



I-680 Sunol Express Lane Joint Powers Authority Meeting Agenda Monday, July 8, 2019, 9:30 a.m.

Committee Chair: Lily Mei, City of Fremont
Vice Chair: David Haubert, City of Dublin
Members: Scott Haggerty, Jerry Thorne,
Rich Tran (Santa Clara Valley
Transportation Authority)

Executive Director: Arthur L. Dao
Staff Liaison: [Elizabeth Rutman](#)
Clerk of the Commission: [Vanessa Lee](#)

1. Call to Order/Pledge of Allegiance

2. Roll Call

3. Public Comment

4. Consent Calendar

Page/Action

- 4.1. [Approve the May 13, 2019 I-680 Sunol Smart Carpool Lane Joint Powers Authority \(JPA\) Meeting Minutes](#) 1 A

5. Regular Matters

- 5.1. [I-580 Toll System Upgrade Project \(PN 1486.002, State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project \(PN 1386.000\), I-680 Express Lanes Project \(PN 1369.000\), I-580 Express Lane Operations \(1373.002\), and I-680 Express Lane Operations \(1408.000\) Update](#) 5 I
- 5.2. [I-680 Southbound Express Lane from SR 84 to Alcosta Boulevard Project \(PN: 1490.001\): Update on necessary actions to initiate and complete the preparation of Plans, Specifications, and Estimate \(PS&E\) and Construction Contract Documents](#) 9 I
- 5.3. [I-680 Sunol Express Lanes \(PN 1369.000\): Monthly Status Update](#) 19 I
- 5.4. [I-680 Southbound Express Lane: Monthly Operations Status Update](#) 25 I

6. Committee Member Reports

7. Staff Reports

8. Adjournment

Next Meeting: Monday, September 9, 2019

Notes:

- All items on the agenda are subject to action and/or change by the Commission.
- To comment on an item not on the agenda (3-minute limit), submit a speaker card to the clerk.

- Call 510.208.7450 (Voice) or 1.800.855.7100 (TTY) five days in advance to request a sign-language interpreter.
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- Meeting agendas and staff reports are available on the [website calendar](#).
- Alameda CTC is located near 12th St. Oakland City Center BART station and AC Transit bus lines. [Directions and parking information](#) are available online.



Alameda CTC Schedule of Upcoming Meetings for July 2019 through December 2019

Commission Chair

Supervisor Richard Valle, District 2

Commission Vice Chair

Mayor Pauline Cutter,
City of San Leandro

AC Transit

Board Vice President Elsa Ortiz

Alameda County

Supervisor Scott Haggerty, District 1
Supervisor Wilma Chan, District 3
Supervisor Nate Miley, District 4
Supervisor Keith Carson, District 5

BART

Vice President Rebecca Saltzman

City of Alameda

Mayor Marilyn Ezzy Ashcraft

City of Albany

Mayor Rochelle Nason

City of Berkeley

Mayor Jesse Arreguin

City of Dublin

Mayor David Haubert

City of Emeryville

Councilmember John Bauters

City of Fremont

Mayor Lily Mei

City of Hayward

Mayor Barbara Halliday

City of Livermore

Mayor John Marchand

City of Newark

Councilmember Luis Freitas

City of Oakland

Councilmember At-Large
Rebecca Kaplan
Councilmember Sheng Thao

City of Piedmont

Mayor Robert McBain

City of Pleasanton

Mayor Jerry Thorne

City of Union City

Mayor Carol Dutra-Vernaci

Executive Director

Arthur L. Dao

Commission and Committee Meetings

Time	Description	Date
2:00 p.m.	Alameda CTC Commission Meeting	July 25, 2019 September 26, 2019 October 24, 2019 December 5, 2019
9:00 a.m.	Finance and Administration Committee (FAC)	September 9, 2019 October 14, 2019 November 18, 2019
9:30 a.m.	I-680 Sunol Smart Carpool Lane Joint Powers Authority (I-680 JPA)	
10:00 a.m.	I-580 Express Lane Policy Committee (I-580 PC)	
10:30 a.m.	Planning, Policy and Legislation Committee (PPLC)	
12:00 p.m.	Programs and Projects Committee (PPC)	

