

October 10, 2011 Agenda Item 4.1

SUNOL SMART CARPOOL LANE JOINT POWERS AUTHORITY GOVERNING BOARD MINUTES OF September 12, 2011

Chair Supervisor Haggerty convened the Sunol Smart Carpool Lane JPA at 9:30 a.m.

1.0 PLEDGE OF ALLEGIANCE

Vice Mayor McHugh lead the Pledge of Allegiance.

2.0 ROLL CALL

A quorum was confirmed.

3.0 PUBLIC COMMENT There were no public comments.

4.0 CONSENT CALENDAR

- **4.1 Minutes of July 11, 2011*** The Board unanimously approved the Minutes of July 11, 2011; the motion was moved by McHugh and seconded by Harrison.
- 5.0 ADMINISTRATIVE MATTERS No Items This Month

6.0 HOV/ EXPRESS LANE PROJECT STATUS UPDATE

- 6.1 I-680 SB Express Lane Electronic Toll System (ETS) Contract Update*– The Board reviewed the status update for the I-680 Express Lane project Electronic Toll System. The Alameda CTC is the sponsor of the HOT element of the I-680 Express Lane Project. The status report covered all activities through August 31, 2011. Vice Mayor McHugh reminded Staff of his previous request for clarification regarding the basis for CCO reduction; Furger / Akkawi detailed \$800,000 + CCO request and how Alameda CTC reduced the CCO amount to \$196,000 and agreement was reached with ETC. Reduction included overtime, expedited delivery and operations / maintenance issues. A detailed explanation was copied and distributed to the JPA Board members at the meeting. This was an informational item only.
- 6.2 I-680 SB HOV Widening Status Update*– Landin-Lowe reviewed with the Board the status update for the I-680 Express Lane Project Civil Elements. The status report covered all activities through August 31, 2011. Council Member Harrison asked if Oct 31, 2011 completion date would be reached. The contractor is due to submit detailed schedule to Caltrans at the end of the week; the date will be close. Mayor McHugh asked about the large claim associated with the project; Landin-Lowe responded that an agreement has been reached and TCRP funds will be used to closeout the issue. This was an informational item only.
- **6.3 I-680 NB HOV Widening Status Update*** The Alameda CTC has initiated a project to construct a Northbound Express Lane on I-680 between SR 237 & SR 84. The Board reviewed the status report which covered activities through August 31, 2011. In July 2011 Alameda CTC entered into a contract with the design consultant to perform preliminary engineering and environmental revalidation for including the HOT lane facility in the

previously approved NB HOV lane. However, in response to a petition filed by the City of Pleasanton in August 2011, the Alameda County Superior Court ruled in favor of the City to vacate the Caltrans Environmental document for the project. Alameda CTC staff is working with CT and the design consultant to identify a new approach to complete the environmental documentation. Accordingly, a new project delivery plan will be provided to the JPA next month after consensus is reached with those involved. Sup. Haggerty stated that he had raised concerns to the committee about this petition and that it was believed at the time that it would have no significant impact on the project. The project has now been significantly delayed; Dao believes there is an opportunity to utilize the Alameda CTC design consultant to provide all necessary technical studies to satisfy the city of Pleasanton and the court. Sup. Haggerty has suggested a comprehensive discussion regarding the project with committee members at a future meeting. Dao suggested that if so directed by the committee, Alameda CTC staff will bring back the project delivery plan and all options to the committee in October 2011 and discuss further at that time. Mayor Hosterman stated that Dao's suggestion was a good one and will look forward for the project delivery plan and options at the next committee meeting. Sup. Haggerty requested a private meeting with Dao and Mayor Green to walk through options, Dao obliged. This was an informational item only.

A.0 JOINT MEETING WITH I-580 POLICY ADVISORY COMMITTEE 9:45 A.M.

- Convened joint meeting with I-580 Express Lane Policy Advisory Committee (PAC) -A.1 Chair Sup. Haggerty convened the joint meeting.
- A.2 **PAC Roll Call** – A quorum was confirmed.
- A.3 I-680 Express Lane Status Update - The Board reviewed the power point summary of operations of the I-680 Express Lane through the end of August, 2011. Furger pointed out the facility is operating in line with / exceeding revenue projections for the corridor. As the Express lane has now been operational for a year, Mayor Green requested a comparison of last year's numbers to this year's numbers in the monthly revenue update. Sup. Haggerty agreed that a year over year comparison is beneficial, Furger agreed to provide that specific analysis going forward. Trips have continued to be consisted and stay up since the 4th of July Mayor Green asked about opportunities to further notify public of the weekend 2011. existence of the Express lane through possible partnership with the DMV (ie. license plate registration renewal). Furger will check into it but current marketing is through fast track at various stores. Mayor Green was interested in seeing charting of weekend traffic data. Furger can bring data back next month to answer his question. Sup. Haggerty would like to reevaluate exit locations of HOT lane and believes an extra exit at Mission Blvd. or Washington would be beneficial due to the location of the Fremont BART station and downtown Fremont; Council Member Harrison seconded the request. Furger suggested as the Express lane settles into a steady state, detailed traffic analysis can be provided to the committee. Dao suggested perhaps in the future Auto Mall could potentially be heavily used, perhaps changing ingress/egress to a combined designed. Furger suggested to committee that toll analysis will be provided on a rolling three month basis. Staff will provide analysis to the committee. This was an informational item only; a handout of the power point was provided at the meeting.
- MTC Regional Express Lane Network: Approval of Letter of Support *- The JPA Board A.4 approved the support of Metropolitan Transportation Commission's submission of an

application to the California Transportation Commission seeking authorization to implement the Bay Area Regional Express Lane Network. A draft of the letter of support was included in the agenda and detailed handout of the MTC presentation was provided at the meeting. Mayor Green made the motion for approval, McHugh seconded with unanimous approval.

Sup. Haggerty noted that his office has been receiving a lot of calls regarding Ramp Metering on I-580 / I-680, he has requested to shorten queuing time. Akkawi has CT Operations Specialist Allen Sharp to answer questions regarding adjustments to Ramp metering. Allen Sharp of CT operations and maintenance stated that on I-580 there were three locations that they identified as having excessive queuing times and they have been adjusted last week and studies are being done to confirm that adjustment has not negatively affected city streets. On I-680 the city of Pleasanton has requested that they wait to adjust lights for another couple of weeks if the excessive queuing persists. Queuing at SR 84 has been adjusted and this may affect queuing on I-680. CT is waiting for the traffic to normalize. Dao explained that new ramp metering takes time to normalize and adjust after changes have been made. CT and City of Pleasanton traffic engineer are working together to fix backup on city streets in Pleasanton due to newly deployed ramp metering. Supervisor Haggerty would like this issue to be put on the agenda next month. Dao noted that it will be put on the October 10, 2011 agenda.

