Meeting Notice

1111 Broadway, Suite 800, Oakland, CA 94607 • 510.208.7400 • www.AlamedaCTC.org

I-580 Express Lane Policy Committee

Monday, February 08, 2016, 10:00 a.m.
1111 Broadway, Suite 800
Oakland, CA 94607

Mission Statement

The mission of the Alameda County Transportation Commission (Alameda CTC) is to plan, fund, and deliver transportation programs and projects that expand access and improve mobility to foster a vibrant and livable Alameda County.

Public Comments

Public comments are limited to 3 minutes. Items not on the agenda are covered during the Public Comment section of the meeting, and items specific to an agenda item are covered during that agenda item discussion. If you wish to make a comment, fill out a speaker card, hand it to the clerk of the Commission, and wait until the chair calls your name. When you are summoned, come to the microphone and give your name and comment.

Recording of Public Meetings

The executive director or designee may designate one or more locations from which members of the public may broadcast, photograph, video record, or tape record open and public meetings without causing a distraction. If the Commission or any committee reasonably finds that noise, illumination, or obstruction of view related to these activities would persistently disrupt the proceedings, these activities must be discontinued or restricted as determined by the Commission or such committee (CA Government Code Sections 54953.5-54953.6).

Reminder

Please turn off your cell phones during the meeting. Please do not wear scented products so individuals with environmental sensitivities may attend the meeting.

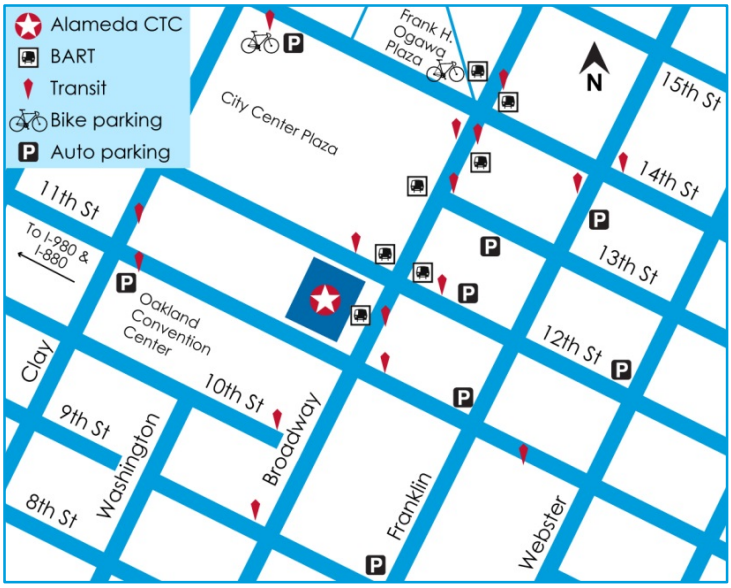
Glossary of Acronyms

A glossary that includes frequently used acronyms is available on the Alameda CTC website at www.AlamedaCTC.org/app_pages/view/8081.

Location Map

Alameda CTC
1111 Broadway, Suite 800
Oakland, CA 94607

Alameda CTC is accessible by multiple transportation modes. The office is conveniently located near the 12th Street/City Center BART station and many AC Transit bus lines. Bicycle parking is available on the street and in the BART station as well as in electronic lockers at 14th Street and Broadway near Frank Ogawa Plaza (requires purchase of key card from bikelink.org).



Garage parking is located beneath City Center, accessible via entrances on 14th Street between 1300 Clay Street and 505 14th Street buildings, or via 11th Street just past Clay Street.
To plan your trip to Alameda CTC visit www.511.org.

Accessibility

Public meetings at Alameda CTC are wheelchair accessible under the Americans with Disabilities Act. Guide and assistance dogs are welcome. Call 510-893-3347 (Voice) or 510-834-6754 (TTD) five days in advance to request a sign-language interpreter.




Meeting Schedule

The Alameda CTC meeting calendar lists all public meetings and is available at www.AlamedaCTC.org/events/upcoming/now.

Paperless Policy

On March 28, 2013, the Alameda CTC Commission approved the implementation of paperless meeting packet distribution. Hard copies are available by request only. Agendas and all accompanying staff reports are available electronically on the Alameda CTC website at www.AlamedaCTC.org/events/month/now.

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I-580 Express Lane Policy Committee Meeting Agenda
Monday, February 8, 2016, 10:00 a.m.*

*Or immediately following the I-680 Sunol SMART Carpool Lane Joint Powers Authority meeting

1111 Broadway, Suite 800, Oakland, CA 94607 • 510.208.7400 • www.AlamedaCTC.org

Chair: Mayor John Marchand, City of Livermore
Vice Chair: Supervisor Nate Miley, Alameda County District 4
Commissioners: Scott Haggerty, Rebecca Kaplan, Bill Harrison, Jerry Thorne, David Haubert
Staff Liaison: Kanda Raj
Executive Director: Arthur L. Dao
Clerk: Vanessa Lee

		Page	A/I
1.	**Roll Call**		
2.	**Public Comment**		
3.	**Consent Calendar**		
3.1.	Approval of the I-580 Express Lane PC January 11, 2016 Meeting Minutes	1	A
4.	**Regular Matters**		
4.1.	I-580 Express Lanes Operation and Maintenance Agreement with Caltrans: Approval of the Operations and Maintenance Agreement with Caltrans for the Support Services Necessary for Express Lane Implementation	3	A
4.2.	I-580 Corridor High Occupancy Vehicle/Express Lane Projects (PN 1373.000/1368.004/1373.001/1372.004/1372.005): Monthly Progress Report	37	I
5.	**Committee Member Reports (Verbal)**		
6.	**Staff Reports (Verbal)**		
7.	**Adjournment**		

Next Meeting: March 14, 2016

All items on the agenda are subject to action and/or change by the Commission.

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1. **Roll Call**
   A Roll Call was conducted. All committee members were present with the exception of Commissioner Miley and Commissioner Kaplan.

   Subsequent to the roll call:
   Commissioner Kaplan arrived prior to the vote on Item 3.1. Commissioner Miley arrived during Item 4.1.

2. **Public Comment**
   There was one public comment:

   Ken Bukowski

3. **Consent Calendar**
   3.1 Approval of the I-580 Express Lane PC November 9, 2015 Meeting Minutes
   Commissioner Harrison motioned to approve the consent calendar. Commissioner Thorne seconded the motion. The motion passed unanimously (Miley absent).

4. **Regular Matters**
   4.1. I-580 Corridor High Occupancy Vehicle/Express Lane Projects (PN 1373.000/1368.004/1373.001/1372.004/1372.005): Monthly Progress Report
   Stefan Garcia and Kanda Raj jointly presented the I-580 Corridor High Occupancy Vehicle (HOV) Express Lane Projects' monthly progress report. They informed the Commission that all projects are meeting budget constraints. The toll system installation is complete and punch list items have been coordinated and resolved with the civil construction contractor for power and communication sources required for system testing. The lanes are scheduled to open in early 2016, weather dependent.

   This item was for information only.

   4.2. I-580 Express Lanes Education and Outreach Update
   Heather Barber presented the I-580 Express Lanes Education and Outreach Update. She stated that a comprehensive, research-based education and outreach effort is underway to inform motorists about the benefits of the new lanes, how to use them, and how to obtain the required FasTrak and FasTrak Flex toll tags. Heather covered recent and upcoming outreach efforts and activities related to the opening of the express lane.

   Commissioner Haggerty asked for information regarding effectiveness and price comparisons between hand distributing door hangers and mailing them. Heather

stated that mailing materials was identified as the preferred method of targeted outreach and staff will research the cost differential between the options.

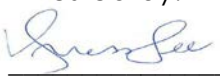
5. Committee Member Reports
There were no committee member reports.

6. Staff Reports
Art Dao introduced two newly hired employees: Senior Transportation Engineer Elizabeth Rutman and Express Lane Technician, Taylor Rutsch.

7. Adjournment/ Next Meeting
The next meeting is:

Date/Time: Monday, February 8, 2016 @ 10:00 a.m.
Location: Alameda CTC Offices, 1111 Broadway, Suite 800, Oakland, CA 94607

Attested by:



Vanessa Lee, Clerk of the Commission

DATE:	February 1, 2016
SUBJECT:	I-580 Express Lanes: Operation and Maintenance Agreement with Caltrans
RECOMMENDATION:	Approve and Authorize the Executive Director to enter into an Agreement with Caltrans for the operation and maintenance support services necessary for express lane implementation.

Summary

The I-580 Express Lanes Project located in the highly congested I-580 corridor, is scheduled to open in early 2016, and is designed to provide traffic congestion relief and travel reliability by employing emerging technologies, such as real-time congestion pricing and automated toll violation enforcement. The project will implement high occupancy vehicle (HOV)/express Lanes from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to San Ramon Road/Foothill Road in the westbound direction, as shown in Attachment A - Project Location Map.

Completion of various agreements, including an Operation and Maintenance Agreement (OMA) with the State of California-Department of Transportation (Caltrans) are necessary for the implementation of the express lanes. Pursuant to Sections 149.5 (d) & (e) of the Streets and Highway Code, Alameda CTC staff negotiated the express lanes' operational and maintenance roles and responsibilities with Caltrans and memorialized them in the draft OMA. Per the agreement, Caltrans will share the operation and maintenance responsibilities as reimbursable services for an annual budget of $125,000. Caltrans services will include:

- ✓ Agency coordination
- ✓ Operations monitoring, management and communication
- ✓ Incident management support
- ✓ Maintenance of express lane related roadway infrastructures

The Draft OMA, including a Traffic Incident Management Plan (TIMP) is available for additional details and is included as Attachment B to this report.

Staff recommends the Commission approve and authorize the Executive Director to enter into an OMA with Caltrans for reimbursable operations and maintenance services necessary to support express lane implementation. Detailed discussions are provided in subsequent sections.

Background

Over the last two decades, the I-580 corridor has consistently been rated as one of the most congested freeway segments within the San Francisco Bay Area region. As the next step in strategic transportation investments in this corridor, Alameda CTC is implementing express lanes in both the east- and west-bound directions. The express lanes will include the implementation of an electronic toll system (ETS) that will provide a new choice to single occupancy vehicle (SOV) users, enabling them to make use of the unused capacity in the HOV lane for a fee.

Tolls will be collected through AET collection method through the use of FasTrak®/FasTrak flex® Toll system which will include a violation enforcement system (VES) to implement automated toll evasion violation enforcement to curtail toll evasions.

Given that Caltrans is already set up for the freeway incident management services through the Traffic Management Center (TMC) operations, in coordination with California Highway Patrol (CHP), Freeway Services Patrol (FSP), and its field maintenance staff, Alameda CTC staff considers Caltrans as the ideal agency to provide the above referenced incident management and maintenance support services that are necessary for the implementation of express lanes. Pursuant to Sections 149.5 (d) & (e) of Streets and Highway Code, the Alameda CTC staff negotiated the operational and maintenance roles and responsibilities and memorialized them in the draft OMA, included as Attachment B. Attachment B also includes a draft TIMP.

As outlined in the draft OMA, Caltrans will share the following operations and maintenance responsibilities as reimbursable services:

- ✓ Agency coordination
- ✓ Operations monitoring, management and communication
- ✓ Incident management support
- ✓ Maintenance of express lane related roadway infrastructures

An annual budget of $125,000 ($25,000 for operation and $100,000 for maintenance support services) will be included in the Alameda CTC's Annual Operation Budget to support the Project's operation phase activities. These expenditures are anticipated to be paid for by future toll revenue.

Staff recommends that the Commission authorize the Executive Director to execute the OMA with Caltrans, substantially in the form attached hereto as Attachment B, required to support express lane implementation on I-580.

Fiscal Impact: Approval of this agreement will encumber future toll revenue funds, in the amount of $125,000 annually, for subsequent expenditure. Subject to Commission's approval of annual operation budget, the annual operation and maintenance cost of $125,000 will be paid for by future toll revenue.

Attachments

A. Project Location Map

B. Draft OMA

Staff Contact

Kanda Raj, Express Lanes Program Manager

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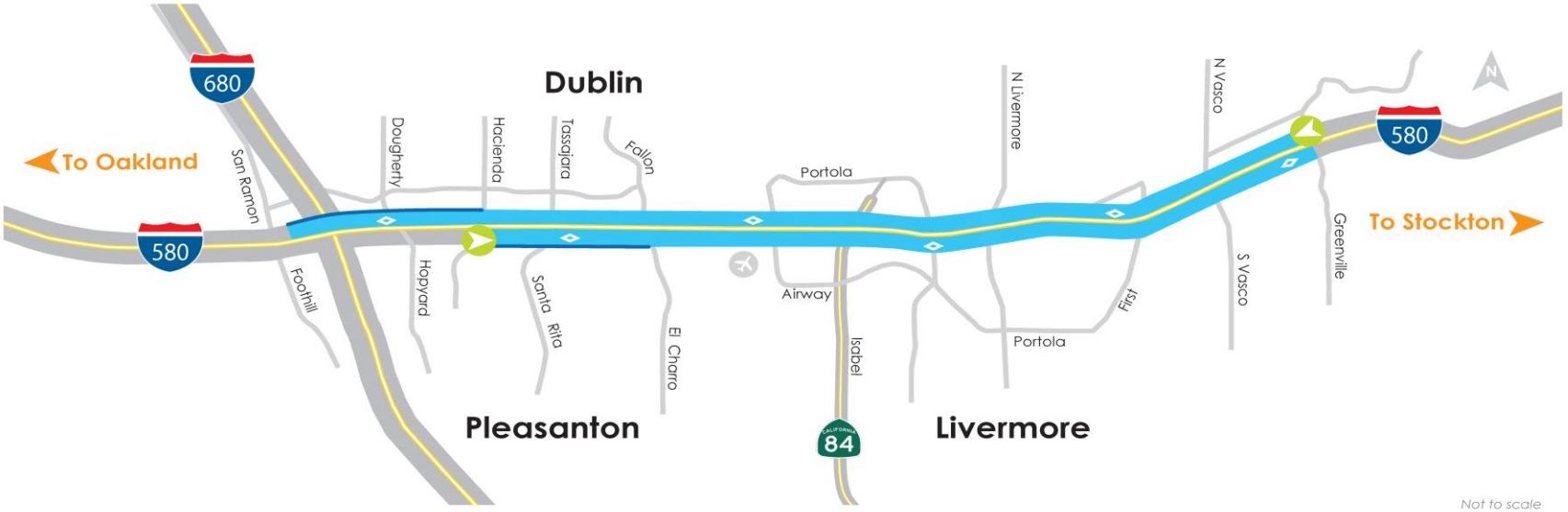
I-580 Express Lanes Project Location Map

4.1A



Two Eastbound Express Lanes

Lanes begin at Hacienda

No entry/exit from eastbound express lanes from Hacienda to Fallon / El Charro.

Please note: For access to Santa Rita Road, do not enter express lanes.

One Westbound Express Lane

Lane begins at Greenville

No entry/exit from westbound express lane from Hacienda to end.

Please note: For access to I-680 or Dougherty, exit express lane before Hacienda.