Advisory Committee Meetings

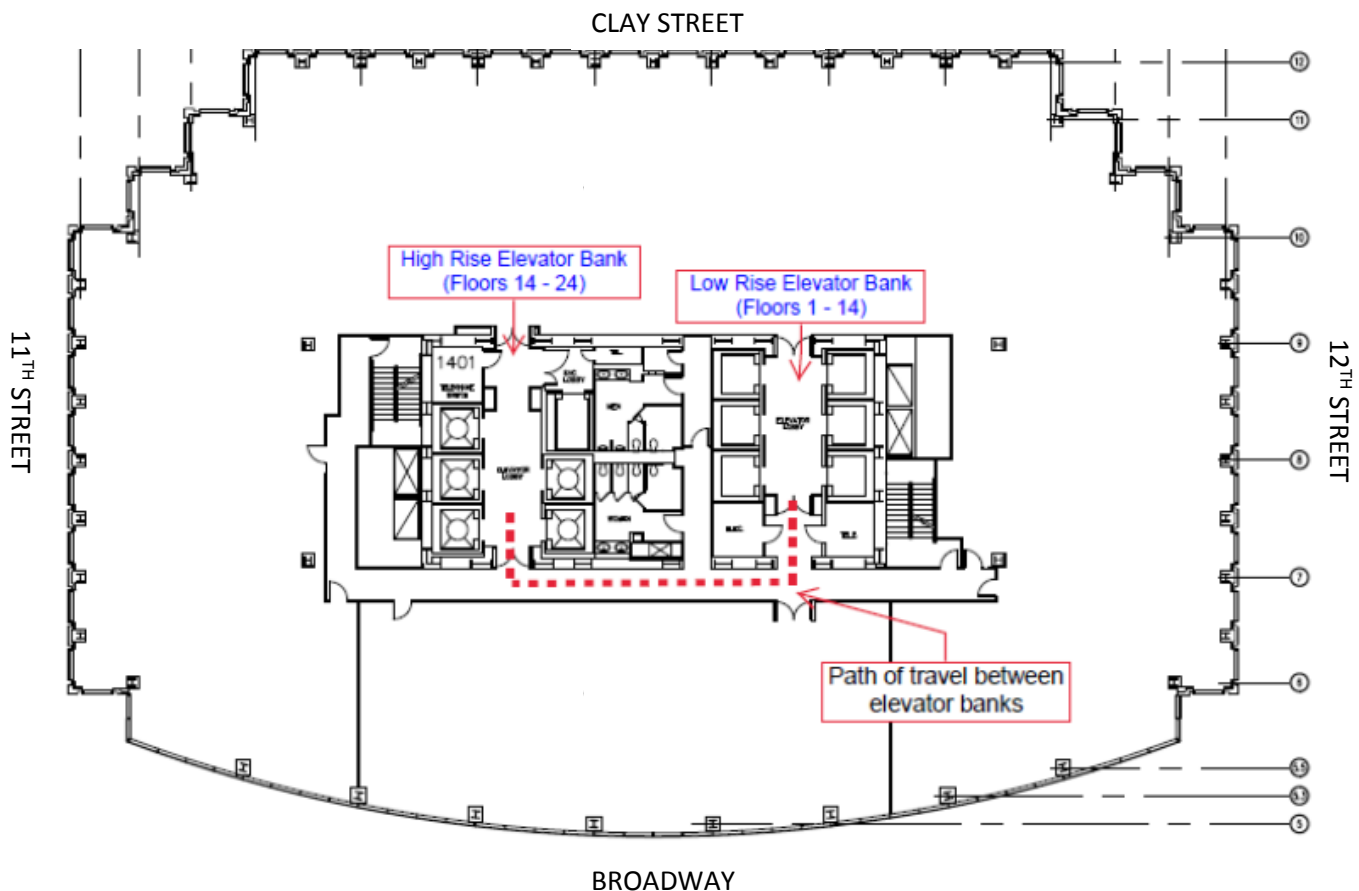
1:30 p.m.	Alameda County Technical Advisory Committee (ACTAC)	September 5, 2019 October 10, 2019 November 7, 2019
5:30 p.m.	Bicycle and Pedestrian Advisory Committee (BPAC)	September 5, 2019 November 21, 2019
9:30 a.m.	Paratransit Technical Advisory Committee (ParaTAC)	September 10, 2019
1:30 p.m.	Paratransit Advisory and Planning Committee (PAPCO)	September 23, 2019
5:30 p.m.	Independent Watchdog Committee (IWC)	November 18, 2019

