Evaluation

Project Implementation is outlined in the Project Implementation Plan with input provided by the I-80 TCC. It is expected that Adaptive Ramp Metering and Active Traffic Management components of the projects listed on Table 3 will be activated at the same time, in early 2014.

After the devices are installed, system components will be tested individually and then collectively prior to performing a full rollout. Following full roll-out, driver behavior is expected to adjust and eventually settle into a repetitive, predictive pattern. The system will then be monitored extensively and minor fine tuning of signal timing and ramp metering algorithms will be performed as appropriate. The monitoring activities will include evaluating impacts of the project on transit operations and the magnitude of traffic diversion to local streets. Strategic transit enhancements, such as relocation of bus stops, etc., changes to the signal flush plans, and use of the trailblazer signs may be implemented to address such impacts. A study will be done to document conditions before and after the project is implemented, recommend changes, if necessary, and report on the project benefits.

e. Regular Operations & Maintenance

The regular operations and maintenance will be in accordance with the Project Operations and Maintenance Plan (O&M) developed for the project with input provided by the I-80 TCC. The O&M Plan addresses staffing, training, performance monitoring and reporting, and data ownership.

f. Configuration and Change Management

The configuration and change management will be in accordance with the Project Configuration Management Plan developed for the project with input provided by the I-80 TCC. The Configuration Management Plan details the process to establish and maintain the integrity and control of software and hardware products.

VIII. COSTS & FUNDING

The project is funded by various fund sources for the different phases of the project – Project Development, Construction, and Operation & Maintenance phases. Funding for each phase is outlined as follows:

a. Project Development Phase:

The following table (Table 4) breaks down funding for the project development phase:

Table 4 – Project Development Funding Sources

Fund Source	Funding Agency	Amount
CMAQ (Fed)	Federal	\$ 3,243,000
STIP (CCC)	State	\$ 954,000
CMA TIP	Alameda CTC	\$ 1,080,000
Measure J	CCTA	\$ 4,876,000
WCCTAC	WCCTAC	\$ 47,000
2000 Measure B	Alameda CTC	\$ 1,800,000
TFCA	BAAQMD	\$ 1,155,000
Total		\$ 13,155,000

b. Construction Phase:

The construction of freeway portion of I-80 ICM project is funded by \$55.3 million from California State Proposition 1B Bond funds - Corridor Mobility Improvement Account (CMIA). The construction of San Pablo Avenue components is funded by \$21.4 million from California State Proposition 1B Bond funds - Traffic Light Synchronization Program (TLSP) Account.

c. Operations & Maintenance (O&M) Phase:

Caltrans is responsible for funding, operating and maintaining the equipment in State right-of-way, except for traffic signals subject to other maintenance agreements and EVP receivers at Caltrans-maintained traffic signals. Caltrans shall maintain TSP receivers at HOV ramp meter bypass lanes.

- Caltrans is responsible for funding the 24/7 monitoring of the I-80 ICM from the TMC.

- Within Alameda County outside of State right-of-way, cities will be responsible for operations and maintenance of the equipment. Alameda CTC will provide funding for operating and maintaining ICM equipment.
- Within Contra Costa County outside of State right-of-way, local jurisdictions will be responsible for operations and maintenance of ICM equipment, and may choose to contract with Contra Costa County for maintenance. Local jurisdictions will not be responsible for funding the operations and maintenance of ICM equipment in perpetuity. CCTA will secure \$2,000,000 in funding for operating and maintaining ICM equipment. This amount is estimated to fund about 15 years of operations and maintenance. CCTA will seek additional funding beyond the \$2 million from regional and other sources.
- Funding for East Bay SMART Corridor devices that are not used for deploying I-80 ICM strategies will continue to be funded under the terms of the existing O&M Agreement between Alameda CTC and the local agencies.
- Cities / Contra Costa County will be responsible for funding, operating and maintaining existing and upgraded traffic signals within their right-of-way.
- Cities / Contra Costa County will be responsible for funding, operating and maintaining non-ICM equipment requested by local agencies within their right-of-way. This includes speed feedback signs (Pinole) and Changeable Message Signs on local arterials (Oakland).
- Funding for the TSP equipment in transit vehicles will be provided as part of the I-80 ICM project. Installation, Operation and maintenance of TSP equipment in the transit vehicles, and funding for installation, operations and maintenance of such equipment, will be the responsibility of the respective transit agency.

The foregoing is summarized in Table 5 below:

Table 5 - O&M and Funding Responsibility Table

Grouping	ROW	Equipment	O&M Responsibility	Funding Responsibility
East Bay SMART Corridor Equipment - Used for ICM Strategy	Caltrans	CCTV	Caltrans	Caltrans
		MVDS	Caltrans	Caltrans
		TSP	Caltrans	Caltrans
	Non-Caltrans	CCTV	Cities/County *	Alameda CTC or CCTA
		MVDS	Cities/County *	Alameda CTC or CCTA
		TSP	Cities/County *	CCTA/Alameda CTC*
East Bay SMART Corridor Equipment - NOT used for ICM Strategy	Caltrans	CCTV	NONE	NONE
		MVDS	NONE	NONE
		TSP	NONE	NONE
	Non-Caltrans	CCTV	Cities/County	Cities/County
		MVDS	NONE	NONE
		TSP	Cities**	Cities**
I-80 ICM Equipment - Used for ICM Strategy	Caltrans	CCTV	Caltrans	Caltrans
		MVDS	NONE	NONE
		TRAILBLAZERS	Caltrans	Caltrans
		TRAFFIC SIGNAL	Caltrans	Caltrans
		TSP	Caltrans	Caltrans
		EVP	Caltrans	Caltrans
	Non-Caltrans	CCTV	Cities/County (CC only) *	CCTA***
		MVDS	Cities/County (CC only) *	CCTA***
		TRAILBLAZERS	Cities/County	Alameda CTC or CCTA
		TRAFFIC SIGNAL	Cities/County	Cities/County
		TSP	Cities/County	Alameda CTC or CCTA
		EVP	Cities/County	Cities/County

I-80 ICM Equipment - Other/ Requested by Cities	Caltrans	Ramp Meter HOV TSP	Caltrans	Caltrans
	Non-Caltrans	OAKLAND: PTZ cameras Arterial CMS Intersection Detection (VID, Magnetometer), Video Encoders	Oakland	Oakland
		BERKELEY: Intersection Video Detection	Berkeley	Berkeley
		RICHMOND: Intersection Video Detection	Richmond	Richmond
		PINOLE: Speed feedback signs	Pinole	Pinole

NOTES:

* Contra Costa cities may contract with Contra Costa County for maintenance of these devices.

** No TSPs in Contra Costa County that are not used for I-80 ICM Strategy.

*** No new CCTV or MVDS in Alameda County.

Refer to Attachment C for detailed estimates of operations and maintenance costs in each jurisdiction. Responsibility for funding O&M costs is detailed in Table 5 above. The estimates are provided to document assumptions on how the O&M costs are derived.

IX. FUTURE MOU MODIFICATIONS

This MOU is a legally non-binding document. However, revisions to this MOU may be requested by the I-80 TCC and approved by the CSC. Revisions may also be recommended by the CSC. In either case, implementation of changes to the MOU would require a written amendment by all the partnering agencies that are signatories of this MOU. This MOU expires after ten years from the date of its execution, unless extended by partnering agencies pursuant to an approved amendment.

X. NEED FOR ADDITIONAL AGREEMENTS

New maintenance agreements or amendments to existing maintenance agreements between Caltrans and affected jurisdictions will be developed and executed as necessary to address maintenance arrangements, liabilities, or any other legal issues.

The parties to this MOU specifically repudiate the division of liability and indemnification outlined in Government Code section 895.2, and will address these topics in future agreements, as necessary.

Signature Page to include signature lines for the following partnering agencies:

Caltrans

City of Emeryville

Alameda CTC

City of Oakland

CCTA

City of San Pablo

WCCTAC

City of Richmond

Contra Costa County

City of Pinole

City of Albany

City of Hercules

City of El Cerrito

AC Transit

WestCAT

City of Berkeley

ATTACHMENT A

Ramp Metering Locations

Location	Lane Configuration		City
EASTBOUND			
Powell St.	2		Emeryville
Ashby Ave./Potter St.	2		Berkeley
University Ave.	2		Berkeley
Gilman St.	2		Berkeley
Buchanan St.	1		Albany
Central Ave.	2		Richmond
Carlson Blvd.	2		Richmond
Cutting Blvd. (loop ramp)	1		Richmond
Cutting Blvd.	2		Richmond
San Pablo Ave.	2		Richmond
San Pablo Dam Rd.	1		San Pablo
El Portal Dr.	2		Richmond
Eastbound Hilltop Dr. (loop ramp)	1		Richmond
Westbound Hilltop Dr.	1+1*		Richmond
Eastbound Fitzgerald/ Richmond Pkwy. (loop ramp)	2		Pinole
Westbound Fitzgerald/Richmond Parkway	1		Richmond
Southbound Appian Way (loop ramp)	1		Pinole
Northbound Appian Way	2		Pinole
Pinole Valley Rd.	1		Pinole
John Muir Pkwy. (SR-4)	By another project		
Willow Ave.	By another project		
Cummings Skyway	By another project		

Note: * Denotes TSP for HOV By-pass Lane

Ramp Metering Locations

Location	Configuration		City
WESTBOUND			
San Pablo Ave. / Pomona St.	1		CC County
Cummings Skyway	1		CC County
Willow Ave.	By another project		
John Muir Parkway (SR-4)	2+1*		Hercules
Pinole Valley Rd.	2		Pinole
Appian Way	2		Pinole
Fitzgerald Dr./Richmond Parkway	1		Richmond
Westbound Hilltop Dr. (loop ramp)	1+1*		Richmond
Hilltop Dr.	1+1*		Richmond
El Portal Dr.	2		CC County
San Pablo Dam Rd.	2		San Pablo
Solano Ave.	1		Richmond
Barrett Ave.	2		Richmond
Potrero Ave.	2		Richmond
Carlson Blvd.	2		Richmond
Central Ave.	1		Richmond
Buchanan St.	2		Albany
Gilman St.	1+1*		Berkeley
University Ave. (loop)	1+1*		Berkeley
Ashby Ave. & Frontage Rd.	2+1*		Berkeley
Powell St./Frontage Rd.	2		Emeryville
Powell St.	1		Emeryville

Note: * Denotes TSP for HOV By-pass Lane

ATTACHMENT B

Cameras

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
CLOSED-CIRCUIT TELEVISION (CCTV) CAMERA LOCATIONS
2/16/2012

No.	Main Street	Cross Street	Vicinity	Used by I-80 ICM Project?	Video Encoder?	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
EXISTING SMART CORRIDOR CCTV CAMERA LOCATIONS (USED FOR I-80 INCIDENT MANAGEMENT)								
1	San Pablo Ave	John Muir Pkwy	Hercules	Yes	Yes	Hercules	Hercules	Caltrans
2	San Pablo Ave	Richmond Pkwy	Richmond	Yes	Yes	Richmond	Richmond	Caltrans
3	San Pablo Ave	San Pablo Dam Rd	San Pablo	Yes	Yes	San Pablo	San Pablo	Caltrans
4	San Pablo Dam Rd	I-80 SB Ramps	San Pablo	Yes	Yes	Caltrans	Caltrans	Caltrans
5	San Pablo Ave	Cutting Blvd	El Cerrito	Yes	Yes	Caltrans	Caltrans	Caltrans
6	San Pablo Ave	Portero Ave	El Cerrito	Yes	Yes	Caltrans	Caltrans	Caltrans
7	Central Ave	I-80 NB ramps	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
8	San Pablo Ave	Central Ave	El Cerrito	Yes	Yes	Caltrans	Caltrans	Caltrans
9	Buchanan St	I-80 NB Ramps	Albany	Yes	Yes	Caltrans	Caltrans	Caltrans
10	San Pablo Ave	Buchanan St	Albany	Yes	Yes	Caltrans	Caltrans	Caltrans
11	San Pablo Ave	Gilman St	Berkeley	Yes	Yes	Caltrans	Berkeley	Caltrans
12	San Pablo Ave	University Ave	Berkeley	Yes	Yes	Caltrans	Berkeley	Caltrans
13	San Pablo Ave	Ashby Ave	Berkeley	Yes	Yes	Caltrans	Berkeley	Caltrans
14	San Pablo Ave	Powell St / Stanford Ave	Oakland	Yes	Yes	Oakland	Oakland	Caltrans
15	San Pablo Ave	W. Grand Ave	Oakland	Yes	No	Oakland	Oakland	Caltrans
EXISTING SMART CORRIDOR CCTV CAMERA LOCATIONS (*NOT* USED FOR I-80 INCIDENT MANAGEMENT)								
1	San Pablo Ave	Church Ln	San Pablo	No	Yes	Richmond	Richmond	Not Used
2	San Pablo Ave	Macdonald Ave	Richmond	No	Yes	Richmond	Richmond	Not Used
3	University Ave	6th St	Berkeley	No	Yes	Berkeley	Berkeley	Not Used
4	Ashby Ave	7th St	Berkeley	No	Yes	Caltrans (Berkeley)	Berkeley	Not Used
5	Powell St	Christie Ave	Emeryville	No	Yes	Emeryville	Emeryville	Not Used
6	San Pablo Ave	40th St	Emeryville	No	Yes	Caltrans	Caltrans	Not Used
7	W. Grand Ave	Mandela Pkwy	Oakland	No	Yes	Oakland	Oakland	Not Used
NEW I-80 ICM PTZ CCTV LOCATIONS (VIDEO ENCODER AT CALTRANS-MAINTAINED LOCATIONS)								
1	San Pablo Ave	MacArthur Blvd	Oakland	Yes	No	Caltrans (CCTV O&M by Oakland)	Oakland	Not Used
2	I-80 EB on-ramp	Powell St	Emeryville	Yes	Yes	Caltrans	Caltrans	Caltrans
3	I-80 WB on/off ramps	Frontage Road/ Captian Dr	Emeryville	Yes	Yes	Caltrans	Caltrans	Caltrans
4	I-80 EB on/off ramps	Ashby	Berkeley	Yes	Yes	Caltrans	Caltrans	Caltrans
5	I-80 WB on-ramp	University	Berkeley	Yes	Yes	Caltrans	Caltrans	Caltrans
6	I-80 EB on/off ramps	Gilman	Berkeley	Yes	Yes	Caltrans	Caltrans	Caltrans
7	I-80 WB on/off ramp	Buchanan St	Albany	Yes	Yes	Caltrans	Caltrans	Caltrans
8	I-80 WB on/off ramp	Central Ave	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
9	I-80 WB on-ramp	Potrero	El Cerrito	Yes	Yes	Caltrans	Caltrans	Caltrans
10	I-80 WB on-ramp	Cutting	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
11	I-80 WB on/off ramps	Carlson	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
12	I-80 EB on/off ramps	Carlson	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
13	I-80 EB on/off ramps	San Pablo Ave	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
14	I-80 EB on/off ramps	San Pablo Dam Rd	San Pablo	Yes	Yes	Caltrans	Caltrans	Caltrans
15	I-80 WB on-ramp	El Portal	San Pablo	Yes	Yes	Caltrans	Caltrans	Caltrans
16	I-80 EB on/off ramps	El Portal	San Pablo	Yes	Yes	Caltrans	Caltrans	Caltrans

Cameras

**INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
CLOSED-CIRCUIT TELEVISION (CCTV) CAMERA LOCATIONS
2/16/2012**

No.	Main Street	Cross Street	Vicinity	Used by I-80 ICM Project?	Video Encoder?	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
17	I-80 WB on/off ramps	Hilltop	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
18	I-80 EB on/off ramps	Hilltop	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
19	I-80 WB on/off ramps	Richmond Parkway	Richmond	Yes	Yes	Caltrans	Caltrans	Caltrans
20	I-80 EB on/off ramps	Richmond Parkway	Pinole	Yes	Yes	Caltrans	Caltrans	Caltrans
21	I-80 EB on/off ramps	Appian	Pinole	Yes	Yes	Caltrans	Caltrans	Caltrans
22	I-80 WB on/off ramps	Appian	Pinole	Yes	Yes	Caltrans	Caltrans	Caltrans
23	I-80 WB on/off ramps	Pinole Valley Rd	Pinole	Yes	Yes	Caltrans	Caltrans	Caltrans
24	I-80 WB on-ramp	Willow	Hercules	Yes	Yes	Caltrans	Caltrans	Caltrans
25	I-80 EB on/off ramps	Willow	Hercules	Yes	Yes	Caltrans	Caltrans	Caltrans
26	I-80 WB on-ramp	Cummings Skyway	Contra Costa County	Yes	Yes	Caltrans	Caltrans	Caltrans
27	San Pablo Ave	20th	Oakland	Yes	No	Oakland	Oakland	Not Used
28	San Pablo Ave	30th	Oakland	Yes	No	Oakland	Oakland	Not Used
29	San Pablo Ave	35th	Oakland	Yes	No	Oakland	Oakland	Not Used
30	Grand	Harrison	Oakland	Yes	No	Oakland	Oakland	Not Used
31	Grand	Broadway	Oakland	Yes	No	Oakland	Oakland	Not Used
32	Grand	MacArthur Blvd	Oakland	Yes	No	Oakland	Oakland	Not Used
33	Grand	Lake Park	Oakland	Yes	No	Oakland	Oakland	Not Used
34	San Pablo Ave	El Portal	San Pablo	Yes	Yes	San Pablo	San Pablo	Caltrans
35	San Pablo Ave	Hilltop	Richmond	Yes	Yes	Richmond	Richmond	Caltrans
36	San Pablo Ave	Appian	Pinole	Yes	Yes	Pinole	Pinole	Caltrans
37	San Pablo Ave	Pinole Valley Rd	Pinole	Yes	Yes	Pinole	Pinole	Caltrans
38	San Pablo Ave	Willow Ave	Contra Costa County	Yes	Yes	Contra Costa County	Contra Costa County	Caltrans
39	San Pablo Ave	Cummings	Contra Costa County	Yes	Yes	Contra Costa County	Contra Costa County	Caltrans
OAKLAND VIDEO ENCODER LOCATIONS (VIDEO DETECTION CAMERAS)								
1	W. Grand Ave	Mandela Pkwy	Oakland	No	Yes	Oakland	Oakland	Not Used
2	W. Grand Ave	Adeline St	Oakland	No	Yes	Oakland	Oakland	Not Used
3	W. Grand Ave	Broadway	Oakland	No	Yes	Oakland	Oakland	Not Used
4	Grand Ave	Webster St	Oakland	No	Yes	Oakland	Oakland	Not Used
5	Grand Ave	Valdez St	Oakland	No	Yes	Oakland	Oakland	Not Used
6	Grand Ave	MacArthur Blvd	Oakland	No	Yes	Oakland	Oakland	Not Used
7	MacArthur Blvd	Lakeshore Ave	Oakland	No	Yes	Oakland	Oakland	Not Used
8	Lakeshore Ave	Lake Park	Oakland	No	Yes	Oakland	Oakland	Not Used
9	Grand Ave	Lake Park	Oakland	No	Yes	Oakland	Oakland	Not Used