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Draft1-12-16

OPERATIONS AND MAINTENANCE AGREEMENT BETWEEN STATE AND ALAMEDA COUNTY TRANSPORTATION COMMISSION FOR THE ROUTE 580 EXPRESS LANES

THIS AGREEMENT, ENTERED INTO, AND EFFECTIVE ON the _____ day of _____, 20__, is between the STATE OF CALIFORNIA, acting by and through its Department of Transportation, referred to herein as "STATE," and the ALAMEDA COUNTY TRANSPORTATION COMMISSION, a California Joint Powers Agency, referred to herein as "ALAMEDA CTC."

RECITALS

1. STATE and ALAMEDA CTC, pursuant to California Streets and Highways Code sections 114, 130, and 149.5, are authorized to enter into this Operations and Maintenance Agreement.

2. STATE and ALAMEDA CTC and its predecessor, Alameda County Congestion Management Agency (ACCMA), have entered into cooperative agreements stated below for the conversion of high occupancy vehicle ("HOV") lanes to high occupancy toll ("HOT") lanes on westbound Route 580 between west of Route 680/580 interchange and east of Greenville Road and on eastbound Route 580 between Hacienda Drive and east of Greenville Road for Route 580 Express Lanes Project hereafter referred to as "EXPRESSLANES."

3. STATE Cooperative Agreement numbers 04-2243 and 04-2395 were executed by the parties herein to address coordination and Project Approval & Environmental Document, Plans, Specifications & Estimate (PS&E) and Right of Way phases for EXPRESSLANES.

4. Streets and Highways code Section 149.5 authorizes the Sunol Smart Carpool Lane Joint Powers Authority (SSCLJPA), consisting of the Alameda County Transportation Commission and the Santa Clara Valley Transportation Authority, to conduct, administer, and operate a value-pricing and transit development program involving high-occupancy toll (HOT) lanes in Alameda and Santa Clara counties where SSCLJPA can direct and authorize the entry and use of the State Highway Route high-occupancy vehicle lanes by single-occupant vehicles and those vehicles that do not meet minimum occupancy requirements, for a fee (EXPRESSLANES PROGRAM).

5. Under EXPRESSLANES PROGRAM, existing HOV lanes were converted and operated as HOT lanes.

6. EXPRESSLANES will utilize FasTrak®.

7. EXPRESSLANES will utilize dynamic VALUE PRICING and a TOLL COLLECTION SYSTEM that will consist of an Automatic Vehicle Identification system, Variable Toll Message Sign system (VTMS), and computer systems that process and post transactions to FasTrak® customer accounts.

8. The Department of California Highway Patrol ("CHP") provides enforcement of the existing and planned HOV lanes and will continue to enforce Sections 21655.5 through 21655.9 of the Vehicle Code. CHP and ALAMEDA CTC will enter into a separate agreement for EXPRESSLANES. To augment CHP enforcement, ALAMEDA CTC is currently evaluating alternative enforcement technologies including a Violation Enforcement System ("VES") to pursue violators in accordance with Sections 4770, *et seq.,* and 40250, *et seq.,* of the Vehicle Code.

9 Under this Agreement, ALAMEDA CTC and STATE intend to define the terms and conditions under which EXPRESSLANES and ROADWAY are to be operated, maintained, and implemented by ALAMEDA CTC, and the terms and conditions under which the EXPRESSLANES and ROADWAY are to be operated and maintained by STATE. This Agreement shall also provide for reimbursement to STATE by ALAMEDA CTC for the operation and maintenance expense of EXPRESSLANES and ROADWAY

DEFINITIONS

Unless the context otherwise specifies or requires an alternate meaning, for the purposes of this Operations and Maintenance Agreement, the following terms shall have the meaning as set forth in this Section:

ALAMEDA CTC Facilities- Items listed in EXHIBIT A in which the maintenance agency is ALAMEDA CTC.

EXHIBIT A is the list of all elements, devices, equipment, systems, etc., comprising the EXPRESSLANES and ROADWAY infrastructure that ALAMEDA CTC is responsible for maintenance cost. STATE and ALAMEDA CTC will agree upon and execute a new dated and revised EXHIBIT A which will be made a part hereof and will thereafter supersede the attached original EXHIBIT A to thereafter become a part of this Agreement. The new EXHIBIT A can be executed only upon written consent of the STATE and ALAMEDA CTC hereto acting by and through their authorized representatives.

EXPRESSLANES -See Recital 2 hereinabove.

EXPRESSLANES MAINTENANCE shall mean maintenance of ROADWAY and EXPRESSLANES and infrastructure described in EXHIBIT A.

FasTrak® is the physical tool to facilitate the operation of value pricing, which authorizes the entry and use of EXPRESSLANES by single-occupant vehicles or vehicles that do not meet the minimum HOV occupancy requirements in exchange for payment of a toll.

ROADWAY includes EXPRESSLANES pavement, structures and appurtenant facilities, including, but not limited to, signage, concrete and metal guardrails, lighting, fiber optic network infrastructure, loop detectors, wireless sensors, CHP observations areas including raised vehicle

pads, and new and existing treatments applied to the top of the roadway, such as, surface overlay, delineators, lane striping, and markings.

TOLL COLLECTION SYSTEM shall mean the system or systems specifically installed to collect tolls, monitor the flow of traffic and/or communicate with motorists located on EXPRESSLANES, such as, loop detectors added specifically for the TOLL COLLECTION SYSTEM, cameras, toll-related sign panels/structures, DMS, gantries, readers, but excludes the fixed non-toll related signage, such as, traffic signs, delineators, and road markings.

TRAFFIC INCIDENT MANAGEMENT PLAN (TIMP) shall mean the then current plan prepared by ALAMEDA CTC, approved by the ALAMEDA CTC Executive Director, the STATE District Deputy Director of Operations, and the CHP Assistant Chief, to define the coordinated, preplanned use of technology, processes, and procedures to reduce the duration and impact of incidents, and to improve the safety of motorists, crash victims, and incident responders on the EXPRESSLANES. Any changes to the document can be done by authorized representatives of both parties mutually executing an amendment to it or replacing the entire plan formally. No amendment to this Agreement will be required.

VALUE PRICING refers to variable road tolls (higher prices under congested conditions and lower prices at less congested times and locations) intended to reduce peak-period traffic volumes to optimal levels. Tolls can vary based on a fixed schedule, or they can be dynamic, meaning that rates change depending on the level of congestion that exists at a particular time.

SECTION I

ALAMEDA CTC AGREES:

1. To implement the dynamic VALUE PRICING and a TOLL COLLECTION SYSTEM that includes the implementation of FasTrak®.
2. To administer a VALUE PRICING program for EXPRESSLANES at no cost to the STATE, including the operations and maintenance of any devices installed for the purpose of the TOLL COLLECTION SYSTEM.
3. To establish VALUE PRICING program business rules and account policies, including setting the amount of FasTrak® fees.
4. To collect fees from FasTrak® customers in accordance with the business rules and account policies
5. To operate, maintain, any devices installed for ALAMEDA CTC, or its authorized agent(s), exclusively needed for the TOLL COLLECTION SYSTEM.
6. To be fully responsible for the security of all ALAMEDA CTC data collected for the purpose of operating ALAMEDA CTC facilities. To fully defend, indemnify and save harmless STATE and all its officers and employees from all claims or suits arising due to a data or security breach.

7. To be responsible for maintenance and operation of EXPRESSLANES and ROADWAY at ALAMEDA CTC's costs, which it designates STATE to perform as provided hereinbelow.

8. To designate STATE to provide EXPRESSLANES MAINTENANCE as specified in Exhibit A and operational activities as outlined in the TIMP including TIMP monthly coordination meetings. ALAMEDA CTC shall reimburse STATE for all actual costs related to EXPRESSLANES MAINTENANCE.

9. To be solely responsible, including all costs related thereto operation, maintenance, protection, repair of ALAMEDA CTC Facilities, and any STATE required future relocation of ALAMEDA CTC Facilities and highway maintenance and rehabilitation within the limits of and related to the Route 580 EXPRESSLANES.

    a. Said work at all times shall be conducted to assure safety and convenience of STATE Highway users.

    b. Said work and ALAMEDA CTC Facilities shall be subject to random inspection by STATE as to safety conditions affecting STATE's highway facilities, and ALAMEDA CTC shall, upon notice from STATE that an unsafe condition exists, take immediate steps to correct such unsafe conditions.

    c. If ALAMEDA CTC fails to perform repairs to such unsafe condition after thirty (30) or specified number of days of such notice from STATE, STATE may take necessary corrective action, and ALAMEDA CTC shall be billed and shall pay all costs for such corrective work performed by STATE.

    d. Such inspection by STATE, if performed at all, does not relieve ALAMEDA CTC of its responsibilities under this Agreement.

10. To deposit with STATE within forty-five (45) days of receipt of invoices for the expenses incurred in conformance with Section II.2 herein.

11. To enter into a separate agreement with the CHP regarding reimbursement for officer hours spent enforcing EXPRESSLANES by CHP as requested by ALAMEDA CTC for the purpose of prohibiting unauthorized use of the high occupancy toll lanes, at no cost to STATE.

12. To enter into a separate agreement with the CHP regarding reimbursement for officer hours spent providing Maintenance Zone Enhanced Enforcement Program (MAZEEP) for EXPRESSLANES MAINTENANCE, at no cost to STATE.

13. To contract directly with Pacific Gas and Electric Company (PG&E) for electrical power of field elements specifically related to the ALAMEDA CTC facilities including, but not limited to service connections, engineering fees, service, and energy costs, at ALAMEDA CTC's sole expense.

14. To apply for the necessary encroachment permit(s) for required work within the STATE highway rights-of-way through its authorized agent(s), and for operation and maintenance of EXPRESSLANES, TOLL COLLECTION SYSTEM or VES work within STATE highway rights-of-way, in accordance with STATE's standard permit procedures, as more specifically defined in Section II.3 of this Agreement. An

Encroachment Permit or Encroachment Permit modification (rider) would be required for any changes to the scope of work allowed by this Agreement prior to the start of any work within STATE's right of way.

15. To remove all of, or designated portions of, ALAMEDA CTC improvements within highway right-of-way at STATE's sole option, should operations of the EXPRESSLANES be terminated by ALAMEDA CTC, and to restore STATE's facility to a standard acceptable to STATE at ALAMEDA CTC's sole expense within six (6) months of such termination.

16. The designated ALAMEDA CTC Point of Contact:

Executive Director, ALAMEDA CTC
1111 Broadway, Suite 800
Oakland, CA 94607

SECTION II

STATE AGREES:

1. To provide EXPRESSLANES MAINTENANCE for ALAMEDA CTC at ALAMEDA CTC's sole expense, as shown in EXHIBIT A.

2. To submit to ALAMEDA CTC, a signed itemized invoice in arrears with specific details of all costs incurred by STATE for providing EXPRESSLANES MAINTENANCE and operational services in accordance with Section III.6 herein. Each invoice shall be submitted to ALAMEDA CTC for approval and payment mailed to the following address:

   Expresslanes Project Manager
   1111 Broadway, Suite 800
   Oakland, CA 94607.

   If Electronic Fund Transfer (EFT) is available, STATE shall submit by electronic facsimile, a summary listing of EXPRESSLANES MAINTENANCE expenditures for reimbursement to STATE by means of EFT and within ten (10) days after submittal of that EFT, to submit an invoice with specific details and supporting information of all costs incurred during the period of the invoice. If invoice is not paid on time, as specified hereinabove, STATE will offset any future payments due to ALAMEDA CTC for the invoice amount. Upon notice of invoice discrepancy from ALAMEDA CTC, if STATE disputes such claim, STATE shall notify ALAMEDA CTC, within forty-five (45) days after receiving said notice from ALAMEDA CTC. STATE shall credit undisputed claims to ALAMEDA CTC in its current funding request. Upon final resolution of a disputed claim, ALAMEDA CTC shall make the appropriate credit or debit to the EXPRESSLANES MAINTENANCE funding account.

3. To issue, upon proper application by ALAMEDA CTC and/or or its authorized agent(s), the necessary Encroachment Permit(s) for required work within the State highway rights-of-way, and for operation and maintenance of EXPRESSLANES. Permits will be issued at no charge to ALAMEDA CTC, or its authorized agent(s), unless an inspection is required, in which

case, a fee at standard STATE rates will be charged based on job type, length of work, traffic closure, and so forth.

4. To provide a qualified STATE representative who shall have the authority to accept or reject work and materials, or to order any actions needed for public safety or the preservation of property, and to assure compliance with all the Encroachment Permit(s) issued to ALAMEDA CTC and/or to ALAMEDA CTC s authorized agent(s).

5. The designated STATE Point of Contact:

   STATE Maintenance Manager – East Bay Region
   600 Lewelling Blvd.
   San Leandro, CA 94579
   (510) 614-2665

SECTION III

IT IS MUTUALLY AGREED:

1. All obligations of STATE under the terms of this Agreement are subject to the appropriation of resources by the Legislature, State Budget Act authority, and the collection of resources by the California Transportation Commission.

2. All obligations of ALAMEDA CTC under the terms of this Agreement are subject to the approval of the allocations of resources to the EXPRESSLANES in the Annual Budget by the ALAMEDA CTC Commission.

3. ALAMEDA CTC, and/or its designee, shall have the right to conduct interim and final audits, at ALAMEDA CTC expense, including financial and compliance audits, and other audits as ALAMEDA CTC deems appropriate in accordance with Generally Accepted Governmental Audit Standards ("GAGAS"). ALAMEDA CTC shall use reasonable efforts to commence the final audit within ninety (90) days of ALAMEDA CTC's receipt of the annual invoice and will make every reasonable attempt to conduct such audits in a timely manner. STATE agrees to establish and maintain proper accounting procedures, cash management records and related documents in accordance with State law, STATE's Budgetary Basis of Accounting, and Generally Accepted Accounting Principles ("GAAP"). STATE shall reimburse ALAMEDA CTC for any reimbursement received by STATE that is not in compliance with the terms and conditions of this Agreement. ALAMEDA CTC shall use applicable Federal Acquisition Regulations (FAR) in determining the reasonableness of costs incurred.

4. All collected data and published reports related to EXPRESSLANES generated by STATE and ALAMEDA CTC, or its authorized agent(s), shall be made available upon request by either party to this Agreement within thirty (30) days. ALAMEDA CTC, or its authorized agent(s), will abide by the EXPRESSLANES Privacy Policy to ensure that account holder personal information will not be disclosed.

a. STATE and ALAMEDA CTC receive no warranty regarding provided data, whether express or implied, and all warranties of merchantability and fitness of provided data for any particular purpose are expressly disclaimed.

b. STATE and ALAMEDA CTC make no warranty that the data provided will be free of errors, and that the provided data is on an "as is" and "with all faults" basis.

c. STATE and ALAMEDA CTC will not license or distribute any shared data to any parties not included in this Agreement, without the written consent of the other party, except for purposes of 511, PeMs and the National Evaluation required by USDOT.

5. Cost of EXPRESSLANES MAINTENANCE will be reimbursed at 100% of actual costs. Actual cost includes the cost of labor, equipment and material plus their associated markups.