All meetings are held at Alameda CTC offices located at 1111 Broadway, Suite 800, Oakland, CA 94607. Meeting materials, directions and parking information are all available on the [Alameda CTC website](http://www.AlamedaCTC.org).

1111 Broadway: Construction Notice - Building Access Changes

Alameda CTC's building offices at 1111 Broadway is undergoing significant construction work. In order to ensure smooth operations and access to the building for our public meetings, please be aware of the following changes:

- The **Broadway Street entrance is now CLOSED.** No access will be permitted from the Broadway entrances. Access to the building will only be available through the rear lobby (Clay St. / Zen Garden side).
- ADA access from 12th St. will remain open. The accessibility ramp on Broadway plaza will also remain in place through the duration of construction.
- Alameda CTC's offices on the 8th floor will continue to have open elevator access to any member of the public. Please follow the path of travel to the low rise elevator bank. If you require assistance accessing the floor, building security will be happy to escort any tenant employees or guests as needed.



Accessibility

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I-680 Sunol Smart Carpool Lane Joint Powers Authority Meeting Minutes Monday, May 13, 2019, 9:30 a.m.

4.1

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1. Call to Order/Pledge of Allegiance

2. Roll Call

A roll call was conducted. All members were present with the exception of Commissioner Tran.

3. Public Comment

There were no public comments.

4. Consent Calendar

4.1. Approve the March 11, 2019 I-680 Sunol Smart Carpool Lane Joint Powers Authority (JPA) meeting minutes

4.2. I-680 Sunol SMART Carpool Lane JPA Annual Report

Commissioner Haubert moved to approve the consent calendar. Commissioner Thorne seconded the motion. The motion passed with the following votes:

Yes:	Haggerty, Haubert, Mei, Thorne
No:	None
Abstain:	None
Absent:	Tran

5. Regular Matters

5.1 Approve the I-680 Sunol Smart Carpool Lane Proposed Budget for FY2019-20

Patricia Reavey recommended that the Authority approve the I-680 Sunol Smart Carpool Lane Proposed Budget for FY2019-20. She noted that the proposed budget is aligned with the core function of the agency as defined in enabling legislation, which is to operate a toll lane along interstate 680. The budget is balanced and sustainable, and the express lane is no longer dependent on grant funds for its solvency as all operating costs are projected to be paid from current fiscal year toll revenues. The reserves for maintenance in net position has not been increased in the proposed budget for FY2019-20, and the proposed budget includes a \$500,000 increase to the operational risk reserve in net position. In keeping with recommended best practices, the agency continues to work towards the goal of setting aside funding for future maintenance needs and operational risk. There is one special project for toll revenue forecasting proposed in the budget, which is included in non-operating expenses, and no capital projects planned for the Sunol Smart Carpool Lane for FY2019-20. Ms. Reavey stated that the proposed budget contains a projected ending net position balance of \$6,421,563 comprised of \$1,500,000 reserved for maintenance, \$2,500,000 reserved for operational risk, \$1,134,096 invested in capital assets, and \$1,287,467 of unrestricted assets.

Commissioner Haggerty moved to approve this item. Commissioner Haubert seconded the motion. The motion passed with the following votes:

Yes: Haggerty, Haubert, Mei, Thorne
No: None
Abstain: None
Absent: Tran

5.2. Approve the I-680 Sunol Smart Carpool Lane FY2018-19 Third Quarter Financial Report

Yoana Navarro recommended that the Authority approve the I-680 Sunol Smart Carpool Lane FY2018-19 Third Quarter Financial Report. She stated that the financial report summarizes revenues and expenses related to the I-680 Sunol Smart Carpool Lane for the fiscal year through March 31, 2019. Net toll and other revenue was \$2,147,578 or 10.1 percent more than projected revenues through the third quarter of FY2018-19. Operating expenses through the third quarter totaled \$1,170,646 or 29.1 percent less than budget. These variances together result in an increase to net position of \$976,932. This positive variance relates to actual toll revenue coming in slightly higher and expenses coming in lower than projections, mostly due to operations and maintenance and enforcement costs. As of March 31, 2019, the I-680 Sunol Smart Carpool Lane had cash and investments totaling \$5.9 million. Ms. Navarro also stated that the Sunol Smart Carpool Lane JPA is in a strong position compared to budget after the third quarter of the fiscal year and remains sustainable.

Commissioner Haubert moved to approve this item. Commissioner Thorne seconded the motion. The motion passed with the following votes:

Yes: Haggerty, Haubert, Mei, Thorne
No: None
Abstain: None
Absent: Tran

5.3. I-680 Southbound Express Lane: Monthly Operations Status Update

Ashley Tam provided an update on the I-680 Southbound Express Lane for February-March 2019. She covered the average toll trip data and roadway segment speeds and corridor performance information. Ms. Tam also reviewed average speeds and density, and toll rates during operational hours. She concluded the update by reviewing estimated gross toll revenues versus forecasted operating budget.

Commissioner Haggerty wanted more clarification on the enforcement hours and number of officers. Liz Rutman and Captain Chris Sherry from CHP noted that currently on the I-680 corridor there are two officers running in shifts of 4 to 6 hours.

Commissioner Mei asked if was harder to enforce the lanes while construction was underway. Captain Sherry noted that construction, weather, and ridership are all factors that affect enforcement.

This item is for information only.

5.4. I-680 Sunol Express Lanes (PN 1369.000): Monthly Status Update

Trinity Nguyen presented the I-680 Sunol Express lane status update. Ms. Nguyen presented construction highlights and next steps in the project's development including continued preliminary toll system design and coordination with civil design for construction staging/sequencing, and continued coordination with PG&E regarding power service.

Commissioner Thorne wanted to know if the Northbound lanes will be completed before the development of the Fremont housing units next to the project. Mr. Dao noted that it is expected that the northbound lanes will be open by fall 2020.

Commissioner Haggerty noted that there is a major slide on Route 84. Mr. Dao noted that this is not within the project limits and staff will follow-up with Caltrans.

This item is for information only.

6. Committee Member Report

There were no committee reports.

7. Staff Reports

There were no staff reports.

8. Adjournment/ Next Meeting

The next meeting is:

Date/Time: Monday, June 10, 2019 at 9:30a.m.

Location: Alameda CTC Offices, 1111 Broadway, Suite 800, Oakland, CA 94607

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Memorandum

5.1

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• 510.208.7400

• www.AlamedaCTC.org

DATE: July 1, 2019

TO: I-680 Sunol Express Lane Joint Powers Authority

FROM: Liz Rutman, Director of Express Lanes Implementation and Operations

SUBJECT: I-580 Toll System Upgrade Project (PN 1486.002), State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project (PN 1386.000), I-680 Express Lanes Project (PN 1369.000), I-580 Express Lane Operations (1373.002), and I-680 Express Lane Operations (1408.000) Update

Recommendation

This item is to provide the Authority with an update on recommendations for the execution of Professional Services Agreement A19-0009 with Kapsch TrafficCom USA, Inc. (Kapsch) for Electronic Toll System Integration Services for the I-580 and I-680 Express Lane programs for a not-to-exceed amount of \$60 million and the execution of Amendment No. 2 to Agreement A17-0001 with Kapsch for Electronic Toll System Integration Services for the I-680 Express Lanes. This item is for information only.

Summary

The Alameda CTC operates and maintains both the I-580 Express Lanes and the I-680 Sunol Southbound Express Lane, the latter on behalf of the Sunol Smart Carpool Lane Joint Powers Authority. In March 2018, Alameda CTC approved the release of a request for proposals (RFP) for Electronic Toll System Integrator (ETSI) Services for the I-580 Express Lanes and future express lane corridors and authorized the Executive Director to negotiate a Professional Services Agreement for ETSI Services with the top ranked firm so that the I-580 Express Lanes toll system could be upgraded with enhanced vehicle detection and identification. RFP 18-0017 was released on April 20, 2018 and three responsive proposals were received by the proposal due date of August 1, 2018. At the conclusion of the proposal evaluation process, Alameda CTC selected Kapsch as the top-ranked firm.