EXHIBIT A

FINAL DRAFT, 2-21-12

Vehicle Detection

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
VEHICLE DETECTION LOCATIONS (COUNT STATIONS)
2/16/2012

No.	Main Street	Cross Street	Vicinity	Used by I-80 ICM Project?	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
EXISTING SMART CORRIDOR MICROWAVE VEHICLE DETECTION STATIONS							
1	John Muir Pkwy	east of San Pablo Ave	Hercules	Yes	Contra Costa County	Contra Costa County	Caltrans
2	San Pablo Ave	south of Sycamore	Hercules	Yes	Hercules	Hercules	Caltrans
3	San Pablo Ave	south of Del Monte	Pinole	Yes	Pinole	Pinole	Caltrans
4	San Pablo Ave	south of Richmond Pkwy	Richmond	Yes	Richmond	Richmond	Caltrans
4	Richmond Pkwy	west of I-80	Richmond	Yes	Richmond	Richmond	Caltrans
6	San Pablo Ave	south of Robert H. Miller	Richmond	Yes	Richmond	Richmond	Caltrans
7	San Pablo Ave	south of El Portal	San Pablo	Yes	San Pablo	San Pablo	Caltrans
8	San Pablo Ave	south of Barrett	Richmond	Yes	Richmond	Richmond	Caltrans
9	San Pablo Ave	south of Eastshore / Hill	El Cerrito	Yes	Caltrans	Caltrans	Caltrans
10	San Pablo Ave	south of Portero	El Cerrito	Yes	Caltrans	Caltrans	Caltrans
11	Portero Ave	east of I-80	El Cerrito	Yes	El Cerrito	El Cerrito	Caltrans
12	Central Ave	east of I-80	El Cerrito	Yes	El Cerrito	El Cerrito	Caltrans
13	San Pablo Ave	south of Fairmont	Albany	Yes	Caltrans	Caltrans	Caltrans
14	San Pablo Ave	south of Buchanan	Albany	Yes	Caltrans	Caltrans	Caltrans
15	Buchanan Ave	east of I-80	Albany	Yes	Albany	Albany	Caltrans
16	San Pablo Ave	south of Gilman	Berkeley	Yes	Caltrans	Berkeley	Caltrans
17	Gilman	east of I-80	Berkeley	Yes	Berkeley	Berkeley	Caltrans
18	San Pablo Ave	south of University	Berkeley	Yes	Caltrans	Berkeley	Caltrans
19	University Ave	east of I-80	Berkeley	Yes	Berkeley	Berkeley	Caltrans
20	San Pablo Ave	south of Ashby	Berkeley	Yes	Caltrans	Berkeley	Caltrans
21	Ashby Ave	east of I-80	Berkeley	Yes	Caltrans	Berkeley	Caltrans
22	San Pablo Ave	south of Powell / Stanford	Emeryville	Yes	Caltrans	Caltrans	Caltrans
23	Powell	east of I-80	Emeryville	Yes	Emeryville	Emeryville	Caltrans
NEW I-80 ICM MICROWAVE VEHICLE DETECTION STATIONS							
1	San Pablo Dam Rd	east of San Pablo Ave	San Pablo	Yes	San Pablo	San Pablo	Caltrans
2	El Portal Dr	east of Mission Bell Dr	San Pablo	Yes	San Pablo	San Pablo	Caltrans
3	Hilltop Dr	south of Hillview Dr	Richmond	Yes	Richmond	Richmond	Caltrans
4	Richmond Pkwy	east of Lakeside Dr	Richmond	Yes	Richmond	Richmond	Caltrans
4	Appian Way	north of Mann Dr	Pinole	Yes	Pinole	Pinole	Caltrans
6	San Pablo Ave	west of Oakridge Rd	Pinole	Yes	Pinole	Pinole	Caltrans
7	Pinole Valley Rd	south of Henry Ave	Pinole	Yes	Pinole	Pinole	Caltrans
8	San Pablo Ave	south of Victoria Crescent	Hercules	Yes	Hercules	Hercules	Caltrans
9	San Pablo Ave	west of Cummings Skwy	Contra Costa County	Yes	Contra Costa County	Contra Costa County	Caltrans
10	San Pablo Ave	east of Cummins Skwy	Contra Costa County	Yes	Contra Costa County	Contra Costa County	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
EMERGENCY VEHICLE DETECTION (EVP)/ TRANSIT SIGNAL PRIORITY (TSP) INTERSECTIONS
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Transit Agency User
NEW I-80 ICM TSP INTERSECTIONS					
1	San Pablo Ave	Willow Rd	Hercules	Contra Costa County	WestCAT Regional
2	Willow Rd	Hawthorne Dr	Hercules	Hercules	WestCAT Regional
3	San Pablo Ave	Victoria Crescent E	Hercules	Contra Costa County	WestCAT Regional
4	San Pablo Ave	John Muir Pkwy (SR 4)	Hercules	Contra Costa County	WestCAT Regional
5	San Pablo Ave	Transit Center	Hercules	Hercules	WestCAT Regional
6	San Pablo Ave	Sycamore Ave	Hercules	Hercules	WestCAT Regional
7	Sycamore Ave	Willow Rd	Hercules	Hercules	WestCAT Regional
8	San Pablo Ave	Hercules Ave	Hercules	Hercules	WestCAT Regional
9	San Pablo Ave	John St	Pinole	Pinole	WestCAT Regional
10	San Pablo Ave	Pinole Valley Rd	Pinole	Pinole	WestCAT Regional
11	San Pablo Ave	Fernandez Ave	Pinole	Pinole	WestCAT Regional
12	San Pablo Ave	Tennent Ave	Pinole	Pinole	WestCAT Regional
13	Pinole Valley Rd	Tennent Ave	Pinole	Pinole	WestCAT Regional
14	Pinole Valley Rd	Henry Ave	Pinole	Pinole	WestCAT Regional
15	Pinole Valley Rd	Kaiser Entrance	Pinole	Pinole	WestCAT Regional
16	San Pablo Ave	Oak Ridge Ln	Pinole	Pinole	WestCAT Regional
17	San Pablo Ave	Appian Way	Pinole	Pinole	WestCAT Regional
18	San Pablo Ave	Sunnyview Dr	Pinole	Pinole	WestCAT Regional
19	San Pablo Ave	Pinole Shores	Pinole	Pinole	WestCAT Regional
20	San Pablo Ave	Del Monte Dr	Pinole	Pinole	WestCAT Regional
21	San Pablo Ave	Tara Hills Dr	Pinole	Pinole	WestCAT Regional
22	San Pablo Ave	Shamrock Dr	Pinole	Pinole	WestCAT Regional
23	San Pablo Ave	Crestwood Dr	Pinole	Contra Costa County	WestCAT Regional
24	San Pablo Ave	Kay Rd	Pinole	Contra Costa County	WestCAT Regional
25	San Pablo Ave	Richmond Pkwy	Richmond	Richmond	WestCAT Regional AC Transit 72R
26	Richmond Pkwy	Lakeside Dr	Richmond	Richmond	WestCAT Regional AC Transit 72R
27	Richmond Pkwy	Bella Vista Entrance	Richmond	Richmond	WestCAT Regional AC Transit 72R
28	San Pablo Ave	Hilltop Dr	Richmond	Richmond	AC Transit 72R
29	San Pablo Ave	Robert Miller Dr	Richmond	Richmond	AC Transit 72R
30	San Pablo Ave	Rivers St	San Pablo	San Pablo	AC Transit 72R
NEW I-80 ICM TSP FOR RAMP METER HOV LANES					
1	John Muir Parkway (SR-4)	I-80 WB on-ramp	Hercules	Caltrans	WestCAT Regional
2	Hilltop Dr	I-80 WB on-ramp	Richmond	Caltrans	AC Transit Transbay service
3	Hilltop Dr	I-80 EB on-ramp	Richmond	Caltrans	AC Transit Transbay service
4	Hilltop Dr	I-80 WB on-ramp (loop)	Richmond	Caltrans	AC Transit Transbay service
5	Gilman St	I-80 WB on-ramp	Berkeley	Caltrans	AC Transit Transbay service
6	University Ave (loop)	I-80 WB on-ramp	Berkeley	Caltrans	AC Transit Transbay service
7	Ashby Ave	I-80 WB on-ramp	Berkeley	Caltrans	AC Transit Transbay service
NEW I-80 ICM EVP ONLY INSTALLATIONS (*CALTRANS RESPONSIBLE FOR MAINTAINENCE OF EVP EQUIPMENT BUT NOT REPLACEMENT)					
1	Willow Ave	I-80 WB Off Ramp	Hercules	Caltrans*	None at this time
2	Pinole Valley Rd	San Pablo Ave	Pinole	Pinole	None at this time
3	Appian Way	Canyon Dr	Pinole	Pinole	None at this time
4	Appian Way	I-80 WB Off Ramp	Pinole	Caltrans*	None at this time
5	Appian Way	I-80 EB On Ramp	Pinole	Caltrans*	None at this time
6	Richmond Pkwy	I-80 EB Off Ramp	Richmond	Caltrans*	None at this time
7	Richmond Pkwy	I-80 WB On Ramp (HOV)	Richmond	Caltrans*	None at this time
8	Hilltop Dr	Blume Dr	Richmond	Richmond	None at this time
9	Hilltop Dr	Shane Dr	Richmond	Richmond	None at this time
10	Hilltop Dr	Robert Miller Dr	Richmond	Richmond	None at this time
11	Hilltop Dr	Hillview Dr	Richmond	Richmond	None at this time
12	Hilltop Dr	Research Dr	Richmond	Richmond	None at this time
13	Hilltop Dr	I-80 EB Off Ramp	Richmond	Caltrans*	None at this time

EVP-TSP

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
EMERGENCY VEHICLE DETECTION (EVP)/ TRANSIT SIGNAL PRIORITY (TSP) INTERSECTIONS
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Transit Agency User
14	Hilltop Dr	I-80 WB Off Ramp	Richmond	Caltrans*	None at this time
15	El Portal Dr	Rollingwood Lane	San Pablo	San Pablo	None at this time
16	El Portal Dr	Road 20	San Pablo	San Pablo	None at this time
17	El Portal Dr	I-80 EB On Ramp	San Pablo	Caltrans*	None at this time
18	El Portal Dr	I-80 WB Off Ramp	San Pablo	Caltrans*	None at this time
19	San Pablo Dam Rd	Ventura Ave	San Pablo	San Pablo	None at this time
20	San Pablo Dam Rd	Contra Costa Ave	San Pablo	San Pablo	None at this time
21	San Pablo Dam Rd	I-80 EB On Ramp/Amador St	San Pablo	Caltrans*	None at this time
22	San Pablo Dam Rd	I-80 WB Off Ramp	San Pablo	Caltrans*	None at this time
23	McBryde Ave	Amador St (NEW SIGNAL)	Richmond	Caltrans (Richmond)	None at this time
24	McBryde Ave	I-80 WB Off Ramp (NEW SIGNAL)	Richmond	Caltrans (Richmond)	None at this time
25	Cutting Blvd	I-80 HOV Ramp	Richmond	Caltrans*	None at this time
26	Cutting Blvd	I-80 WB Off Ramp	Richmond	Caltrans*	None at this time
27	Potrero Ave	I-80 EB Off Ramp	El Cerrito	Caltrans*	None at this time
28	Central Ave	Carlson Blvd	El Cerrito	El Cerrito	None at this time
29	Central Ave	San Luis Ave/Pierce St	Richmond	Richmond	None at this time
30	Central Ave	I-80 EB Off Ramp	Richmond	Caltrans*	None at this time
31	Central Ave	San Joaquin St/Jacuzzi St	Richmond	Caltrans*	None at this time
32	Fairmount Ave	San Pablo Ave	El Cerrito	Caltrans*	None at this time
33	Buchanan St	I-80 Eastbound Ramps	Albany	Caltrans*	None at this time
34	Buchanan St	I-80 Westbound Ramps	Albany	Caltrans*	None at this time
35	Gilman St	Eight St	Berkeley	Berkeley	None at this time
36	Gilman St	Sixth St	Berkeley	Berkeley	None at this time
37	University Ave	Ninth St	Berkeley	Berkeley	None at this time
38	University Ave	Sixth St	Berkeley	Berkeley	None at this time
39	Ashby Ave	Seventh St	Berkeley	Caltrans (Berkeley)	None at this time
40	Grand Ave	Lake Park/I-580 Off Ramp	Oakland	Oakland	None at this time
41	Grand Ave	Macarthur Blvd	Oakland	Oakland	None at this time
42	West Grand Ave	El Embarcadero	Oakland	Oakland	None at this time
43	West Grand Ave	Valdez St	Oakland	Oakland	None at this time
44	West Grand Ave	Webster St	Oakland	Oakland	None at this time
45	West Grand Ave	Broadway	Oakland	Oakland	None at this time
46	West Grand Ave	Market St	Oakland	Oakland	None at this time
47	West Grand Ave	Adeline St	Oakland	Oakland	None at this time
48	West Grand Ave	Poplar St	Oakland	Oakland	None at this time
49	West Grand Ave	Mandela Pkwy	Oakland	Oakland	None at this time
EXISTING EAST BAY SMART CORRIDOR TSP INSTALLATIONS (*CALTRANS RESPONSIBLE FOR MAINTAINENCE OF EVP EQUIPMENT BUT NOT REPLACEMENT)					
1	San Pablo Ave	Rumrill Rd	San Pablo	San Pablo	AC Transit (72R)
2	San Pablo Ave	El Portal Dr	San Pablo	San Pablo	AC Transit (72R)
3	San Pablo Ave	International Market Pl	San Pablo	San Pablo	AC Transit (72R)
4	San Pablo Ave	23rd St	San Pablo	San Pablo	AC Transit (72R)
5	San Pablo Ave	Van Ness St	San Pablo	San Pablo	AC Transit (72R)
6	San Pablo Ave	Church Ln	San Pablo	San Pablo	AC Transit (72R)
7	San Pablo Ave	Vale Rd	San Pablo	San Pablo	AC Transit (72R)
8	San Pablo Ave	San Pablo Dam Rd	San Pablo	San Pablo	AC Transit (72R)
9	San Pablo Ave	Food Maxx Entr	San Pablo	San Pablo	AC Transit (72R)
10	San Pablo Ave	Rheem Ave	San Pablo	San Pablo	AC Transit (72R)
11	San Pablo Ave	McBryde Ave	Richmond	Richmond	AC Transit (72R)
12	San Pablo Ave	Esmond Ave	Richmond	Richmond	AC Transit (72R)
13	San Pablo Ave	Garvin Ave	Richmond	Richmond	AC Transit (72R)
14	San Pablo Ave	Solano Ave	Richmond	Richmond	AC Transit (72R)
15	San Pablo Ave	Clinton Ave	Richmond	Richmond	AC Transit (72R)
16	San Pablo Ave	Sierra Ave	Richmond	Richmond	AC Transit (72R)
17	San Pablo Ave	Barrett Ave	Richmond	Richmond	AC Transit (72R)

EXHIBIT A

FINAL DRAFT, 2-21-12

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
 EMERGENCY VEHICLE DETECTION (EVP)/ TRANSIT SIGNAL PRIORITY (TSP) INTERSECTIONS
 2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Transit Agency User
18	San Pablo Ave	EB 80 Ramps / Roosevelt	Richmond	Richmond	AC Transit (72R)
19	San Pablo Ave	MacDonald Ave	Richmond	Richmond	AC Transit (72R)
20	San Pablo Ave	Conlon Ave	El Cerrito	El Cerrito	AC Transit (72R)
21	San Pablo Ave	Knott Ave	El Cerrito	El Cerrito	AC Transit (72R)
22	San Pablo Ave	Cutting Blvd	El Cerrito	Caltrans*	AC Transit (72R)
23	San Pablo Ave	Hill St / Eastshore Blvd	El Cerrito	Caltrans*	AC Transit (72R)
24	San Pablo Ave	Potrero Ave	El Cerrito	Caltrans*	AC Transit (72R)
25	San Pablo Ave	Manila Ave / Bayview Ave	El Cerrito	Caltrans*	AC Transit (72R)
26	San Pablo Ave	Schmidt Ln	El Cerrito	Caltrans*	AC Transit (72R)
27	San Pablo Ave	Moeser Ln	El Cerrito	Caltrans*	AC Transit (72R)
28	San Pablo Ave	Stockton Ave	El Cerrito	Caltrans*	AC Transit (72R)
29	San Pablo Ave	Central Ave	El Cerrito	Caltrans*	AC Transit (72R)
30	San Pablo Ave	Fairmount Ave	El Cerrito	Caltrans*	AC Transit (72R)
31	San Pablo Ave	Carlson Blvd	El Cerrito	Caltrans*	AC Transit (72R)
32	San Pablo Ave	Brighton Ave	Albany	Caltrans*	AC Transit (72R)
33	San Pablo Ave	Clay St	Albany	Caltrans*	AC Transit (72R)
34	San Pablo Ave	Washington Ave	Albany	Caltrans*	AC Transit (72R)
35	San Pablo Ave	Solano Ave	Albany	Caltrans*	AC Transit (72R)
36	San Pablo Ave	Buchanan St	Albany	Caltrans*	AC Transit (72R)
37	San Pablo Ave	Marin Ave	Albany	Caltrans*	AC Transit (72R)
38	San Pablo Ave	Monroe St	Albany	Caltrans*	AC Transit (72R)
39	San Pablo Ave	Gilman St	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
40	San Pablo Ave	Cedar St	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
41	San Pablo Ave	Delaware St	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
42	San Pablo Ave	University Ave	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
43	San Pablo Ave	Addison St	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
44	San Pablo Ave	Allston Way	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
45	San Pablo Ave	Dwight Way	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
46	San Pablo Ave	Grayson St	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
47	San Pablo Ave	Heinz	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
48	San Pablo Ave	Ashby Ave (SR 13)	Berkeley	Caltrans (Berkeley)	AC Transit (72R)
49	San Pablo Ave	65th St	Oakland	Caltrans (Oakland)	AC Transit (72R)
50	San Pablo Ave	Alcatraz Ave	Oakland	Caltrans (Oakland)	AC Transit (72R)
51	San Pablo Ave	63rd St	Oakland	Caltrans (Oakland)	AC Transit (72R)
52	San Pablo Ave	Powell St / Stanford Ave	Oakland	Caltrans (Oakland)	AC Transit (72R)
53	San Pablo Ave	53rd St	Emeryville	Caltrans*	AC Transit (72R)
54	San Pablo Ave	47th St	Emeryville	Caltrans*	AC Transit (72R)
55	San Pablo Ave	45th St	Emeryville	Caltrans*	AC Transit (72R)
56	San Pablo Ave	Park Ave	Emeryville	Caltrans*	AC Transit (72R)
57	San Pablo Ave	40th St	Emeryville	Caltrans*	AC Transit (72R)
58	San Pablo Ave	Adeline St / MacArthur	Emeryville	Caltrans*	AC Transit (72R)
59	San Pablo Ave	36th St	Oakland	Oakland	AC Transit (72R)
60	San Pablo Ave	35th St	Oakland	Oakland	AC Transit (72R)
61	San Pablo Ave	31st St / Market St / 30th St	Oakland	Oakland	AC Transit (72R)
62	San Pablo Ave	27th St	Oakland	Oakland	AC Transit (72R)
63	San Pablo Ave	West St / 25th St	Oakland	Oakland	AC Transit (72R)
64	San Pablo Ave	West Grand Ave	Oakland	Oakland	AC Transit (72R)

Trailblazers

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
TRAILBLAZER SIGNS
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
1	San Pablo Ave - northbound	south of W. Grand Ave	Oakland	Oakland	Not Applicable	Caltrans
2	San Pablo Ave - southbound	north of 23rd St	Oakland	Oakland	Not Applicable	Caltrans
3	San Pablo Ave - northbound	north of Aileen St	Emeryville	Caltrans	Not Applicable	Caltrans
4	San Pablo Ave - southbound	north of Stanford St	Oakland	Caltrans	Not Applicable	Caltrans
5	San Pablo Ave - northbound	south of Carrison St	Berkeley	Caltrans	Not Applicable	Caltrans
6	San Pablo Ave - southbound	south of Burnett St	Berkeley	Caltrans	Not Applicable	Caltrans
7	San Pablo Ave - northbound	north of Addison St	Berkeley	Caltrans	Not Applicable	Caltrans
8	San Pablo Ave - southbound	north of University Ave	Berkeley	Caltrans	Not Applicable	Caltrans
9	San Pablo Ave - northbound	south of Gilman Ave	Berkeley	Caltrans	Not Applicable	Caltrans
10	San Pablo Ave - southbound	north of Gilman Ave	Berkeley	Caltrans	Not Applicable	Caltrans
11	San Pablo Ave - northbound	south of Marin Ave	Albany	Caltrans	Not Applicable	Caltrans
12	San Pablo Ave - southbound	north of Buchanan St	Albany	Caltrans	Not Applicable	Caltrans
13	San Pablo Ave - northbound	south of Central Ave	El Cerrito	Caltrans	Not Applicable	Caltrans
14	San Pablo Ave - southbound	north of Central Ave	El Cerrito	Caltrans	Not Applicable	Caltrans
15	San Pablo Ave - northbound	north of Hill St	El Cerrito	Caltrans	Not Applicable	Caltrans
16	San Pablo Ave - southbound	north of Hill St	El Cerrito	Caltrans	Not Applicable	Caltrans
17	San Pablo Ave - northbound	north of Barrett Ave	Richmond	Richmond	Not Applicable	Caltrans
18	San Pablo Ave - southbound	south of Clinton Ave	Richmond	Richmond	Not Applicable	Caltrans
19	San Pablo Ave - northbound	south of San Pablo Dam Rd	San Pablo	San Pablo	Not Applicable	Caltrans
20	San Pablo Ave - southbound	north of San Pablo Dam Rd	San Pablo	San Pablo	Not Applicable	Caltrans
21	San Pablo Ave - northbound	south of El Portal Dr	San Pablo	San Pablo	Not Applicable	Caltrans
22	San Pablo Ave - southbound	north of El Portal Dr	San Pablo	San Pablo	Not Applicable	Caltrans
23	San Pablo Ave - northbound	south of Hilltop Dr	Richmond	Richmond	Not Applicable	Caltrans
24	San Pablo Ave - southbound	north of Hilltop Dr	Richmond	Richmond	Not Applicable	Caltrans
25	San Pablo Ave - northbound	south of Richmond Pkwy	Richmond	Richmond	Not Applicable	Caltrans
26	San Pablo Ave - southbound	south of Kay Rd	Richmond	Richmond	Not Applicable	Caltrans
27	San Pablo Ave - northbound	west of Appian Way	Pinole	Pinole	Not Applicable	Caltrans
28	San Pablo Ave - southbound	east of Laurel Ave	Pinole	Pinole	Not Applicable	Caltrans
29	San Pablo Ave - northbound	south of Tennent Ave	Pinole	Pinole	Not Applicable	Caltrans
30	San Pablo Ave - southbound	north of Tennent Ave	Pinole	Pinole	Not Applicable	Caltrans
31	San Pablo Ave - northbound	south of John Muir Pkwy	Hercules	Hercules	Not Applicable	Caltrans
32	San Pablo Ave - southbound	north of John Muir Pkwy	Hercules	Hercules	Not Applicable	Caltrans