6. On a fiscal year annual basis, ALAMEDA CTC will provide STATE with EXPRESSLANES revenue and expenditures reports. Standard reports will be developed by ALAMEDA CTC or its authorized agent(s) to measure FasTrak® revenues and expenditures. The reports shall be in a format approved by STATE in conformance with USDOT Reporting Requirements and herein referred to as "EXPRESSLANES Revenue and Expenditure Report."

7. ALAMEDA CTC will provide STATE a facility performance report on a semi-annual basis. This report should contain performance measures and trend data and analysis to demonstrate that the pricing strategy has been effective in reducing or managing congestion on the entire facility and that the EXPRESSLANES operate at the performance requirements of California (SHC 143, 149) and federal (23 USC166) laws. If the performance is not meeting these goals, ALAMEDA CTC shall include a plan to improve performance in the report.

8. STATE in cooperation with CHP may close EXPRESSLANES and/or open EXPRESSLANES to general-purpose traffic for incident management, or emergency response in accordance with established rules, guidelines and criteria, at STATE's discretion. In such event, STATE shall notify ALAMEDA CTC promptly, or as soon as practicable, of such occurrences in accordance with the approved TIMP. In such event, ALAMEDA CTC shall adjust its VTMS signs upon receipt of the proper notification from STATE to reflect the special operating configuration of the lanes.

9. STATE may close EXPRESSLANES and/or open EXPRESSLANES to general-purpose traffic for construction purposes and maintenance purposes in accordance with required STATE rules, guidelines, and criteria. In such event (*e.g.*, roadway sweeping or routine roadway maintenance) not of an incident management or emergency response nature, STATE shall notify ALAMEDA CTC one week in advance of such occurrences. and ALAMEDA CTC shall adjust its VTMS signs to reflect the special operating configuration of EXPRESSLANES. This work should be performed outside the revenue generating hours when possible unless there is an emergency.

10. In the event that there is a dispute between ALAMEDA CTC and STATE regarding STATE's monthly cost data, the disputing party shall endeavor to notify the other party in writing, and both parties agree to seek to resolve disputes in the following manner:

a. The Point of Contact for the disputing party (defined in Sections I and II of this Agreement) shall notify the other party Point of Contact in writing, including a statement of the grounds for the dispute, pertinent dates, and supporting documentation.

b. Upon receipt of a written dispute, the receiving party Point of Contact, and other appropriate agency staff, shall review the documentation in a timely manner and reply to the disputing party within thirty (30) days.

c. Appeals shall be referred to ALAMEDA CTC's Executive Director and STATE's District Director for District 4. ALAMEDA CTC's Executive Director and the STATE's District Director for District 4 shall make every attempt to respond to the request for reconsideration and reach a resolution within thirty (30) days.

d. If an agreement cannot be reached between ALAMEDA CTC's Executive Director and STATE's District Director for District 4, the dispute shall be referred by either party to the STATE's Department of Transportation Director for final resolution after receiving written request to resolve the dispute.

e. ALAMEDA CTC and STATE may pursue all available remedies under law or equity including non-binding mediation or non-binding alternative dispute resolution if the above process does not achieve resolution.

11. Nothing in the provisions of this Agreement is intended to create duties or obligations to or rights in third parties not parties to this Agreement, or effect the legal liability of any party to the Agreement by imposing any standard of care with respect to the maintenance of State highways different from the standard of care imposed by law.

12. Neither STATE nor any officer or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by ALAMEDA CTC under or in connection with any work, authority or jurisdiction allocated to ALAMEDA CTC under this Agreement. It is understood and agreed that, ALAMEDA CTC will fully defend, indemnify, and save harmless STATE and all of its officers and employees from all claims, suits or actions of every name, kind and description brought forth under, including, but not limited to, tort, contractual, inverse condemnation or other theories or assertions of liability occurring by reason of anything done or omitted to be done by ALAMEDA CTC under this Agreement.

13. To the extent that it shall not contradict with provisions of Section I.7 of this Agreement, neither ALAMEDA CTC nor its member agencies, nor any officer, nor employee or agent thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by STATE under or in connection with any work, authority or jurisdiction allocated to STATE under this Agreement. It is understood and agreed that, STATE will fully defend, indemnify, and save harmless ALAMEDA CTC and each of its member agencies, and respective officers and employees thereof, from all claims, suits or actions of every name, kind and description brought forth under, including, but not limited to, tort, contractual, inverse condemnation or other theories or assertions of liability occurring by

reason of anything done or omitted to be done by STATE under this Agreement. In the event of damage to or destruction of dynamic VALUE PRICING and a TOLL COLLECTION SYSTEM, ALAMEDA CTC shall have responsibility for repair and replacement, of the same and shall have responsibility for repair and replacement of ROADWAY.

14. TERMINATION- This Agreement may be terminated by mutual written consent of the PARTIES, or ALAMEDA CTC's failure to comply with the provisions of this Agreement may be grounds for a Notice of Termination by STATE

    In the event EXPRESSLANES is terminated for any reason, with prior written approval from Federal Highway Administration (FHWA) and STATE, ALAMEDA CTC shall restore ROADWAY to the operating condition that existed prior to the implementation of EXPRESSLANES. The STATE and ALAMEDA CTC agree that any costs incurred to restore the ROADWAY to its original operating condition shall be funded primarily from the revenues generated from EXPRESSLANES, or from the operating budget of EXPRESSLANES. In the event there are insufficient revenues to cover the costs of the restoration of the ROADWAY, the STATE and ALAMEDA CTC agree to work cooperatively to secure funding from other sources.

    Upon termination of EXPRESSLANES, dynamic VALUE PRICING and a TOLL COLLECTION SYSTEM, which is the property of the ALAMEDA CTC, shall be removed from the STATE right of way in a six (6)-month timeframe agreed to by both STATE and ALAMEDA CTC, unless otherwise modified by mutual agreement of both STATE and ALAMEDA CTC.

15. Term of Agreement
    This Agreement shall become effective on the date first shown on its face sheet and shall remain in full force and effect until amended or terminated at any time upon mutual consent of the parties or until terminated by STATE for cause.

Draft1-12-16

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first above written.

ALAMEDA COUNTY TRANSPORTATION COMMISSION

By: _____
ARTHUR L. DAO
Executive Director

Approved as to form:

By: _____
Wendel, Rosen, Black & Dean LLP
ALAMEDA CTC Counsel

STATE OF CALIFORNIA
Department of Transportation

Malcolm Dougherty
Director

By: _____
BIJAN SARTIPI
District Director

Approved as to form:

By: _____
Attorney
Department of Transportation

EXHIBIT A

I-580 WESTBOUND AND EASTBOUND EXPRESS LANES

Loc. No.	Begin Sta	Begin PM	End Sta	End PM	Location	Type of Equipment	Quantity	Units	Responsible Agency	Maintenance Agency	Remarks
1	334+40	18.55	335+48	18.53		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
2	336+90	18.50	337+98	18.48		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
3	339+40	18.45	340+48	18.43		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
4	342+20	18.40	342+68	18.39		CB TYPE 60GE Mod around median lighting	48.0	LF	ALAMEDA CTC	STATE	
5	347+14	18.30	347+74	18.29		CB TYPE 60GE Mod around median lighting	60.0	LF	ALAMEDA CTC	STATE	
6	348+04	18.29	349+17	18.27		CB TYPE 60C at CHP observation area	113.0	LF	ALAMEDA CTC	STATE	
7	349+17	18.27	349+99	18.25		CB TYPE 60GE Mod around median lighting	82.0	LF	ALAMEDA CTC	STATE	
8	349+99	18.25	355+92	18.14		CB TYPE 60C at CHP observation area	592.8	LF	ALAMEDA CTC	STATE	
9	354+77	18.16	356+39	18.13		CB TYPE 60C at CHP observation area	162.2	LF	ALAMEDA CTC	STATE	
10	356+39	18.13	357+91	18.10		CB TYPE 60GE Mod around median tolling gantry	151.6	LF	ALAMEDA CTC	STATE	
11	357+91	18.10	362+13	18.02		CB TYPE 60C at CHP observation area	422.4	LF	ALAMEDA CTC	STATE	
12	383+10	17.62	384+66	17.59		CB TYPE 60GE Mod around median tolling gantries	156.0	LF	ALAMEDA CTC	STATE	
13	389+52	17.50	390+47	17.48		CB TYPE 60R Mod around median OH sign	95.0	LF	ALAMEDA CTC	STATE	
14	411+20	17.09	412+02	17.08		CB TYPE 60R Mod around median OH sign	82.0	LF	ALAMEDA CTC	STATE	
15	413+04	17.06	413+96	17.04		CB TYPE 60GE Mod around median lighting	92.0	LF	ALAMEDA CTC	STATE	
16	415+44	17.01	416+56	16.99		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
17	417+94	16.96	419+06	16.94		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
18	420+46	16.92	421+54	16.90		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
19	422+92	16.87	424+08	16.85		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
20	425+46	16.82	426+54	16.80		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
21	427+94	16.77	429+06	16.75		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
22	432+94	16.68	434+06	16.66		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
23	435+44	16.63	436+56	16.61		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
24	437+94	16.58	439+06	16.56		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
25	440+40	16.54	441+96	16.51		CB TYPE 60GE Mod around median tolling gantries	156.0	LF	ALAMEDA CTC	STATE	
26	442+94	16.49	444+06	16.47		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
27	445+44	16.44	446+56	16.42		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
28	447+94	16.40	449+06	16.37		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
29	450+44	16.35	451+56	16.33		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
30	452+94	16.30	454+06	16.28		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
31	455+44	16.25	456+56	16.23		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
32	457+94	16.21	459+06	16.18		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
33	460+46	16.16	461+54	16.14		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
34	462+96	16.11	464+04	16.09		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
35	465+46	16.06	466+54	16.04		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
36	467+58	16.02	469+22	15.99		CB TYPE 60GE Mod around median tolling gantries	164.0	LF	ALAMEDA CTC	STATE	
37	469+93	15.98	470+67	15.97		CB TYPE 60R Mod around median OH sign	74.0	LF	ALAMEDA CTC	STATE	
38	472+88	15.92	474+12	15.90		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
39	475+18	15.88	476+42	15.86		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
40	477+38	15.84	478+62	15.81		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
41	479+92	15.79	481+08	15.77		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
42	482+38	15.74	483+62	15.72		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
43	484+84	15.70	486+16	15.67		CB TYPE 60GE Mod around median lighting	132.0	LF	ALAMEDA CTC	STATE	
44	487+48	15.65	488+72	15.62		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
45	489+88	15.60	491+12	15.58		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
46	492+38	15.55	493+62	15.53		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
47	494+88	15.51	496+12	15.48		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
48	497+38	15.46	498+62	15.44		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
49	499+88	15.41	501+12	15.39		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
50	502+38	15.36	503+62	15.34		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
51	504+88	15.32	506+12	15.29		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
52	507+42	15.27	508+58	15.25		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
53	509+88	15.22	511+12	15.20		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
54	512+38	15.18	513+62	15.15		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
55	514+99	15.13	516+23	15.10		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
56	517+53	15.08	518+69	15.06		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
57	519+92	15.03	521+08	15.01		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
58	524+38	14.95	525+62	14.92		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
59	526+88	14.90	528+12	14.88		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
60	529+29	14.85	530+93	14.82		CB TYPE 60GE Mod around median tolling gantries	164.0	LF	ALAMEDA CTC	STATE	
61	531+92	14.81	533+08	14.78		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
62	534+38	14.76	535+62	14.73		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
63	536+82	14.71	537+98	14.69		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
64	539+46	14.66	540+54	14.64		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
65	541+95	14.62	543+05	14.59		CB TYPE 60GE Mod around median lighting	110.0	LF	ALAMEDA CTC	STATE	
66	544+46	14.57	545+54	14.55		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
67	546+96	14.52	548+04	14.50		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
68	551+53	14.43	552+47	14.42		CB TYPE 60R Mod around median OH sign	94.0	LF	ALAMEDA CTC	STATE	
69	569+34	14.10	570+90	14.07		CB TYPE 60GE Mod around median tolling gantries	156.0	LF	ALAMEDA CTC	STATE	
70	590+11	13.70	590+39	13.70		CB TYPE 60R Mod around median lighting	28.0	LF	ALAMEDA CTC	STATE	
71	592+13	13.66	593+37	13.64		CB TYPE 60GE Mod around median lighting	124.0	LF	ALAMEDA CTC	STATE	
72	594+58	13.62	596+08	13.59		CB TYPE 60GE Mod around median tolling gantries	150.0	LF	ALAMEDA CTC	STATE	
73	597+25	13.57	598+25	13.55		CB TYPE 60GE Mod around median lighting	100.0	LF	ALAMEDA CTC	STATE	
74	605+11	13.42	605+89	13.40		CB TYPE 60R Mod around median OH sign	78.0	LF	ALAMEDA CTC	STATE	
75	607+27	13.38	608+23	13.36		CB TYPE 60GE Mod around median lighting	96.0	LF	ALAMEDA CTC	STATE	
76	609+77	13.33	610+73	13.31		CB TYPE 60GE Mod around median lighting	96.0	LF	ALAMEDA CTC	STATE	
77	612+15	13.29	613+35	13.26		CB TYPE 60GE Mod around median lighting	120.0	LF	ALAMEDA CTC	STATE	
78	614+67	13.24	615+83	13.22		CB TYPE 60GE Mod around median lighting	116.0	LF	ALAMEDA CTC	STATE	
79	620+72	13.12	621+24	13.11		CB TYPE 60R Mod around median OH sign	52.0	LF	ALAMEDA CTC	STATE	
80	623+19	13.08	623+81	13.06		CB TYPE 60GE Mod around median lighting	62.0	LF	ALAMEDA CTC	STATE	
81	625+77	13.03	626+33	13.02		CB TYPE 60GE Mod around median lighting	56.0	LF	ALAMEDA CTC	STATE	
82	626+90	13.01	628+46	12.98		CB TYPE 60C at CHP observation area	156.0	LF	ALAMEDA CTC	STATE	
83	628+46	12.98	628+81	12.97		Barrier Type 60R Mod at CHP observation area	35.0	LF	ALAMEDA CTC	STATE	
84	628+81	12.97	630+85	12.93		CB TYPE 60C at CHP observation area	203.5	LF	ALAMEDA CTC	STATE	
85	629+70	12.95	631+73	12.91		CB TYPE 60C at CHP observation area	203.5	LF	ALAMEDA CTC	STATE	
86	631+73	12.91	632+14	12.91		Barrier Type 60R Mod at CHP observation area	41.0	LF	ALAMEDA CTC	STATE	
87	632+14	12.91	636+64	12.82		CB TYPE 60C at CHP observation area	450.0	LF	ALAMEDA CTC	STATE	