Under Agreement A17-0001, Kapsch is already under contract with Alameda CTC to deliver the new I-680 Express Lanes toll system. Agreement A17-0001 includes a one year warranty period for operations & maintenance (O&M) services and an option for an additional three

years of O&M services, but those services are not fully scoped in the agreement and do not include any performance metrics. Staff recommends that O&M services for the I-680 Express Lanes be included in the new Agreement A19-0009, which is before you, to ensure consistent performance requirements and streamline the oversight of the Kapsch team. For greatest clarity, staff recommends formally amending the existing Agreement A17-0001 to eliminate the warranty period and optional O&M Services from the scope of work.

In addition to the I-580 Express Lanes Toll System Upgrade, staff recommends including in this new Agreement A19-0009 the extension of the I-680 Express Lanes associated with the State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project. This project is currently in final design and ETSI input is required to ensure the toll system needs are accommodated during design. This task falls within the RFP scope element of future express lanes.

After a thorough review of the submitted cost proposal and comparison to Alameda CTC's independent cost estimate, Alameda CTC negotiated Agreement A19-0009 with Kapsch and has determined that the negotiated not-to-exceed amount of \$60,000,000 is fair, reasonable, and justifiable to both the Alameda CTC and the consultant. The scope of work includes implementation of a new I-580 Express Lanes toll system, extension of the I-680 Express Lanes associated with the State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project, image review services for both the I-580 and I-680 express lanes, and full turnkey O&M services for both the I-580 and I-680 express lanes. This agreement is for a base term of 9 years with an option to extend for up to 4 additional years.

This Agreement will be funded from a combination of I-580 and I-680 Express Lane Toll Revenue funds, as well as State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project funds.

Background

The I-580 Express Lanes, extending from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to the I-580/I-680 Interchange in the westbound direction, were opened to traffic in February 2016. Motorists using the I-580 Express Lanes facility benefit from travel time savings and travel reliability compared to those in the general purpose lanes. An All Electronic Toll (AET) collection method has been employed to collect tolls.

The I-580 Express Lanes toll system, which was competitively procured in 2009 and put into revenue service in February 2016, now lacks technological advances in vehicle detection and identification that would increase both enforcement and toll revenues. For example, the current toll system requires a 100% license plate match in order to associate images captured for the same vehicle at different toll gantries when no toll tag is detected. The toll system proposed by Kapsch matches images using the license plate either in full or by a nearness of match when based on partial plate interpretation, transaction times, and a match of other vehicle characteristics such as vehicle shape, size, and color. This results in rejection of fewer images and thus increased revenue. In addition, manual image review was suspended for the current toll system in May 2017 after Commissioners questioned the

\$1 million per year cost, and staff's evaluation of the benefit/cost analysis confirmed Commissioners' concerns when it showed that the cost exceeded potential revenues to be gained from such efforts. With today's current system, without manual image review, the transaction is discarded if the system cannot read the image with sufficient confidence in the result, and if the vehicle does not have a toll tag. Revenue leakage due to these deficiencies in the current toll system is estimated at over \$600,000 per year.

In March 2018, the Commission approved the release an RFP for ETSI Services for the I-580 Express Lanes and future express lane corridors and authorize the Executive Director to negotiate a Professional Services Agreement for ETSI Services with the top ranked firm. The RFP was released on April 20, 2018. A mandatory pre-proposal meeting was held on May 9, 2018, and was attended by six (6) firms with interest in being the prime contractor. By the proposal due date, August 1, 2018, Alameda CTC received responsive proposals from the following three firms:

- Conduent State & Local Solutions, Inc.
- emovis technologies US, Inc.
- Kapsch TrafficCom North America (a.k.a. Kapsch TrafficCom USA, Inc.)