Trailblazers

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
 TRAILBLAZER SIGNS
 2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
33	San Pablo Ave - northbound	wouth of Willow Ave	Hercules	Hercules	Not Applicable	Caltrans
34	Parker Ave - southbound	north of San Pablo Ave	Hercules	Contra Costa County	Not Applicable	Caltrans
35	San Pablo Ave - northbound	west of Cummings Skwy	Contra Costa County	Contra Costa County	Not Applicable	Caltrans
36	San Pablo Ave - southbound	east of Cummings Skwy	Contra Costa County	Contra Costa County	Not Applicable	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

Traffic Signals

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
TRAFFIC SIGNAL IMPROVEMENTS BY I-80 ICM PROJECT
2/16/2012

No.	Main Street/ Cross Street	Vicinity	NEW GPRS Modem	NEW Ethernet Module	NEW Ethernet Switch	NEW Intersection Detection	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
Freeway ramps Controllers (Controller and Equipment Upgrades)									
1	San Pablo Ave / Pomona St / I-80 WB Ramps	Crockett	---	---	---	---	Caltrans	Caltrans	Caltrans
2	Willow Ave / I-80 EB Ramps	Hercules	---	---	---	---	Caltrans	Caltrans	Caltrans
3	Willow Ave / I-80 WB Ramps	Hercules	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
4	Pinole Valley Rd / I-80 EB Ramps	Pinole	---	---	---	---	Caltrans	Caltrans	Caltrans
5	Pinole Valley Rd / I-80 WB Ramps	Pinole	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
6	Appian Way / I-80 EB Ramps	Pinole	---	---	---	---	Caltrans	Caltrans	Caltrans
7	Appian Way / I-80 WB Ramps	Pinole	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
8	Richmond Pkwy / I-80 EB Ramps	Pinole	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
9	Richmond Pkwy / I-80 HOV Ramps	Richmond	---	---	---	---	Caltrans	Caltrans	Caltrans
10	Richmond Pkwy / I-80 WB Ramps	Richmond	---	---	---	---	Caltrans	Caltrans	Caltrans
11	Hilltop Dr / I-80 EB Ramps	Richmond	---	---	---	---	Caltrans	Caltrans	Caltrans
12	Hilltop Dr / I-80 WB Ramps	Richmond	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
13	El Portal Dr / I-80 EB Ramps	San Pablo	---	---	---	---	Caltrans	Caltrans	Caltrans
14	El Portal Dr / I-80 WB Off-ramp	San Pablo	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
15	San Pablo Dam Rd / I-80 WB & EB Ramps (one controller)	San Pablo	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
16	San Pablo Ave/ Roosevelt/ I-80 EB Ramps	Richmond	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
17	Barrett Ave / I-80 WB Ramps	Richmond	---	---	---	---	Caltrans	Caltrans	Caltrans
18	Cutting Blvd / I-80 HOV Ramps	Richmond	---	---	---	---	Caltrans	Caltrans	Caltrans
19	Cutting Blvd / I-80 WB Off-ramp	Richmond	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
20	Carlson Blvd/ I-80 EB Ramps	Richmond	---	---	---	---	Caltrans	Caltrans	Caltrans
21	Carlson Blvd/ I-80 WB Ramps	Richmond	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
22	Eastshore Blvd / Potrero Ave / I-80 Ramps	El Cerrito	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
23	Central Ave / I-80 EB Ramps	El Cerrito	---	---	---	---	Caltrans	Caltrans	Caltrans
24	Central Ave / I-80 WB Ramps	El Cerrito	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
25	Buchanan St / I-80 EB Ramps	Albany	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
26	Buchanan St / I-80 WB Ramps	Albany	---	---	---	---	Caltrans	Caltrans	Caltrans
27	Frontage Rd / I-80 WB Ramps	Emeryville	---	---	---	---	Caltrans	Caltrans	Caltrans
28	Powell St / I-80 EB Ramps	Emeryville	---	---	---	---	Caltrans	Caltrans	Caltrans
29	Powell St / Frontage Rd / I-80 WB On-ramp	Emeryville	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
San Pablo Avenue (Controller Upgrades and Equipment Upgrades)									
1	San Pablo Ave / Hercules Ave	Hercules	---	---	---	---	Hercules	Hercules	Caltrans
2	San Pablo Ave / Pinole Valley Rd	Pinole	---	---	---	---	Pinole	Pinole	Caltrans
3	San Pablo Ave / Tennent Ave	Pinole	---	---	---	---	Pinole	Pinole	Caltrans
4	San Pablo Ave / Appian Way	Pinole	---	---	---	---	Pinole	Pinole	Caltrans
5	San Pablo Ave / Sunnyview Dr	Pinole	---	---	---	---	Pinole	Pinole	Caltrans
6	San Pablo Ave / Pinole Shores Rd	Pinole	---	---	---	---	Pinole	Pinole	Caltrans
7	San Pablo Ave / Crestwood Dr	Pinole	---	---	---	---	Contra Costa County	Contra Costa County	Caltrans
8	San Pablo Ave / Kay Rd	Pinole	---	---	---	---	Contra Costa County	Contra Costa County	Caltrans
9	San Pablo Ave / Richmond Pkwy	Richmond	---	---	---	---	Richmond	Richmond	Caltrans

Traffic Signals

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
TRAFFIC SIGNAL IMPROVEMENTS BY I-80 ICM PROJECT
2/16/2012

No.	Main Street/ Cross Street	Vicinity	NEW GPRS Modem	NEW Ethernet Module	NEW Ethernet Switch	NEW Intersection Detection	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
10	San Pablo Ave / Hilltop Dr	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
11	San Pablo Ave / Robert Miller Dr	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
12	San Pablo Ave / McBryde Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
13	San Pablo Ave / Esmond Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
14	San Pablo Ave / Garvin Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
15	San Pablo Ave / Solano Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
16	San Pablo Ave / Clinton Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
17	San Pablo Ave / Sierra Ave (Ped Signal between Clinton and I-80)	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
18	San Pablo Ave / Barrett Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
19	San Pablo Ave / MacDonald Ave	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
20	San Pablo Ave / Cutting Blvd	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
21	San Pablo Ave / Hill St / Eastshore Blvd	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
22	San Pablo Ave / Potrero Ave	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
23	San Pablo Ave / Manila Ave / Bayview Ave	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
24	San Pablo Ave / Schmidt Ln	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
25	San Pablo Ave / Moeser Ln	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
26	San Pablo Ave / Stockton Ave	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
27	San Pablo Ave / Central Ave	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
28	San Pablo Ave / Fairmount Ave	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
29	San Pablo Ave / Carlson Blvd	El Cerrito	---	Yes	---	---	Caltrans	Caltrans	Caltrans
30	San Pablo Ave / Brighton Ave	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
31	San Pablo Ave / Clay St	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
32	San Pablo Ave / Washington Ave	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
33	San Pablo Ave / Solano Ave	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
34	San Pablo Ave / Buchanan St	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
35	San Pablo Ave / Marin Ave	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
36	San Pablo Ave / Monroe St	Albany	---	Yes	---	---	Caltrans	Caltrans	Caltrans
37	San Pablo Ave / Gilman St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
38	San Pablo Ave / Cedar St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
39	San Pablo Ave / Delaware St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
40	San Pablo Ave / University Ave	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
41	San Pablo Ave / Addison St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
42	San Pablo Ave / Allston Way	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
43	San Pablo Ave / Dwight Way	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
44	San Pablo Ave / Grayson St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
45	San Pablo Ave / Heinz Ave	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
46	San Pablo Ave / Ashby Ave (SR 13)	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
47	San Pablo Ave / 65th St	Oakland	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
48	San Pablo Ave / Alcatraz Ave	Oakland	---	---	---	---	Oakland	Oakland	Caltrans
49	San Pablo Ave / 63rd St	Oakland	---	---	---	---	Oakland	Oakland	Caltrans

Traffic Signals

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
TRAFFIC SIGNAL IMPROVEMENTS BY I-80 ICM PROJECT
2/16/2012

No.	Main Street/ Cross Street	Vicinity	NEW GPRS Modem	NEW Ethernet Module	NEW Ethernet Switch	NEW Intersection Detection	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
50	San Pablo Ave / Stanford Ave	Oakland	---	---	---	---	Oakland	Oakland	Caltrans
51	San Pablo Ave / 53rd St	Emeryville	---	Yes	---	---	Caltrans	Caltrans	Caltrans
52	San Pablo Ave / 47th St	Emeryville	---	Yes	---	---	Caltrans	Caltrans	Caltrans
53	San Pablo Ave / 45th St	Emeryville	---	Yes	---	---	Caltrans	Caltrans	Caltrans
54	San Pablo Ave / Park Ave	Emeryville	---	Yes	---	---	Caltrans	Caltrans	Caltrans
55	San Pablo Ave / 40th St	Emeryville	---	Yes	---	---	Caltrans	Caltrans	Caltrans
56	San Pablo Ave / Adeline St	Emeryville	---	Yes	---	---	Caltrans	Caltrans	Caltrans
ICM Routes (Controller and Equipment Upgrades, New signals)									
1	Willow Ave / Sycamore	Hercules	---	---	---	---	Hercules	Hercules	Caltrans
2	Willow Ave / Hawthorne Dr	Hercules	---	---	---	---	Hercules	Hercules	Caltrans
3	Appian Way/ Fitzgerald	Pinole	---	---	---	---	Pinole	Pinole	Caltrans
4	Appian Way/ Tara Hills	Pinole	Yes	Yes	---	---	Pinole	Pinole	Caltrans
5	Richmond Pkwy / I-80 EB Ramps	Pinole	---	---	---	---	Caltrans	Caltrans	Caltrans
6	Richmond Pkwy / Bella Vista Entr	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
7	Richmond Pkwy / Lakeside Dr	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
8	Hilltop Dr / Blume Dr	Richmond	---	---	---	---	Richmond	Richmond	Richmond
9	Hilltop Dr / Shane Dr	Richmond	---	---	---	---	Richmond	Richmond	Richmond
10	Hilltop Dr / Robert Miller Dr	Richmond	---	---	---	---	Richmond	Richmond	Richmond
11	Hilltop Dr / Hillview Dr	Richmond	---	---	---	---	Richmond	Richmond	Richmond
12	Hilltop Dr / Research Dr	Richmond	---	---	---	---	Richmond	Richmond	Richmond
13	McBryde / I-80 WB off-ramp (*NEW SIGNAL)	Richmond	Yes	Yes	---	3 Video Cam	Richmond	Richmond	Caltrans
14	McBryde/ Amador (*NEW SIGNAL)	Richmond	Yes	Yes	---	4 Video Cam	Richmond	Richmond	Caltrans
15	Central Ave / San Luis St / Pierce St	Richmond	---	---	---	---	Richmond	Richmond	Caltrans
16	Gilman St / 6th St (*SIGNAL RECONSTRUCTION)	Berkeley	---	---	---	4 Video Cam	Berkeley	Berkeley	Caltrans
17	Gilman St / 8th St	Berkeley	---	---	---	4 Video Cam	Berkeley	Berkeley	Caltrans
18	University Ave / 6th St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
19	University Ave/ 9th St	Berkeley	---	---	---	4 Video Cam	Berkeley	Berkeley	Caltrans
20	Ashby Ave / 7th St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
21	Ashby Ave / 9th St	Berkeley	---	---	---	---	Berkeley	Berkeley	Caltrans
22	West Grand Ave/ Maritime	Oakland	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
23	West Grand Ave/ 880 ramps/ Frontage	Oakland	Yes	Yes	---	---	Caltrans	Caltrans	Caltrans
24	West Grand Ave / Mandela Pkwy	Oakland	---	Yes	Yes	4 Video Cam	Oakland	Oakland	Caltrans
25	West Grand Ave / Poplar St	Oakland	---	Yes	Yes	4 Video Cam	Oakland	Oakland	Caltrans
26	West Grand Ave / Adeline St	Oakland	---	Yes	Yes	4 Video Cam	Oakland	Oakland	Caltrans
27	West Grand Ave / Market St	Oakland	---	Yes	Yes	2 Video Cam	Oakland	Oakland	Caltrans
28	W. Grand Ave - MLK, Jr Wy	Oakland	---	Yes	Yes	2 Mag Lanes	Oakland	Oakland	Oakland
29	W. Grand Ave - Northgate Ave	Oakland	---	Yes	Yes	---	Oakland	Oakland	Oakland
30	W. Grand Ave - Broadway	Oakland	---	Yes	Yes	4 Video Cam	Oakland	Oakland	Oakland
31	Grand Ave - Webster St	Oakland	---	Yes	Yes	3 Video Cam	Oakland	Oakland	Oakland
32	Grand Ave - Valdez St	Oakland	---	Yes	Yes	3 Video Cam	Oakland	Oakland	Oakland
33	Grand Ave - El Embarcadero	Oakland	---	Yes	Yes	---	Oakland	Oakland	Oakland

Traffic Signals

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
TRAFFIC SIGNAL IMPROVEMENTS BY I-80 ICM PROJECT
2/16/2012

No.	Main Street/ Cross Street	Vicinity	NEW GPRS Modem	NEW Ethernet Module	NEW Ethernet Switch	NEW Intersection Detection	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
34	Grand Ave - MacArthur Blvd	Oakland	---	Yes	Yes	2 Video Cam 3 Mag Lanes	Oakland	Oakland	Oakland
35	Lake Shore Ave - MacArthur Blvd	Oakland	---	Yes	Yes	2 Video Cam 3 Mag Lanes	Oakland	Oakland	Oakland
36	Lake Shore Ave - Lake Park Ave	Oakland	---	Yes	Yes	3 Video Cam 3 Mag Lanes	Oakland	Oakland	Oakland
37	Grand Ave - Lake Park Ave	Oakland	---	Yes	Yes	4 Video Cam	Oakland	Oakland	Oakland
NEW FIELD MASTERS (Controller and Equipment Upgrades)									
1	Richmond Pkwy / Lakeside Dr	Richmond	Yes	Yes	---	---	Richmond	Richmond	Caltrans
2	Hilltop Dr / Robert Miller Dr	Richmond	Yes	Yes	---	---	Richmond	Richmond	Caltrans
3	El Portal Dr / Church Ln / Rollingwood Dr	San Pablo	Yes	Yes	---	---	San Pablo	San Pablo	Caltrans
4	San Pablo Dam Rd / Ventura Ave	San Pablo	Yes	Yes	---	---	San Pablo	San Pablo	Caltrans
5	San Pablo Ave / Knott Ave	El Cerrito	Yes	Yes	---	---	El Cerrito	El Cerrito	Caltrans
EXISTING CONTROLLER TO REMAIN (GPRS MODEM AND ETHERNET MODULE UPGRADE ONLY)									
1	San Pablo Ave- Cummings	CC County	Yes	Yes	---	---	CC County	CC County	Caltrans
2	San Pablo Ave- Refinery	CC County	Yes	Yes	---	---	CC County	CC County	Caltrans
3	Parker-2nd	CC County	Yes	Yes	---	---	CC County	CC County	Caltrans
4	Parker-4th	CC County	Yes	Yes	---	---	CC County	CC County	Caltrans
5	San Pablo Ave-Parker-Willow	CC County	Yes	Yes	---	---	CC County	CC County	Caltrans
6	Pinole Valley- Henry	Pinole	Yes	Yes	---	---	Pinole	Pinole	Caltrans
7	Fitzgerald/ Best Buy	Pinole	Yes	Yes	---	---	Pinole	Pinole	Caltrans
8	Central Ave/ Carlson Ave	El Cerrito	Yes	Yes	---	---	El Cerrito	El Cerrito	Caltrans
6	Powell St / Christie Ave	Emeryville	Yes	Yes	---	---	Emeryville	Emeryville	Caltrans
7	53rd / Hollis (support for Powell- Beudry)	Emeryville	Yes	Yes	---	---	Emeryville	Emeryville	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

Speed feedback

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
SPEED FEEDBACK SIGNS- PINOLE
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
1	San Pablo Ave - eastbound	west of Del Monte Dr	Pinole	Pinole	NA	NA
2	San Pablo Ave - westbound	east of Sunnyview Dr	Pinole	Pinole	NA	NA

EXHIBIT A

FINAL DRAFT, 2-21-12

Arterial CMS

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
ARTERIAL CHANGEABLE MESSAGE SIGNS (CMS)- OAKLAND
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
1	San Pablo Ave - northbound	north of 34th St	Oakland	Oakland	Oakland	Caltrans
2	San Pablo Ave - southbound	south of 35th St	Oakland	Oakland	Oakland	Caltrans
3	W. Grand Ave - eastbound	east of Chestnut St	Oakland	Oakland	Oakland	Caltrans
4	Lake Park Ave - westbound	east of Lakeshore Ave	Oakland	Oakland	Oakland	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

Ramp Meters

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
ADAPTIVE RAMP METERING LOCATIONS
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
NEW I-80 ICM RAMP METERING CONTROLLERS (EASTBOUND I-80)						
1	I-80 eastbound on-ramp	Powell St.	Emeryville	Caltrans	Caltrans	Caltrans
2	I-80 eastbound on-ramp	Ashby Ave./Potter St.	Berkeley	Caltrans	Caltrans	Caltrans
3	I-80 eastbound on-ramp	University Ave.	Berkeley	Caltrans	Caltrans	Caltrans
4	I-80 eastbound on-ramp	Gilman St.	Berkeley	Caltrans	Caltrans	Caltrans
5	I-80 eastbound on-ramp	Buchanan St.	Albany	Caltrans	Caltrans	Caltrans
6	I-80 eastbound on-ramp	Central Ave.	Richmond	Caltrans	Caltrans	Caltrans
7	I-80 eastbound on-ramp	Carlson Blvd.	Richmond	Caltrans	Caltrans	Caltrans
8	I-80 eastbound on-ramp	Cutting Blvd. (loop ramp)	Richmond	Caltrans	Caltrans	Caltrans
9	I-80 eastbound on-ramp	Cutting Blvd.	Richmond	Caltrans	Caltrans	Caltrans
10	I-80 eastbound on-ramp	San Pablo Ave.	Richmond	Caltrans	Caltrans	Caltrans
11	I-80 eastbound on-ramp	San Pablo Dam Rd.	San Pablo	Caltrans	Caltrans	Caltrans
12	I-80 eastbound on-ramp	El Portal Dr.	San Pablo	Caltrans	Caltrans	Caltrans
13	I-80 eastbound on-ramp	Westbound Hilltop Dr.	Richmond	Caltrans	Caltrans	Caltrans
14	I-80 eastbound on-ramp	Eastbound Hilltop Dr. (loop ramp)	Richmond	Caltrans	Caltrans	Caltrans
15	I-80 eastbound on-ramp	Eastbound Fitzgerald/Richmond Parkway	Pinole	Caltrans	Caltrans	Caltrans
16	I-80 eastbound on-ramp	Eastbound Fitzgerald/Richmond Pkwy. (loop ramp)	Pinole	Caltrans	Caltrans	Caltrans
17	I-80 eastbound on-ramp	Northbound Appian Way	Pinole	Caltrans	Caltrans	Caltrans
18	I-80 eastbound on-ramp	Southbound Appian Way (loop ramp)	Pinole	Caltrans	Caltrans	Caltrans
19	I-80 eastbound on-ramp	Pinole Valley Rd.	Pinole	Caltrans	Caltrans	Caltrans
20	I-80 eastbound on-ramp	John Muir Pkwy. (SR-4)	Hercules	Caltrans	Caltrans	Caltrans
21	I-80 eastbound on-ramp	Willow Ave.	Hercules	Caltrans	Caltrans	Caltrans
22	I-80 eastbound on-ramp	Cummings Skyway	Contra Costa County	Caltrans	Caltrans	Caltrans
NEW I-80 ICM RAMP METERING CONTROLLERS (WESTBOUND I-80)						
1	I-80 westbound on-ramp	San Pablo Ave. / Pomona St.	Crockett (CC County)	Caltrans	Caltrans	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

Ramp Meters

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
ADAPTIVE RAMP METERING LOCATIONS
2/16/2012