Loc. No.	Begin Sta	Begin PM	End Sta	End PM	Location	Type of Equipment	Quantity	Units	Responsible Agency	Maintenance Agency	Remarks
88	636+73	12.82	637+33	12.81		CB TYPE 60GE Mod around median lighting	60.0	LF	ALAMEDA CTC	STATE	
89	639+18	12.77	639+82	12.76		CB TYPE 60GE Mod around median lighting	64.0	LF	ALAMEDA CTC	STATE	
90	654+40	12.49	655+36	12.47		CB TYPE 60GE Mod around median tolling gantries	96.0	LF	ALAMEDA CTC	STATE	
91	669+75	12.19	670+25	12.19		CB TYPE 60R Mod around median OH sign	50.0	LF	ALAMEDA CTC	STATE	
92	695+89	11.70	696+43	11.69		CB TYPE 60R Mod around median OH sign	54.0	LF	ALAMEDA CTC	STATE	
93	702+57	11.57	703+19	11.56		CB TYPE 60RMod around median tolling gantries	62.0	LF	ALAMEDA CTC	STATE	
94	711+57	11.40	712+43	11.39		CB TYPE 60R Mod around median OH sign	86.0	LF	ALAMEDA CTC	STATE	
95	735+76	10.94	736+50	10.93		CB TYPE 60R Mod around median tolling gantries	74.0	LF	ALAMEDA CTC	STATE	
96	738+62	10.89	738+88	10.89		CB TYPE 60R Mod around median lighting	26.0	LF	ALAMEDA CTC	STATE	
97	741+10	10.84	741+40	10.84		CB TYPE 60R Mod around median lighting	30.0	LF	ALAMEDA CTC	STATE	
98	743+60	10.80	743+90	10.79		CB TYPE 60R Mod around median lighting	30.0	LF	ALAMEDA CTC	STATE	
99	745+85	10.75	746+15	10.75		CB TYPE 60R Mod around median lighting	30.0	LF	ALAMEDA CTC	STATE	
100	747+21	10.73				Alternative Crash Cushion	1.0	EA	ALAMEDA CTC	STATE	
101	747+21	10.73	748+68	10.70		CB TYPE 60R	147.1	LF	ALAMEDA CTC	STATE	
102	750+65	10.66	750+95	10.66		CB TYPE 60R Mod around median lighting	30.0	LF	ALAMEDA CTC	STATE	
103	752+87	10.62	753+13	10.62		CB TYPE 60R Mod around median lighting	26.0	LF	ALAMEDA CTC	STATE	
104	755+19	10.58	755+81	10.56		CB TYPE 60R Mod around median tolling gantries	62.0	LF	ALAMEDA CTC	STATE	
105	757+95	10.52	758+25	10.52		CB TYPE 60R Mod around median lighting	30.0	LF	ALAMEDA CTC	STATE	
106	760+35	10.48	760+65	10.47		CB TYPE 60R Mod around median lighting	30.0	LF	ALAMEDA CTC	STATE	
107	762+85	10.43	763+17	10.43		CB TYPE 60R Mod around median lighting	32.0	LF	ALAMEDA CTC	STATE	
108	764+57	10.40	765+43	10.38		CB TYPE 60R Mod around median OH sign	86.0	LF	ALAMEDA CTC	STATE	
109	767+20	10.35	767+46	10.34		CB TYPE 60R Mod around median lighting	26.0	LF	ALAMEDA CTC	STATE	
110	769+49	10.31	769+83	10.30		CB TYPE 60R Mod around median lighting	34.0	LF	ALAMEDA CTC	STATE	
111	772+87	10.24	773+13	10.24		CB TYPE 60R Mod around median lighting	26.0	LF	ALAMEDA CTC	STATE	
112	773+89	10.22	774+75	10.21		CB TYPE 60R Mod around median OH sign	86.0	LF	ALAMEDA CTC	STATE	
113	776+46	10.17	777+54	10.15		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
114	779+10	10.12	780+18	10.10		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
115	781+87	10.07	782+77	10.05		CB TYPE 60R Mod around median OH sign	90.0	LF	ALAMEDA CTC	STATE	
116	783+75	10.04	784+79	10.02		CB TYPE 60GE Mod around median lighting	104.0	LF	ALAMEDA CTC	STATE	
117	785+72	10.00	786+68	9.98		CB TYPE 60GE Mod around median lighting	96.0	LF	ALAMEDA CTC	STATE	
118	788+00	9.96	789+63	9.92		CB TYPE 60C at CHP observation area	162.5	LF	ALAMEDA CTC	STATE	
119	789+63	9.92	790+04	9.92		Barrier Type 60R Mod at CHP observation area	41.0	LF	ALAMEDA CTC	STATE	
120	790+04	9.92	792+07	9.88		CB TYPE 60C at CHP observation area	203.5	LF	ALAMEDA CTC	STATE	
121	790+92	9.90	792+96	9.86		CB TYPE 60C at CHP observation area	203.4	LF	ALAMEDA CTC	STATE	
122	792+96	9.86	793+37	9.85		Barrier Type 60R Mod at CHP observation area	41.0	LF	ALAMEDA CTC	STATE	
123	793+37	9.85	797+74	9.77		CB TYPE 60C at CHP observation area	437.4	LF	ALAMEDA CTC	STATE	
124	799+42	9.74	800+38	9.72		CB TYPE 60GE Mod around median lighting	96.0	LF	ALAMEDA CTC	STATE	
125	803+39	9.66	804+51	9.64		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
126	805+89	9.62	807+01	9.59		CB TYPE 60GE Mod around median lighting	112.0	LF	ALAMEDA CTC	STATE	
127	808+11	9.57	809+19	9.55		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
128	810+61	9.53	811+69	9.51		CB TYPE 60GE Mod around median lighting	108.0	LF	ALAMEDA CTC	STATE	
129	813+37	9.47	813+93	9.46		CB TYPE 60GE Mod around median lighting	56.0	LF	ALAMEDA CTC	STATE	
130	815+87	9.43	816+43	9.42		CB TYPE 60GE Mod around median lighting	56.0	LF	ALAMEDA CTC	STATE	
131	818+31	9.38	819+23	9.36		CB TYPE 60GE Mod around median tolling gantries	92.0	LF	ALAMEDA CTC	STATE	
132	851+42	8.75	852+34	8.74		CB TYPE 60GE Mod around median tolling gantries	92.0	LF	ALAMEDA CTC	STATE	
133	854+02	8.70	854+38	8.70		CB TYPE 60GE Mod around median lighting	36.0	LF	ALAMEDA CTC	STATE	
134	855+87	8.67	856+93	8.65		CB TYPE 60GE Mod around median lighting	106.0	LF	ALAMEDA CTC	STATE	
135	273+60	19.70	275+29	19.67	EB Rt Shld	Metal Beam Guard Railing (Type 16A), Alternative In-Line Terminal System, End Anchor Assembly (Type SFT)	112.5	LF	ALAMEDA CTC	STATE	
136	331+64	18.60	333+89	18.56	Median	Metal Beam Guard Railing, Transition Railing (Type WB), End Anchor Assembly (Type SFT)	225.0	LF	ALAMEDA CTC	STATE	
137	332+67	18.58	334+67	18.54	EB Rt Shld	Metal Beam Guard Railing (Type 16A), Alternative In-Line Terminal System	150.0	LF	ALAMEDA CTC	STATE	
138	440+10	16.54	441+31	16.52	EB On-Ramp Rt Shld	Metal Beam Guard Railing (Type 16B), Alternative Flared Terminal System	125.0	LF	ALAMEDA CTC	STATE	
139	593+89	13.63	595+02	13.61	WB Rt Shld	Metal Beam Guard Railing (Type 16B), Alternative Flared Terminal System, Transition Railing (Type WB)	25.0	LF	ALAMEDA CTC	STATE	
140	617+17	13.19	617+42	13.19	WB Rt Shld	Metal Beam Guard Railing Type 12DD), End Anchor Assembly (Type SFT)	25.0	LF	ALAMEDA CTC	STATE	
141	817+20	9.40	819+70	9.35	EB Rt Shld	Metal Beam Guard Railing (Type 16A), Alternative In-Line Terminal System	187.5	LF	ALAMEDA CTC	STATE	
142	858+58	8.62	858+97	8.61	Median	Metal Beam Guard Railing (Type 11B), Alternative Flared Terminal System, End Anchor Assembly (Type SFT)	37.5	LF	ALAMEDA CTC	STATE	
143	859+40	8.60	860+34	8.58	WB On-Ramp Rt Shld	Metal Beam Guard Railing (Type 16B), Alternative Flared Teminal System, End Anchor (Type SFT)	50.0	LF	ALAMEDA CTC	STATE	
144	867+37	8.45	869+60	8.41	WB Lt Shld	Metal Beam Guard Railing (Type 16A), Alternative In-Line Terminal System, End Anchor Assembly (Type SFT)	162.5	LF	ALAMEDA CTC	STATE	018541
145	334+94	18.54			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	018421
146	337+44	18.49			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	018401, 018411
147	339+94	18.44			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	018321, 018331
148	342+44	18.39			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	018301, 018311
149	344+68	18.35			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	018221, 018231
150	347+44	18.30			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	018201, 018211
151	349+62	18.26			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	018101, 018111
152	413+50	17.05			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	017024,017034
153	416+00	17.00			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	017004,017014
154	418+50	16.95			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016924,016934
155	421+00	16.91			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016904,016914
156	423+50	16.86			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016824,016834
157	426+00	16.81			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016804,016814
158	428+50	16.76			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016704,016714
159	433+50	16.67			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016622,016632
160	436+00	16.62			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016602,016612
161	438+50	16.57			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016502,016512
162	443+50	16.48			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016422,016432
163	446+00	16.43			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016402,016412
164	448+50	16.38			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016322,016332
165	451+00	16.34			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016302,016312

Loc. No.	Begin Sta	Begin PM	End Sta	End PM	Location	Type of Equipment	Quantity	Units	Responsible Agency	Maintenance Agency	Remarks
166	453+50	16.29			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016222,016232
167	456+00	16.24			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016202,016212
168	458+50	16.20			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016102,016112
169	461+00	16.15			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016101,016111
170	463+50	16.10			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016021,016031
171	466+00	16.05			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	016001,016011
172	473+50	15.91			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015901, 015911
173	475+80	15.87			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015821, 015831
174	478+00	15.83			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015801, 015811
175	480+50	15.78			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015801, 015811
176	483+00	15.73			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015701, 015711
177	485+50	15.68			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015621, 015631
178	488+10	15.63			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015601, 015611
179	490+50	15.59			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015502, 015512
180	493+00	15.54			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015422, 015432
181	495+50	15.49			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015402, 015412
182	498+00	15.45			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	015332
183	500+50	15.40			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	015312
184	503+00	15.35			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015222, 015232
185	505+50	15.31			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015202, 015212
186	508+00	15.26			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015142, 015152
187	510+50	15.21			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015122, 015132
188	513+00	15.16			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	015112
189	515+61	15.11			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	015033
190	518+11	15.07			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	015003, 015013
191	520+50	15.02			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014923, 014933
192	525+00	14.94			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014903, 014913
193	527+50	14.89			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014803, 014813
194	532+50	14.79			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014703, 014713
195	535+00	14.75			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014623, 014623
196	537+40	14.70			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014603, 014613
197	540+00	14.65			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014523, 014533
198	542+50	14.60			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014503, 014513
199	545+00	14.56			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014423, 014433
200	547+50	14.51			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	014403, 014413
201	590+25	13.70			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013703, 013713
202	592+75	13.65			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013603, 013613
203	597+75	13.56			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013503, 013513
204	607+75	13.37			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013403, 013413
205	610+25	13.32			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013323, 013333
206	612+75	13.27			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013303, 013313
207	615+25	13.23			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013203, 013213
208	623+50	13.07			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013021, 013031
209	626+05	13.02			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	013001, 013011
210	637+03	12.81			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	012801, 012811
211	639+50	12.77			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	012701
212	738+75	10.89			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010823, 010833
213	741+25	10.84			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010803, 010813
214	743+75	10.79			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010723, 010733
215	746+00	10.75			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010703, 010713
216	750+80	10.66			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010602, 010612
217	753+00	10.62			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010502, 010512
218	758+10	10.52			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010422, 010432
219	760+50	10.48			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010402, 010412
220	763+00	10.43			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010322, 010332
221	767+33	10.35			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010302, 010312
222	769+66	10.30			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010222, 010232
223	773+00	10.24			Median	Median Light Pole with LED luminaire	1	EA	ALAMEDA CTC	STATE	010202
224	777+00	10.16			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010121, 010131
225	779+64	10.11			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010101, 010111
226	784+27	10.03			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	010001, 010011
227	786+20	9.99			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009901, 009911
228	799+90	9.73			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009701, 009711
229	803+95	9.65			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009622, 009632
230	806+45	9.61			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009602, 009612
231	808+65	9.56			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009502, 009512
232	811+15	9.52			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009422, 009432
233	813+65	9.47			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009402, 009412
234	816+15	9.42			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	009302, 009312
235	854+20	8.70			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	008801
236	856+40	8.66			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	008701
237	860+84	8.58			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	008601
238	863+06	8.53			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	008521
239	865+28	8.49			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	008501
240	870+00	8.40			Median	Median Light Pole with LED luminaires	1	EA	ALAMEDA CTC	STATE	008401
241	331+97	18.59	870+00	8.40		Pull Box	500	EA	ALAMEDA CTC	STATE	
242	223+80	20.64	867+50	8.45		Conduit	16200	LF	ALAMEDA CTC	ALAMEDA CTC	
243	223+80	20.64	867+50	8.45	Median	Fiber Trunk Line	12.19	Mi.	ALAMEDA CTC	ALAMEDA CTC & STATE	
244	265+00	19.86			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
245	266+75	19.83			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
246	275+00	19.67			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
248	319+70	18.82			WB	Toll site on Hacienda OC FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	Bridge
249	319+70	18.82			WB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
250	320+00	18.82			WB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
251	320+25	18.81			WB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
252	332+20	18.59			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	