A.5 Status of Enforcement Activities - Staff reviewed with the JPA Board a power point on enforcement activities for the Express Lane. Ultimately, having every vehicle registered with FasTrak is the most effective way to move forward on enforcement. JPA is continuing with automated enforcement plan. This was an informational item only; a handout of the power point was provided at the meeting.

A.6 Recess Joint Meeting

7.0 ADJOURNMENT / NEXT MEETING: October 10, 2011

Attested by:

Christine Ramos

Christina Ramos, JPA Board Secretary



1333 BROADWAY, SUITE 220, PHONE (510) 836-2560 . FAX (510) 836-2185

SUNOL SMART CARPOOL LANE JOINT POWERS AUTHORITY GOVERNING BOARD

September 12, 2011 Alameda County Transportation Commission Conference Room A & B, Third Floor 1333 Broadway, Suite 300, Oakland, CA

BOARD MEMBERS	JURISDICTION/AGENCY	SIGNATURE
Supervisor Scott Haggerty, CHAIR	County of Alameda	Segt the fergue
Mayor Jennifer Hosterman, VICE CHAIR	City of Pleasanton	GMORA
Mayor Mark Green	City of Union City	Mhly Mr
Mayor Marshall Kameña	City of Livermore	Mamera
Mayor Tim Sbranti	City of Dublin	
Vice Mayor Pete McHugh	VTA	db.
Councilmember Bill Harrison	City of Fremont	AH
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STAFF	AGENCY	SIGNATURE
Arthur L. Dao	ACTC, Executive Director	1 and
Frank Furger	JPA, Executive Director	JA 1
Stewart Ng	ACTC, Deputy Director Proj/Prog	The second secon
Ray Akkawi	ACTC, Mgr. of Project Delivery	his All
Patricia M. Reavey	ACTC, Director of Finance	
Christina Ramos	JPA, Secretary	Christin Remes
Claudia Leyva	ACTC, Admin. Assistant	allali Leena
LEGAL COUNSEL/OTHERS	AGENCY	SIGNATURE
Zack Wasserman	WRBD	\bigcirc
Pamela Schock Mintzer	WRBD	10-
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Emily Landin-Lowe	Caltrans	Ench Jan
Mark Zabaneh	Caltrans	Page 4

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October 10, 2011 Agenda Item 6.1

Memorandum

Date: October 3, 2011

To: Sunol Express Lane Joint Powers Authority

From: Emily Landin-Lowe, Regional Project Manager - Caltrans Ray Akkawi, Manager of Project Delivery

Subject: I-680 SB HOV Widening Status Update

Action

Attached for the Board's review and information is the status update for the I-680 SB HOV/Express Lane project – Caltrans administered Civil Elements. The CMA is the sponsor of the HOT element of the I-680 Express Lane. However, the construction phase of the civil elements of this project is administered by Caltrans. The status report covers all activities through September 30, 2011.

Background

The 14 mile I-680 Express Lane extends from Highway 84 in the City of Pleasanton to Highway 237 in the City of Milpitas. The project widened the existing facility to allow the conversion of the HOV lane to Express (HOT) Lane. When the express lane opened it allowed carpools to travel free of charge and charged a toll for single occupancy vehicles to use the excess capacity in the High Occupancy Toll (HOT) lane. The scope of the project consists of two elements; the Civil Element, widening to accommodate HOT; and the Electronic Toll System Element that includes the Dynamic Pricing.



I-680 EXPRESS LANE CONTRACT STATUS DIAGRAM



1333 Broadway, Suite 220, Phone (510) 836-2560 . Fax (510) 836-2185

I-680 HOV/EXPRESS LANE PROJECT Construction of Civil Elements Status Report For September 2011

PROJECT DESCRIPTION

The I-680 Express Lane project allows carpools to travel free of charge and charges a toll for single occupancy vehicles to use the excess capacity in the High Occupancy Toll (HOT) lane. This project widened I-680 to accommodate the existing High Occupancy Vehicle (HOV) lane and HOT lane; constructed improvements to provide a HOT lane along southbound I-680 from State Route (SR) 84 to Santa Clara County SR 237; and rehabilitated the existing pavement. The Civil Elements of the project was divided into five Contracts. Below is the update of each contract:

<u>CONTRACT 2</u> (Caltrans administered) - HOV/HOT Lane & Rehabilitation, from SR 238 to Stoneridge Drive.

CONTRACT STATUS

All contract work is complete. Remaining work is change order and extra work related to changes in the Express Lane access that were identified late in the contract. This requires additional paving that could not be scheduled this season. Contract is within budget. Expected completion is 6/30/12.

<u>CONTRACT 1</u> (Caltrans administered) - HOV/HOT Lane & Rehabilitation, from Grimmer Boulevard to SR 238.

CONTRACT STATUS

Construction was completed September 27, 2010. Closeout in process, most issues have been resolved.

<u>CONTRACT 3</u> (Caltrans administered) - HOV/HOT Lane & Rehabilitation, from SR 237 to Grimmer Boulevard

CONTRACT STATUS

Construction was completed October 15, 2010. Closeout in process but there is a large claim that required an audit. A claim settlement has been proposed based on the audit results.

<u>CONTRACT 5</u> (Caltrans administered) – Mitigation at Sabercat

CONTRACT STATUS

Construction was suspended for the winter. Work is now on-going. Majority of work will be completed this summer with planting in the fall.

<u>CONTRACT 6</u> (Caltrans design & administered) – Landscape

CONTRACT STATUS

Design on hold due to impacts from Freeway Performance Initiative Project conflicts. Project will be rescheduled to avoid rework.

OTHER ISSUES:

Ramp metering was activated in July 2011.

There is an additional contract under a cooperative agreement with the City of Dublin administering for required mitigation. Construction is complete and the monitoring period is beginning. Project is anticipated to remain within budget.

CTC approved the payback of \$10M in LONP/TCRP funds to ACTC. Amendment to the cooperative agreement between Alameda CTC and Caltrans has been executed.



Memorandum

October 10, 2011 Agenda Item 6.2

Date: October 3, 2011

To: Sunol Smart Carpool Lane JPA

From: Frank R. Furger, Executive Director

Subject: Express Lane Operations Summary

The following summarizes the operations of the I-680 Express Lane through the end of September 2011, totaling 54 weeks of operations.