No.	Main Street	Cross Street	Vicinity	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
2	I-80 westbound on-ramp	Cummings Skyway	Contra Costa County	Caltrans	Caltrans	Caltrans
3	I-80 westbound on-ramp	Willow Ave.	Hercules	Caltrans	Caltrans	Caltrans
4	I-80 westbound on-ramp	John Muir Parkway (SR-4)	Hercules	Caltrans	Caltrans	Caltrans
5	I-80 westbound on-ramp	Pinole Valley Rd.	Pinole	Caltrans	Caltrans	Caltrans
6	I-80 westbound on-ramp	Appian Way	Pinole	Caltrans	Caltrans	Caltrans
7	I-80 westbound on-ramp	Fitzgerald Dr./Richmond Parkway	Pinole	Caltrans	Caltrans	Caltrans
8	I-80 westbound on-ramp	Hilltop Dr.	Richmond	Caltrans	Caltrans	Caltrans
9	I-80 westbound on-ramp	Westbound Hilltop Dr. (loop ramp)	Richmond	Caltrans	Caltrans	Caltrans
10	I-80 westbound on-ramp	El Portal Dr.	San Pablo	Caltrans	Caltrans	Caltrans
11	I-80 westbound on-ramp	San Pablo Dam Rd.	San Pablo	Caltrans	Caltrans	Caltrans
12	I-80 westbound on-ramp	Solano Ave.	Richmond	Caltrans	Caltrans	Caltrans
13	I-80 westbound on-ramp	Barrett Ave.	Richmond	Caltrans	Caltrans	Caltrans
14	I-80 westbound on-ramp	Potrero Ave.	Richmond	Caltrans	Caltrans	Caltrans
15	I-80 westbound on-ramp	Carlson Blvd.	Richmond	Caltrans	Caltrans	Caltrans
16	I-80 westbound on-ramp	Central Ave.	Richmond	Caltrans	Caltrans	Caltrans
17	I-80 westbound on-ramp	Buchanan St.	Albany	Caltrans	Caltrans	Caltrans
18	I-80 westbound on-ramp	Gilman St.	Berkeley	Caltrans	Caltrans	Caltrans
19	I-80 westbound on-ramp	University Ave. (loop)	Berkeley	Caltrans	Caltrans	Caltrans
20	I-80 westbound on-ramp	Ashby Ave. & Frontage Rd.	Berkeley	Caltrans	Caltrans	Caltrans
21	I-80 westbound on-ramp	Powell St./Frontage Rd.	Emeryville	Caltrans	Caltrans	Caltrans
22	I-80 westbound on-ramp	Powell St.	Emeryville	Caltrans	Caltrans	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

ATM Signs

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
ACTIVE TRAFFIC MANGEMENT (ATM) FREEWAY SIGNS
2/16/2012

No.	Main Street	Cross Street	Vicinity	LUS	VASS	VMS	IDB	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
NEW I-80 ICM ATM SIGNS (WESTBOUND I-80)										
1	I-80 westbound	Powell/ Frontage Hook ramp (SS 3-2)	Emeryville	Y	Y	---	---	Caltrans	Caltrans	Caltrans
2	I-80 westbound	Ashby Ave (SS 6-2)	Berkeley	Y	Y	---	---	Caltrans	Caltrans	Caltrans
3	I-80 westbound	bet. Ashby Ave and University Ave (SS8-1)	Berkeley	Y	Y	---	---	Caltrans	Caltrans	Caltrans
4	I-80 westbound	University Ave (SS 9-2)	Berkeley	Y	Y	Y	---	Caltrans	Caltrans	Caltrans
5	I-80 westbound	bet. Univeristy Ave and Gilman Ave (SS 12-1)	Berkeley	Y	Y	Y	---	Caltrans	Caltrans	Caltrans
6	I-80 westbound	Gilman Ave (SS 13-1)	Berkeley	---	---	---	Y	Caltrans	Caltrans	Caltrans
7	I-80 westbound	bet. Gilman Ave and Buchanan Ave (SS 13-2)	Berkeley	Y	Y	---	---	Caltrans	Caltrans	Caltrans
8	I-80 westbound	Cleveland Ave (SS 16-1)	Albany	Y	Y	---	---	Caltrans	Caltrans	Caltrans
9	I-80 westbound	Central Ave (SS 18-1)	Richmond	Y	Y	Y	---	Caltrans	Caltrans	Caltrans
10	I-80 westbound	bet. Central Ave and Carlson Ave (SS 21-1)	Richmond	Y	Y	---	---	Caltrans	Caltrans	Caltrans
11	I-80 westbound	bet. Carlson Ave and Potrero Ave (SS 23-1)	Richmond	Y	Y	---	---	Caltrans	Caltrans	Caltrans
12	I-80 westbound	bet. Potrero Ave and Cutting Blvd (SS 25-1)	Richmond	Y	Y	Y	---	Caltrans	Caltrans	Caltrans
13	I-80 westbound	Cutting Blvd (SS26-1)	Richmond	---	---	---	Y	Caltrans	Caltrans	Caltrans
14	I-80 westbound	bet. Solano and Barret	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
15	I-80 westbound	bet. San Pablo Dam Rd and McBryde	San Pablo	---	Y	---	---	Caltrans	Caltrans	Caltrans
16	I-80 westbound	bet. El Portal and San Pablo Dam Rd	San Pablo	---	Y	---	---	Caltrans	Caltrans	Caltrans
17	I-80 westbound	bet. Hilltop Dr and El Portal	San Pablo	---	Y	---	---	Caltrans	Caltrans	Caltrans
18	I-80 westbound	bet. Richmond Pkwy and Hilltop Dr	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
19	I-80 westbound	bet. Appian Way and Richmond Pkwy	Pinole	---	Y	---	---	Caltrans	Caltrans	Caltrans
20	I-80 westbound	bet. Pinole Valley Rd and Appian Way	Pinole	---	Y	---	---	Caltrans	Caltrans	Caltrans
21	I-80 westbound	bet. SR-4 and Pinole Valley Rd	Pinole	---	Y	---	---	Caltrans	Caltrans	Caltrans
22	I-80 westbound	bet. Willow Ave and SR-4	Hercules	---	Y	---	---	Caltrans	Caltrans	Caltrans
23	I-80 westbound	bet. California St OC and Willow (SS 56-1)	Contra Costa County	---	---	---	Y	Caltrans	Caltrans	Caltrans
24	I-80 westbound	bet. Cummings and California OC	Contra Costa County	---	Y	---	---	Caltrans	Caltrans	Caltrans
NEW I-80 ICM ATM SIGNS (EASTBOUND I-80)										
1	I-80 eastbound	bet. I-80/ I-880/ I-580 Interchange and Powell St	Emeryville	---	Y	---	---	Caltrans	Caltrans	Caltrans
2	I-80 eastbound	Powell St (SS 3-1)	Emeryville	---	---	---	Y	Caltrans	Caltrans	Caltrans
3	I-80 eastbound	bet. Powell St and Ashby Ave (SS 3-2 back)	Emeryville	---	Y	---	---	Caltrans	Caltrans	Caltrans
4	I-80 eastbound	bet. Powell St and Ashby Ave	Berkeley	---	Y	---	---	Caltrans	Caltrans	Caltrans
5	I-80 eastbound	bet. Ashby Ave and University Ave (SS 8-1 back)	Berkeley	---	Y	---	---	Caltrans	Caltrans	Caltrans
6	I-80 eastbound	bet. Ashby Ave and University Ave	Berkeley	---	Y	---	---	Caltrans	Caltrans	Caltrans
7	I-80 eastbound	bet. University Ave and Gilman Ave (SS 12-1 back)	Berkeley	---	Y	---	---	Caltrans	Caltrans	Caltrans
8	I-80 eastbound	bet. Gilman Ave and Buchanan Ave (SS 13-2 back)	Albany	---	Y	---	---	Caltrans	Caltrans	Caltrans
9	I-80 eastbound	Cleveland Ave (SS 16-1 back)	Albany	---	Y	---	---	Caltrans	Caltrans	Caltrans
10	I-80 eastbound	Cleveland Ave	Albany	---	Y	---	---	Caltrans	Caltrans	Caltrans
11	I-80 eastbound	Central Ave (SS 18-1 back)	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
12	I-80 eastbound	bet. Central Ave and Carlson Ave (SS 21-1 back)	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
13	I-80 eastbound	bet. Carlson Ave and Potrero Ave (SS 23-1 back)	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
14	I-80 eastbound	bet. Carlson Ave and Potrero Ave	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
15	I-80 eastbound	bet. Potrero Ave and Cutting Blvd (SS 25-1 back)	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

ATM Signs

INTERSTATE 80 CORRIDOR ICM MOU: ATTACHMENT B
ACTIVE TRAFFIC MANGEMENT (ATM) FREEWAY SIGNS
2/16/2012

No.	Main Street	Cross Street	Vicinity	LUS	VASS	VMS	IDB	ROW (Maintaining Agency, if different)	Operating Agency - Normal	Operating Agency - Incidents
16	I-80 eastbound	bet. Potrero Ave and Cutting Blvd	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
17	I-80 eastbound	MacDonald Ave	Richmond	---	Y	---	---	Caltrans	Caltrans	Caltrans
18	I-80 eastbound	El Portal Dr	San Pablo	---	Y	---	---	Caltrans	Caltrans	Caltrans
19	I-80 eastbound	bet. El Portal Dr and Hilltop Dr (SS 37-1)	San Pablo	---	Y	---	Y	Caltrans	Caltrans	Caltrans
20	I-80 eastbound	bet. Hilltop Dr and Richmond Blvd	San Pablo	---	Y	---	---	Caltrans	Caltrans	Caltrans
21	I-80 eastbound	bet. Richmond Pkwy and Appian Way	Pinole	---	Y	---	---	Caltrans	Caltrans	Caltrans
22	I-80 eastbound	bet. Appian Way and Pinole Valley Rd	Pinole	---	Y	---	---	Caltrans	Caltrans	Caltrans
23	I-80 eastbound	bet. Pinole Valley Rd and SR-4 (SS 50-1)	Hercules	---	Y	---	Y	Caltrans	Caltrans	Caltrans
24	I-80 eastbound	bet. Willow Ave and California St OC (S 55-1)	Hercules	---	Y	---	---	Caltrans	Caltrans	Caltrans
25	I-80 eastbound	bet. Willow Ave and California St OC (S 56-1)	Contra Costa County	---	Y	---	---	Caltrans	Caltrans	Caltrans

EXHIBIT A

FINAL DRAFT, 2-21-12

ATTACHMENT C

ENTIRE SAN PABLO CORRIDOR ARTERIAL AND TRANSIT IMPROVEMENT PROJECT

Device	Number of Devices	Oakland	Emeryville	Berkeley	Albany	CCCounty	El Cerrito	San Pablo	Richmond	Pinole	Hercules	WestCAT	AC Transit
Existing SMART Corridor cameras (used by project)	15	2	0	3	2	0	3	2	2	0	1	0	0
New closed-circuit television (CCTV) cameras	39	8	2	3	1	3	1	4	9	6	2	0	0
New video encoders	35	10	2	3	1	1	1	3	8	4	2	0	0
Existing SMART Corridor Vehicle Detection Stations (used by project)	23	0	2	6	3	1	4	1	4	1	1	0	0
New Vehicle Detection Stations	10	0	0	0	0	2	0	2	2	3	1	0	0
Existing SMART Corridor TSP intersections	64	10	6	10	7	0	12	10	9	0	0	0	0
New TSP intersections (including ramp metering locations)	37	0	0	3	0	5	0	1	8	14	6	0	0
New EVP-only intersections	49	10	0	5	2	0	3	8	16	4	1	0	0
New Trailblazer Signs	36	3	1	6	2	3	4	4	6	4	3	0	0
New Traffic Signal	2	0	0	0	0	0	0	0	2	0	0	0	0
Traffic Signal Controller Upgrades (existing signal)	127	20	9	16	9	1	14	5	33	15	5	0	0
New Wireless GPRS modem (traffic signal controllers)	36	4	3	0	1	5	4	4	8	6	1	0	0
New Controller communications: Ethernet switch	14	14	0	0	0	0	0	0	0	0	0	0	0
New Controller communications: Ethernet module	72	17	9	0	8	5	14	4	8	6	1	0	0
New Intersection Vehicle Detection: Video Image Detection camera	53	35	0	11	0	0	0	0	7	0	0	0	0
New Intersection Vehicle Detection: Magnetometer	16	16	0	0	0	0	0	0	0	0	0	0	0
New Speed Feedback Signs	2	0	0	0	0	0	0	0	0	2	0	0	0
New Arterial Changeable Message Sign (CMS): single sided	2	2	0	0	0	0	0	0	0	0	0	0	0
New Arterial Changeable Message Sign (CMS): double-sided	1	1	0	0	0	0	0	0	0	0	0	0	0
Existing TSP emitters	40	0	0	0	0	0	0	0	0	0	0	0	40
New multi-mode (GPS-InfraRed) TSP Emitters	80	0	0	0	0	0	0	0	0	0	0	40	40
Traffic Signal System Software Maintenance/Upgrades		10%	10%	10%	0%	10%	10%	10%	10%	10%	10%		
TOTAL NUMBER OF DEVICES	753	152	34	66	36	26	60	48	122	65	24	40	80
TOTAL NUMBER OF NEW FIELD DEVICES	548	130	23	41	22	24	39	40	83	49	17	40	40
Delta Percent Increase of New Devices	100%	23.72%	4.20%	7.48%	4.01%	4.38%	7.12%	7.30%	15.15%	8.94%	3.10%	7.30%	7.30%
Total Maintenance Costs	\$ 320,122.00	\$ 64,657.50	\$ 12,694.50	\$ 27,924.00	\$ 11,103.50	\$ 12,601.00	\$ 21,607.50	\$ 20,860.50	\$ 50,114.50	\$ 26,206.00	\$ 12,353.00	\$ 20,000.00	\$ 40,000.00
Total Operating Costs	\$ 224,435.04	\$ 37,415.07	\$ 12,965.93	\$ 17,446.04	\$ 8,446.36	\$ 17,485.49	\$ 14,550.92	\$ 23,054.48	\$ 50,859.65	\$ 32,122.54	\$ 10,088.55	\$ 20,000.00	\$ 20,000.00
TOTAL O&M COST	\$ 544,557.04	\$ 102,072.57	\$ 25,660.43	\$ 45,370.04	\$ 19,549.86	\$ 30,086.49	\$ 36,158.42	\$ 43,914.98	\$ 100,974.15	\$ 58,328.54	\$ 22,441.55	\$ 20,000.00	\$ 40,000.00
Net Increase in Maintenance Costs - New Devices	\$ 251,612.00	\$ 53,554.50	\$ 10,444.50	\$ 18,157.00	\$ 9,525.50	\$ 9,601.00	\$ 19,115.50	\$ 17,532.50	\$ 39,786.50	\$ 22,456.00	\$ 11,439.00	\$ 20,000.00	\$ 20,000.00
Net Increase in Operating Costs - New Devices	\$ 224,435.04	\$ 37,415.07	\$ 12,965.93	\$ 17,446.04	\$ 8,446.36	\$ 17,485.49	\$ 14,550.92	\$ 23,054.48	\$ 50,859.65	\$ 32,122.54	\$ 10,088.55	\$ 20,000.00	\$ 20,000.00
NET INCREASE IN TOTAL O&M COST	\$ 476,047.04	\$ 90,969.57	\$ 23,410.43	\$ 35,603.04	\$ 17,971.86	\$ 27,086.49	\$ 33,666.42	\$ 40,586.98	\$ 90,646.15	\$ 54,578.54	\$ 21,527.55	\$ 20,000.00	\$ 20,000.00
TOTAL CALTRANS CONTRIBUTION TO INCREASED O&M COST	\$ 188,435.05	\$ 6,157.43	\$ 17,013.18	\$ 23,365.93	\$ 17,613.86	\$ 3,902.12	\$ 25,032.98	\$ 17,835.87	\$ 45,018.17	\$ 21,794.49	\$ 10,701.00	\$ -	\$ -
TOTAL NON-CALTRANS REGIONAL CONTRIBUTION* TO INCREASED O&M COSTS	\$ 137,239.50	\$ 2,672.00	\$ 358.00	\$ 716.00	\$ 358.00	\$ 23,184.36	\$ 8,633.43	\$ 22,751.11	\$ 35,955.98	\$ 31,784.05	\$ 10,626.56	\$ -	\$ -
TOTAL LOCAL CONTRIBUTION TO INCREASED O&M COSTS	\$ 150,372.49	\$ 82,140.13	\$ 6,039.25	\$ 11,521.11	\$ -	\$ -	\$ -	\$ -	\$ 9,672.00	\$ 1,000.00	\$ -	\$ 20,000.00	\$ 20,000.00
TOTAL ESTIMATED CONSTRUCTION COST	\$ 5,525,613.00	\$ 1,653,243.00	\$ 152,450.00	\$ 488,535.00	\$ 158,600.00	\$ 224,050.00	\$ 268,120.00	\$ 355,450.00	\$ 1,178,265.00	\$ 473,400.00	\$ 193,500.00	\$ 190,000.00	\$ 190,000.00

* Non-Caltrans Regional Contribution paid by regional MPO or CMAs

Notes:

THIS ATTACHMENT IS SHOWN FOR COST ESTIMATING PURPOSES AND PROVIDES BACKGROUND ON HOW THE O&M COSTS WERE ESTIMATED.

Total Number of Devices = sum of above quantities; this includes upgrades

Total Number of New Devices = does not include upgrades to existing devices.

Software Maintenance/Upgrades = based on percent of total new devices in each agency

Staffing Costs are assumed included in current staffing levels

50% of San Pablo Avenue Collocation costs already being paid by local agencies

BENEFITS TO LOCAL AGENCIES

- Ability to remotely monitor and revise signal timing without sending staff to field cabinet. Saves staff time.
- Ability to remotely view signal timing information in other jurisdictions. Improves efficiency.
- Creates tools that enable local agencies and Caltrans to improve traffic flow on local streets during major freeway incidents.