Loc. No.	Begin Sta	Begin PM	End Sta	End PM	Location	Type of Equipment	Quantity	Units	Responsible Agency	Maintenance Agency	Remarks
253	332+20	18.59			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
254	334+00	18.55			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
255	357+44	18.11			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
256	359+40	18.07			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
257	366+50	17.94			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
258	375+80	17.76			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
259	383+76	17.61			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
260	384+00	17.61			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
261	384+00	17.61			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
262	390+00	17.49			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
263	427+00	16.79			WB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
264	441+00	16.53			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
265	441+06	16.53			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
266	441+30	16.52			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
267	443+60	16.48			WB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
268	468+28	16.01			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
269	468+50	16.01			WB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
270	468+52	16.01			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
271	470+30	15.97			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
272	474+70	15.89			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
273	529+50	14.85			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
274	529+50	14.85			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
275	530+00	14.84			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
276	530+24	14.84			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
277	552+00	14.42			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
278	567+50	14.13			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
279	570+00	14.08			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
280	570+24	14.08			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
281	571+60	14.05			WB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
282	594+05	13.63			WB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
283	595+21	13.61			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
284	595+45	13.60			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
285	605+10	13.42			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
286	605+50	13.41			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
287	620+98	13.12			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
288	621+70	13.10			WB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
289	628+63	12.97			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
290	631+91	12.91			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
291	649+60	12.58			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
292	652+80	12.52			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
293	654+76	12.48			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
294	655+00	12.47			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
295	702+76	11.57			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
296	703+00	11.56			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
297	704+15	11.54			WB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
298	704+15	11.54			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
299	620+98	13.12			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
300	712+00	11.39			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
301	736+01	10.94			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
302	736+25	10.94			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
303	743+50	10.80			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
304	746+00	10.75			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
305	752+60	10.63			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
306	755+38	10.57			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
307	755+62	10.57			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
308	782+32	10.06			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
309	788+10	9.95			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
310	789+85	9.92			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
311	793+13	9.86			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
312	804+19	9.65			WB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
313	818+65	9.37			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
314	818+65	9.37			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
315	818+89	9.37			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
316	818+95	9.37			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
317	851+76	8.75			EB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
318	852+00	8.74			WB	Toll Gantry with Overhead Lighting	1	EA	ALAMEDA CTC	ALAMEDA CTC	
319	852+00	8.74			EB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
320	858+80	8.61			EB	Service Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
321	859+65	8.60			WB	Controller Cabinet	1	EA	ALAMEDA CTC	ALAMEDA CTC	
322	867+47	8.45			Median	Controller Cabinet and UPS	1	EA	ALAMEDA CTC	ALAMEDA CTC	DMS Post Mounted
323	263+88	19.88			Bridge EB	Overhead Static Sign mounted on Hopyard Rd OC FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS1A-1
324	264+08	19.88			Bridge EB	Dynamic Messaging Sign with LED panel and overhead light mounted on Hopyard Rd OC FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS1A-2
325	318+70	18.84			Bridge EB	Overhead Static Sign and overhead light mounted on Hacienda Dr OC FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS1C-1
326	319+70	18.82			Bridge WB	Dynamic Messaging Sign with LED panel and overhead light mounted on Hacienda Dr OC FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS12A-1
327	319+70	18.82			Bridge WB	Overhead Static Sign mounted on Hacienda Dr OC FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS12A-2
328	390+00	17.49			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FEBT and FWBT	2	EA	ALAMEDA CTC	ALAMEDA CTC	OS18A-1, OS18A-2
329	411+61	17.08			Median	Overhead Static Signs and overhead light on Sign Structure in Median FEBT and FWBT	2	EA	ALAMEDA CTC	ALAMEDA CTC	OS20A-1, OS20A-2
330	470+30	15.97			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FEBT and FWBT	2	EA	ALAMEDA CTC	ALAMEDA CTC	OS25A-1, OS25A-2
331	552+00	14.42			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FEBT and FWBT	2	EA	ALAMEDA CTC	ALAMEDA CTC	OS2A-1, OS2A-2

Loc. No.	Begin Sta	Begin PM	End Sta	End PM	Location	Type of Equipment	Quantity	Units	Responsible Agency	Maintenance Agency	Remarks
332	605+50	13.41			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS6-1
333	620+98	13.12			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS7A-1
334	670+00	12.19			Median	Overhead Static Signs FWBT and Dynamic Message Signs with LED panels FEBT and overhead light on Sign Structure in Median	2	EA	ALAMEDA CTC	ALAMEDA CTC	OS11-1, OS11-2
335	696+16	11.69			Median	Overhead Static Signs and overhead light on Sign Structure in Median FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS13A-1
336	712+00	11.39			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS14-1
337	765+00	10.39			Median	Overhead Static Signs and overhead light on Sign Structure in Median FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS18A-1
338	774+32	10.21			Median	Overhead Static Signs and overhead light on Sign Structure in Median FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS19A-1
339	782+32	10.06			Median	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FEBT and FWBT	2	EA	ALAMEDA CTC	ALAMEDA CTC	OS19A-2, OS19A-3
340	858+62	8.62			WB Lt Shld	Overhead Static Sign and overhead light on Sign Structure in Median FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS26A-1
341	867+47	8.45			WB Lt Shld	Dynamic Message Signs with LED panels and overhead light on Sign Structure in Median FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	OS26A-2
342	275+08	19.67			EB Rt Shld	Dynamic Message Signs with LED panels on 2-wood post FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	S1B-1E
343	316+80	18.88			EB Ramp Rt Shld	Static Sign on 2-wood post at Hacienda Dr EB loop on-ramp	1	EA	ALAMEDA CTC	ALAMEDA CTC	S1C-1E
344	859+82	8.59			WB Rt Shld	Dynamic Message Signs with LED panels on 2-wood post FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	S26A-2W
345	900+50	7.82			WB Lt Shld	Static Signs on 2-wood post in median FWBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	S27-1W
346	227+00	20.58	264+00	19.88		Barrier Mounted Signs in median	2	EA	ALAMEDA CTC	ALAMEDA CTC	
347	265+00	19.86	319+00	18.84		Barrier Mounted Signs in median	6	EA	ALAMEDA CTC	ALAMEDA CTC	
348	319+00	18.84	365+00	17.97		Barrier Mounted signs, Signs on light poles and toll gantry in median	12	EA	ALAMEDA CTC	ALAMEDA CTC	
349	365+00	17.97	431+00	16.72		Barrier Mounted signs, Signs on light poles, toll gantry, and sign structure in median	15	EA	ALAMEDA CTC	ALAMEDA CTC	
350	431+00	16.72	522+00	14.99		Barrier Mounted signs, Signs on light poles and sign structure in median	18	EA	ALAMEDA CTC	ALAMEDA CTC	
351	522+00	14.99	568+00	14.12		Barrier Mounted signs, Signs on light poles and sign structure in median	9	EA	ALAMEDA CTC	ALAMEDA CTC	
352	568+00	14.12	617+00	13.19		Barrier Mounted signs, Signs on light poles and sign structure in median	6	EA	ALAMEDA CTC	ALAMEDA CTC	
353	617+00	13.19	650+50	12.56		Barrier Mounted signs, Signs on light poles and sign structure in median	8	EA	ALAMEDA CTC	ALAMEDA CTC	
354	650+50	12.56	704+00	11.55		Barrier Mounted signs and signs on sign structure in median	9	EA	ALAMEDA CTC	ALAMEDA CTC	
355	704+00	11.55	748+50	10.70		Barrier Mounted signs and signs on sign structure in median	8	EA	ALAMEDA CTC	ALAMEDA CTC	
356	748+50	10.70	801+50	9.70		Barrier Mounted signs, Signs on light poles, toll gantry, and sign structure in median	11	EA	ALAMEDA CTC	ALAMEDA CTC	
357	792+00	9.88				Roadside sign on 1-wood post FEBT	1	EA	ALAMEDA CTC	ALAMEDA CTC	
358	801+50	9.70	875+50	8.30		Barrier Mounted signs, Signs on light poles, toll gantry, and sign structure in median	11	EA	ALAMEDA CTC	ALAMEDA CTC	
359	227+13	20.58	857+55	8.64		Pavement	0.07	L.Mile	ALAMEDA CTC	STATE	
360	227+13	20.58	857+55	8.64		Pavement Markers-Striping	29	L.Mile	ALAMEDA CTC	STATE	
361	602+30	13.47				Drainage inlet	1	EA	ALAMEDA CTC	STATE	System No. 101
362	611+27	13.30	615+50	13.22		Drainage inlets	2	EA	ALAMEDA CTC	STATE	System No. 102
363	648+00	12.61				Drainage inlet	1	EA	ALAMEDA CTC	STATE	System No. 103
364	738+09	10.90	742+00	10.83		Drainage inlets	2	EA	ALAMEDA CTC	STATE	System No. 105
365	744+00	10.79	748+00	10.71		Drainage inlets	6	EA	ALAMEDA CTC	STATE	System No. 106
366	749+00	10.69				Drainage inlet	1	EA	ALAMEDA CTC	STATE	System No. 107
367	760+14	10.48	762+00	10.45		Drainage inlets	3	EA	ALAMEDA CTC	STATE	System No. 109

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Draft
I-580 Express Lanes
Traffic Incident Management Plan

Approved by:

_____ _____
Alameda CTC Executive Director Date

_____ _____
Caltrans District 4 Date
Deputy Director of Operations

1 Introduction to Plan

1.1 Operation and Maintenance Agreement

The Operation and Maintenance Agreement (OMA) between the Alameda County Transportation Commission (Alameda CTC) and the California Department of Transportation (Caltrans) calls for this Traffic Incident Management Plan (TIMP) to guide the management of incidents within and/or involving the I-580 Express Lanes (Express Lanes).

1.2 Traffic Incident Management Plan

The TIMP defines the roles and responsibilities, sets forth guidelines for use of the Express Lanes, and defines communication channels involved in managing traffic incidents.

This TIMP does not supersede the requirements of the OMA, nor does this TIMP establish requirements of the California Highway Patrol (CHP) in the active management of incidents on I-580. It is intended to define how the Express Lanes can be operated given the varying situations presented by traffic incidents on the freeway.

2 Assumptions and Key Definitions

2.1 Assumptions

This plan assumes that the current process in place for the management of incidents by the CHP and Caltrans will continue per the CHP-Caltrans Joint Operational Policy Statement.

2.2 Frequently Used Acronyms

TIMP – Traffic Incident Management Plan	TMC – Transportation Management Center
CHP – California Highway Patrol	FSP – Freeway Service Patrol
ETS – Electronic Toll System	DMS – Dynamic Message Sign
CAD – Computer Aided Dispatch	HOV – High Occupancy Vehicle

2.3 Definitions

2.3.1 Types of Incidents

Various factors such as type, location, timing, and duration of incidents are significant to the operation of the Express Lanes. The impacted lanes and the position within the corridor are addressed later in this document.

2.3.1.1 Non collision

This includes debris or a stalled vehicle within the Express Lanes and/or general purpose lanes or median that adversely impacts the traffic within the Express Lanes.

2.3.1.2 Property damage only accident

This is an accident involving one or more vehicles that can often be moved to the shoulder or median for documentation, typically closing one or two lanes for approximately 30 minutes or less.

2.3.1.3 Injury accident

This is an accident in which an individual is injured and typically requires emergency vehicle response above and beyond a single CHP officer, typically closing one or two lanes for approximately 30 minutes or more.

2.3.1.4 Major incident

This type of incident may be an overturned big rig, a spill or some other major incident that requires the closure of most if not all of the freeway lanes, typically closing one or two lanes, for 30 minutes or more, and resulting in significant delays elsewhere on the transportation network.

2.3.2 Express Lane Modes

The following summarizes the operations of Express Lane modes.

2.3.2.1 Tolling

The Express Lanes hours of operation are from 5 a.m. to 8 p.m. Monday through Friday. During these hours, the Express Lane mode will be the Tolling Mode and applicable toll rate(s) will be displayed on the Dynamic Message Sign (DMS) panels approximately ¼-mile before each of the toll zones.

DMS displays: Two rates will be displayed in two lines. The top line will display the toll rate to next zone while the bottom line would display a rate to a major destination, which is the end of the facility on this I-580 Express Lanes facility.

2.3.2.2 HOV Only

As the volume of traffic within the Express Lanes increases and the average speed drops during tolling operations, the Electronic Toll System (ETS) will increase the toll to discourage toll payers from entering the facility. If the average speed in the Express Lanes drops below 45 mph, the ETS will change from the Tolling Mode to the HOV Only Mode in an attempt to maintain a sufficient level of service for the HOV vehicles.

DMS displays: "HOV ONLY"

2.3.2.3 Open to All

In the non-operating hours of 8 p.m. to 5 a.m. weekdays and on the weekends, the Express Lanes will be in the Open to All Mode, permitting all vehicles to use the lane. This mode may also be required in certain incidents, as determined by CHP and Caltrans TMC, in order to assist with clearing traffic around an incident.

DMS displays: "OPEN TO ALL"

2.3.2.4 Closed to All

When maintenance work is being performed during off-peak hours or when an Express Lane is blocked by an incident, the DMS panels will display "Lane Closed" to supplement provisions put in place by Caltrans and CHP (e.g. signs, cones, field equipment).

DMS displays: "LANE CLOSED"

3 Intended Audience for Plan

This plan is written for the Caltrans, CHP and Alameda CTC staffs who are actively engaged in managing incidents and the Express Lanes.

4 Roles and Responsibilities

4.1 Incident Management Planning

Proper procedures for management of the Express Lanes during incidents will be decided upon collaboration between the Alameda CTC Operations and Maintenance Manager, the Caltrans District Traffic Manager (DTM), and the CHP TMC Lieutenant or designee. This TIMP is for documenting these agreed upon procedures. The CHP Incident Commander in conjunction with the DTM or designee will have the final say in all matters regarding safe operation of the combined I-580 facility, including the Express Lanes. The Alameda CTC Operations and Maintenance Manager, the Caltrans DTM and the CHP TMC Lieutenant will meet and confer on a regularly scheduled basis, initially once a month.

4.2 Executive Steering Committee

The Executive Steering Committee (ESC) will consist of the Alameda CTC Executive Director, the Caltrans Deputy District Director of Operations, and the CHP Golden Gate Division Assistant Chief. The ESC will review the handling of incidents when needed. The ESC will approve and/or modify any adjustments to incident management procedures as recommended by the Alameda CTC Operations and Maintenance Manager, the Caltrans DTM, and the CHP TMC Lieutenant. When needed, the ESC will also resolve any potential conflicts. The ESC will also agree on the annual budget to cover Express Lane-related TMC expenses.

4.3 Alameda CTC

4.3.1 Alameda CTC Executive Director or Designee

Alameda CTC is a joint powers agency which works to plan, fund and deliver a broad spectrum of transportation projects and programs to enhance mobility throughout Alameda County. The As authorized under Streets and Highway Code Section 149.5, Alameda CTC is the administering agency of the Express Lanes within the State's Right of Way consistent with the terms and conditions provided in the OMA and follow-on encroachment permits.

In the context of I-580, the Alameda CTC Executive Director or designee is the individual in charge of operations for the Alameda CTC. The Alameda CTC Executive Director or designee has all responsibility for the Express Lanes operations and customer service.

Since the operation of the Express Lanes may be impacted by incidents or be used to assist with the clearing of congestion in the event of an incident, the Alameda CTC Executive Director or designee is one of the key players in the management of incidents.

The Alameda CTC Executive Director will designate a staff to represent him/her. Currently, the Alameda CTC Operations and Maintenance Manager is the designee. The Alameda CTC Operations and Maintenance Manager will authorize a change in the Express Lane mode upon communication from the TMC.

The Alameda CTC Operations and Maintenance Manager will change the Toll Mode, as required. The task may be delegated to a designee of Alameda CTC.

4.4 Caltrans

Caltrans' role in incident management involves both the TMC and Caltrans Maintenance as determined necessary in conjunction with the CHP.

4.4.1 TMC

The TMC dispatches Caltrans Maintenance to assist CHP in managing traffic and/or to help with the cleanup of incidents. Additionally, Caltrans TMC will contact the Alameda CTC Operations and Maintenance Manager or designee to change the Express Lane mode as requested by the CHP Incident Commander. In the event that an Express Lane mode change is required, the TMC will make contact with the Alameda CTC Operations and Maintenance Manager or an agency representative as defined in Section 6.3.

4.4.2 Maintenance

Caltrans Maintenance will assist with clearing incidents and with closing the Express Lanes should that be required. The TMC will dispatch the Caltrans Maintenance to the scene. The CHP Incident Commander and Caltrans Maintenance supervisor on scene will direct Caltrans maintenance forces.

4.5 California Highway Patrol (CHP)

4.5.1 CHP TMC Lieutenant and staff

The CHP Lieutenant assigned to manage the CHP's TMC staff is responsible for the CHP procedures for incident communication between the CHP Dispatch and the TMC as well as the interface with the Express Lanes.