	Sept 20, 2010 - Week 54	September 2010	Last Month (September 2011)	Week 54
Total Revenue	\$911,581.60	\$16,730.60	\$109,529.00	\$25,002.30
Average Daily Revenue	\$3,376.23	\$1,858.96	\$4,978.59	\$5,000.46
Highest Daily Revenue - February 8th	\$11,372.65			
Total Trips	388,605	11,793	39,629	9,757
Average Number of Trips Per Day	1,439	536	1,801	1,951
Highest Number of Trips Per Day - February 8th	2,324			
Average Toll	\$2.35	\$1.42	\$2.76	\$2.56
Min Toll	\$0.30	\$0.30	\$0.30	\$0.30
Max Toll	\$7.50	\$5.00	\$7.50	\$7.50
Average Peak Period Toll	\$2.96	\$1.55	\$3.20	\$3.21
Average Off-Peak Period Toll	\$0.47	\$0.30	\$0.46	\$0.45

- September 2010 represents 9 days of toll collection.
- September 2011 represents 22 days of toll collection.
- The ramp up for average daily trips and revenue continues to increase month over month.
- Trips last month averaged 1800 per day
- Revenue last month averaged \$5000 per day
- Gross Revenue was approximately \$657,606 for fiscal year 2010/11
- Gross Revenue is approximately \$253,974 to date for fiscal year 2011/12

Attachments (Figures 1-7):

- 1. Total Trips by Week
- 2. Total Revenue by Week
- 3. Cumulative Revenue by Week
- 4. Daily Averages per Month (Revenue & Trips)
- 5. Typical Daily Revenue by Hour
- 6. Typical Daily Trips by Hour
- 7. Typical Average Toll Rate per Hour







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Figure 2 – Total Revenue by Week



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Figure 3 – Cumulative Revenue by Week



Figure 4 – Daily Averages per Month (Revenue & Trips)





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Figure 6 – Typical Daily Trips by Hour

Alameda County EXPRESS LANES

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Figure 7 - Average Toll Rate by Hour

Alameda County

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Memorandum

DATE: October 3, 2011

TO: Sunol Express Lane Joint Powers Authority

FROM: Ray Akkawi, Manager of Project Delivery Kanda Raj, Project Controls Team

SUBJECT: I-680 Northbound Express Lane Project (ACTIA No. 8B) – Approval to Proceed with the Revised Project Delivery Plan

Recommendations

It is recommended that the Authority approve the following actions related to the I-680 Northbound Express Lane project:

- Approval of the *proposed* revised project delivery plan; and
- Authorization to negotiate and execute a cooperative agreement with Caltrans that will outline the necessary inter-agency funding and other agreements for completing feasibility study (Project Initiation Document PID phase) for the project.

Summary

The project will construct a northbound express lane on I-680 in Santa Clara and Alameda Counties from State Route 237 in Milpitas (PM M7.5) to State Route 84 in Sunol (PM R12.4) to 1) reduce traffic congestion and thereby enhance mobility along this corridor, 2) reduce travel time and improve travel reliability, and 3) reduce congestion related accidents, and thereby enhance safety.

This northbound express lane project will 1) complement the southbound express lane project that is currently in operation, 2) offset the operations and maintenance cost of the express lane facility that is currently borne solely by the southbound project, 2) help complete an express lane network within the corridor, and 4) provide revenue for other transit and congestion relief projects within the I-680 corridor.

In April 2011, the Authority authorized the staff to negotiate and execute a cooperative agreement with Caltrans for sharing roles and responsibilities and identifying funds for completing the environmental phase (PA&ED) of work. Subsequently, in July 2011 the Authority authorized a consultant services contract with WMH Corporation to complete an environmental document to include tolling facility on the already approved high occupancy

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vehicle (HOV) lane project. However, in August 2011, the Alameda Superior Court mandated that Caltrans vacate the 2005 Environmental Document, prepared for the HOV lane project in its entirety. The Judge agreed with the City of Pleasanton's assessment that the 2005 environmental document failed to study the downstream traffic impacts to local streets. Based on perceived traffic impacts to local streets, the City requested that EIR level studies and other alternatives are evaluated in the environmental document. As a follow up to the writ, Caltrans sought legal counseling and decided not to appeal the court ruling. Furthermore, the legal advised Caltrans to complete an EIR/EA and seek court's final approval.

Caltrans is the California Environmental Quality Act (CEQA) lead agency and has the delegation for the National Environmental Policy Act (NEPA). Therefore, and EIR/EA will follow Caltrans procedures. Historically, the average duration for completing a CEQA document in California is seven (7) years. Therefore, the Alameda CTC in cooperation with its partners has looked for opportunities to expedite the CEQA processes. The *proposed* revised "Project Delivery Plan" will deliver a final environmental document for the express lane project (a combined HOV-Toll Lane facility) within three (3) years from now. Major milestone dates included in this revised project delivery plan are as outlined below:

PSR/PDS (PID Phase)	September 2012
EIR/EA (PA&ED Phase)	September 2014
Final Design (PS&E Phase)	August 2015
Right-of-way Certification (R/W Phase)	August 2015
Begin Construction (Construction Phase)	January 2016
Accept Construction Contract	December 2017
Begin Toll Collection	February 2018

A detailed project delivery plan, including a schedule is included as Attachment A to this memorandum. Alameda CTC staff will work closely with its project partners and regulatory agencies to continually look for opportunities to further shorten the project delivery schedule.

To stay on schedule, the Alameda CTC and its partners will carefully manage the following three major risk items, associated with the above referenced PA&ED schedule:

- Complete the biological studies, biological assessment and biological opinion within two (2) years. The process requires proactive management in order to stay within the allotted timeframe for completion.
- 2) Obtain early concurrence on Traffic Operations Analysis Report (TOAR), prepared for the project. The technical study needs to be thorough and shall produce conclusive results.
- 3) Obtain the court's final approval on EIR/EA within three (3) months, as stipulated in the 36-month PA&ED schedule.

Since the 2005 Environmental Document is now vacated and an EIR/EA is required for the project, a combined PSR/PR approach will no longer work. Caltrans also indicated that the 2000 PSR prepared for the HOV lane project is old and cannot be used since additional alternatives will require evaluation in the revised project scope. Therefore, the Alameda CTC staff jointly worked with Caltrans to agree on preparing a feasibility study, concurrent to the environmental studies. This PID phase document (a PSR/PDS) will be completed in a year. A cooperative

agreement will be required to define roles and responsibilities and inter-agency funding agreements for this PID phase scope of services.

Alameda CTC staff has already begun to discuss the project with the City of Pleasanton and other local and regional agencies. The agency will embark on a robust public outreach program, tailored specifically for educating the public and local agencies about the project goals and benefits. The agency will also proactively reach out to the local jurisdictions within the project corridor, including the Cities of Pleasanton, Fremont and Milpitas to reach early consensus on planned project improvements.

A \$20 million in Measure B funds are programmed for the project. Funding for construction is yet to be determined. Based on available funding, the project design may have to focus on delivering an interim project. The most congested segment within the project corridor is located north of SR 262; as such an interim project could be delivered for improvements between SR 262 and SR 84. A TOAR prepared for the project will identify the limits of ultimate and interim facilities. Both ultimate and interim projects will require evaluation in the environmental analysis and ultimately, require the court's approval.

The recommended actions would represent the Authority's approval of the revised project delivery approach and plan. The recommended actions would also authorize the execution of a cooperative agreement with Caltrans for completing a feasibility study (PSR/PDS) for the project.