SUMMARY OF ACRONYMS

ATM	Active Traffic Management
CCTV	Closed Circuit Television
CMS	Changeable Message Sign
CT	Caltrans
CTC	(Alameda) County Transportation Commission
EVP	Emergency Vehicle Preemption
GPRS	General Packet Radio System
HW	Hardware
IP	Internet Protocol
MVDS	Microwave Vehicle Detection System
O&M	Operations and Maintenance
SIC	Signal Interconnect Cable
TS	Traffic Signal
TSP	Transit Signal Priority
VID	Video Image Detection



CALTRANS MAINTAINED

Device	Number of Devices	Oakland	Emeryville	Berkeley	Albany	CCCounty	El Cerrito	San Pablo	Richmond	Pinole	Hercules	WestCAT	AC Transit
Existing SMART Corridor cameras (used by project)	10	0	0	3	2	0	3	1	1	0	0	0	0
New closed-circuit television (CCTV) cameras	25	0	2	3	1	1	1	3	8	4	2	0	0
New video encoders	25	0	2	3	1	1	1	3	8	4	2	0	0
Existing SMART Corridor Vehicle Detection Stations (used by project)	9	0	1	4	2	0	2	0	0	0	0	0	0
New Vehicle Detection Stations	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing SMART Corridor TSP intersections	23	0	6	0	7	0	10	0	0	0	0	0	0
New TSP intersections (including ramp metering locations)	7	0	0	3	0	0	0	0	3	0	1	0	0
New EVP-only intersections	19	0	0	0	2	0	2	4	8	2	1	0	0
New Trailblazer Signs	14	1	1	6	2	0	4	0	0	0	0	0	0
New Traffic Signal	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Signal Controller Upgrades (existing signal)	56	3	9	0	9	1	13	3	10	6	2	0	0
New Wireless GPRS modem (traffic signal controllers)	17	3	1	0	1	0	2	2	4	3	1	0	0
New Controller communications: Ethernet switch	0	0	0	0	0	0	0	0	0	0	0	0	0
New Controller communications: Ethernet module	40	3	7	0	8	0	12	2	4	3	1	0	0
New Intersection Vehicle Detection: Video Image Detection camera	0	0	0	0	0	0	0	0	0	0	0	0	0
New Intersection Vehicle Detection: Magnetometer	0	0	0	0	0	0	0	0	0	0	0	0	0
New Speed Feedback Signs	0	0	0	0	0	0	0	0	0	0	0	0	0
New Arterial Changeable Message Sign (CMS): single sided	0	0	0	0	0	0	0	0	0	0	0	0	0
New Arterial Changeable Message Sign (CMS): double-sided	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing TSP emitters	0	0	0	0	0	0	0	0	0	0	0	0	0
New multi-mode (GPS-InfraRed) TSP Emitters	0	0	0	0	0	0	0	0	0	0	0	0	0
Software Maintenance/Upgrades	CALTRANS	10%											
TOTAL NUMBER OF DEVICES	245	10	29	22	35	3	50	18	46	22	10	0	0
TOTAL NUMBER OF NEW FIELD DEVICES	170	7	19	15	22	2	32	14	35	16	8	0	0
Delta Percent Increase of New Devices	31.02%	1.28%	3.47%	2.74%	4.01%	0.36%	5.84%	2.55%	6.39%	2.92%	1.46%	0.00%	0.00%
Total Maintenance Costs	\$ 79,013.50	\$ 3,038.50	\$ 8,727.50	\$ 10,724.50	\$ 10,745.50	\$ 945.00	\$ 15,825.00	\$ 5,304.00	\$ 14,205.50	\$ 6,373.50	\$ 3,124.50	\$ -	\$ -
Total Operating Costs	\$ 120,061.55	\$ 3,868.93	\$ 10,535.68	\$ 11,633.43	\$ 8,446.36	\$ 3,207.12	\$ 11,449.99	\$ 12,945.87	\$ 32,976.67	\$ 16,920.99	\$ 8,076.50	\$ -	\$ -
TOTAL O&M COST	\$ 199,075.05	\$ 6,907.43	\$ 19,263.18	\$ 22,357.93	\$ 19,191.86	\$ 4,152.12	\$ 27,274.99	\$ 18,249.87	\$ 47,182.17	\$ 23,294.49	\$ 11,201.00	\$ -	\$ -
Net Increase in Maintenance Costs - New Devices	\$ 68,373.50	\$ 2,288.50	\$ 6,477.50	\$ 11,732.50	\$ 9,167.50	\$ 695.00	\$ 13,583.00	\$ 4,890.00	\$ 12,041.50	\$ 4,873.50	\$ 2,624.50	\$ -	\$ -
Net Increase in Operating Costs - New Devices	\$ 120,061.55	\$ 3,868.93	\$ 10,535.68	\$ 11,633.43	\$ 8,446.36	\$ 3,207.12	\$ 11,449.99	\$ 12,945.87	\$ 32,976.67	\$ 16,920.99	\$ 8,076.50	\$ -	\$ -
NET INCREASE IN TOTAL O&M COST	\$ 188,435.05	\$ 6,157.43	\$ 17,013.18	\$ 23,365.93	\$ 17,613.86	\$ 3,902.12	\$ 25,032.99	\$ 17,835.87	\$ 45,018.17	\$ 21,794.49	\$ 10,701.00	\$ -	\$ -
TOTAL CALTRANS CONTRIBUTION TO INCREASED O&M COST	\$ 188,435.05	\$ 6,157.43	\$ 17,013.18	\$ 23,365.93	\$ 17,613.86	\$ 3,902.12	\$ 25,032.99	\$ 17,835.87	\$ 45,018.17	\$ 21,794.49	\$ 10,701.00	\$ -	\$ -
TOTAL NON-CALTRANS REGIONAL CONTRIBUTION TO INCREASED O&M COSTS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL LOCAL CONTRIBUTION TO INCREASED O&M COSTS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL ESTIMATED CONSTRUCTION COST	\$ 1,505,080.00	\$ 45,060.00	\$ 143,860.00	\$ 243,000.00	\$ 158,600.00	\$ 29,090.00	\$ 241,850.00	\$ 116,100.00	\$ 310,560.00	\$ 144,365.00	\$ 72,595.00	\$ -	\$ -

* Non-Caltrans Regional Contribution paid by regional MPO or CMAs

Total Number of Devices = sum of above quantities.

Total Number of New Devices = does not include upgrades to existing devices.

Software Maintenance/Upgrades = based on percent of total devices in each agency

Individual agencies quantities are linked to this table

LOCAL MAINTAINED

Device	Number of Devices	Oakland	Emeryville	Berkeley	Albany	CCCounty	El Cerrito	San Pablo	Richmond	Pinole	Hercules	WestCAT	AC Transit
Existing SMART Corridor cameras (used by project)	5	2	0	0	0	0	0	1	1	0	1	0	0
New closed-circuit television (CCTV) cameras	14	8	0	0	0	2	0	1	1	2	0	0	0
New video encoders	10	10	0	0	0	0	0	0	0	0	0	0	0
Existing SMART Corridor Vehicle Detection Stations (used by project)	14	0	1	2	1	1	2	1	4	1	1	0	0
New Vehicle Detection Stations	10	0	0	0	0	2	0	2	2	3	1	0	0
Existing SMART Corridor TSP intersections	41	10	0	10	0	0	2	10	9	0	0	0	0
New TSP intersections	30	0	0	0	0	5	0	1	5	14	5	0	0
New EVP-only intersections	30	10	0	5	0	0	1	4	8	2	0	0	0
New Trailblazer Signs	22	2	0	0	0	3	0	4	6	4	3	0	0
New Traffic Signal	2	0	0	0	0	0	0	0	2	0	0	0	0
Traffic Signal Controller Upgrades (existing signal)	71	17	0	16	0	0	1	2	23	9	3	0	0
New Wireless GPRS modem (traffic signal controllers)	19	1	2	0	0	5	2	2	4	3	0	0	0
New Controller communications: Ethernet switch	14	14	0	0	0	0	0	0	0	0	0	0	0
New Controller communications: Ethernet module	32	14	2	0	0	5	2	2	4	3	0	0	0
New Intersection Vehicle Detection: Video Image Detection camera	53	35	0	11	0	0	0	0	7	0	0	0	0
New Intersection Vehicle Detection: Magnetometer	16	16	0	0	0	0	0	0	0	0	0	0	0
New Speed Feedback Signs	2	0	0	0	0	0	0	0	0	2	0	0	0
New Arterial Changeable Message Sign (CMS): single sided	2	2	0	0	0	0	0	0	0	0	0	0	0
New Arterial Changeable Message Sign (CMS): double-sided	1	1	0	0	0	0	0	0	0	0	0	0	0
Existing TSP emitters	40	0	0	0	0	0	0	0	0	0	0	0	40
New multi-mode (GPS-InfraRed) TSP Emitters	80	0	0	0	0	0	0	0	0	0	0	40	40
Software Maintenance/Upgrades		10%	10%	10%	0%	10%	10%	10%	10%	10%	10%	NA	NA
TOTAL NUMBER OF DEVICES	508	142	5	44	1	23	10	30	76	43	14	40	80
TOTAL NUMBER OF NEW FIELD DEVICES	378	123	4	26	0	22	7	26	48	33	9	40	40
Delta Percent Increase of New Devices	68.98%	22.45%	0.73%	4.74%	0.00%	4.01%	1.28%	4.74%	8.76%	6.02%	1.64%	7.30%	7.30%
Total Maintenance Costs	\$ 181,108.50	\$ 61,619.00	\$ 3,967.00	\$ 17,199.50	\$ 358.00	\$ 11,656.00	\$ 5,782.50	\$ 15,556.50	\$ 35,909.00	\$ 19,832.50	\$ 9,228.50	\$ 20,000.00	\$ 40,000.00
Total Operating Costs	\$ 104,373.49	\$ 33,546.13	\$ 2,430.25	\$ 5,812.61	\$ -	\$ 14,278.36	\$ 3,100.93	\$ 10,108.61	\$ 17,862.98	\$ 15,201.55	\$ 2,012.06	\$ -	\$ -
TOTAL O&M COST	\$ 345,481.99	\$ 95,165.13	\$ 6,397.25	\$ 23,012.11	\$ 358.00	\$ 25,934.36	\$ 8,883.43	\$ 25,665.11	\$ 53,791.98	\$ 35,034.05	\$ 11,240.56	\$ 20,000.00	\$ 40,000.00
Net Increase in Maintenance Costs - New Devices	\$ 143,238.50	\$ 51,266.00	\$ 3,967.00	\$ 6,424.50	\$ 358.00	\$ 8,906.00	\$ 5,532.50	\$ 12,642.50	\$ 27,745.00	\$ 17,582.50	\$ 8,814.50	\$ 20,000.00	\$ 20,000.00
Net Increase in Operating Costs - New Devices	\$ 104,373.49	\$ 33,546.13	\$ 2,430.25	\$ 5,812.61	\$ -	\$ 14,278.36	\$ 3,100.93	\$ 10,108.61	\$ 17,862.98	\$ 15,201.55	\$ 2,012.06	\$ -	\$ -
NET INCREASE IN TOTAL O&M COST	\$ 287,611.99	\$ 84,812.13	\$ 6,397.25	\$ 12,237.11	\$ 358.00	\$ 23,184.36	\$ 8,633.43	\$ 22,751.11	\$ 45,607.98	\$ 32,784.05	\$ 10,826.56	\$ 20,000.00	\$ 20,000.00
TOTAL CALTRANS CONTRIBUTION TO INCREASED O&M COST	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL NON-CALTRANS REGIONAL CONTRIBUTION* TO INCREASED O&M COSTS	\$ 137,239.50	\$ 2,672.00	\$ 358.00	\$ 716.00	\$ 358.00	\$ 23,184.36	\$ 8,633.43	\$ 22,751.11	\$ 35,955.98	\$ 31,784.05	\$ 10,826.56	\$ -	\$ -
TOTAL LOCAL CONTRIBUTION TO INCREASED O&M COSTS	\$ 150,372.49	\$ 82,140.13	\$ 6,039.25	\$ 11,521.11	\$ -	\$ -	\$ -	\$ -	\$ 9,672.00	\$ 1,000.00	\$ -	\$ 20,000.00	\$ 20,000.00
TOTAL ESTIMATED CONSTRUCTION COST	\$ 4,020,533.00	\$ 1,608,183.00	\$ 8,590.00	\$ 245,535.00	\$ -	\$ 194,960.00	\$ 26,270.00	\$ 239,350.00	\$ 867,705.00	\$ 329,035.00	\$ 120,905.00	\$ 190,000.00	\$ 190,000.00

* Non-Caltrans Regional Contribution paid by regional MPO or CMAs

Total Number of Devices = sum of above quantities

Total Number of New Devices = does not include upgrades to existing devices.

Software Maintenance/Upgrades = based on percent of total devices in each agency

Individual agencies quantities are linked to this table



LOCAL SAN PABLO CORRIDOR ARTERIAL AND TRANSIT IMPROVEMENT (CONTRA COSTA REGION)

Device	Number of Devices	CCCounty	El Cerrito	San Pablo	Richmond	Pinole	Hercules	WestCAT
Existing SMART Corridor cameras (used by project)	3	0	0	1	1	0	1	0
New closed-circuit television (CCTV) cameras	6	2	0	1	1	2	0	0
New video encoders	0	0	0	0	0	0	0	0
Existing SMART Corridor Vehicle Detection Stations (used by project)	10	1	2	1	4	1	1	0
New Vehicle Detection Stations	10	2	0	2	2	3	1	0
Existing SMART Corridor TSP intersections	21	0	2	10	9	0	0	0
New TSP intersections (including ramp metering locations)	30	5	0	1	5	14	5	0
New EVP-only intersections	15	0	1	4	8	2	0	0
New Trailblazer Signs	20	3	0	4	6	4	3	0
New Traffic Signal	2	0	0	0	2	0	0	0
Traffic Signal Controller Upgrades (existing signal)	38	0	1	2	23	9	3	0
Wireless GPRS modem (traffic signal controllers)	16	5	2	2	4	3	0	0
Controller communications: Ethernet switch	0	0	0	0	0	0	0	0
Controller communications: Ethernet module	16	5	2	2	4	3	0	0
New Intersection Vehicle Detection: Video Image Detection camera	7	0	0	0	7	0	0	0
New Intersection Vehicle Detection: Magnetometer	0	0	0	0	0	0	0	0
Speed Feedback Signs	2	0	0	0	0	2	0	0
New Arterial Changeable Message Sign (CMS): single sided	0	0	0	0	0	0	0	0
New Arterial Changeable Message Sign (CMS): double-sided	0	0	0	0	0	0	0	0
Existing TSP emitters	0	0	0	0	0	0	0	0
New multi-mode (GPS-InfraRed) TSP Emitters	40	0	0	0	0	0	0	40
Software Maintenance/Upgrades								

TOTAL NUMBER OF DEVICES	236	23	10	30	76	43	14	40
TOTAL NUMBER OF NEW FIELD DEVICES	185	22	7	26	48	33	9	40
Delta Percent Increase of New Devices	33.76%	4.01%	1.28%	4.74%	8.76%	6.02%	1.64%	7.30%

Total Maintenance Costs	\$ 97,965.00	\$ 11,656.00	\$ 5,782.50	\$ 15,556.50	\$ 35,909.00	\$ 19,832.50	\$ 9,228.50	\$ 20,000.00
Total Operating Costs	\$ 62,584.50	\$ 14,278.36	\$ 3,100.93	\$ 10,108.61	\$ 17,882.98	\$ 15,201.55	\$ 2,012.06	\$ -
TOTAL O&M COST	\$ 180,549.50	\$ 25,934.36	\$ 8,883.43	\$ 25,665.11	\$ 53,791.98	\$ 35,034.05	\$ 11,240.56	\$ 20,000.00

Net Increase in Maintenance Costs - New Devices	\$ 81,223.00	\$ 8,906.00	\$ 5,532.50	\$ 12,642.50	\$ 27,745.00	\$ 17,582.50	\$ 8,814.50	\$ 20,000.00
Net Increase in Operating Costs - New Devices	\$ 62,584.50	\$ 14,278.36	\$ 3,100.93	\$ 10,108.61	\$ 17,882.98	\$ 15,201.55	\$ 2,012.06	\$ -
NET INCREASE IN TOTAL O&M COST	\$ 163,807.50	\$ 23,184.36	\$ 8,633.43	\$ 22,751.11	\$ 45,627.98	\$ 32,784.05	\$ 10,826.56	\$ 20,000.00

TOTAL CALTRANS CONTRIBUTION TO INCREASED O&M COST	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
---	------	------	------	------	------	------	------	------

TOTAL NON-CALTRANS REGIONAL CONTRIBUTION TO INCREASED O&M COSTS	\$ 133,135.50	\$ 23,184.36	\$ 8,633.43	\$ 22,751.11	\$ 35,955.98	\$ 31,784.05	\$ 10,826.56	\$ -
---	---------------	--------------	-------------	--------------	--------------	--------------	--------------	------

TOTAL LOCAL CONTRIBUTION TO INCREASED O&M COSTS	\$ 30,672.00	\$ -	\$ -	\$ -	\$ 9,672.00	\$ 1,000.00	\$ -	\$ 20,000.00
---	--------------	------	------	------	-------------	-------------	------	--------------

* Non-Caltrans Regional Contribution paid by regional MPO or CMAs

* This table is a subset of the information shown on the Local Summary.

Total Number of Devices = sum of above quantities

Total Number of New Devices = does not include upgrades to existing devices.

Software Maintenance/Upgrades = based on percent of total devices in each agency

Individual agencies quantities are linked to this table

Maintenance Costs – OAKLAND (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0			\$0
New closed-circuit television (CCTV) cameras	0	\$23,000	\$336	\$0	10	Alameda CTC Cost Data	\$0			\$0
New video encoders	0	\$3,590	\$359	\$0	10	10% of Capital cost	\$0			\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	Same as New MVDS	\$0			\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0			\$0
New Trailblazer Signs	1	\$24,675	\$1,000	\$1,000	10	Per Skyline; includes GPRS cost	\$1,000	\$1,000		\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	3	\$2,500	\$250	\$750	10	10% of Capital cost	No increase in maint cost.			\$0
Wireless GPRS modem (traffic signal controllers)	3	\$2,820	\$282	\$846	3	10% of Capital cost	\$846	\$846		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	3	\$1,475	\$148	\$443	10	10% of Capital cost	\$443	\$443		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$3,039		Total Increase due to ICM Devices	\$2,289	\$2,289	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 45,060.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
San Pablo Corridor Collocation	1.28%		\$122,512	\$1,565	Estimated Cost	\$1,565	\$1,565		\$0
Wireless GPRS modem	3		\$768	\$2,304	\$64 per month	\$2,304	\$2,304		\$0
Point-Point T1 line for each camera	0		\$2,100	\$0	\$175 per month	\$0			\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	0		\$660	\$0	Alameda CTC Cost Data	\$0			\$0
IT/Staffing Assistance* - Maintenance Staff	1.28%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	1.28%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$3,869	Total Increase due to ICM Devices	\$3,869	\$3,869	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$6,907	Total Increase due to ICM Devices	\$6,157	\$6,157	\$0	\$0
---	--	--	--	---------	-----------------------------------	---------	---------	-----	-----

Maintenance Costs -- OAKLAND (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	2	\$9,300	\$336	\$672	10	Same as new CCTV Camera	\$672		\$672	\$0
New closed-circuit television (CCTV) cameras	8	\$23,000	\$336	\$2,688	10	Alameda CTC Cost Data	\$2,688		\$0	\$2,688
New video encoders	10	\$3,590	\$359	\$3,590	10	10% of Capital cost	\$3,590			\$3,590
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	Same as New MVDS	\$0		\$0	\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
Existing SMART Corridor TSP intersections**	10	\$5,060	\$403	\$4,025	10	Alameda CTC Cost Data	\$0		\$0	\$0
New TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	10	\$5,060	\$403	\$4,025	10	Same as EVP/TSP intersection	\$4,025			\$4,025
New Trailblazer Signs	2	\$24,675	\$1,000	\$2,000	10	Per Skyline; includes GPRS cost	\$2,000		\$2,000	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	17	\$2,500	\$250	\$4,250	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	1	\$2,820	\$282	\$282	3	10% of Capital cost	\$282			\$282
Controller communications: Ethernet switch	14	\$4,060	\$406	\$5,684	10	10% of Capital cost	\$5,684			\$5,684
Controller communications: Ethernet module	14	\$1,475	\$148	\$2,065	10	10% of Capital cost	\$2,065			\$2,065
New Intersection Vehicle Detection: Video Image Detection camera	35	\$11,785	\$336	\$11,760	10	Estimated same as CCTV camera	\$11,760			\$11,760
New Intersection Vehicle Detection: Magnetometer	16	\$8,438	\$844	\$13,500	10	10% of Capital cost	\$13,500			\$13,500
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	2	\$160,333	\$1,500	\$3,000	10	Compared to trailblazer	\$3,000			\$3,000
New Arterial Changeable Message Sign (CMS): double-sided	1	\$246,782	\$2,000	\$2,000	10	Compared to trailblazer	\$2,000			\$2,000
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$61,619		Total Increase due to ICM Devices	\$51,266	\$0	\$2,672	\$48,594

TOTAL ESTIMATED CONSTRUCTION COST \$ 1,608,183.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing
Oakland has existing signal system

** Maintenance of existing SMART Corridor TSP remains responsibility of Cities per previous maintenance agreement

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
San Pablo Corridor Collocation	22.45%		\$122,512	\$27,498	Estimated Cost	\$27,498			\$27,498
Wireless GPRS modem	1		\$768	\$768	\$64 per month	\$768			\$768
Point-Point T1 line for each camera	0		\$2,100	\$0	\$175 per month	\$0			\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	8		\$660	\$5,280	Alameda CTC Cost Data	\$5,280			\$5,280
IT/Staffing Assistance* - Maintenance Staff	22.45%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	22.45%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$33,546	Total Increase due to ICM Devices	\$33,546	\$0	\$0	\$33,546

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$95,165	Total Increase due to ICM Devices	\$84,812	\$0	\$2,672	\$82,140
---	--	--	--	----------	-----------------------------------	----------	-----	---------	----------

Maintenance Costs -- EMERYVILLE (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0			\$0
New closed-circuit television (CCTV) cameras	2	\$23,000	\$336	\$672	10	Alameda CTC Cost Data	\$672	\$672		\$0
New video encoders	2	\$3,590	\$359	\$718	10	10% of Capital cost	\$718	\$718		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358	\$358		\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	6	\$5,060	\$403	\$2,415	10	Alameda CTC Cost Data	\$2,415	\$2,415		\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0			\$0
New Trailblazer Signs	1	\$24,675	\$1,000	\$1,000	10	Per Skyline; includes GPRS cost	\$1,000	\$1,000		\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	9	\$2,500	\$250	\$2,250	10	10% of Capital cost	No increase in maint cost.			\$0
Wireless GPRS modem (traffic signal controllers)	1	\$2,820	\$282	\$282	3	10% of Capital cost	\$282	\$282		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	7	\$1,475	\$148	\$1,033	10	10% of Capital cost	\$1,033	\$1,033		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$8,728	Total Increase due to ICM Devices		\$6,478	\$6,478	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$

