

**CITY OF ALBANY
CITY COUNCIL AGENDA
STAFF REPORT**

Agenda date: April 4, 2011

Reviewed by: BP

SUBJECT: Smart Corridor I-80 Integrated Corridor Mobility (ICM) Project.

REPORTED BY: Aleida Andrino Chavez, Albany Transportation Planner
Ann Chaney, Community Development Director

STAFF RECOMMENDATION

That the Council receive a presentation and update about the I-80 ICM Project from John Hemiup, Project Manager – Alameda County Transportation Commission) and Cristina Ferraz, Project Manager - Caltrans.

BACKGROUND

Since the implementation of the Smart Corridors project along San Pablo Avenue in 2006, the Alameda County Transportation Commission (Alameda CTC) has been working in partnership with regional and local agencies and other stakeholder groups to develop a Corridor System Management Plan (CSMP) for the I-80 Corridor with the purpose of managing congestion and streamline operations of the freeway and major arterials along the corridor. The CSMP was finalized and approved in November 2010. The I-80 ICM Project entails implementing integrated corridor mobility strategies to provide a balanced, responsive and equitable network to improve safety, mobility and trip reliability. The project covers the freeway and major arterials, including San Pablo Avenue, from the Carquinez Bridge in Contra Costa County to the San Francisco Bay Bridge in Alameda County.

The objective of the I-80 ICM Project is to achieve a proactive system management approach that will maximize efficiency on the corridor and provide Caltrans and the local agencies the needed tools and strategies to improve traffic management. Some of the goals of the project are the following:

- Improve travel time reliability;
- Reduce secondary incidents on the freeway;
- Improve management of traffic on arterials during incidents;
- Encourage the use of alternate modes of travel (e.g., transit);
- Improve transit access and priority along San Pablo Avenue.

DISCUSSION

The I-80 ICM Project will make use of a state of the practice solution to build an integrated system that will monitor and maintain optimum traffic flow along the network to improve the safety and mobility for all users. This strategy includes the following five components:

- 1. I-80 Incident Management.** Use of signs to provide graphic or text messages to warn motorists of downstream incidents and lane closures. Motorists would then reduce speeds in advance of incidents and construction/maintenance lane closures. Signs include Variable Advisory Speed Signs (VASS), Lane Use Signs (LUS), Changeable Message Signs (CMS), and Information Display Boards (IDB).
- 2. I-80 Adaptive Ramp Metering.** Installation of ramp meters on 40 west and eastbound on-ramps. The term “adaptive” refers to the fact that that the “green rate” will increase or decrease based on traffic flows on the mainline and ramp queues.
- 3. I-80 Traffic and Transit Information.** Use of CMS and IDB signs to provide motorists information on traffic conditions, travel time as well as parking availability at transit centers.
- 4. Improvements to SR-123 and other arterials.** Upgrading of traffic signal hardware and software, enhancements of various transit management systems, and installation of closed-circuit television (CCTV) cameras, Information Message Sign (also known as Trailblazer Signs), CMS and communication and detection equipment.
- 5. Integration of I-80, SR-123 & other Arterials Systems.** Coordinated operations and sharing of corridor traffic and transit information among various agencies relative to I-80, San Pablo Avenue, and other key local arterials.

The Alameda CTC has divided the project in seven construction contracts, which will facilitate delivery of the project. The Alameda CTC is the implementing agency for the preparation of documents for all the contracts, except the Richmond Parkway Transit Center, and will be advertising, awarding, and administering four out of the seven construction contracts listed below. Alameda CTC is developing the project in collaboration with Caltrans, the West Contra Costa Transportation Advisory Committee (WCCTAC), the Contra Costa Transportation Authority (CCTA), the Metropolitan Transportation Commission (MTC), as well as local agencies and transit agencies in Alameda and Contra Costa Counties.

The following are the seven construction contracts for the project:

- Project # 1: Software and System Integration,
- Project # 2: Specialty Materials Procurement,
- Project # 3: Traffic Operations Systems (TOS),
- Project # 4: Adaptive Ramp Metering (ARM),
- Project # 5: Active Traffic Management (ATM),

Project # 6: San Pablo Corridor Arterial and Transit Improvement Project and
Project # 7: Richmond Parkway Transit Center (implemented by AC Transit).

The I-80 ICM Project will create an integrated, comprehensive and multi-modal management system that includes parallel arterials and the connecting roadways in Alameda and Contra Costa Counties between San Pablo Avenue and I-80. The project will create an integrated solution to freeway and arterial management, offering tools to provide rapid incident management and real-time traveler information to the public.

The freeway elements of the project include closed-circuit television (CCTV) cameras, Changeable Message Signs (CMS), Variable Advisory Speed Signs (VASS), Lane Use Signs (LUS), Information Display Board (IDB), vehicle detection stations, and corridor-wide adaptive ramp metering at 40 on ramps. The arterial elements include traffic signal controller upgrades, traffic signal interconnect, CCTV cameras, trailblazer signs, emergency vehicle preemption, and transit signal priority.