Fiscal Impact

Measure B funds will be expended to complete both the PID and PA&ED phases of work for this express lane project. Negotiations are underway with WHM Corporation for including the new and expanded scope of services. Upon completing budget negotiations, staff will seek Alameda CTC Board's approval to amend WHM consultant services contract. In addition, staff will include funds for Caltrans for its oversight role in completing a PID document. Additional cost is anticipated to be in the range of \$2.3 - 2.5 million.

Future phases of work, such as the final design and right-of-way acquisition will not authorized until a future date.

Attachment A – *Proposed* Project Delivery Plan

Date: September 20, 2011

To: Ray Akkawi, Alameda CTC

From: Tim Lee, WMH Corporation

Subject: I-680 Northbound HOV/Express Lane Project DRAFT PA&ED and Project Delivery Schedule

As requested, the following project specific schedule information has been prepared to assist Alameda CTC in preparing the modified Project Delivery Plan for the Project, based on recent court ruling.

- Exhibit A PA&ED Phase CPM Schedule (36 months)
- Exhibit B Overall Project Delivery Schedule

BACKGROUND

On August 30, 2011, the Court of Alameda County issued a final order that the 2005 Negative Declaration for the I-680 Northbound HOV Project be vacated in its entirety and that Caltrans not proceed with the HOV Project until an EIR (or some other form of CEQA compliance document) is reviewed and found to be in compliance with the court's order and CEQA. Once complied with, the court is expected to issue an order to discharge the case.

Meetings were held with Caltrans Project Development, Traffic, and Environmental Planning Branches on 9/6/11, 9/16/11 and 9/19/11 to discuss the modifications required to the original Design Team scope of services, to address the court's ruling.

ORIGINAL PA&ED APPROACH

The original project approach involved preparation of a Combined PSR/PR and IS/EA for the inclusion of a HOT lane component into the already approved northbound I-680 HOV lane project, between SR 237 and SR 84. The IS/EA assumed revalidation of the 2005 Negative Declaration and that the HOV component of the project was already approved and did not require a new environmental evaluation. The scope was therefore focused on technical reports that addressed the incremental improvements associated with converting the HOV lane to an express lane, additional minor widening for express lane ingress/egress and CHP enforcement, and installation of equipment to support operation of the express lane facility.

MODIFIED PA&ED APPROACH

To address the court's ruling on the 2005 IS/EA and increase defensibility against further litigation (such as air quality concerns), a more rigorous level of study is needed to thoroughly evaluate traffic operations and viable build alternatives, address new species



and new laws in the environmental technical studies, and enable broader public and environmental resource agency involvement.

Type of Environmental Document

Caltrans has indicated that an EIR/EA type document will need to be prepared. The document will be supported by expanded traffic and environmental technical studies.

Type of Project Approval Document

Caltrans has indicated that a new PSR(PDS) and Project Report will need to be prepared. As a result of the 2005 IS/EA litigation, neither a Combined PSR/PR nor Supplement PR is now feasible. According to Caltrans, the approved PSR's for the I-680 NB HOV Project and MTC Express Lane Backbone Project cannot be used as a PID document for this project.

Technical Studies

To support the EIR/EA, a full complement of technical studies will need to be prepared. To the extent feasible, data and technical information prepared by Caltrans for the 2005 Negative Declaration will be utilized. Due to the prior controversial nature of the project and that prior technical studies were published between 7 and 10 years ago, comprehensive updates and analysis are anticipated. Some of the studies will be updated, others will need to be redone. In general all reports will need at a minimum to be updated to meet current Caltrans format and content requirements. A summary of these studies is provided in the table below:

Technical Study	Expanded Scope
Preliminary Engineering	Study additional Build Alternatives
Traffic Operations Analysis	Expand study area to include new traffic data, traffic
Report	model, and traffic operations analysis for the Tri-Valley
	Triangle regional roadways (I-680, I-580, SR 84), at
	specific local arterial intersections, and at ramp termini.
Biological Studies (Natural	Utilize data collected for the ramp metering project, but
Environmental Study,	will need to conduct surveys for many species because
Biological Assessment, Wetland	they were NOT done previously and Caltrans has
Delineation,	changed its approach in recent years to require more
	thorough survey work. Conduct biological field surveys
	including protocol special-status species surveys. Include
	Alameda Creek. Consult with USFWS for Biological
	Opinion. Consultation with USACOE and CDFG is also
	anticipated. Assess off-site mitigation.
Storm Water Data Report	Incorporate new standards and procedures
Water Quality Report	Incorporate new standards and procedures
Community Impact Assessment	Address Environmental Justice (express lane)
Air Quality and Green House	There are new requirements for GHG analysis and
Gas Analysis	PM2.5 that will need to be conducted and with updated

Technical Studies to be Redone



Technical Study	Expanded Scope
	traffic analysis the air quality analysis will also need to
	be updated with the most recent traffic information.
Noise Impact Report and Noise	FHWA has issued new noise protocols. Noise data and
Abatement Decision Report	modeling conducted for the prior project will be useful,
(NADR)	but will need to be updated and supplemented to meet the
	current noise protocol requirements
Floodplain Evaluation/Location	Incorporate new standards and procedures. Expand report
Hydraulic Report	to include Alameda Creek
Climate Control	Does not appear to have been done in prior study.
	Incorporate new standards and procedures
Life Cycle Cost Analysis	Does not appear to have been done in prior study
Drainage Impact Report	Does not appear to have been done in prior study. Study
	hydromodification requirements.

Technical Study	Expanded Scope
Cultural Resource Studies (Archaeological	Perform extended Phase I testing. Validate
Survey Report, Historic Resource	and update prior study with current format
Evaluation Report, Historic Property	requirements and fill in any gaps in the
Survey Report)	project study area. Reestablish SHPO
	concurrence
Visual Impact Assessment	Expanded technical report to study
	additional signs/toll facilities. Additional
	simulations for the EIR.
Paleontological Evaluation Report	Validate and update prior study.
Initial Site Assessment (Hazardous	Research existing data and update prior
Materials)	study with current format requirements and
	fill in any gaps in the project study area.
Geology and Soils Report	Field verification of existing slope
	conditions. Validate and update prior study
	with current format requirements and fill in
	any gaps in the project study area.
R/W Data Report	Validate and update prior study with
	current format requirements and fill in any
	gaps in the project study area.

Technical Studies to be Updated

It should be noted that the design team has requested and is awaiting copies of prior studies. A more detailed assessment of the scope of technical studies can be made once that information is made available.



SCHEDULE

A detailed CPM schedule was developed to complete the PA&ED phase work. Durations shown are in working days. Summary schedule was also developed for the overall project delivery. The schedules are provided in the Exhibits.

(A) Complete PA&ED Phase in 36 months (Exhibit A)

Key Assumptions

The original scope of services did not consider the effect of the court ruling on the 2005 IS/EA, and assumed a duration of 21 months for completing the PA&ED phase work. The design team estimated the revised duration for completing an EIR/EA as 36 months.