4.5.2 Computer Aided Dispatch (CAD)

The CAD is a computerized listing of communication and dispatch system that help manage all incidents within California. Maintained by CHP, the CAD provides real-time information concerning an incident.

4.5.2.1 Media CAD

The media CAD is a specialized package of the primary CAD, with elements eliminated for safety and/or privacy considerations. The media CAD is utilized extensively by transportation information organizations, including 511 and area TV / radio stations.

4.5.2.2 Public CAD

The public CAD is a subset of the media CAD, and distributed at http://cad.chp.ca.gov/

4.5.3 CHP Dispatch

The dispatch role, currently housed at the CHP's Golden Gate Division Office in Vallejo, initiates the incident records in the CAD and dispatches appropriate personnel. CHP officers communicate directly with CHP Dispatch, who then updates the records in the CAD accordingly.

4.5.4 CHP Officer/Incident Commander

The dispatched CHP officer will have primary responsibility for investigating, assessing, and clearing the incident in the field. Although other CHP personnel may be present on scene, the CHP Incident Commander refers solely to the CHP Officer in charge of the incident response.

4.5.5 CHP Area Office

The CHP Dublin Area Office has jurisdiction of the I-580 Express Lanes. Officers will be dispatched according to CHP protocol.

5 Express Lane Description

Pursuant to California Streets and Highways Code 149.5, the Alameda CTC is authorized to conduct, administer and operate a value pricing high occupancy vehicle Express Lanes program in the I-580 Corridor. The Express Lane consists of an Electronic Toll System (ETS) for a High Occupancy Toll (HOT) Lane along I-580, from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to San Ramon Road/Foothill Road in the westbound direction.

6 Managing Incidents

6.1 Assessment of Incident/ Early Identification

The focal point for initial awareness of an emergency incident or situation is likely to be CHP Dispatch, which is staffed 24/7 and fields calls from CHP officers and citizens via the 911 emergency system. In many situations, notification of an incident may be made by motorists or other 3rd parties prior to detection of the incident at the TMC. However, incidents can also be reported and addressed by the Freeway Service Patrol (FSP), CHP and/or Caltrans Maintenance.

Depending on the nature of the incident, FSP, Caltrans Maintenance and/or CHP and other emergency services are dispatched. CHP provides traffic control as needed, based on the determination of the CHP Officer controlling the scene.

CHP Dispatch will create a new entry in the CAD that reflects the description as provided. The Alameda CTC Operations and Maintenance Manager can be alerted by active monitoring / filtering of the Media CAD to the incident in the Express Lanes.

6.1.1 Motoring Public

Incidents identified by a motorist call-in are received via 911 at CHP Dispatch.

6.1.2 Freeway Service Patrol

The I-580 Corridor is covered by the Freeway Serrvice Patrol (FSP) with FSP vehicles patrolling during the morning and afternoon peak periods. Vehicles on patrol typically include a pickup truck, a flatbed hauler and a tow vehicle.

6.1.3 Cameras

There will be Caltrans and Alameda CTC cameras located throughout the corridor. These cameras will be monitored in the event of an incident by the Caltrans TMC and Express Lanes Operations staff. The Express Lanes Operations staff will have control over the Alameda CTC cameras while Caltrans TMC staff will continue to have control over Caltrans cameras.

6.1.4 CHP

The Alameda CTC will contract with the CHP to provide additional officers for enforcement of the Express Lanes. During the peak period, additional officers, consistent with the agreed upon CHP/ Alameda CTC enforcement strategies will be on enforcement duty in the corridor, supplementing the current CHP presence in the corridor. These officers will be available for identification and clearance of incidents.

6.2 Categorization and Express Lane Mode

CHP Dispatch will categorize the incident within the CAD record and dispatch a CHP Officer or FSP as per standard procedure. If there is no discernible effect on traffic flow nor need for CHP presence at the site, FSP may clear the incident in accordance with its program's Standard Operating Procedure. The responding CHP Officer will investigate, assess, and begin the process of clearance. If Caltrans Maintenance is required to assist CHP in the removal of the incident, the CHP Officer will inform the CHP Dispatch of the request, who in turn cues the CAD to Caltrans TMC for response. Upon reviewing the item, Caltrans TMC will send Caltrans Maintenance to assist. The Alameda CTC Operations and

Maintenance Manager or designee will monitor the Media CAD for information pertaining to the severity of the incident and CHP response.

In certain situations, allowing General Purpose Lane traffic in the Express Lanes may provide a benefit in the clearing of congestion resulting from an incident. Three of the four modes (see Section 2.3.2 "Express Lanes Mode") are potentially valuable in the management of an incident. The HOV Only Mode will not be used in the event of an incident.

6.2.1 Tolling Mode incidents

The majority of incidents, whether within or adjacent to the Express Lanes, can be quickly cleared without the need to switch from the Tolling Mode. This is due to the fact that the minimum time to implement a mode change is approximately 10 minutes, and the delayed effect could be another 10 or more minutes, depending upon the location of the incident relative to the upstream access points.

In some situations, the CHP Incident Commander may need to temporarily redirect General Purpose Lane traffic into the Express Lanes in order to clear the incident safely. In these situations, the Express Lanes may remain in Tolling Mode.

6.2.2 Closed Mode incidents

Management of incidents in which the Express Lanes will remain blocked for more than fifteen minutes may be helped by closing the Express Lanes. The decision to close lane will be made by the CHP's Incident Commander, relayed to dispatch, to the TMC and to the Alameda CTC Operations and Maintenance Manager or designee who will execute the mode switch.

6.2.3 Open to All Mode incidents

Significant impacts associated with certain incidents within the corridor might be remedied, or incident might be more easily cleared if the Express Lanes are open to all traffic.

6.2.4 Location of Incident and Impact by Segment

From a practical standpoint, CHP will not be able to enforce violations when a mode switch is applied to only certain zones of the facility. Most of the mode switches will be applied throughout the corridor. The application of a mode switch corridor-wide or zone by zone will be made on a case by case basis depending on the location and severity of the incident.

During incidents, CHP or Caltrans TMC and/or Caltrans Maintenance will assist with communicating the changes in the normal tolling modes.

6.3 Communication Procedure

This communication procedure is consistent with established requirements of the CHP. Once an incident is identified by CHP Dispatch, the TMC will be notified through CAD. In those cases in which specific action is needed to change the Express Lane Mode requested by the CHP Incident Commander, the Dispatch will cue the TMC directly via CAD or telephone. The TMC will contact the appropriate Alameda CTC personnel via mobile phone and/or text as listed in Appendix A. Alameda CTC staff will change the mode as requested by the CHP Incident Commander through the CHP Dispatch. **Alameda CTC emergency contact phone list is included in Appendix A**. The Alameda CTC Operations and Maintenance Manager will update the contact list on a quarterly basis and/or when a change is known.

6.4 Override of Express Lane Operations

The Alameda CTC Operations and Maintenance Manager or designee will monitor the CAD for the need to override the Express Lane mode, and will execute the override. The Alameda CTC Operations staff will communicate with CHP and Caltrans TMC staff to coordinate the mode switch to and from the Tolling Mode. In the case of severe incidents, the Alameda CTC Operations staff will initiate media and customer service center information coordination on behalf of the Express Lanes in coordination with the CHP and Caltrans Public Information Officer.

6.5 Clearance

Throughout the clearance of the incident and when the traffic flow warrant it, the CHP Incident Commander who is in control and will initiate all necessary actions, as applicable, to address the emergency or situation that has arisen. The CHP Incident Commander will communicate with CHP Dispatch for updating the CAD as required by CHP standard operating procedure.

6.6 Restoring Tolling Mode

Upon conclusion of the incident, the CHP or Caltrans TMC will inform the Alameda CTC Operations and Maintenance Manager or designee that tolling mode can be restored. The Alameda CTC Operations staff will confirm with the TMC the conclusion of the incident prior to returning the Express Lanes to tolling mode.

6.7 Correcting Express Lane patron charges

It is vital that records are kept as information is passed, decisions are made, and the incident/situation develops. Most of this information will be contained within the CAD. The Alameda CTC Operations and Maintenance Manager or designee will be charged with monitoring and archiving the information for reconciliation with the Express Lane operations log and responding to any customer inquiry, including reconciling toll charges.

7 Level of Effort and Costs

Each year, prior to the approval of the I-580 Express Lanes Annual Operating Budget (Appendix B), the Alameda CTC Operations and Maintenance Manager and appropriate Caltrans Operations and Maintenance staff will recommend a budget to the Executive Steering Committee. Depending upon prior year expenditures, a decision may be made to provide Caltrans reimbursement for services in support of the I-580 Express Lanes. If this determination is agreed upon, then the budget will reflect this agreement as it is forwarded to the ESC for approval as called for elsewhere in this TIMP. **Appendix B is the first year 2015/16 Budget, approved as part of this TIMP.**

8 Monitoring and Modifying Incident Management

Incidents in the corridor will be monitored by the Alameda CTC Operations and Maintenance Manager or designee on a regular basis and discussed with CHP and Caltrans TMC on quarterly basis. If, upon review of the monitoring effort, any issues with the Incident Management Plan are identified, the

Alameda CTC Operations and Maintenance Manager will call a meeting with Caltrans and CHP to determine a solution. In the event that staff is unsuccessful in resolving the issue, then the Alameda CTC's Executive Director, the Caltrans Deputy Director for Operations and the CHP's Golden Gate Division Chief will meet to hear and resolve the issue.

9 Appendix A – Appendix C: Alameda CTC Emergency Contact List

1. Taylor Rutsch, designee of Alameda CTC Operations Manager, (916) 230-3248 (mobile)
2. Kanda Raj, Alameda CTC Operations and Maintenance Manager, (925) 330-8355 (mobile)

Appendix B – FY 2015/16Annual Incident Management Budget

	Caltrans Effort to be Reimbursed	$ Reimbursed	JPA Effort	Notes
TMC/DCC Activities				
TMC Express Lane Operations monitoring, management and communication/coordination with the Alameda CTC TMC, require review of operations reports from the Alameda CTC TMC. The TMC shall coordinate with Alameda CTC TMC Mon -Fri, the a.m. shift (5 a.m. - 10 a.m.), midday shift (10 a.m. - 3 p.m.) and p.m. shift (3 p.m. - 7 p.m.). Assumed 130 hrs. per year	130 hours/year	$13,000.00		
Incident Management Support: One incident per quarter, average of 3 Caltrans TMT staff consisting of two CMS trucks and one spotter, 4 hrs. each per incident; 3x4x4=48 hrs. per year	48 hours/year	$4,800.00		
Meetings: One meeting per month, average of 2 Caltrans Division of Operations staff participating, each 3 hrs. per meeting: 2x3x12=72 hrs. per year)	72 hours/year	$7,200.00		
Annual hours and PY expenditure	**250 hours/year; 0.15 PY**			
Estimated Total Annual Cost		**$25,000.00**		
Other Future Needs To Be Determined (TBD)				
Streaming Video of the toll CCTV to TMC/ATMS Terminals over T-1 line connection @ CT TMC		TBD		
Provide TMC with Emergency Access and Capability to shut down tolling as a last resort contingency		TBD		
Provide ACTC Express Lane Operation Manager PTZ access to TMC CCTV (with primary override to remain in TMC); 3 cameras x 3.5 hrs. per day x 21 days per month x 12 months per year x $0.15 per minute per camera x 60 minutes per hour = $24,000.00 per year		TBD		

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DATE:	February 1, 2016
SUBJECT:	I-580 Corridor High Occupancy Vehicle/Express Lane Projects (PN 1373.000/1368.004/1373.001/1372.004/1372.005): Monthly Progress Report
RECOMMENDATION:	Receive a monthly status update on the I-580 Corridor High Occupancy Vehicle/Express Lane Projects.

Summary

The Alameda CTC is the project sponsor of the I-580 Corridor High Occupancy Vehicle (HOV)/Express Lane Projects along the I-580 corridor in the Tri-Valley that are expected to open to traffic in early 2016 (weather dependent). The I-580 Eastbound Express Lane Project will convert the newly constructed eastbound HOV lane, from Hacienda Drive to Greenville Road, to a double HOV/Express Lane facility. The I-580 Westbound Express Lane Project will convert the westbound HOV lane to a single HOV/Express Lane facility from Greenville Road to San Ramon Road/Foothill Road. To increase access opportunities, the I-580 HOV/Express Lanes facility is constructed as a continuous access type facility that allows carpoolers to continue to travel at no cost.

Toll system installation has been completed. System testing will continue through mid-February 2016.

Attachments A through E of this report provide detailed information on project funding, schedule and status of each corridor project, including the I-580 Eastbound HOV Lane Project - Segment 3 Auxiliary Lanes, Westbound HOV Lane Project (Segments 1 and 2), Eastbound Express Lane Project, Westbound Express Lane Project and the Toll System Integration.

Background

The I-580 Corridor projects will provide increased capacity, safety and efficiency for commuters and freight along the primary corridor connecting the Bay Area with the Central Valley. In its role as project sponsor, the Alameda CTC has been working in partnership with Caltrans, California Highway Patrol, the Metropolitan Transportation Commission, Alameda County, and the cities of Livermore, Dublin, and Pleasanton to deliver the projects.

The I-580 Corridor HOV Lane Projects will be completed with the construction of three final projects in the Livermore Valley (two westbound HOV segments and one eastbound auxiliary (AUX) lanes project). All of these projects are currently completing construction and are being administered by Caltrans. Construction activity began in March 2013 and will be completed by in March 2016 (weather dependent), including the civil infrastructure required for express lane implementation.

For efficiency purposes, the I-580 Eastbound and Westbound Express Lane Projects were combined into one express lane construction project. The civil infrastructure components of this combined project were constructed via construction contract change orders (CCO's) issued to the on-going construction contracts along I-580 (I-580 Westbound HOV, I-580 Eastbound Auxiliary Lane and Freeway Performance Project). Implementation by CCO rather than a future standalone project included: avoiding working in environmentally sensitive areas, minimizing traffic disruptions to the traveling public, reducing or eliminating re-work and delivering the completed project to the public sooner.

The toll system installation is now complete. Punch list items have been resolved with the civil construction contractor for power and communication sources required for system testing. Field coordination efforts helped mitigate schedule delays and maintain plans to open the express lanes in early 2016 (weather dependent).

Interface with the regional customer service center will have to be completed and tested prior to opening the toll lanes to the public. Preliminary interface testing between the I-580 Toll System and regional customer service center began in December 2015 to facilitate the toll operation when the lanes are opened to traffic. Staff will provide additional update to Commissioners at the meeting.

Fiscal Impact: There is no significant fiscal impact to the Alameda CTC budget due to this item. This is information only.