143,860.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs										
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City	
San Pablo Corridor Collocation	3.47%		\$122,512	\$4,248	Estimated Cost	\$4,248	\$4,248		\$0	
Wireless GPRS modem	1		\$768	\$768	\$64 per month	\$768	\$768		\$0	
Point-Point T1 line for each camera	2		\$2,100	\$4,200	\$175 per month	\$4,200	\$4,200		\$0	
Field Devices Electricity (new traffic signal, new CCTV cameras)	2		\$660	\$1,320	Alameda CTC Cost Data	\$1,320	\$1,320		\$0	
IT/Staffing Assistance* - Maintenance Staff	3.47%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0	
IT/Staffing Assistance* - Operation Staff	3.47%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0	
Estimated Annual Operating Cost (Subtotal)				\$10,536	Total Increase due to ICM Devices		\$10,536	\$10,536	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$19,263	Total Increase due to ICM Devices		\$17,013	\$17,013	\$0	\$0
---	--	--	--	----------	-----------------------------------	--	----------	----------	-----	-----



EXHIBIT A

FINAL DRAFT, 2-21-12

Maintenance Costs – EMERYVILLE (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0		\$0	\$0
New closed-circuit television (CCTV) cameras	0	\$23,000	\$336	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New video encoders	0	\$3,590	\$358	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358		\$358	\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0		\$0	\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0		\$0	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0		\$0	\$0
Traffic Signal Controller Upgrades (existing signal)	0	\$2,500	\$250	\$0	10	10% of Capital cost	No increase in maint cost			
Wireless GPRS modem (traffic signal controllers)	2	\$2,820	\$282	\$564	3	10% of Capital cost	\$564			\$564
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	2	\$1,475	\$148	\$295	10	10% of Capital cost	\$295			\$295
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$2,750			\$2,750
Estimated Annual Maintenance Cost (Subtotal)				\$3,967		Total Increase due to ICM Devices	\$3,967	\$0	\$358	\$3,609

TOTAL ESTIMATED CONSTRUCTION COST \$ 8,590.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing
New signal system for Emeryville being installed by project.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
San Pablo Corridor Collocation	0.73%		\$122,512	\$894	Estimated Cost	\$894			\$894
Wireless GPRS modem	2		\$768	\$1,536	\$64 per month	\$1,536			\$1,536
Point-Point T1 line for each camera	0		\$2,100	\$0	\$175 per month	\$0			\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	0		\$660	\$0	Alameda CTC Cost Data	\$0			\$0
IT/Staffing Assistance* - Maintenance Staff	0.73%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	0.73%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$2,430	Total Increase due to ICM Devices	\$2,430	\$0	\$0	\$2,430

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$6,397	Total Increase due to ICM Devices	\$6,397	\$0	\$358	\$6,039
---	--	--	--	---------	-----------------------------------	---------	-----	-------	---------

Maintenance Costs -- BERKELEY (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	3	\$9,300	\$336	\$1,008	10	Same as new CCTV Camera	\$1,008	\$1,008		\$0
New closed-circuit television (CCTV) cameras	3	\$23,000	\$336	\$1,008	10	Alameda CTC Cost Data	\$1,008	\$1,008		\$0
New video encoders	3	\$3,590	\$359	\$1,077	10	10% of Capital cost	\$1,077	\$1,077		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	4	\$14,080	\$358	\$1,432	10	same as New MVDS	\$1,432	\$1,432		\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	3	\$5,060	\$403	\$1,208	10	Alameda CTC Cost Data	\$1,208	\$1,208		\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0			\$0
New Trailblazer Signs	6	\$24,675	\$1,000	\$6,000	10	Per Skyline; includes GPRS cost	\$6,000	\$6,000		\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	0	\$2,500	\$250	\$0	10	10% of Capital cost	No increase in maint cost.			\$0
Wireless GPRS modem (traffic signal controllers)	0	\$2,820	\$282	\$0	3	10% of Capital cost	\$0			\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	0	\$1,475	\$148	\$0	10	10% of Capital cost	\$0			\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$10,725	Total Increase due to ICM Devices		\$11,733	\$11,733	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 243,000.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
San Pablo Corridor Collocation	2.74%		\$122,512	\$3,353	Estimated Cost	\$3,353	\$3,353		\$0
Wireless GPRS modem	0		\$768	\$0	\$64 per month	\$0	\$0		\$0
Point-Point T1 line for each camera	3		\$2,100	\$6,300	\$175 per month	\$6,300	\$6,300		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	3		\$660	\$1,980	Alameda CTC Cost Data	\$1,980	\$1,980		\$0
IT/Staffing Assistance* - Maintenance Staff	2.74%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	2.74%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$11,633	Total Increase due to ICM Devices	\$11,633	\$11,633	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$22,358	Total Increase due to ICM Devices		\$23,366	\$23,366	\$0	\$0
---	--	--	--	----------	-----------------------------------	--	----------	----------	-----	-----

Maintenance Costs -- BERKELEY (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0		\$0	\$0
New closed-circuit television (CCTV) cameras	0	\$23,000	\$336	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New video encoders	0	\$3,590	\$359	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	2	\$14,080	\$358	\$716	10	Same as New MVDS	\$716		\$716	\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
Existing SMART Corridor TSP intersections**	10	\$5,060	\$403	\$4,025	10	Alameda CTC Cost Data	\$0	\$0	\$0	\$0
New TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New EVP-only intersections	5	\$5,060	\$403	\$2,013	10	Same as EVP/TSP intersection	\$2,013			\$2,013
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0		\$0	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	16	\$2,500	\$250	\$4,000	10	10% of Capital cost	No increase in maint cost			
Wireless GPRS modem (traffic signal controllers)	0	\$2,820	\$282	\$0	3	10% of Capital cost	\$0			\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	0	\$1,475	\$148	\$0	10	10% of Capital cost	\$0			\$0
New Intersection Vehicle Detection: Video Image Detection camera	11	\$11,785	\$336	\$3,696	10	Estimated same as CCTV camera	\$3,696			\$3,696
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$17,200		Total Increase due to ICM Devices	\$6,425	\$0	\$716	\$5,709

TOTAL ESTIMATED CONSTRUCTION COST \$ 245,535.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Berkeley has existing signal system

** Maintenance of existing SMART Corridor TSP remains responsibility of Cities per previous maintenance agreement

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
San Pablo Corridor Collocation	4.74%		\$122,512	\$5,813	Estimated Cost	\$5,813			\$5,813
Wireless GPRS modem	0		\$768	\$0	\$64 per month	\$0			\$0
Point-Point T1 line for each camera	0		\$2,100	\$0	\$175 per month	\$0			\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	0		\$660	\$0	Alameda CTC Cost Data	\$0			\$0
IT/Staffing Assistance* - Maintenance Staff	4.74%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	4.74%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$5,813	Total Increase due to ICM Devices	\$5,813	\$0	\$0	\$5,813

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$23,012	Total Increase due to ICM Devices	\$12,237	\$0	\$716	\$11,521
---	--	--	--	----------	-----------------------------------	----------	-----	-------	----------

Maintenance Costs -- ALBANY (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	2	\$9,300	\$336	\$672	10	Same as new CCTV Camera	\$672	\$672		\$0
New closed-circuit television (CCTV) cameras	1	\$23,000	\$336	\$336	10	Alameda CTC Cost Data	\$336	\$336		\$0
New video encoders	1	\$3,590	\$359	\$359	10	10% of Capital cost	\$359	\$359		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	2	\$14,080	\$358	\$716	10	same as New MVDS	\$716	\$716		\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	7	\$5,060	\$403	\$2,818	10	Alameda CTC Cost Data	\$2,818	\$2,818		\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0	\$0		\$0
New EVP-only intersections	2	\$5,060	\$403	\$805	10	Same as EVP/TSP intersection	\$805	\$805		\$0
New Trailblazer Signs	2	\$24,675	\$1,000	\$2,000	10	Per Skyline; includes GPRS cost	\$2,000	\$2,000		\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	9	\$2,500	\$250	\$2,250	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	1	\$2,820	\$282	\$282	3	10% of Capital cost	\$282	\$282		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	8	\$1,475	\$148	\$1,180	10	10% of Capital cost	\$1,180	\$1,180		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$10,746	Total Increase due to ICM Devices		\$9,168	\$9,168	\$0	\$0
TOTAL ESTIMATED CONSTRUCTION COST		\$	158,600.00		* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing					

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs										
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City	
San Pablo Corridor Collocation	4.01%		\$122,512	\$4,918	Estimated Cost	\$4,918	\$4,918		\$0	
Wireless GPRS modem	1		\$768	\$768	\$64 per month	\$768	\$768		\$0	
Point-Point T1 line for each camera	1		\$2,100	\$2,100	\$175 per month	\$2,100	\$2,100		\$0	
Field Devices Electricity (new traffic signal, new CCTV cameras)	1		\$660	\$660	Alameda CTC Cost Data	\$660	\$660		\$0	
IT/Staffing Assistance* - Maintenance Staff	4.01%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0	
IT/Staffing Assistance* - Operation Staff	4.01%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0	
Estimated Annual Operating Cost (Subtotal)				\$8,446	Total Increase due to ICM Devices		\$8,446	\$8,446	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost		\$19,192	Total Increase due to ICM Devices		\$17,614	\$17,614	\$0	\$0
---	--	----------	-----------------------------------	--	----------	----------	-----	-----

Maintenance Costs -- ALBANY (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0		\$0	\$0
New closed-circuit television (CCTV) cameras	0	\$23,000	\$336	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New video encoders	0	\$3,590	\$359	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358		\$358	\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
Existing SMART Corridor TSP Intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New TSP Intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0		\$0	\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0		\$0	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0		\$0	\$0
Traffic Signal Controller Upgrades (existing signal)	0	\$2,500	\$250	\$0	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	0	\$2,820	\$282	\$0	3	10% of Capital cost	\$0			\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	0	\$1,475	\$148	\$0	10	10% of Capital cost	\$0			\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$358	Total Increase due to ICM Devices		\$358	\$0	\$358	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ -

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing
Albany does not have signal system and will not be installing signal system as part of project

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by City
San Pablo Corridor Collocation	0.00%		\$122,512	\$0	Estimated Cost	\$0			\$0
Wireless GPRS modem	0		\$768	\$0	\$64 per month	\$0			\$0
Point-Point T1 line for each camera			\$2,100	\$0	\$175 per month	\$0			\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	0		\$660	\$0	Alameda CTC Cost Data	\$0			\$0
IT/Staffing Assistance* - Maintenance Staff	0.00%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	0.00%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$0	Total Increase due to ICM Devices	\$0	\$0	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$358	Total Increase due to ICM Devices		\$358	\$0	\$358	\$0
---	--	--	--	-------	-----------------------------------	--	-------	-----	-------	-----

Maintenance Costs -- CONTRA COSTA COUNTY (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by County
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0			\$0
New closed-circuit television (CCTV) cameras	1	\$23,000	\$336	\$336	10	Alameda CTC Cost Data	\$336	\$336		\$0
New video encoders	1	\$3,590	\$359	\$359	10	10% of Capital cost	\$359	\$359		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	same as New MVDS	\$0			\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0			\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0			\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	1	\$2,500	\$250	\$250	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	0	\$2,820	\$282	\$0	3	10% of Capital cost	\$0			\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	0	\$1,475	\$148	\$0	10	10% of Capital cost	\$0			\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$945		Total Increase due to ICM Devices	\$695	\$695	\$0	\$0

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

TOTAL ESTIMATED CONSTRUCTION COST	\$	29,090.00
-----------------------------------	----	-----------

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by County
San Pablo Corridor Collocation	0.36%		\$122,512	\$447	Estimated Cost	\$447	\$447		\$0
Wireless GPRS modem	0		\$768	\$0	\$64 per month	\$0	\$0		\$0
Point-Point T1 line for each camera	1		\$2,100	\$2,100	\$175 per month	\$2,100	\$2,100		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	1		\$660	\$660	Alameda CTC Cost Data	\$660	\$660		\$0
IT/Staffing Assistance* - Maintenance Staff	0.36%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	0.36%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$3,207	Total Increase due to ICM Devices	\$3,207	\$3,207	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost	\$4,152	Total Increase due to ICM Devices	\$3,902	\$3,902	\$0	\$0
---	---------	-----------------------------------	---------	---------	-----	-----



Maintenance Costs -- CONTRA COSTA COUNTY (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by County
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0		\$0	\$0
New closed-circuit television (CCTV) cameras	2	\$23,000	\$336	\$672	10	Alameda CTC Cost Data	\$672		\$672	\$0
New video encoders	0	\$3,590	\$358	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358		\$358	\$0
New Vehicle Detection Stations	2	\$14,080	\$358	\$716	10	Alameda CTC Cost Data	\$716		\$716	\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New TSP intersections	5	\$5,060	\$403	\$2,013	10	Alameda CTC Cost Data	\$2,013		\$2,013	\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0		\$0	\$0
New Trailblazer Signs	3	\$24,675	\$1,000	\$3,000	10	Per Skyline; includes GPRS cost	\$3,000		\$3,000	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0		\$0	\$0
Traffic Signal Controller Upgrades (existing signal)	0	\$2,500	\$250	\$0	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	5	\$2,820	\$282	\$1,410	3	10% of Capital cost	\$1,410		\$1,410	\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0		\$0	\$0
Controller communications: Ethernet module	5	\$1,475	\$148	\$738	10	10% of Capital cost	\$738		\$738	\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0		\$0	\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0		\$0	\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0		\$0	\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0		\$0	\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0		\$0	\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$0		\$0	\$0
Estimated Annual Maintenance Cost (Subtotal)				\$11,656	Total Increase due to ICM Devices		\$8,906	\$0	\$8,906	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 194,960.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing Contra Costa County has existing signal system.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by County
San Pablo Corridor Collocation	4.01%		\$122,512	\$4,918	Estimated Cost	\$4,918		\$4,918	\$0
Wireless GPRS modem	5		\$768	\$3,840	\$64 per month	\$3,840		\$3,840	\$0
Point-Point T1 line for each camera	2		\$2,100	\$4,200	\$175 per month	\$4,200		\$4,200	\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	2		\$660	\$1,320	Alameda CTC Cost Data	\$1,320		\$1,320	\$0
IT/Staffing Assistance* - Maintenance Staff	4.01%			\$0	Internal based on each Agencies' O&M policy	\$0		\$0	\$0
IT/Staffing Assistance* - Operation Staff	4.01%			\$0	Internal based on each Agencies' O&M policy	\$0		\$0	\$0
Estimated Annual Operating Cost (Subtotal)				\$14,278	Total Increase due to ICM Devices	\$14,278	\$0	\$14,278	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$25,934	Total Increase due to ICM Devices		\$23,184	\$0	\$23,184	\$0
---	--	--	--	----------	-----------------------------------	--	----------	-----	----------	-----

Maintenance Costs -- EL CERRITO (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	3	\$9,300	\$336	\$1,008	10	Same as new CCTV Camera	\$1,008	\$1,008		\$0
New closed-circuit television (CCTV) cameras	1	\$23,000	\$336	\$336	10	Alameda CTC Cost Data	\$336	\$336		\$0
New video encoders	1	\$3,590	\$359	\$359	10	10% of Capital cost	\$359	\$359		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	2	\$14,080	\$358	\$716	10	same as New MVDS	\$716	\$716		\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	10	\$5,060	\$403	\$4,025	10	Alameda CTC Cost Data	\$4,025	\$4,025		\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	2	\$5,060	\$403	\$805	10	Same as EVP/TSP intersection	\$805	\$805		\$0
New Trailblazer Signs	4	\$24,675	\$1,000	\$4,000	10	Per Skyline; includes GPRS cost	\$4,000	\$4,000		\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	13	\$2,500	\$250	\$3,250	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	2	\$2,820	\$282	\$564	3	10% of Capital cost	\$564	\$564		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	12	\$1,475	\$148	\$1,770	10	10% of Capital cost	\$1,770	\$1,770		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$15,825	Total Increase due to ICM Devices		\$13,583	\$13,583	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 241,850.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	5.84%		\$122,512	\$7,154	Estimated Cost	\$7,154			\$0
Wireless GPRS modem	2		\$768	\$1,536	\$64 per month	\$1,536	\$1,536		\$0
Point-Point T1 line for each camera	1		\$2,100	\$2,100	\$175 per month	\$2,100	\$2,100		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	1		\$660	\$660	Alameda CTC Cost Data	\$660	\$660		\$0
IT/Staffing Assistance* - Maintenance Staff	5.84%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	5.84%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$11,450	Total Increase due to ICM Devices	\$11,450	\$11,450	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$27,275	Total Increase due to ICM Devices		\$25,033	\$25,033	\$0	\$0
---	--	--	--	----------	-----------------------------------	--	----------	----------	-----	-----

Maintenance Costs -- EL CERRITO (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0		\$0	\$0
New closed-circuit television (CCTV) cameras	0	\$23,000	\$336	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New video encoders	0	\$3,590	\$359	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	2	\$14,080	\$358	\$716	10	same as New MVDS	\$716		\$716	\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
Existing SMART Corridor TSP Intersections	2	\$5,060	\$403	\$805	10	Alameda CTC Cost Data	\$805		\$805	\$0
New TSP Intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New EVP-only intersections	1	\$5,060	\$403	\$403	10	Same as EVP/TSP intersection	\$403		\$403	\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0		\$0	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0		\$0	\$0
Traffic Signal Controller Upgrades (existing signal)	1	\$2,500	\$250	\$250	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	2	\$2,820	\$282	\$564	3	10% of Capital cost	\$564		\$564	\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0		\$0	\$0
Controller communications: Ethernet module	2	\$1,475	\$148	\$295	10	10% of Capital cost	\$295		\$295	\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0		\$0	\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0		\$0	\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0		\$0	\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0		\$0	\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0		\$0	\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$2,750		\$2,750	\$0
Estimated Annual Maintenance Cost (Subtotal)				\$5,783	Total Increase due to ICM Devices		\$5,533	\$0	\$5,533	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 26,270.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing
New signal system for El Cerrito being provided by project.

* Sidewalk is El Cerrito right-of-way.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	1.28%		\$122,512	\$1,565	Estimated Cost	\$1,565		\$1,565	\$0
Wireless GPRS modem	2		\$768	\$1,536	\$64 per month	\$1,536		\$1,536	\$0
Point-Point T1 line for each camera	0		\$2,100	\$0	\$175 per month	\$0		\$0	\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	0		\$660	\$0	Alameda CTC Cost Data	\$0		\$0	\$0
IT/Staffing Assistance* - Maintenance Staff	1.28%			\$0	Internal based on each Agencies' O&M policy	\$0		\$0	\$0
IT/Staffing Assistance* - Operation Staff	1.28%			\$0	Internal based on each Agencies' O&M policy	\$0		\$0	\$0
Estimated Annual Operating Cost (Subtotal)				\$3,101	Total Increase due to ICM Devices	\$3,101	\$0	\$3,101	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$8,883	Total Increase due to ICM Devices		\$8,633	\$0	\$8,633	\$0
---	--	--	--	---------	-----------------------------------	--	---------	-----	---------	-----

Maintenance Costs -- SAN PABLO AREA (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	1	\$9,300	\$336	\$336	10	Same as new CCTV Camera	\$336	\$336		\$0
New closed-circuit television (CCTV) cameras	3	\$23,000	\$336	\$1,008	10	Alameda CTC Cost Data	\$1,008	\$1,008		\$0
New video encoders	3	\$3,590	\$359	\$1,077	10	10% of Capital cost	\$1,077	\$1,077		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	same as New MVDS	\$0			\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	4	\$5,060	\$403	\$1,610	10	Same as EVP/TSP intersection	\$1,610	\$1,610		\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0			\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	3	\$2,500	\$250	\$750	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	2	\$2,820	\$282	\$564	3	10% of Capital cost	\$564	\$564		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	2	\$1,475	\$148	\$295	10	10% of Capital cost	\$295	\$295		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	10	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$5,304	Total Increase due to ICM Devices		\$4,890	\$4,890	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 116,100.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	2.55%		\$122,512	\$3,130	Estimated Cost	\$3,130	\$3,130		\$0
Wireless GPRS modem	2		\$768	\$1,536	\$64 per month	\$1,536	\$1,536		\$0
Point-Point T1 line for each camera	3		\$2,100	\$6,300	\$175 per month	\$6,300	\$6,300		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	3		\$660	\$1,980	Alameda CTC Cost Data	\$1,980	\$1,980		\$0
IT/Staffing Assistance* - Maintenance Staff	2.55%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	2.55%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$12,946	Total Increase due to ICM Devices	\$12,946	\$12,946	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$18,250	Total Increase due to ICM Devices		\$17,836	\$17,836	\$0	\$0
---	--	--	--	----------	-----------------------------------	--	----------	----------	-----	-----