Caltrans has indicated a PID document needs to be prepared and approved for this project. We assumed that the PID phase will be performed in parallel with the PA&ED phase.

Traffic study activities will be expanded and agency concurrence will be obtained, prior to proceeding to performing additional studies. This is especially important considering the court's decision on the 2005 Negative Declaration and the finding that the traffic study performed did not address downstream impacts on state highways and City of Pleasanton roadways. To address City concerns the traffic study limits will be expanded to include the Tri-Valley Triangle highways (I-680, I-580 and SR 84) and specific local arterial intersections and ramp termini. Existing traffic data will be collected for the extended study limits and the Alameda Travel Demand model will be calibrated to incorporate that data.

Some of the environmental technical reports rely on the traffic study being completed (or at least traffic operations data being available). These include air quality and noise studies.

Biology studies have been identified as the critical path for technical studies that typically are performed during non wet season. Therefore, biological field surveys cannot begin until mid-March 2012 and continue through late September 2012. Wetlands, flora, and animal species need to be surveyed at different times during that period. Upon completion of these filed surveys, a Draft Natural Environment Study (NES) report will be completed. A Biological Assessment (BA) will be prepared when the NES is complete and the BA is submitted to USFWS for them to issue a Biological Opinion (BO). According to Caltrans Environmental staff, the BO process is taking longer than the standard 135 day processing requirements, and can take up to 12 months to complete.

Several technical studies (not on the critical path) can begin earlier and will utilize data developed from prior studies to the extent possible.

Rights of entry to private property for data collection is a prerequisite for several studies to begin – Noise and biology studies for example.



Moving to an EIR/EA (rather than an IS/EA) document involves several procedural additions to the schedule: 1) A 30-day scoping period which starts with issuance of the Notice of Preparation: 2) A 45-day DED (Draft Environmental Document) review period (60-day review period is assumed in our schedule due to the controversial nature of the project. Only 30 days are needed for an IS/EA); and 3) the FED (Final Environmental Document) is more involved and includes revised chapters and reprinting the entire DED analysis rather than just text changes. In addition, because of the court order we need to anticipate that Caltrans will designate this as a "complex EA" and require HQ and Legal review of the DED and FED. This will add an additional round of review to both the DED and FED.

Risks and Challenges

Because of the controversial nature of the prior studies, a more rigorous approach will be required for this project to ensure a defensible environmental document is prepared to address prior concerns and potential new challenges.

Alameda CTC assistance will be needed to ensure critical activities are maintained on schedule. A Project Steering Committee (comprised of major stakeholder representatives) is recommended to ensure adequate oversight resources are available, review staff remain assigned to the project, duplication of efforts is avoided, and critical decisions are agreed upon in a timely manner.

Caltrans may require PID preparation and approval to occur prior to the PA&ED phase. This would further extend the PA&ED schedule.

A Cooperative Agreement for PA&ED has not been executed. This is a critical activity to ensure Caltrans staff oversight and data requests are provided. The design team needs to be able to review prior studies to assess the level of work needed for this project and to begin critical path activities.

The traffic data collection program needs to begin in early October and be completed prior to the holiday season. It is essential to obtain encroachment permits in coming weeks to ensure the traffic study schedule is not negatively impacted.

Caltrans now updates special status species biannually. This could necessitate additional field surveys prior to environmental approval.

Biological Opinion by USFWS may be delayed, over the 12 months that we assumed in the schedule.

Congressional Resistance to Congestion Pricing: Approval of Tolling Agreement may be delayed.



Rehabilitation of the existing pavement: Caltrans needs to program the funds for this additional scope of services. An agreement with Caltrans for rehabilitation funding should be executed prior to preparation of the PS&E.

Separate Caltrans ramp metering project may result in throwaway costs and duplication of project development effort.

Potential for Legal challenges could delay environmental document approval.

Duration for court to cancel writ on 2005 Negative Declaration is unknown at this time. Our schedule assumed a 3-month period.

Outside widening is required on certain sections to accomplish the assumed minimum typical section (northbound and southbound). This may propagate into additional widening to accomplish a standard design.

Caltrans Headquarters geometrician may not approve some design exceptions and may request additional widening to correct design exceptions in the southbound direction that were granted to the southbound express lane project.

(B) Deliver Project by February 2018 (Exhibit B)

The original project delivery plan assumed the project would be completed, including "Toll Collection" by October 2016. This would be approximately 6 years after the southbound express lane facility was opened to the public. Political pressure is already mounting to complete the northbound express lane facility as soon as possible to make the combined southbound/northbound express lane facility financially viable, and to relieve the heavy congestion and safety concerns associated with the existing facility. To maintain the original project delivery plan, an accelerated schedule is clearly needed.

<u>Key Assumptions</u> Complete PA&ED in 36 months.

Begin Final Design (aka PS&E) and R/W Engineering concurrent with PA&ED phase work. This approach was also included in the original project delivery plan. Early PS&E activities (topographic mapping, geotechnical site investigations, hazardous material surveys, etc.) are assumed to begin in April 2012. Performing PS&E during PA&ED allows design issues to be identified earlier and addressed in the PA&ED phase. Right of way acquisition cannot begin until environmental clearance is obtained. Based on prior studies, 25 temporary construction easements are anticipated including one fee take. It is assumed that 12 months would be required to acquire these properties.

The HQOE and RTL process would occur in parallel with R/W acquisition with R/W certification prior to the RTL date.



We assumed 2 construction seasons are required to construct the project between SR 237 and SR 84, along northbound I-680.

Two months is assumed to initiate the tolling facility after construction is complete.

cc: William Hadaya, WMH Kanda "Raj", Alameda CTC



Exhibit A

PA&ED Phase CPM Schedule (36 months)