Attachments

A. I-580 Eastbound HOV Lane Project Monthly Progress Report (PN 1368.004)

B. I-580 Westbound HOV Lane Projects Monthly Progress Report (PN 1372.004/1372.005)

C. I-580 Eastbound Express Lane Project Monthly Progress Report (PN 1373.000)

D. I-580 Westbound Express Lane Project Monthly Progress Report (PN 1373.001)

E. I-580 Express Lanes System Integration Monthly Progress Report

F. I-580 Corridor HOV Lane Projects – Location Map

G. I-580 Corridor Express Lane Projects – Location Map

Staff Contact

Kanda Raj, Express Lanes Program Manager

Stefan Garcia, Construction Program Manager

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ATTACHMENT A
I-580 Eastbound HOV Lane Project (PN 1368.004)
Monthly Progress Report
January 2016

PROJECT DESCRIPTION

The I-580 Eastbound HOV Lane Project completes the final eastbound construction segment, Segment 3 Auxiliary (AUX) Lanes, between Hacienda Drive and Greenville Road. The Project scope includes:

- Construction of auxiliary lanes from Isabel Avenue to First Street;
- Pavement width necessary for a double express (high occupancy toll lane facility);
- Final lift of asphalt concrete (AC) pavement and striping for entire eastbound project limits from Hacienda Drive to Portola Avenue;
- The soundwall that was deleted from the I-580/Isabel Avenue Interchange Project; and
- The widening of two bridges at Arroyo Las Positas in the eastbound direction.

CONSTRUCTION STATUS

Construction Challenges

Alameda CTC staff is working in close coordination with Caltrans to implement the project within limited funding. Due to the complexity of coordinating multiple work activities at overlapping locations, the installation of express lane support infrastructure has experienced delays. The project team has minimized delays by expediting priority locations and elevating priorities with supporting contractors and agencies such as Betancourt Brothers Construction, PG&E & Comcast. Challenges, delays and managed risks for this project include:

- Installation of future express Lane components to facilitate express lane completion. Project staff combined HOV and express lane construction work in a manner that keeps the single HOV lane open until the double lane HOV/express lane facility is completed.
- Paving work in the I-580 corridor was sourced to all three HOV contractors from the same local material producer due to volume and distance requirements for the required products. The corridor contractors coordinated a plan and completed paving in the 2015 season to mitigate the impact on the corridor delivery schedule.
- Lane closures for the express lane civil infrastructure and mainline paving operations, required management and coordination of multiple contractors.
- Significant delay was experienced in obtaining commercial power services from PG&E at 17 sites necessary for the new express lane tolling system.
- Delays in the completion of the corridor fiber optics communication trunk.

- Contractor rework and design modifications to fit field conditions, including several "long distance" tolling sites on the corridor.
- Forecasts indicate high probability of an El Nino weather pattern. Weather may delay activities further over the 2015-2016 winter season.

Completed Activities – Contract work was completed in December 2015.
Construction activities began in April 2013. Work completed to date includes:

- Median and outside widening and barrier reconfiguration
- Construction of auxiliary lanes from Isabel Ave. to First St.
- Las Positas Creek (EB and WB) bridge widenings
- Widening of major box culvert at Arroyo Seco and modification of drainage facilities; Creek diversion is removed and area restored
- All sound walls and retaining walls on the freeway corridor
- Pavement widening necessary for conversion of the existing HOV lane to a double express lane (high occupancy toll lane facility)

Ongoing & Upcoming Activities
Caltrans maintains a project website (http://www.dot.ca.gov/dist4/projects/i580wbhov/) and conducts public information and outreach efforts in cooperation with Alameda CTC. Ongoing and upcoming work activities include:

- Maintain HOV lane operation with temporary delineation until Express Lane "Go Live!" date
- Final striping and sign modifications to open Express Lane facility just prior to the "Go Live!" date.
- Open Express Lane facility

FUNDING AND FINANCIAL STATUS

The I-580 Eastbound HOV Project is funded through federal, state and local funds.

Funding Plan – SEGMENT 3

Project Phase	Funding Source ($ million)						
	CMIA	RM2	TVTC	FED	SHOPP	Meas. B	Total
PA&ED						0.02	**0.02**
PS&E		1.72	1.30	0.23			**3.25**
ROW		0.17	0.08			0.28	**0.53**
Construct Cap	17.87	2.20	0.14		4.69	6.57	**31.47**
Construct Sup	2.53	1.12	0.10			0.71	**4.46**
Total	**20.40**	**5.21**	**1.62**	**0.23**	**4.69**	**7.58**	**39.73**
Total Project Cost: $39.7M							

SCHEDULE STATUS

The Eastbound AUX Lane project between Hacienda Drive and Greenville Road was advertised on July 9, 2012; bids were opened on October 5, 2012. Caltrans awarded the contract to OC Jones & Sons (with a bid 6.33 percent below the Engineer's Estimate) on November 16, 2012. With the inclusion of infrastructure to support express lane operations, HOV lane construction is now planned to complete in late 2015, clearing the way for Alameda CTC's express lane contractor to complete field installation and testing activities in advance of opening the new express lanes to revenue service.

Due to the complexity of coordinating multiple construction work activities at overlapping locations, completion of the express lane civil infrastructure has continued to experience significant delays. The Eastbound AUX Lane project between Hacienda Drive and Greenville Road was completed in December 2015. Delays during the construction of the HOV and express lane infrastructure created consequent delay to the planned opening of the new express lane facilities, and staff now anticipates the facilities will be opened in early 2016 (weather dependent).

Project Approval	December 2011 (A)
RTL	May 2012 (A)
CTC Vote	May 2012 (A)
Begin Construction (Award)	November 2012 (A)
End Construction	December 2015 (A)

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ATTACHMENT B
I-580 Westbound HOV Lane Projects (PN 1372.004/1372.005)
Monthly Progress Report
January 2016

PROJECT DESCRIPTION

The I-580 Westbound (WB) HOV Lane Project includes three segments:

- **SEGMENT 1** – WB HOV Eastern Segment from Greenville Road to Isabel Avenue
- **SEGMENT 2** – WB HOV Western Segment from Isabel Avenue to San Ramon Road
- **SEGMENT 3** – Bridge widening at Arroyo Las Positas Creek. This work is included in the construction contract for the I-580 Eastbound (EB) HOV Lane Project (see Attachment A).

CONSTRUCTION STATUS – SEGMENTS 1 & 2

Construction Challenges

Alameda CTC staff is working in close coordination with Caltrans to implement the project within limited funding. Due to the complexity of coordinating multiple work activities at overlapping locations, the installation of express lane supporting infrastructure has experienced delays. The project team has minimized delays by expediting priority locations and elevating priorities with supporting contractors and agencies such as Betancourt Brothers Construction, PG&E & Comcast. Challenges, delays and managed risks for the project include:

SEGMENT 1 (Eastern Segment) & SEGMENT 2 (Western Segment)

- Installation of future express Lane components to facilitate express lane completion. Project staff combined HOV and express lane construction work in a manner that will allow the HOV/express lane facility to be opened concurrently.
- Additional widening of the North Livermore Avenue structure to accommodate express lane width requirements. This work is complete.
- Paving work in the I-580 corridor was sourced to all three HOV contractors from the same local material producer due to volume and distance requirements for the required products. The corridor contractors coordinated a plan and completed paving in the 2015 season to mitigate the impact on the corridor delivery schedule
- Lane closures for the express lane civil infrastructure and mainline paving operations required management and coordination of multiple contractors.
- Significant delay was experienced in obtaining commercial power services from PG&E at 17 sites necessary for the new express lane tolling system.
- Delays in the completion of the corridor fiber optics communication trunk.

- Contractor rework and design modifications to fit field conditions, including several "long distance" tolling sites on the corridor.
- New retaining wall to account for recent, accelerated erosion within the Arroyo Seco Creek adjacent to the widening necessary for westbound lanes
- Coordination with concurrent Caltrans projects in the area to reduce cost
- Revision of pavement slab replacements to prioritize in areas most in need
- Elimination of a retaining wall to reduce project cost
- Changes to the pavement cross section to reduce project cost
- Forecasts indicate high probability of an El Nino weather pattern. Weather may delay activities further over the 2015-2016 winter season

Completed Activities

Construction activities began in March 2013. Work completed to date includes:

SEGMENT 1 (Eastern Segment) – *97% of the contract work was completed as of 12/20/15.*

- North Livermore Avenue bridge widening
- Bridge widening at Arroyo Las Positas (2 locations)
- Arroyo Seco RCB culvert extension
- Construct major drainage facilities (e.g. double box culvert)
- Concrete pavement slab replacements
- Excavate and construct retaining walls and soil nail walls
- Median and outside widening and barrier reconfiguration
- Soundwall construction at Vasco Road
- Installation of lighting electroliers in the median
- Lighting and Traffic Operation Systems
- Infrastructure to support express lane operations
- Pavement widening necessary new express lane (high occupancy toll lane facility)
- All paving activity is complete

SEGMENT 2 (Western Segment) – *Contract work was completed in December 2015.*

- Bridge widening at Tassajara Creek
- Precast slab pavement replacements
- Retaining walls
- Median and outside widening and barrier reconfiguration
- Installation of lighting electroliers in the median
- Lighting and Traffic Operation Systems
- Infrastructure to support express lane operations and pavement widening necessary new express lane (high occupancy toll lane facility)
- All paving activity is complete

Ongoing & Upcoming Activities

Caltrans maintains a project website (http://www.dot.ca.gov/dist4/projects/i580wbhov/) and conducts public information and outreach efforts in cooperation with Alameda CTC. Ongoing and upcoming work activities include:

SEGMENT 1 (Eastern Segment) & SEGMENT 2 (Western Segment)

- Maintain HOV lane closed to traffic with temporary delineation until Express Lane "Go Live!" date
- Final striping and sign modifications to open Express Lane facility just prior to the "Go Live!" date
- Open Express Lane facility

FUNDING AND FINANCIAL STATUS

The I-580 Westbound HOV Lane Project is funded through federal, state and local funds available for the I-580 Corridor. The total project cost is $143.9M, comprised of programmed (committed) funding from federal, state and local sources.

Funding Plan – SEGMENT 1 (Eastern Segment)

Project Phase	Funding Source ($ million)							
	CMIA	RM2	TCRP	FED	SHOPP	Meas. B	TVTC	Total
Scoping		0.53	0.04					**0.57**
PA&ED		4.38						**4.38**
PS&E		2.29	0.11	0.15		1.69	0.42	**4.66**
ROW		1.16				0.04		**1.20**
Utilities		0.32						**0.32**
Const Cap	35.34		5.92	6.19	13.54	1.60		**62.59**
Const. Sup	6.52		1.59			1.08		**9.19**
Total	**41.86**	**8.68**	**7.66**	**6.34**	**13.54**	**4.41**	**0.42**	**82.91**
Total Project Cost: $82.9M								

Funding Plan – SEGMENT 2 (Western Segment)

Project Phase	Funding Source ($ million)							
	CMIA	RM2	TCRP	FED	SHOPP	Meas. B	TVTC	Total
Scoping		0.36	0.02					**0.38**
PA&ED		2.92						**2.92**
PS&E		1.53	0.07	0.10		1.12	0.28	**3.10**
ROW		0.77				0.03		**0.80**
Utilities		0.21						**0.21**
Const Cap	33.73		2.49		9.61	0.10	0.30	**46.23**
Const. Sup	6.75					0.58		**7.33**
Total	**40.48**	**5.79**	**2.58**	**0.10**	**9.61**	**1.83**	**0.58**	**60.97**
Total Project Cost: $61.0M								

SCHEDULE STATUS

SEGMENT 1 (Eastern Segment):
The Westbound HOV Eastern Segment from Greenville Road to Isabel Avenue was advertised on July 16, 2012 and bids were opened on September 19, 2012. Caltrans awarded the contract to Ghilotti Construction Company, Inc. (with a bid 16.33 percent below Engineer's Estimate) on November 20, 2012. With the inclusion of infrastructure to support express lane operations, HOV lane construction is now planned to complete in early 2016, clearing the way for Alameda CTC's express lane contractor to complete field installation and testing activities in advance of opening the new express lanes to revenue service.

Due to the complexity of coordinating multiple construction work activities at overlapping locations, completion of the express lane civil infrastructure has continued to experience significant delays. Delays during the construction of the HOV and express lane infrastructure created consequent delay to the planned opening of the new express lane facilities, and staff now anticipates the facilities will be opened in early 2016 (weather dependent). The Eastern Segment contractor will provide support for corridor opening activities in early 2016.

Project Approval	January 2010 (A)
RTL	May 2012 (A)
CTC Vote	May 2012 (A)
Begin Construction (Award)	November 2012 (A)
End Construction	March 2016 (T)

SEGMENT 2 (Western Segment):
The Westbound HOV Western Segment from Isabel Avenue to San Ramon Road was advertised on June 25, 2012 and bids were opened on August 29, 2012. Caltrans awarded the contract to DeSilva Gates Construction (with a bid 23.32 percent below Engineer's Estimate) on October 29, 2012. With the inclusion of infrastructure to support express lane operations, construction is now planned to complete in fall 2015, clearing the way for Alameda CTC's express lane contractor to complete field installation and testing activities in advance of opening the new express lanes to revenue service.

Due to the complexity of coordinating multiple construction work activities at overlapping locations, completion of the express lane civil infrastructure has continued to experience significant delays. The Westbound HOV Western Segment from Isabel Avenue to San Ramon Road was completed in December 2015. Delays during the construction of the HOV and express lane infrastructure created consequent delay to the planned opening of the new express lane facilities, and staff now anticipates the facilities will be opened in early 2016 (weather dependent).

Project Approval	January 2010 (A)
RTL	April 2012 (A)
CTC Vote	April 2012 (A)
Begin Construction (Award)	October 2012 (A)
End Construction	December 2015 (A)

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ATTACHMENT C
I-580 Eastbound Express Lane Project
Progress Report
January 2016

PROJECT DESCRIPTION

The I-580 Eastbound Express Lane Project will convert the newly constructed eastbound HOV lane, from Hacienda Drive to Greenville Road, to a double HOV/Express Lane facility, for a distance of approximately 11 miles.

PROJECT DELIVERY STATUS

- The civil construction component is being implemented through the Contract Change Orders (CCOs) process under the three I-580 HOV lane projects currently in construction: the I-580 Westbound HOV Lane - West Segment Project; the I-580 Westbound HOV Lane - East Segment Project and the I-580 Eastbound HOV Lane - Segment 3 Auxiliary Lane Project. All CCOs have been issued and the work is complete.
- Electronic toll system installation is complete
- Toll system interface testing is progressing

RECENT ACTIVITIES

- Civil construction activities are complete, including infrastructure required for the installation of toll system (see Attachment A for details)
- Construction coordination meetings held to ease construction sequencing between the civil and systems construction projects and mitigate schedule delays
- Toll system installation, testing and outreach activities are progressing (see Attachment E for details)

UPCOMING ACTIVITIES

- Toll system equipment tuning, interface and system testing, site acceptance testing and pre-opening public outreach activities are expected to continue until the lanes are open in early 2016 (see Attachment E for details)
- Toll system acceptance and outreach activities will continue beyond the lane opening, which is anticipated in early 2016, weather dependent.

POTENTIAL ISSUES/RISKS

Delays have been experienced in completing the civil infrastructure required for the toll system installation and lane opening. Due to the delays, the express lanes will now be opened to traffic in early 2016. Staff continues to assess schedule delays to minimize lane opening delays.

FUNDING AND FINANCIAL STATUS

The total project cost of the combined express lane project is $55 million and is fully funded with a combination of federal, regional and local fund sources.