Maintenance Costs -- SAN PABLO (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	1	\$9,300	\$336	\$336	10	Same as new CCTV Camera	\$336		\$336	\$0
New closed-circuit television (CCTV) cameras	1	\$23,000	\$336	\$336	10	Alameda CTC Cost Data	\$336		\$336	\$0
New video encoders	0	\$3,590	\$359	\$0	10	10% of Capital cost	\$0			\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358		\$358	\$0
New Vehicle Detection Stations	2	\$14,080	\$358	\$716	10	Alameda CTC Cost Data	\$716		\$716	\$0
Existing SMART Corridor TSP Intersections	10	\$5,060	\$403	\$4,025	10	Alameda CTC Cost Data	\$4,025		\$4,025	\$0
New TSP intersections	1	\$5,060	\$403	\$403	10	Alameda CTC Cost Data	\$403		\$403	\$0
New EVP-only intersections	4	\$5,060	\$403	\$1,610	10	Same as EVP/TSP intersection	\$1,610		\$1,610	\$0
New Trailblazer Signs	4	\$24,675	\$1,000	\$4,000	10	Per Skyline; includes GPRS cost	\$4,000		\$4,000	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	2	\$2,500	\$250	\$500	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	2	\$2,820	\$282	\$564	3	10% of Capital cost	\$564		\$564	\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	2	\$1,475	\$148	\$295	10	10% of Capital cost	\$295		\$295	\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$15,557	Total Increase due to ICM Devices		\$12,643	\$0	\$12,643	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 239,350.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing San Pablo has existing signal system.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	4.74%		\$122,512	\$5,813	Estimated Cost	\$5,813		\$5,813	\$0
Wireless GPRS modem	2		\$768	\$1,536	\$64 per month	\$1,536		\$1,536	\$0
Point-Point T1 line for each camera	1		\$2,100	\$2,100	\$175 per month	\$2,100		\$2,100	\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	1		\$660	\$660	Alameda CTC Cost Data	\$660		\$660	\$0
IT/Staffing Assistance* - Maintenance Staff	4.74%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	4.74%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$10,109	Total Increase due to ICM Devices	\$10,109	\$0	\$10,109	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$25,665	Total Increase due to ICM Devices		\$22,751	\$0	\$22,751	\$0
---	--	--	--	----------	-----------------------------------	--	----------	-----	----------	-----

Maintenance Costs -- RICHMOND (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	1	\$9,300	\$336	\$336	10	Same as new CCTV Camera	\$336	\$336		\$0
New closed-circuit television (CCTV) cameras	8	\$23,000	\$336	\$2,688	10	Alameda CTC Cost Data	\$2,688	\$2,688		\$0
New video encoders	8	\$3,590	\$359	\$2,872	10	10% of Capital cost	\$2,872	\$2,872		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	same as New MVDS	\$0			\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	3	\$5,060	\$403	\$1,208	10	Alameda CTC Cost Data	\$1,208	\$1,208		\$0
New EVP-only intersections	8	\$5,060	\$403	\$3,220	10	Same as EVP/TSP intersection	\$3,220	\$3,220		\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0			\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	10	\$2,500	\$250	\$2,500	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	4	\$2,820	\$282	\$1,128	3	10% of Capital cost	\$1,128	\$1,128		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	4	\$1,475	\$148	\$590	10	10% of Capital cost	\$590	\$590		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0	\$0		\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$14,206	Total Increase due to ICM Devices		\$12,042	\$12,042	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$

310,560.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	6.39%		\$122,512	\$7,825	Estimated Cost	\$7,825	\$7,825		\$0
Wireless GPRS modem	4		\$768	\$3,072	\$64 per month	\$3,072	\$3,072		\$0
Point-Point T1 line for each camera	8		\$2,100	\$16,800	\$175 per month	\$16,800	\$16,800		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	8		\$660	\$5,280	Alameda CTC Cost Data	\$5,280	\$5,280		\$0
IT/Staffing Assistance* - Maintenance Staff	6.39%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	6.39%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$32,977	Total Increase due to ICM Devices	\$32,977	\$32,977	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$47,182	Total Increase due to ICM Devices	\$45,018	\$45,018	\$0	\$0
---	--	--	--	----------	-----------------------------------	----------	----------	-----	-----

Maintenance Costs – RICHMOND (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	1	\$9,300	\$336	\$336	10	Same as new CCTV Camera	\$336		\$336	\$0
New closed-circuit television (CCTV) cameras	1	\$23,000	\$336	\$336	10	Alameda CTC Cost Data	\$336		\$336	\$0
New video encoders	0	\$3,590	\$359	\$0	10	10% of Capital cost	\$0			\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	4	\$14,080	\$358	\$1,432	10	same as New MVDS	\$1,432		\$1,432	\$0
New Vehicle Detection Stations	2	\$14,080	\$358	\$716	10	Alameda CTC Cost Data	\$716		\$716	\$0
Existing SMART Corridor TSP Intersections	9	\$5,060	\$403	\$3,623	10	Alameda CTC Cost Data	\$3,623		\$3,623	\$0
New TSP Intersections	5	\$5,060	\$403	\$2,013	10	Alameda CTC Cost Data	\$2,013		\$2,013	\$0
New EVP-only intersections	8	\$5,060	\$403	\$3,220	10	Same as EVP/TSP intersection	\$3,220		\$3,220	\$0
New Trailblazer Signs	6	\$24,675	\$1,000	\$6,000	10	Per Skyline; includes GPRS cost	\$6,000		\$6,000	\$0
New Traffic Signal	2	\$200,000	\$3,000	\$6,000	10	Based on City of Concord	\$6,000			\$6,000
Traffic Signal Controller Upgrades (existing signal)	23	\$2,500	\$250	\$5,750	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	4	\$2,820	\$282	\$1,128	3	10% of Capital cost	\$1,128		\$1,128	\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	4	\$1,475	\$148	\$590	10	10% of Capital cost	\$590		\$590	\$0
New Intersection Vehicle Detection: Video Image Detection camera	7	\$11,785	\$336	\$2,352	10	Estimated same as CCTV camera	\$2,352			\$2,352
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-IntraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$35,909	Total Increase due to ICM Devices		\$27,745	\$0	\$19,393	\$8,352

TOTAL ESTIMATED CONSTRUCTION COST \$ 867,705.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing Richmond has existing signal system.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	8.76%		\$122,512	\$10,731	Estimated Cost	\$10,731		\$10,731	\$0
Wireless GPRS modem	4		\$768	\$3,072	\$64 per month	\$3,072		\$3,072	\$0
Point-Point T1 line for each camera	1		\$2,100	\$2,100	\$175 per month	\$2,100		\$2,100	\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	3		\$660	\$1,980	Alameda CTC Cost Data	\$1,980		\$660	\$1,320
IT/Staffing Assistance* - Maintenance Staff	8.76%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	8.76%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$17,883	Total Increase due to ICM Devices	\$17,883	\$0	\$16,563	\$1,320

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$53,792	Total Increase due to ICM Devices		\$45,628	\$0	\$35,956	\$9,672
---	--	--	--	----------	-----------------------------------	--	----------	-----	----------	---------

Maintenance Costs -- PINOLE (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0			\$0
New closed-circuit television (CCTV) cameras	4	\$23,000	\$336	\$1,344	10	Alameda CTC Cost Data	\$1,344	\$1,344		\$0
New video encoders	4	\$3,590	\$359	\$1,436	10	10% of Capital cost	\$1,436	\$1,436		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	same as New MVDS	\$0			\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New EVP-only intersections	2	\$5,060	\$403	\$805	10	Same as EVP/TSP intersection	\$805	\$805		\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0			\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	6	\$2,500	\$250	\$1,500	10	10% of Capital cost	No increase in maint cost.			\$0
Wireless GPRS modem (traffic signal controllers)	3	\$2,820	\$282	\$846	3	10% of Capital cost	\$846	\$846		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	3	\$1,475	\$148	\$443	10	10% of Capital cost	\$443	\$443		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$6,374	Total Increase due to ICM Devices		\$4,874	\$4,874	\$0	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$ 144,365.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	2.92%		\$122,512	\$3,577	Estimated Cost	\$3,577	\$3,577		\$0
Wireless GPRS modem	3		\$768	\$2,304	\$64 per month	\$2,304	\$2,304		\$0
Point-Point T1 line for each camera	4		\$2,100	\$8,400	\$175 per month	\$8,400	\$8,400		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	4		\$660	\$2,640	Alameda CTC Cost Data	\$2,640	\$2,640		\$0
IT/Staffing Assistance* - Maintenance Staff	2.92%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	2.92%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$16,921	Total Increase due to ICM Devices	\$16,921	\$16,921	\$0	\$0

* Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$23,294	Total Increase due to ICM Devices		\$21,794	\$21,794	\$0	\$0
---	--	--	--	----------	-----------------------------------	--	----------	----------	-----	-----

Maintenance Costs – PINOLE (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0		\$0	\$0
New closed-circuit television (CCTV) cameras	2	\$23,000	\$336	\$672	10	Alameda CTC Cost Data	\$672		\$672	\$0
New video encoders	0	\$3,590	\$358	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358		\$358	\$0
New Vehicle Detection Stations	3	\$14,080	\$358	\$1,074	10	Alameda CTC Cost Data	\$1,074		\$1,074	\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New TSP intersections	14	\$5,060	\$403	\$5,635	10	Alameda CTC Cost Data	\$5,635		\$5,635	\$0
New EVP-only intersections	2	\$5,060	\$403	\$805	10	Same as EVP/TSP intersection	\$805		\$805	\$0
New Trailblazer Signs	4	\$24,675	\$1,000	\$4,000	10	Per Skyline; includes GPRS cost	\$4,000		\$4,000	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0		\$0	\$0
Traffic Signal Controller Upgrades (existing signal)	9	\$2,500	\$250	\$2,250	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	3	\$2,820	\$282	\$846	3	10% of Capital cost	\$846		\$846	\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0		\$0	\$0
Controller communications: Ethernet module	3	\$1,475	\$148	\$443	10	10% of Capital cost	\$443		\$443	\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0		\$0	\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0		\$0	\$0
Speed Feedback Signs	2	\$12,875	\$500	\$1,000	15	Compared to trailblazer	\$1,000			\$1,000
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0		\$0	\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0		\$0	\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0		\$0	\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$2,750		\$2,750	\$0
Estimated Annual Maintenance Cost (Subtotal)				\$19,833	Total Increase due to ICM Devices		\$17,583	\$0	\$16,583	\$1,000

TOTAL ESTIMATED CONSTRUCTION COST \$ 329,035.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing
New signal system workstation for Pinole (connected to County signal system) being provided by project.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	6.02%		\$122,512	\$7,378	Estimated Cost	\$7,378		\$7,378	\$0
Wireless GPRS modem	3		\$768	\$2,304	\$64 per month	\$2,304		\$2,304	\$0
Point-Point T1 line for each camera	2		\$2,100	\$4,200	\$175 per month	\$4,200		\$4,200	\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	2		\$660	\$1,320	Alameda CTC Cost Data	\$1,320		\$1,320	\$0
IT/Staffing Assistance* - Maintenance Staff	6.02%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	6.02%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$15,202	Total Increase due to ICM Devices	\$15,202	\$0	\$15,202	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$35,034	Total Increase due to ICM Devices		\$32,784	\$0	\$31,784	\$1,000
---	--	--	--	----------	-----------------------------------	--	----------	-----	----------	---------

Maintenance Costs -- HERCULES (CT ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	0	\$9,300	\$336	\$0	10	Same as new CCTV Camera	\$0			\$0
New closed-circuit television (CCTV) cameras	2	\$23,000	\$336	\$672	10	Alameda CTC Cost Data	\$672	\$672		\$0
New video encoders	2	\$3,590	\$359	\$718	10	10% of Capital cost	\$718	\$718		\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	0	\$14,080	\$358	\$0	10	same as New MVDS	\$0			\$0
New Vehicle Detection Stations	0	\$14,080	\$358	\$0	10	Alameda CTC Cost Data	\$0			\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0			\$0
New TSP intersections (including ramp metering locations)	1	\$5,060	\$403	\$403	10	Alameda CTC Cost Data	\$403	\$403		\$0
New EVP-only intersections	1	\$5,060	\$403	\$403	10	Same as EVP/TSP intersection	\$403	\$403		\$0
New Trailblazer Signs	0	\$24,675	\$1,000	\$0	10	Per Skyline; includes GPRS cost	\$0			\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0			\$0
Traffic Signal Controller Upgrades (existing signal)	2	\$2,500	\$250	\$500	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	1	\$2,820	\$282	\$282	3	10% of Capital cost	\$282	\$282		\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0			\$0
Controller communications: Ethernet module	1	\$1,475	\$148	\$148	10	10% of Capital cost	\$148	\$148		\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0			\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0			\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0			\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0			\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0			\$0
Traffic Signal Software Maintenance/Upgrades *	0.00%	\$500,000	\$27,500	\$0	5	Actual bids	\$0			\$0
Estimated Annual Maintenance Cost (Subtotal)				\$3,125	Total Increase due to ICM Devices		\$2,625	\$2,625	\$0	\$0
TOTAL ESTIMATED CONSTRUCTION COST \$		72,595.00		* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing						

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	1.46%		\$122,512	\$1,788	Estimated Cost	\$1,788	\$1,788		\$0
Wireless GPRS modem	1		\$768	\$768	\$64 per month	\$768	\$768		\$0
Point-Point T1 line for each camera	2		\$2,100	\$4,200	\$175 per month	\$4,200	\$4,200		\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	2		\$660	\$1,320	Alameda CTC Cost Data	\$1,320	\$1,320		\$0
IT/Staffing Assistance* - Maintenance Staff	1.46%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	1.46%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$8,076	Total Increase due to ICM Devices	\$8,076	\$8,076	\$0	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost		\$11,201	Total Increase due to ICM Devices		\$10,701	\$10,701	\$0	\$0
---	--	----------	-----------------------------------	--	----------	----------	-----	-----

Maintenance Costs – HERCULES (LOCAL ROW)										
Device	Number of Devices	Unit Capital Cost	Unit Maintenance Cost/Year	Total Cost/Year	Life (Years)	Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
Existing SMART Corridor cameras (used by project)	1	\$9,300	\$336	\$336	10	Same as new CCTV Camera	\$336		\$336	\$0
New closed-circuit television (CCTV) cameras	0	\$23,000	\$336	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New video encoders	0	\$3,590	\$358	\$0	10	10% of Capital cost	\$0		\$0	\$0
Existing SMART Corridor Vehicle Detection Stations (used by project)	1	\$14,080	\$358	\$358	10	same as New MVDS	\$358		\$358	\$0
New Vehicle Detection Stations	1	\$14,080	\$358	\$358	10	Alameda CTC Cost Data	\$358		\$358	\$0
Existing SMART Corridor TSP intersections	0	\$5,060	\$403	\$0	10	Alameda CTC Cost Data	\$0		\$0	\$0
New TSP intersections	5	\$5,060	\$403	\$2,013	10	Alameda CTC Cost Data	\$2,013		\$2,013	\$0
New EVP-only intersections	0	\$5,060	\$403	\$0	10	Same as EVP/TSP intersection	\$0		\$0	\$0
New Trailblazer Signs	3	\$24,675	\$1,000	\$3,000	10	Per Skyline; includes GPRS cost	\$3,000		\$3,000	\$0
New Traffic Signal	0	\$200,000	\$3,000	\$0	10	Based on City of Concord	\$0		\$0	\$0
Traffic Signal Controller Upgrades (existing signal)	3	\$2,500	\$250	\$750	10	10% of Capital cost	No increase in maint cost.			
Wireless GPRS modem (traffic signal controllers)	0	\$2,820	\$282	\$0	3	10% of Capital cost	\$0		\$0	\$0
Controller communications: Ethernet switch	0	\$4,060	\$406	\$0	10	10% of Capital cost	\$0		\$0	\$0
Controller communications: Ethernet module	0	\$1,475	\$148	\$0	10	10% of Capital cost	\$0		\$0	\$0
New Intersection Vehicle Detection: Video Image Detection camera	0	\$11,785	\$336	\$0	10	Estimated same as CCTV camera	\$0		\$0	\$0
New Intersection Vehicle Detection: Magnetometer	0	\$8,438	\$844	\$0	10	10% of Capital cost	\$0		\$0	\$0
Speed Feedback Signs	0	\$12,875	\$500	\$0	15	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): single sided	0	\$160,333	\$1,500	\$0	10	Compared to trailblazer	\$0		\$0	\$0
New Arterial Changeable Message Sign (CMS): double-sided	0	\$246,782	\$2,000	\$0	10	Compared to trailblazer	\$0		\$0	\$0
Existing TSP emitters	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0		\$0	\$0
New multi-mode (GPS-InfraRed) TSP Emitters	0	\$4,750	\$0	\$0	10	Assumed to be same as existing	\$0		\$0	\$0
Traffic Signal Software Maintenance/Upgrades *	10.00%	\$500,000	\$27,500	\$2,750	5	Actual bids	\$2,750		\$2,750	\$0
Estimated Annual Maintenance Cost (Subtotal)				\$9,229		Total Increase due to ICM Devices	\$8,815	\$0	\$8,815	\$0

TOTAL ESTIMATED CONSTRUCTION COST \$

120,905.00

* Local ROW cost only- no increase in maintenance cost if traffic signal system is existing
New signal system workstation for Hercules (connected to County signal system) being provided by project.

Operating Costs									
Device	Quantity	Capital Cost	Unit Operation Cost	Total Cost/Year	Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by City
San Pablo Corridor Collocation	1.64%		\$122,512	\$2,012	Estimated Cost	\$2,012		\$2,012	\$0
Wireless GPRS modem	0		\$768	\$0	\$64 per month	\$0			\$0
Point-Point T1 line for each camera	0		\$2,100	\$0	\$175 per month	\$0			\$0
Field Devices Electricity (new traffic signal, new CCTV cameras)	0		\$660	\$0	Alameda CTC Cost Data	\$0			\$0
IT/Staffing Assistance* - Maintenance Staff	1.64%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
IT/Staffing Assistance* - Operation Staff	1.64%			\$0	Internal based on each Agencies' O&M policy	\$0			\$0
Estimated Annual Operating Cost (Subtotal)				\$2,012	Total Increase due to ICM Devices	\$2,012	\$0	\$2,012	\$0

*Provided by Alameda CTC or City Traffic Signal Coordinator for all agencies

Total Estimated Annual Operation and Maintenance Cost				\$11,241	Total Increase due to ICM Devices	\$10,827	\$0	\$10,827	\$0
---	--	--	--	----------	-----------------------------------	----------	-----	----------	-----



EXHIBIT A

FINAL DRAFT, 2-21-12

Operations and Maintenance Costs -- WestCAT										
Device	Number of Devices	Unit Capital Cost	Unit Operations & Maintenance Cost/Year	Total Cost/Year	Life (Years)	Operations and Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by CCTA	Net Contribution by WestCAT
Existing TSP emitters (none for WestCAT)	0	\$1,000	\$500	\$0	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters *	40	\$4,750	\$500	\$20,000	10	Assumed to be same as existing	\$20,000			\$20,000
Total Estimated Annual Operation and Maintenance Cost				\$20,000	Total Increase due to ICM Devices		\$20,000	\$0	\$0	\$20,000
TOTAL ESTIMATED CONSTRUCTION COST		\$	190,000.00		* Capital Cost includes estimated installation cost of \$750 per bus (to be performed by transit agency)					



EXHIBIT A

FINAL DRAFT, 2-21-12

Operations and Maintenance Costs -- AC Transit										
Device	Number of Devices	Unit Capital Cost	Unit Operations & Maintenance Cost/Year	Total Cost/Year	Life (Years)	Operations and Maintenance Cost Notes	Devices that Increase Inventory	Paid by Caltrans	Paid by Alameda CTC	Net Contribution by AC Transit
Existing TSP Emitters (AC Transit 72R)	40	\$1,000	\$500	\$20,000	10	AC Transit Data	\$0			\$0
New multi-mode (GPS-InfraRed) TSP Emitters *	40	\$4,750	\$500	\$20,000	10	Assumed to be same ex AC Transit	\$20,000			\$20,000
Total Estimated Annual Operation and Maintenance Cost				\$40,000		Total Increase due to ICM Devices	\$20,000	\$0	\$0	\$20,000
TOTAL ESTIMATED CONSTRUCTION COST		\$	190,000.00							

* Capital Cost includes estimated installation cost of \$750 per bus (to be performed by transit agency). Includes future project to install emitters on other buses. (expansion beyond 72R)



AGENDA BILL

Agenda Item No. 7(B)

Date: March 6, 2012

To: City Council of the City of El Cerrito

From: Jerry Bradshaw, Public Works Director

Subject: Authorization to Cast Ballots for 2012 Community Clean Water Program

ACTIONS REQUESTED

Adopt a City Council resolution authorizing the City Manager to cast ballots for the 2012 Community Clean Water Initiative in the affirmative for all parcels owned by the City of El Cerrito, and to submit those ballots to the proper authority by April 6, 2012.