Agenda Item 6.3 **EXHIBIT A**

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2 Notice To Proceed		0 days	Wed 8/10/11
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4 TASK 1 - Project I	Management	470 days	Wed 8/10/11
5 PM Activities		470 days	Wed 8/10/11
6 Prepare Draft CPM	Schedule	5 days	Thu 8/11/11
7 Submit Draft CPM S 0 1 Indate Draft CPM S	chedule chedule (EID/EA)	0 days	Wed 8/17/11 Evi 0/16/11
a Submit FIR/FA CPN	icileaule (EIN/EA)	2 uays D dave	Mon 9/19/11
0 Agency Review Drat	t CPM Schedule	10 days	Tue 9/20/11
11 Execute Coop Agree	ment	0 days	Mon 10/17/11
2 Update Project Deliv	ery Plan	5 days	Wed 9/14/11
3 ACTC Finalize Proje	ct Delivery Plan	7 days	Wed 9/21/11
4 ACTC Board Meetin	D	0 days	Thu 10/13/11
5 CT Traffic Study Sco	pping Meeting	0 days	Fri 9/16/11
6 CT Environmental S	coping Meeting	0 days	Mon 9/19/11
7 City Scoping Meetin	g Idor Briofioco	0 days	Wed 10/5/11
a Initial Other Stakent a	laer brierings	SVD CZ	FII 10/14/11
0 TASK 2 - Traffic S	tudies	382 days?	Fri 9/2/11
Traffic Data Collect	ion	47 days	Fri 9/16/11
2 Prepare Draft Da	ta Collection Survey Memo	3 days	Fri 9/16/11
3 Submit Draft DC	S Memo	0 days	Tue 9/20/11
4 Agency Accept L	CS Memo	10 days	Wed 9/21/11
5 Conduct Traffic L	ata Survey	10 days	Tue 10/25/11
6 Complete Traffic	Data Survey	0 days	Mon 11/7/11
Process Iramic 1	Jata Doto	10 days	Tiue 11/8/11
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0 Traffic Model Deve	lopment	172 days	Fri 9/2/11
1 Prepare Modeling	J Methodology Memo	10 days	Wed 9/21/11
2 Submit TMM Me.	mo	0 days	Tue 10/4/11
4 Agency Accent T	MM Memo	10 days	Wed 10/19/11
- 10000 (0106)			
6 Obtain MPO Traf	fic Model	0 days	Fri 9/2/11
7 Update Traffic M	odel	25 days	Tue 11/15/11
B Develop Base/Fc	recast Traffic Model	10 days	Tue 12/20/11
Drenare Model C	d Model alibration Mamo	15 days	Tue 1/3/12
1 Submit Model Ce	libration Memo	0 days	Mon 2/6/12
2 Agency Review N	Aodel Calibration Memo	30 days	Tue 2/7/12
3 Update Model Ca	llibration Memo	10 days	Tue 3/20/12
4 Submit Model Ce	libration Memo	0 days	T 4/2/12
		20 Uays	1 ne 4/0/17
7 Traffic Operations	Analysis	230 days	Tue 4/3/12
Prepare Existing	Conditions Analysis (ECA)	20 days	Tue 4/3/12
Anency Review F	CA.	0 days 30 days	Tile 5/1/12
1 Update ECA		5 davs	Tue 6/12/12
2 Submit ECA		0 days	Mon 6/18/12
3 Prepare Build Tra	uffic Forecasts	20 davs	Tue 5/1/12
5 Submit Build Tray	fio Forecasts	0 davs	Mon 5/28/12
6 CT Accept Build	Traffic Forecasts	15 days	Tue 5/29/12
2			
8 Prepare Traffic F	orecast Analysis	30 days	Tue 5/29/12
9 Submit Traffic Fc	recast Analysis	0 days	Mon 7/9/12
Agency Review	rattic Forecast Analysis	30 days	Tue 7/10/12
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3 CT Accept Traffic	: Forecast Analysis	10 days	Tue 9/4/12
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EXHIBIT A

I-680 NORTHBOUND HOV/EXPRESS LANE PROJE PA/ED PHASE - BASE CPM SCHEDULE (EIR/EA)



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0	Purpose and Need	52 days	Tue 10/25/11
- 0	Establish Study Limits	10 days	11/GZ/01 901
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t u		20 days	Third 11/20/11
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	Prepare Notice of Preparation (NOP)	3 davs	Wed 10/12/11
6	Submit NOP	0 days	Fri 10/14/11
	Agency Review NOP	10 davs	Mon 10/17/11
-	CT Accept NOP	15 days	Mon 10/31/11
~	Circulate NOP	20 days	Mon 11/21/11
<u>س</u>	Prepare Coordination Plan	10 days	Mon 10/3/11
*	Submit Coordination Plan	0 days	Fri 10/14/11
ц	CT Accept Coordination Plan	10 days	Mon 10/17/11
6			
	Environmental Scoping	65 days	Mon 9/19/11
m	Environmental Team Kick-Off Meeting	0 days	Mon 9/19/11
	Data Collection and Review	15 days	Mon 9/19/11
<u> </u>	Prepare Scoping Memo	o days	MON 10/10/11
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	Identify Parcels for DTF	15 days	Tue 11/1/1
	Prenare Permit To Enter Letters	5 davs	Tue 11/22/11
	Mail PTE Letters	0 days	Mon 11/28/11
	Receive Responses to PTE Letters	40 days	Tue 11/29/11
-			
01	Natural Environment	280 days	Mon 3/19/12
~	Biological Field Studies	145 days	Mon 3/19/12
+	Wildlife Surveys/Habitat Mapping	90 days	Mon 6/4/12
10	Wet Season Surveys	30 days	Mon 3/19/12
	Floristic Surveys - 1	20 days	Mon 3/19/12
~	Floristic Surveys - 2	20 days	Wed 8/1/12
m			
6	Natural Environment Study	145 days	Mon 9/24/12
_	Prepare Draft NES	30 days	Mon 9/24/12
-	Submit Draft NES	0 days	Fri 11/2/12
01	CT Review Draft NES	30 days	Mon 11/5/12
~	Update Draft NES	15 days	Mon 12/17/12
+	Submit Draft NES	0 days	Fri 1/4/13
10	CT Review Draft NES	30 days	Mon 1/7/13
<i>.</i> 0	Prepare Final NES	10 days	Mon 2/18/13
~	Submit Final NES	0 days	Fri 3/1/13
<i>m</i>	CT Accept Final NES	30 days	Mon 3/4/13
<u>م</u>			
_	Biological Assessment/Opinion	291 days	Mon 1/7/13
-	Prepare Biological Assessment (BA)	10 days	Mon 1/7/13
		0 days	Mon 1/21/13
0 5	CI DEVIEW DA	5 days	61/12/1 110M
+ u	Opuale un Suitmuit Final RA	0 dave	Mon 3/11/13
	CT Accept BA	30 davs	Mon 3/11/13
~	Biological Opinion	250 days	Tue 3/5/13
6	Location Hydraulic Study	115 days	Mon 11/28/11
	Prepare Location Hydraulic Study	40 days	Mon 11/28/11
-	Submit Draft LHS	0 days	Fri 1/20/12
~	CT Review Draft LHS	30 days	Mon 1/23/12
~	Dranara Einal I HS	L	
-		15 days	Mon 3/5/12

Agenda Item 6.3



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I-680 NORTHBOUND HOV/EXPRESS LANE PROJECT PA/ED PHASE - BASE CPM SCHEDULE (EIR/EA)