The project will integrate freeway and arterial elements into a single system to provide traveler information, enhanced incident management, and enhanced local traffic management. The project also includes integration with the Alameda County SMART Corridors Program, Caltrans Regional Transportation Management Center (TMC) and MTC's 511 system. The corridor management elements will improve traffic flow efficiency, enhance incident detection, encourage mode shifts to other public transportation services, improve the safety of the I-80 corridor, and provide the public with real-time traffic conditions.

Every element of the proposed project is considered a critical piece of the system, thus it is of utmost importance that both the freeway and arterial elements of the system be implemented in order to achieve the stated goals of the project.

Current Status:

The Draft Environmental Document for Projects # 1, 2, 4 and 5 will be released to the public in April 2011. Two public meetings will be held, one in Alameda County and one in Contra Costa County.

Development of contract documents for Projects # 1, 2, 4 and 5 are on-going – please refer to the attached I-80 Delivery Chart showing the schedule for the various projects.

At the January 2011 CTC meeting, the CTC allocated the construction funds for two of the seven construction contracts: the Traffic Operations System (TOS) at an estimated construction cost of about \$2.1 million and the San Pablo Corridor Arterial and Transit Improvement Project (San Pablo Project) at an estimated construction cost of about \$14 million. Both of these projects are expected to begin construction by Spring of 2011 and be completed by early 2012 and late 2012 respectively. The TOS Project will be constructed along I-80, within Caltrans right of way (ROW). The San Pablo Project construction work will be performed on SR 123/ San Pablo Avenue and various local arterials and on Caltrans ROW.

SUSTAINABILITY IMPACT

Less congestion on I-80 and the arterials along the Corridor would improve air quality in the neighboring jurisdictions.

FISCAL IMPACT

The estimated fiscal impact to the jurisdictions participating in this project is identified as the operations and maintenance (O&M) as the project capital component has been fully funded as detailed below. Caltrans is responsible for the operations and maintenance of devices installed in the State right of way, resulting in no cost to the City for the components scheduled to be installed within the City limits. The Capital component of the I-80 ICM is being funded by a combination of bond measures, state and federal grants. In January 2007, the Alameda CTC submitted an application to the California Transportation Commission (CTC) for full funding of the I-80 ICM project through the 2007 Bond Measure Act.

In March 2007, the CTC approved \$55.3 million in funding from the Corridor Mobility Improvement Account (CMIA) of the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act. This source of funding was approved by the voters of California as Proposition 1B in November 2006.

At its May 28, 2008 meeting, CTC approved \$21.4 million of Traffic Light Synchronization Program (TLSP) funds for the San Pablo Corridor Arterial and Transit Improvement Project in order to complement the overall I-80 ICM Project.

In addition to the TLSP funds, AC Transit will perform improvements complementing the TLSP Improvements as part of their Richmond Parkway Transit Center Project, adding up to \$4 million.

The Alameda CTC, the Contra Costa Transportation Authority (CCTA), Federal Congestion Management & Air Quality (CMAQ) and other sources of funds total \$12.155 million and will be used for the development of the project.

The total programmed funding for the project is \$92.855 million.

WHAT THIS MEANS FOR ALBANY

1. Signage

There are two types of permanent signs that will be placed in Albany (see attached sign plans and location map).

San Pablo “Trail Blazer” signs: The “Trail Blazer” signs are electronic signs that are proposed to be located on San Pablo Avenue, approximately 250 feet north of Buchanan Street, and 575 feet south of Marin Avenue. These signs will be 3 foot wide and 5 foot high

and will be located within Caltrans State Route 123 (San Pablo Avenue) right of way. These signs also have a 2.5 by 2.5 foot square detour sign and two 4 foot wide by 22" high solar panels, and a 2.5 foot high by 2 foot wide control cabinet on the opposite side of the pole behind the detour sign. They will be placed 8 feet above the sidewalk and the pole will be at least 4 feet back from the face of curb.

Integrated Corridor Mobility (ICM) Route signs (Buchanan Street): Two ICM signs are proposed for Buchanan Street between San Pablo Avenue and the freeway. These would be 2.5 by 2.5 foot square signs, one facing eastbound and one facing westbound traffic. They would be static signs requiring no operational costs. The two staffs are discussing whether these signs are necessary to the system's operation, and whether they can be eliminated.

Temporary Construction Signs: Also planned are two "temporary" construction signs to be installed on Buchanan Street, each measuring 7.5 foot wide by 5 foot high.

2. Park and Ride Lot under I-80 ramps

It was originally hoped that the capital costs for a Park & Ride Lot under the Buchanan Overcrossing would be part of this project. However, staff understands that AC Transit was unable to obtain the necessary operations and maintenance funding for the lot.

Attachments:

Exhibit A: I-80 Schedule Delivery Chart

Sign location map

Sign specification details