BACKGROUND

The City of El Cerrito is one of the co-permittee municipalities along with the County of Contra Costa, the other 18 cities/towns, and the Contra Costa County Flood Control and Water Conservation District (Flood Control District) under the Municipal Regional Permit (MRP) issued by the San Francisco Regional Water Quality Control Board and/or the Central Valley Regional Water Quality Control Board (Water Board). In 1992 the municipalities formed the Contra Costa Clean Water Program (Program) to work together to meet the Water Board's requirements and comply with the Clean Water Act (Federal) and the Porter Cologne Act (State). Since that time, funding has been a struggle since no federal or state funding was made available to meet these mandates. In 1992 the Program established a Stormwater Utility Assessment (SUA) to fund the activities. The fees were collected by the Flood Control District (except for the cities of Richmond and Brentwood), and disbursed to the individual agencies.

In the ensuing years, inflation and ever-expanding permit mandates have progressively increased the costs of stormwater permit implementation and drainage system maintenance. All municipalities now charge the maximum rate authorized by the SUA. In 2009, the Water Board adopted a Municipal Regional Permit (MRP). The MRP is more prescriptive regarding ongoing pollution-prevention activities and mandates greatly expanded stormwater monitoring (implemented mostly on a countywide and regional basis) and trash controls (implemented mostly locally). This created a situation where the municipalities are mandated to perform activities well beyond their current funding capacity.

In order to evaluate the level to which additional permit requirements equate to increases in costs to the municipalities, the Program engaged a consultant to investigate additional public financing mechanisms that the Program member municipalities could use to fulfill the requirements of the 2009 MRP. One of the tasks was to collect and analyze

background and reference information and to review and analyze projected future annual costs and sources of funding. Countywide, the analysis showed a funding shortfall growing to over \$8 million in the next few years. For El Cerrito, the funding shortfall would grow to approximately \$254,000 by fiscal year 2013-14.

The funding mechanisms developed were evaluated, and through statistically-valid public opinion polling the property-related fee mechanism was identified as the preferred option. The fee levels were tailored to balance the needs of the various municipalities with the level of support found among the communities. For an average residential parcel, the fee ranges from \$12 to \$22 annually. In El Cerrito, the fee would be at the \$22 level. The analysis of future costs showed a funding need equating to a \$23 fee.

The Contra Costa County Board of Supervisors, acting as the governing board for the Flood Control District, voted on December 6, 2011 to accept the engineer's report and begin the Prop 218 process. On February 7, 2012 the Board held a public hearing on the matter, and after three hours of testimony voted to proceed to the mail ballot phase. Ballots were mailed on February 21st. Ballots must be received by the designated authority on or before April 6, 2012 at 5:00 PM.

ANALYSIS

El Cerrito owns over 70 parcels. However, many of the City's parcels are unimproved with no impervious surface, and therefore would have no fee assessed. In all, approximately 30 of the City's parcels are subject to the fee. Staff is seeking authorization to cast a vote for the ballots allotted to these parcels, and is seeking direction whether to vote in the affirmative as recommended. A copy of one such ballot is attached for reference along with the official ballot guide that was included in the mailing. Also attached is the list of properties affected.

Note that the City received ballots addressed to both the City and the El Cerrito Redevelopment Agency (Agency). In several cases, the tax rolls used to generate the ballots were not completely up to date, either due to the properties being recently sold or the title being transferring as a matter of law due to the dissolution of the Agency on February 1, 2012. The resolution being considered by the City Council only applies to ballots for those properties the City currently owns and that are subject to the proposed assessment. Ballots for properties sold have been forwarded to the new owner.

Included on the list of properties is one parcel previously owned by the Redevelopment Agency (Agency), the ownership of which was transferred as a matter of law to the Successor Agency to the El Cerrito Redevelopment Agency (Successor Agency). Staff is working to determine whether the Successor Agency has the authority to consider the ballot for the parcel and, if so, will return with a resolution to that effect for the City Council to consider, acting in its role as the Successor Agency.

FINANCIAL CONSIDERATIONS

There is no direct fiscal impact of casting these ballots. The assessments, if passed by a majority of property owners casting ballots, comprise a total of \$2,489.44 per year.

Agenda Item No. 7(B)

These would be assessed beginning in Fiscal Year 2012-13, and would be included in the various property tax bills and paid from the City's operating funds.

Reviewed by:

A handwritten signature in black ink, appearing to read 'S. Hanin', is written over a horizontal line.

Scott Hanin, City Manager

Attachments:

1. City Council Resolution
2. Example Ballot
3. Ballot Guidebook
4. Parcel list

RESOLUTION 2011-XX

RESOLUTION OF THE EL CERRITO CITY COUNCIL AUTHORIZING THE CITY MANAGER TO CAST
BALLOTS FOR THE 2012 COMMUNITY CLEAN WATER INITIATIVE FOR ALL PARCELS OWNED BY
THE CITY

WHEREAS, the City of El Cerrito is a member of the Contra Costa Clean Water Program (Program) and a co-permittee under the San Francisco Regional Water Quality Control Board's Municipal Regional Permit; and

WHEREAS, the Program has previously established a stormwater utility assessment to fund the activities required by Water Board's permits; and

WHEREAS, in the years since the stormwater utility assessment has been in place inflation and ever-expanding permit mandates have progressively increased the costs of stormwater permit implementation and drainage system maintenance, thereby creating a situation where the co-permittees are mandated to perform activities well beyond their current funding capacity; and

WHEREAS, the Program has developed a proposal known as the 2012 Community Clean Water Initiative whereby a property-related fee structure was crafted for all municipalities in the County that would provide funding for stormwater permit implementation and drainage system maintenance; such fee structure that could be submitted to property owners for approval as a mail ballot pursuant to Proposition 218; and

WHEREAS, the Contra Costa County Board of Supervisors, acting as the governing board for the Contra Costa County Flood Control and Water Conservation District, voted on December 6, 2011 to accept the engineer's report and begin the Proposition 218 process, and on February 7, 2012 held a public hearing and voted to proceed to the mail ballot phase; and on February 21, 2012 ballots were mailed to all owners of parcels subject to the assessment under the 2012 Community Clean Water Initiative which must be returned to the designated authority by April 6, 2012; and

WHEREAS, the City of El Cerrito owns multiple parcels that would be subject to said assessment and has received ballots accordingly; and the City has an opportunity to cast ballots for all parcels so assessed.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of El Cerrito authorizes the City Manager to cast ballots for the 2012 Community Clean Water Initiative in the affirmative for all parcels owned by the City of El Cerrito, and to submit those ballots to the proper authority by April 6, 2012.

BE IT FURTHER RESOLVED, that this Resolution shall become effective immediately upon passage and adoption.

I CERTIFY that at a regular meeting on March 6, 2012 the City Council of the City of El Cerrito passed this Resolution by the following vote:

AYES:	COUNCILMEMBERS:
NOES:	COUNCILMEMBERS:
ABSENT:	COUNCILMEMBERS:

IN WITNESS of this action, I sign this document and affix the corporate seal of the City of El Cerrito on March XX, 2012.

Cheryl Morse, City Clerk

APPROVED:

William Jones, Mayor

In order to:

- Protect sources of clean drinking water from contamination and pollution;
- Keep trash and pollution out of lakes, creeks, rivers, the Delta and Bay;
- Prevent illegal discharges of pollution into water bodies through improved monitoring, investigation and enforcement;
- Catch, treat, and reuse rainwater; and
- Remove dangerous pollutants and toxins from water bodies;

Do you approve the proposed annual clean water fee for your property listed on the other side of this ballot?

☐ YES, I approve the proposed annual clean water fee.*

☐ NO, I do not approve the proposed annual clean water fee.*

***NOTE:**

The proposed annual clean water fee for your property is printed on the other side of this ballot.

Signed _____

Date _____

Signature of Record Property Owner, or Authorized Representative

Print Name _____

I hereby declare, under penalty of perjury, that I am the property owner or owner's authorized representative of the parcel identified on this official ballot.

Fold so that this side is on the inside before placing this ballot in the return envelope

1. If the property is owned by an individual, the individual may sign.
2. If a property is held by a husband and wife, either may sign for both.
3. If two or more persons own the property as tenants-in-common or as joint tenants, any tenants-in-common, or joint tenant, may sign for all.
4. If the property is owned by a corporation, the ballot may be signed for the corporation by an officer or officers authorized to make contracts or by resolution of the corporation's Board of Directors.
5. If the property is owned by another legal entity, the ballot may be signed by any person authorized by law to make contracts for the entity.
6. If the property is owned by a public agency, the ballot may be signed by any person authorized by law to make contracts for the agency or by resolution of the agency's Governing Board.

1. Verify the owner name, address, and parcel number listed on the assessment ballot are correct. If they are not correct, call 925-313-2360.
2. Fill in or clearly mark the oval next to the word "YES" or "NO" to approve or disapprove of the proposed clean water fee. To ensure a permanent mark, a pen should be used.
3. Sign and date this official ballot. Only official ballots which are signed and marked with the property owner's support or opposition will be counted. After marking your vote, simply FOLD the ballot so that your vote is on the inside of the fold. Then place the ballot in the return envelope provided. No postage is necessary to mail back your ballot.
4. If you make a mistake in completing your ballot or wish to change or withdraw your ballot, please call 925-313-2360.

5. To be tabulated, ballots MUST be received by Friday, April 6, 2012 at 5:00 p.m.

You may return your ballot in the following ways:

- A) Mail your ballot to the address shown on the enclosed return envelope so that it is received on or before April 6, 2012 at 5:00 p.m.
- B) Hand-deliver your ballot to the Clerk of the Board of Contra Costa County Supervisors at 651 Pine Street, 1st Floor, Room 106, Martinez, California so that it is received on or before April 6, 2012 at 5:00 p.m.



1 8 1 *****AUTO**5-DIGIT 94530
EL CERRITO CITY OF
10890 SAN PABLO AVE
EL CERRITO CA 94530-2321

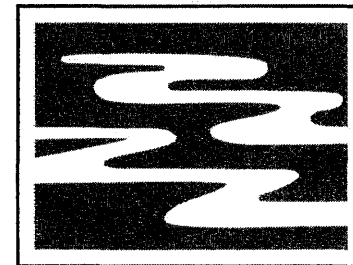
50045663



PARCEL
NUMBER
5031700015

PROPOSED ANNUAL
FEE
\$39.60

Official Ballot Guide



CONTRA COSTA
CLEAN WATER
P R O G R A M

2012 Community Clean Water Initiative

**Please Return Your Ballot
Before Friday, April 6th at 5:00 p.m.**

Why Did You Receive This Ballot Guide and Official Ballot?

This ballot guide provides information about improving water quality in Contra Costa County through a proposed new Clean Water fee that will:

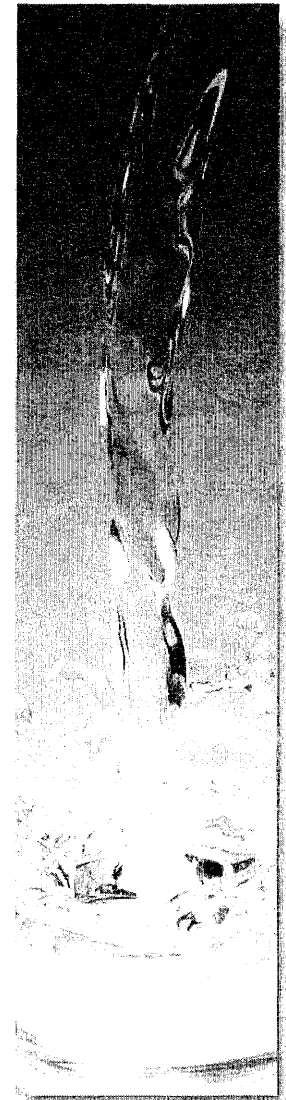
- Protect local sources of clean drinking water from contamination and pollution
- Remove harmful and dangerous pollutants, toxic chemicals, and potentially infectious bacteria and viruses from our local creeks, reservoirs, lakes, the Delta and Bay
- Capture, clean and use rainwater to irrigate local parks and landscaping. This "rainwater harvesting" will also decrease the impacts of polluted stormwater and urban runoff on our local creeks, lakes, the Delta and Bay
- Prevent illegal or toxic discharges from industrial and commercial properties
- Provide other clean water and pollution control services and facilities required by Federal and State clean water mandates
- Keep trash and pollution off our shorelines and out of our local creeks, reservoirs, lakes, the Delta and Bay

The official ballot included with this ballot guide allows property owners to decide on this proposed "2012 Community Clean Water Initiative." Please read the information in this ballot guide and call the Clean Water Program at 925-313-2360 if you have any additional questions. Then complete the official ballot to vote on this initiative.

Protecting Clean Water

Each year, tons of harmful and dangerous pollutants, bacteria and trash are carried through our communities and enter local creeks, reservoirs, lakes, the Delta and Bay. As water drains from streets, parking lots, and lawns, pollutants are picked up and enter the drainage system through thousands of catch basins throughout Contra Costa County. From there, this polluted water flows through a system of pipes, open channels and creeks into the Delta and Bay.

The Contra Costa Clean Water Program is composed of Contra Costa County, all of its nineteen cities and towns, and the Contra Costa County Flood Control & Water Conservation District. These twenty-one agencies are working cooperatively to prevent water pollution, but much more needs to be done to protect and improve local water quality. Also, new and expanded State and Federal clean water mandates require local communities to pay large fines if creeks, reservoirs, lakes, the Delta and Bay are not cleaned up. These are the reasons the Clean Water Program is proposing the 2012 Community Clean Water Initiative to improve local water quality and protect our communities from toxic and dangerous pollutants.



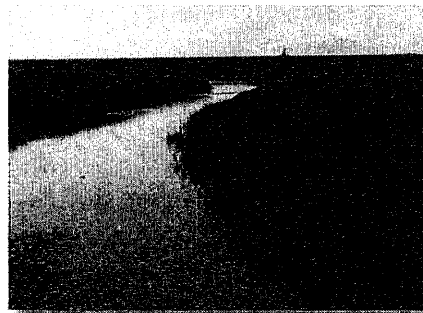
Local Clean Water Bodies in West County Communities

If this measure is approved, the following local creeks and water bodies will benefit from clean water services and projects:

- Baxter Creek
- Carquinez Shorelines
- Cerrito Creek
- Edwards Creek
- Garrity Creek
- Hilltop Lake
- Jewel Lake
- Maloney Reservoir
- North Reservoir
- Pinole Creek
- Point Pinole
- Refugio Creek
- Rheem Creek
- Rodeo Creek
- San Francisco Bay
- San Francisco Bay Shorelines and Wetlands
- San Pablo Bay
- San Pablo Bay Shorelines and Wetlands
- San Pablo Reservoir
- Summit Reservoir
- Wildcat Creek



Baxter Creek



Pinole Creek

Photo by Ted Thamiter



Pinole Shoreline

Photo by Ted Thamiter

Including Crockett, El Cerrito, El Sobrante, Hercules, Kensington, Pinole, Richmond, Rodeo, San Pablo



San Pablo Creek



Hilltop Lake

Strict Fiscal Safeguards

The proposed 2012 Community Clean Water Initiative includes strict fiscal safeguards to ensure the proceeds are used only for local clean water and pollution control services:

- All funds shall ONLY be used for local clean water and pollution control services in your community
- 100% of all funding received will be used in the community where it was generated (i.e. 100% Return-to- Source)
- An Independent Citizens Oversight Committee will ensure all funds are spent properly
- Conduct Mandatory Annual Audits
- The Clean Water fee will expire after 10 years

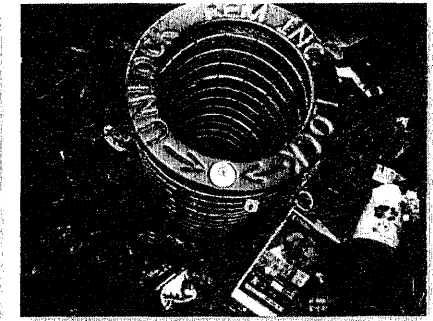
Information About Your Proposed Clean Water Fee

The proposed annual Clean Water fee for your property is printed on the official ballot included with this ballot guide. The total amount that would be raised County-wide by the proposed 2012 Community Clean Water Initiative for fiscal year 2012-13 is approximately \$8+ million. The proposed Clean Water fee is based on the cost of clean water and pollution control services and facilities needed to improve water quality and comply with federal and state mandates. The proposed Clean Water fee is calculated based on the average impervious surface (surfaces not permeable by water, such as driveways, pavement and buildings) for properties of different types and sizes. For example, properties with large impervious areas send more polluted water into the storm drain system than property types without impervious surfaces, such as open space.

The proposed annual Clean Water fee can only be increased by the consumer price index, or two percent, whichever is less. This will help ensure that Clean Water fee revenues keep pace with the cost of operating and maintaining our clean water and water pollution control services and facilities in future years. For more information, contact the Clean Water Program and/or review the Clean Water Fee Report available from the Program. Moreover, if approved, the Clean Water fee will be levied annually for a period not to exceed 10 years.



Trash in Creek



Device used to Capture Trash in Water Runoff

Balloting Process

You may return your ballot in the following ways:

- A) Mail your ballot to the address shown on the enclosed ballot return envelope so that it is **received on or before April 6, 2012 at 5:00 p.m.**
- B) Hand-deliver your ballot to the Clerk of the Board of the Contra Costa County Supervisors at 651 Pine Street, 1st Floor, Room 106, Martinez, California so that it is **received on or before April 6, 2012 at 5:00 p.m.**

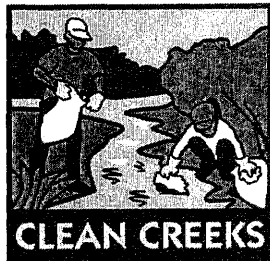
If you have questions about the Clean Water fee or the proposed clean water services, lose your official ballot, require a replacement official ballot, need a proportional official ballot so you can vote your share of your property separately from other owners, or want to change your vote, call the Clean Water Program at (925) 313-2360. The Clean Water fee shall not be imposed if, upon the conclusion of the tabulation, official ballots submitted in opposition to the fee exceed the official ballots submitted in favor of the fee. Failure of any person to receive a ballot(s) shall not invalidate the proceedings.

Please Return Your Ballot Before Friday, April 6th at 5:00 p.m.

To be tabulated, Clean Water ballots MUST be
received by Friday, April 6, 2012 at 5:00 p.m.

Additional Information

For additional information on the Contra Costa Clean Water
Program, its services, the proposed Clean Water fee, the
ballot proceeding or to obtain a copy of the Fee Report,
call: (925) 313-2360 or visit: www.cccleanwater.org



Para Ayuda En Español

Este infome contiene información sobre su propuesta
iniciativa de agua limpia. Es muy importante que entienda
el material. Busque la asistencia de alguien que puede
traducirlo para usted.



2012 Community Clean Water Initiative
City Parcel List

<u>Fee</u>	<u>Location</u>	<u>Discription</u>	<u>Assessor's Parcel Number</u>
<u>Housing</u>			
\$4.62	10860 SPA	Tradeway	5030100035
\$58.08	10848 SPA	Tradeway	5030100142
<u>Facilities</u>			
\$189.20	10900 SPA	Public Safety Bldg	5024110073
\$132.44	10890 SPA	City Hall	5030100134
\$113.52	6927 Portola Dr	Casa Cerrito	5031420143
\$50.82	7150 Schmidt Lane	Corp Yard	5031600298
\$326.48	7007 Moeser Lane	Community Center	5032030214
\$46.64	Moeser Lane	@ Ashbury (day sch)	5032800095
\$189.20	951 Pomona Ave	CC Civic Theater	5032800103
\$75.68	6500-6510 Stockton	Library	5033830026
\$73.26	7431-7501 Schmidt	Recycling Ctr	5050900157
\$75.68	1520 Arlington Blvd	Station 72	5051710084
<u>Rights of Way</u>			
\$0.66	SPA @ Carlson	Plaza Entrance (n)	5041600080
\$3.52	SPA @ Carlson	Plaza Entrance (s)	5041600098
<u>Parks</u>			
\$91.52	Tassajara	Tassajara Park	5002200060
\$35.20	5611 Poinsett	Poinsett Park	5003700175
\$52.80	Baxter	Gateway	5012410170
\$285.12	6757 Gatto Ave	Canyon Trail Park	5013600084
\$77.44	Gatto Ave	Upper Canyon Trail/school	5014220163
\$51.48	Moeser Lane	Cerrito Vista Field	5032800087
\$3.60	Eureka @ Liberty	Turtle Park (s)	5033830117
\$7.04	1085 Contra Costa	Creek/Path	5052030300
\$98.56	Terrace	Huber Park	5052300307
\$70.40	1110 Arlington Blvd	Arlington Park (s)	5054100077
\$112.64	1120 Arlington Blvd	Arlington Park (n)	5054100101
\$21.12	3448 Belmont	Creekside Park	5100120194
\$7.04	Santa Clara	Creekside Park	5100130219
<u>Hillside Natural Area</u>			
\$39.60		HNA (Earl to King)	5031700015
\$39.60	Snowden	HNA (former tank site)	5050400059
\$84.48	Navellier	HNA	5050800043
<u>TOTAL Amount</u>			
\$2,489.44			