Duration	Start
55 days	Mon 2/25/13
25 days	Mon 2/25/13
0 days	Fri 3/29/13
30 days	Mon 4/1/13
45 days	Mon 5/13/13
15 days	Mon 5/13/13
0 days	Fri 5/31/13
30 days	Mon 6/3/13
46 days	Fri 7/19/13
0 days	Fri 7/19/13
46 days	Mon 7/22/13
0 days	Fri 8/30/13
105 days	Tue 10/8/13
25 days	Tue 10/8/13
0 days	Mon 11/11/13
30 days	Tue 11/12/13
10 days	Tue 12/24/13
0 days	Mon 1/6/14
40 days	Tue 1/7/14
133 days	Tue 3/4/14
10 days	Tue 3/4/14
0 days	Mon 3/17/14
23 days	Tue 3/18/14
30 days	Fri 4/18/14
60 days	Fri 5/30/14
10 days	Fri 8/22/14
0 days	Thu 9/4/14
	55 days 55 days 25 days 0 days 25 days 0 days 30 days 30 days 30 days 30 days 45 days 0 days 15 days 0 days 30 days 30 days 30 days 30 days 15 days 0 days 105 days 0 days 105 days 0 days 10 days 0 days

Agenda Item 6.3 EXHIBIT A

THBOUND HOV/EXPRESS LANE PROJE	ASE - BASE CPM SCHEDULE (EIR/EA)
I-680 NORTHBOU	PA/ED PHASE - I

K TASK 5 - COMBINED PSR/PR 6 Geometric Design 7 Update Geometric Design 8 Prepare Draft Fact Sheets 9 Submit Draft Fact Sheets 11 Prepare Final Fact Sheets 12 Prepare Final Fact Sheets 13 Prepare Final Fact Sheets 14 Prepare Final Fact Sheets 15 Submit Draft Fact Sheets 16 Submit Final Fact Sheets 17 Submit Final Fact Sheets 18 CT Approve Fact Sheets 14 Prepare Data Report (SWDR) 16 Storm Water Data Report (SWDR) 17 Submit Draft SWDR 18 CT Approve SWDR 19 Utility Base Mapping 10 Utility Base Mapping 11 Utility Mapping outility Owner 12 Submit Utility Mapping outility Owner	780 days 780 days 130 days 40 days 20 days 20 days 30 days 30 days	Fri 9/16/11 Fri 9/16/11 Fri 9/16/11 Fri 9/16/11 Fri 1/11/11 Fri 1/20/12 Fri 1/19/12 Fri 1/19/12 Fri 1/19/12
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7 Update Geometric Design 8 Prepare Draft Fact Sheets 9 Submit Draft Fact Sheets 1 Prepare Final Fact Sheets 2 CT Review Draft Fact Sheets 2 Submit Draft Fact Sheets 3 CT Review Draft Fact Sheets 4 Submit Final Fact Sheets 5 Submit Final Fact Sheets 6 Storm Water Data Report (SWDR) 7 Submit Draft SWDR 8 CT Approve Fact Sheets 7 Submit Draft SWDR 8 CT Approve SWDR 9 CT Approve SWDR 1 Update Utility Base Mapping 1 Update Utility Mapping Outlith Owner	40 days 20 days 20 days 30 days 10 days 30 days 30 days 30 days 30 days 0 days 20 days 20 days	Fri 9/16/11 Fri 11/11/11 Fri 12/8/11 Fri 12/9/12 Fri 12/9/12 Fri 2/3/12 Fri 2/3/12 Mon 11/19/12 Mon 11/19/12
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Prepare Draft SWDR Submit Draft SWDR Submit Draft SWDR CT Review Draft SWDR CT Approve SWDR Uptility Coordination Update Utility Base Mapping Submit Utility Mapping to Utility Owner	30 days 0 days 30 days 0 days 40 days 20 days	Mon 11/19/12
Submit Draft SWDR CT Review Draft SWDR CT Review Draft SWDR CT Approve SWDR Utility Coordination Update Utility Base Mapping Submit Utility Mapping to Utility Owner	0 days 30 days 0 days 40 days 20 days	
CT Review Draft SWDR CT Approve SWDR Utility Coordination Update Utility Base Mapping Submit Utility Mapping to Utility Owner	30 days 0 days 40 days 20 days	Fri 12/28/12
CT Approve SWDR Utility Coordination Update Utility Base Mapping Submit Utility Mapping to Utility Owner	0 days 40 days 20 days	Mon 12/31/12
Utility Coordination Update Utility Base Mapping Submit Utility Mapping to Utility Owner	40 days 20 days	Wed 7/3/13
Utility Coordination Update Utility Base Mapping Submit Utility Mapping to Utility Owner	40 days 20 days	
Update Utility Base Mapping Submit Utility Mapping to Utility Owner	20 days	Fri 11/11/11
Submit Utility Mapping to Utility Owner		Fri 11/11/11
	0 days	Thu 12/8/11
Prepare Utility Relocation Concept	15 days	Fri 12/9/11
Prepare Utility Relocation Cost Estimate	5 days	Fri 12/30/11
R/W Engineering	428 days	Fri 11/11/11
Prepare R/W Requirements Mapping	20 days	Fri 11/11/11
Prepare R/W Cost Estimate	15 days	Fri 12/9/11
Prepare R/W Data Sheet	30 days	Mon 11/19/12
Submit R/W Data Sheet	0 days	Fri 12/28/12
CT Review R/W Data Sheet	30 days	Mon 12/31/12
CT Approve R/W Data Sheet	0 days	Wed 7/3/13
Advance Planning Study	418 days	Fri 11/11/11
Prepare Advance Planning Study	40 days	Fri 11/11/11
Prepare Preliminary Foundation Report	30 days	Mon 10/29/12
Prepare Bridge Location Hydraulic Studies	30 days	Fri 11/11/11
Prepare Corridor Aesthetics Report	15 days	Fri 12/2/11
Submit Advance Planning Study	0 days	Fri 12/28/12
CT Review Advance Planning Study	40 days	Mon 12/31/12
CT Approve Advance Planning Study	0 days	Tue 6/18/13
Cost Estimate	20 days	Mon 12/3/12
Update Preliminary Cost Estimate	20 days	Mon 12/3/12
Project Report (PR)	494 days	Mon 10/22/12
Draft Project Report (DPR)	192 days	Mon 10/22/12
Prepare DPR (3# submittals)	50 days	Mon 10/22/12
Submit DPR	0 days	Fri 12/28/12
Agency Review DPR	30 days	Mon 12/31/12
Agency Approve DPR	0 days	Tue 7/16/13
Final Project Report	233 days	Tue 10/22/13
Prepare Final PR (2# submittals)	15 days	Tue 10/22/13
Submit Final PR	0 days	Mon 11/11/13
Agency Review Final PR	30 days	Tue 11/12/13
Project Approval	5 days	Fri 9/5/14

Exhibit B

Overall Project Delivery Schedule

I-680 NORTHBOUND HOV/EXPRESS LANE PROJECT SUMMARY SCHEDULE

1. If required, PID would be prepared in parallel with PA&ED 2. Assume no southbound improvements

3. R/W acquisition includes fee takes

4. Assume condemnation process is not required

Early PS&E activities include preparation of topo mapping (A+B+C) and geotechnical field investigations
 Assume funding in place to construct project

Assume funding in place to construct project

10/4/2011

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October 10, 2011 Agenda Item 7.1

Memorandum

Date: September 30, 2011

To: Sunol Express Lane Joint Powers Authority

From: Ray Akkawi, Manager of Project Delivery

Subject: I-680 Southbound Ramp Metering Plan

At the September's JPA meeting Board requested Caltrans to provide ramp metering implementation report for the I-680 Southbound ramp-metering project. Metering of the southbound ramps was turned on on July 25, 2011. Caltrans staff has provided the attached Post Implementation Report for the JPA information and discussion. The report discusses the initial rates for each of the main on ramps between North of Stoneridge Drive off ramp in the City of Pleasanton, and South of Route 237 in the City of Milpitas. An "After Study" is planned six months after activation, and the results will then be compared with the "Before Study" (done in May 2011) to measure the effects of metering.