SCHEDULE STATUS

I-580 Eastbound Express Lane Project Schedule:

Project Approval	March 2014 (A)
Civil Design Completion	April 2014 (A)
Begin Construction	June 2014 (A)
End Construction (Civil Infrastructure for Toll Lanes)	Early 2016 (T)
End System Integration and Open Express Lanes	Early 2016 (T)

ATTACHMENT D
I-580 Westbound Express Lane Project
Progress Report
January 2016

PROJECT DESCRIPTION

The I-580 Westbound Lane Project will convert the planned westbound HOV lane (currently in construction), to a single HOV/Express Lane facility, from Greenville Road in Livermore to San Ramon Road / Foothill Road in Dublin / Pleasanton, a distance of approximately 14 miles.

PROJECT DELIVERY STATUS

- The civil construction component is being implemented through the Contract Change Orders (CCOs) process under the three I-580 HOV lane projects currently in construction: the I-580 Westbound HOV Lane - West Segment Project; the I-580 Westbound HOV Lane - East Segment Project and the I-580 Eastbound HOV Lane - Segment 3 Auxiliary Lane Project. All CCOs have been issued and the work is complete.
- Electronic toll system installation is complete
- Toll system interface testing is progressing

RECENT ACTIVITIES

- Civil construction activities are complete, including infrastructure required for the installation of toll system (see Attachment B for details)
- Construction coordination meetings held to ease construction sequencing between the civil and systems construction projects and mitigate schedule delays
- Toll system installation, testing and outreach activities are progressing (see Attachment E for details)

UPCOMING ACTIVITIES

- Toll system equipment tuning, interface and system testing, site acceptance testing and pre-opening public outreach activities are expected to continue until the lanes are open in early 2016 (see Attachment E for details)
- Toll system acceptance and outreach activities will continue beyond the lane opening, which is anticipated in early 2016, weather dependent

POTENTIAL ISSUES/RISKS

Delays have been experienced in completing the civil infrastructure required for the toll system installation and lane opening. Due to the delays, the express lanes will now be opened to traffic in early 2016. Staff continues to assess schedule delays to minimize the delays in lane opening.

FUNDING AND FINANCIAL STATUS

The total project cost of the combined express lane project is $55 million and is fully funded with a combination of federal, regional and local fund sources.

SCHEDULE STATUS

I-580 Westbound Express Lane Project Schedule:

Project Approval	August 2013 (A)
Civil Design Completion	April 2014 (A)
Begin Construction	June 2014 (A)
End Construction (Civil Infrastructure for Toll Lane)	Early 2016 (T)
End System Integration and Open Express Lane	Early 2016 (T)

ATTACHMENT E
I-580 Express Lanes System Integration
Progress Report
January 2016

PROJECT DESCRIPTION

The I-580 Express Lane civil contract constructed the necessary civil infrastructure to implement the express lanes on I-580. Civil items included signing, sign gantries for dynamic messaging and toll reading, electrical conduit for connecting power and communication sources and pavement striping. The System Integration component of the project includes communication and tolling hardware design, software development, and factory testing of toll system equipment, hardware installation and toll system integration. Field testing the toll equipment and all subsystems, including the interfaces to the Bay Area Toll Authority (BATA) - Regional Customer Service Center and Caltrans, prior to implementing the new express lanes is also included under the System Integration contract. Implementation of express lane projects involves emerging technologies and is still a relatively new concept to Bay Area commuters. For this reason, Alameda CTC embarked on a robust education and outreach campaign in February 2015, to inform the public of the new facility and how to use the lanes. An update on public education and outreach is provided in Agenda Item 4.3.

Detailed Discussion

System integration improvements along the I-580 corridor include the most recent congestion management hardware, software and traffic detection technologies to efficiently manage current and forecasted traffic congestion to optimize existing corridor capacity. The system integrator will continue to own the software while the implementing agency will pay for a license to allow for the use of the toll integrator's software and services.

The project includes "near continuous" type access configuration to provide additional access opportunities through the express lane facility, while reducing the foot-print required for implementing a shared express/general purpose lane facility. In addition, the near continuous access configuration looks and feels similar to a High Occupancy Vehicle (HOV) facility and, therefore, is expected to provide driver familiarity through the corridor.

Real-time traffic and travel conditions (traffic speed and volume data) will be gathered through traffic monitoring devices at various stations throughout the facility. Demand-based toll rates will be calculated utilizing a dynamic pricing model algorithm. Travelers will be informed of the calculated toll rates ahead of express lane entry locations on Dynamic Message Signs (DMSs). The DMSs are expected to display two rates, the first rate is for travel within the current or immediately downstream zone (typically the next interchange) and the second rate is for travel to a major destination within the corridor (determined as the end of the line in the I-580 Corridor).

To support this near continuous access configuration, the electronic toll system has been developed to implement zone tolling and automated toll evasion violation enforcement which involves a license plate image capture and review process. Closely spaced toll antennas and readers will be placed approximately at ¾-mile intervals to effectively read FasTrak® / FasTrak flex® (also known as switchable) transponders. A transponder will have to be read once within a toll zone by a toll reader; which will charge a flat fee for use of the lane within that zone. The Toll Enforcement Ordinance was adopted by the Commission in July 2015 that will enable Alameda CTC to enforce automated toll evasion violation through the use of license plate image capture and review process. The registered owners of vehicles without a valid FasTrak® account will be issued a toll evasion violation notice, following a procedure, similar to the current procedure employed throughout the San Francisco Bay Area on the toll bridges.

In addition, staff has been working closely with BATA to finalize the interface between the toll system, regional customer service center operations, and the distribution of the FasTrak® flex (aka switchable) transponders. The interface testing between the I-580 Toll System and regional customer service center is currently underway and is expected to be completed by the first week of February. Since express lanes involve new and emerging technologies and are a relatively new concept to Bay Area commuters, a comprehensive education and outreach effort is underway to inform motorists about the benefits of the new lanes, how to use them, and how to obtain the required FasTrak® or FasTrak® flex toll tags. An I-580 Express Lanes education and outreach campaign is being implemented within the project area and throughout the I-580 travel sheds, which include Alameda, San Joaquin, Stanislaus and Contra Costa Counties.

PROJECT STATUS

Toll system installation is complete. Individual site preparations have completed in January. The interface testing with the regional customer service center is currently underway to validate successful reading and processing of toll trip transactions. Site acceptance testing is progressing from mid- January to mid-February 2016. Construction coordination meetings have been held between the toll systems and civil contractors for coordinating the completion of last few express lane related civil items, such as pavement marking, lane transition and signs/uncovering of signs, required for the express lane implementation. The lanes are anticipated to be opened in early 2016 (weather dependent). A summary of approved toll systems related change orders are included in Table A.

TABLE A. Toll System Construction Contract Change Orders:

CCO	CCO Budget	Description of CCO	CCO Amount	Remaining CCO Budget
Budget approved in July 2015	**$936,000**			
No. 1		Additional scope and budget for ETCC to remobilize and provide increased traffic control to manage toll system installation	$113,400	
No. 2		Additional three long-distance toll sites, based on field conditions that increased the labor and materials costs	$70,500	**$752,100**

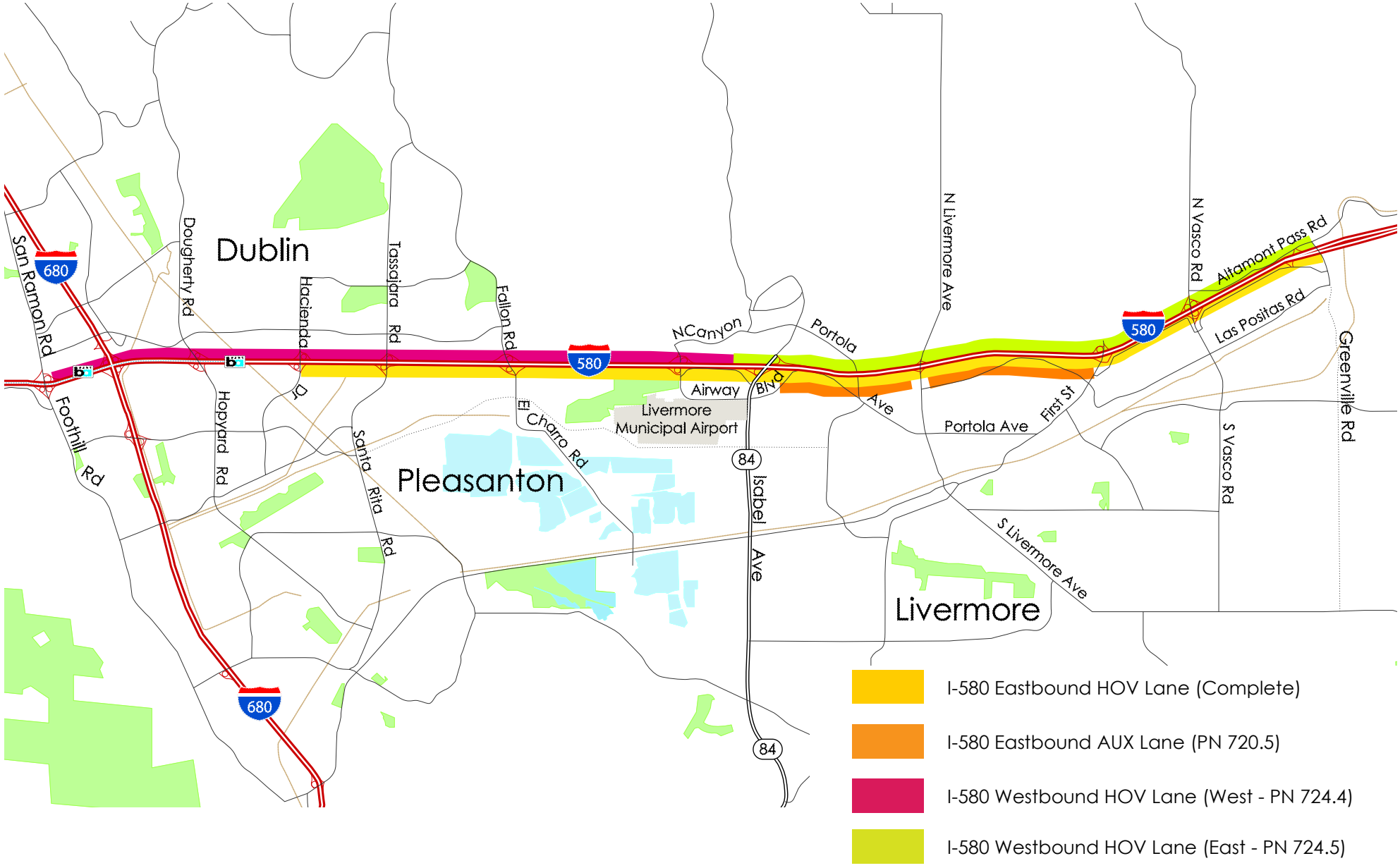
The broad education and outreach effort continues within the project area and throughout the I-580 travel shed. The outreach effort is focused on educating the public about how to use the lanes, their benefits, and that a toll tag (FasTrak/FasTrak flex) is required for all users. A widespread media program was launched on January 4, 2016, placing particular emphasis on commuter-oriented media including radio traffic sponsorships, online ads, local civic television, and outdoor transit posters as well as local print. Outreach continues to employers and major corridor destinations as well as via presentations to civic groups and the distribution of collateral materials and online information through partners, stakeholder and general public outreach at libraries, city halls, Tri-Valley BART stations. The public is obtaining FasTrak Flex toll tags at a good rate both online at www.bayareafastrak.org and at Costco, Safeway and Walgreens retails stores, and the Bay Area Toll Authority has registered more than 33,500 toll tags through December 2015.

Recent outreach meetings include two express lane training presentations at Dublin CHP, and informational presentations to the Tracy Sunrise Rotary, the Central Valley Association of Realtors, the Tri-Valley Spare the Air Resource Team and the Tri-Valley Rotary Club. A corridor tour for media and media briefing is being planned for early February and Ribbon Cutting event will be held once the lanes are open.

FUNDING AND FINANCIAL STATUS

The total project cost of the combined Eastbound and Westbound I-580 Express lane project is $55 million, and is fully funded with a combination of federal, regional and local fund sources.

I-580 Corridor HOV Lane Projects - Location map



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I-580 Express Lanes Project Location Map

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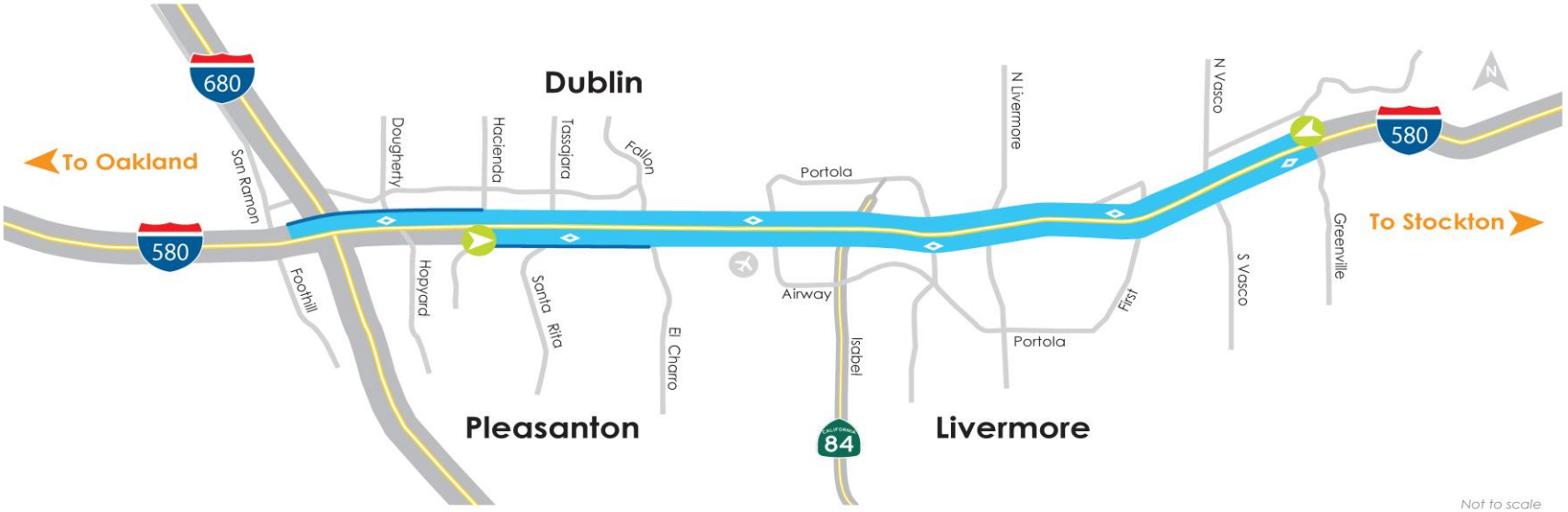

Two Eastbound Express Lanes

Lanes begin at Hacienda

No entry/exit from eastbound express lanes from Hacienda to Fallon / El Charro.

Please note: For access to Santa Rita Road, do not enter express lanes.

One Westbound Express Lane

Lane begins at Greenville

No entry/exit from westbound express lane from Hacienda to end.

Please note: For access to I-680 or Dougherty, exit express lane before Hacienda.

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