I-680 Southbound Ramp Metering Post-Implementation Report

September 29, 2011

Caltrans Office of Traffic Systems

Location Map: Study Corridor Limits (North)

Location Map: Study Corridor Limits (South)

INTRODUCTION

The California Department of Transportation (Caltrans) activated a new ramp metering system on southbound Interstate 680 in Alameda and Santa Clara Counties. The new ramp metering system is a collaborative effort between Caltrans, City of Pleasanton, City of Fremont, City of Milpitas, Alameda County Transportation Commission, Valley Transportation Authority (VTA) and the Metropolitan Transportation Commission (MTC) to facilitate faster and more reliable travel time along the corridors.

DEVELOPING IMPLEMENTATION PLAN

MTC and Caltrans, in partnership with local jurisdictions, developed a ramp metering plan for the southbound I-680 corridor in Alameda County and Santa Clara County, from the Stoneridge Drive interchange in Pleasanton, to SR 237/Calaveras Boulevard interchange in Milpitas, covering a total distance of approximately 22 miles.

Ramp metering for southbound I-680 has been implemented using a local responsive ramp metering system that adjusts ramp meter rates in response to the mainline detector occupancy (vehicle density) for traffic on the freeway within specific time periods during the morning commuter peak.

MONITORING, OBSERVATIONS, AND ADJUSTMENT

After implementation of the ramp meters on Monday, July 25, 2011, Caltrans, on daily basis, has monitored the metering operations and has made adjustments.

Before the Labor Day holiday, the ramp queues at all locations were mostly within the on-ramp and the delays were insignificant. After Labor Day the on-ramp queues increased and at some ramps they extended into the local streets. After the most recent study and after the September I-680 Joint Powers Authority (JPA) meeting, Caltrans adjusted the metering rates at the congested on-ramps to contain the queues within the on-ramps.

The table below shows before Labor Day and current metering rates at the heaviest (congested) on-ramps. Metering rates will continue to be adjusted according to freeway and on-ramp conditions (mainline freeway occupancies).

Route 680 SB – BEFORE LABOR DAY AND CURRENT METERING RATES AT CONGESTED ON-RAMPS

		Before Labor Day Metering Rates			Current Metering Rates		
Location	No. of Lanes	Time	Rates (vph)	Cycle Length (sec)	Time	Rates (vph)	Cycle Length (sec)
Bernal Ave.	1	6:00 - 6:45	310	11.6	6:00 - 6:45	310	11.6
		6:45 - 7:45	490	7.3	6:45 - 7:30	490	7.3
		7:45 - 8:15	520	6.9	7:30 - 8:45	650	5.5
					8:45 -		
		8:15 - 10:00	490	7.3	10:00	490	7.3
Sunol Blvd.	1	6:00 - 6:45	980	7.3	6:00 - 6:45	1000	6
(2 CARS		6:45 - 8:15	1000	6	6:45 - 8:15	1000	6
PER GREEN)					8:15 -		
		8:15 - 10:00	980	7.3	10:00	1000	6
Route 84	2	6:00 - 9:30	1500	4.8	6:00 - 6:30	1500	4.8
		9.30 - 10.00	1120	61	6:30 - 10:00	1360	52
Washington		6.00 7.30	1120	0.4 Q	6.00 7.30	650	5.5
Blvd.	1	7.20 0.20	430 500	61	7.20 0.20	650	5.5
		7.30 - 9.30		0.1	9:30 -	030	3.3
		9:30 - 10:00	490	7.3	10:00	650	5.5
Mission Blvd./Route	2	6:00 - 8:15	1800	4	6:00 - 8:15	1800	4
		8:15 - 8:45	820	8.8	8:15 - 8:45	820	8.8
262					8:45 -		
		8:45 - 10:00	660	10.9	10:00	820	8.8

CURRENT FREEWAY AND ON-RAMP CONDITIONS

On-ramp Queue Conditions

After the metering rate adjustments, Caltrans did further studies with the following results:

- **Bernal Avenue On-ramp:** Queues was within the ramp at all times and maximum delay was 2.5 minutes.
- **Sunol Blvd On-ramp:** This on-ramp meters at "2 Cars Per Green" and the maximum queue extended just before the 1st signalized intersection before the 680 on-ramps (Arlington Dr.).

The on-ramp observations report the queue was a rolling queue with a maximum delay of 4.5 minutes.

- **Route 84 On-ramp:** Maximum queue was about 70 cars (2 lanes with 35 each) and the maximum delay was 3.0 minutes (for a period of 5 minutes).
- All other On-ramps: The queues at all other on-ramps were none or only a few cars, and delays were less than a minute.

Freeway Mainline Conditions

After the Labor Day holiday, freeway traffic increased significantly. Due to the traffic demand variation, mainline conditions changed day by day. The freeway mainline traffic on heavy days during the peak hour is operating as follows.

- About 30 mph from upstream of the Bernal Road off-ramp to downstream of the Sunol Blvd. on-ramp.
- Near free-flow condition from the Sunol Blvd. on-ramp to upstream of Route 84 on-ramp merge area.
- · Freeway slow down from 10 to 30 mph, in the Route 84 on-ramp merge area
- Free flow from downstream of the Route 84 on-ramp merge area to upstream of the Mission off-ramp (Route 238)
- About 20-30 mph from Mission Blvd. off-ramp (Route 238) to the Durham Road off-ramp, due to Durham Road off-Ramp queues backing-up to the freeway mainline
- 30 to 50 mph (depending on the lane), upstream of the Mission Blvd. (Route 262) off-ramp , due to Mission off-ramp queues backing-up to the freeway mainline
- Free flow 65+ mph from downstream of the Mission Blvd. (Route 262) on-ramp to the Route 237 on-ramps (end of metering area).

NEXT STEPS

Caltrans will continue to monitor and observe the freeway and on-ramp queue conditions.

Caltrans, in partnership with the local agencies along the corridor, will study the southbound I-680 ramp metering system, and address any concerns the local jurisdictions may have on ramp metering operations. An "After Study" is planned to be conducted after six months of activation, and the results will then be compared with the "Before Study" (done in May 2011) to measure the effects of metering.