An independent selection panel comprised of representatives from the Metropolitan Transportation Commission, Santa Clara Valley Transportation Authority, and Alameda CTC reviewed the proposals submitted. All three firms were invited to provide demonstrations of their toll systems on October 17, 2018; interviews were conducted for all three firms on October 19, 2018. At the conclusion of the evaluation process, Alameda CTC selected Kapsch as the top-ranked firm.

Alameda CTC has negotiated with Kapsch to solidify the scope of work for Agreement A19-0009 and reached concurrence on a not-to-exceed amount of \$60 million. In addition to the implementation of a new I-580 Express Lanes toll system and providing O&M services for eight (8) years, the scope of work includes several other items described in the following paragraphs.

In June 2016, the Commission authorized the execution of Professional Services Agreement A17-0001 with Kapsch for ETSI Services for the I-680 Express Lanes Project for a not-to-exceed amount of \$15 million. The scope of work includes implementation of the new I-680 Express lanes toll system, one year of warranty period of O&M services, and an option for an additional three years of O&M services. Revenue services for the new toll system are expected to begin in late 2020. However, the O&M services are not fully scoped in the agreement and do not include any performance metrics. Staff recommends that the I-680 Express Lanes follow current industry contracting practices, which are included in the new Agreement A19-0009 for the I-580 Express Lanes, and eliminate the warranty period and initiates turnkey O&M services for the I-680 Express Lanes upon completion of the Operational Acceptance Test, which is when the agency accepts that the toll system is fully operational. However, rather than amend the existing Agreement with A17-0001 to incorporate a more refined O&M scope and associated budget, staff recommends that O&M services for the I-

680 Express Lanes be incorporated into the new Agreement A19-0009, ensuring consistent performance requirements for both corridors. For greatest clarity, staff recommends formally amending the Agreement A17-0001 to eliminate the Warranty Period and Optional O&M Services from the scope of work.

In addition, with the selection of Kapsch for the I-580 Express Lanes, staff recommends that the I-580 and I-680 toll systems utilize a single (joint) Host System design, which will reduce design costs as well as long-term O&M costs. Host System O&M services are performed in parallel with the roadway O&M services for each corridor, and O&M costs for the joint host system will be funded equally by I-580 and I-680 toll revenues.

Along with O&M services, Kapsch will perform image review services for both the I-580 and I-680 express lanes, with services beginning as each new toll system begins revenue operations. This includes provision of automated optical character recognition for license plates as well as any required manual image review needed to process toll transactions accurately and meet all required performance metrics. Staff has evaluated the cost proposal for image review services and determined that the revenue gained by adding manual image review services is greater than the costs and thus recommends approving the service as part of the contract.

Finally, staff recommends including in Agreement A19-0009 the extension of the I-680 Express Lanes associated with the State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project. This project is currently in final design and ETSI input is required to ensure the toll system needs are accommodated during design. The construction is expected to be completed in 2023. As the Electronic Toll System Integrator for the I-680 Express Lanes, the extension should be incorporated into the I-680 toll system currently being developed by Kapsch. This task falls within the RFP scope element of future express lanes.

Levine Act Statement: The Kapsch team did not report a conflict in accordance with the Levine Act.

Fiscal Impact: The fiscal impact for approving this item includes \$3 million in previously allocated Measure BB funds for subsequent expenditure. This amount is included in the State Route 84 Widening and State Route 84/Interstate 680 Interchange Improvements Project funding plan and sufficient budget has been included in the proposed FY 2019-2020 Capital Program Budget. In addition, this action will authorize the encumbrance of \$57 million in I-580 and I-680 Express Lane Toll Revenues to be utilized over the next 13 years. Adequate funding has been included in the Alameda CTC budget adopted for FY 2018-2019 and additional funding will be included in subsequent Alameda CTC and Sunol JPA subsequent fiscal year budgets as needed.



Memorandum

5.2

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• 510.208.7400

• www.AlamedaCTC.org

DATE: July 1, 2019

TO: I-680 Sunol Express Lane Joint Powers Authority

FROM: John Pulliam, Director of Project Delivery
Gary Huisinh, Deputy Executive Director of Projects and Programming

SUBJECT: I-680 Southbound Express Lane from SR 84 to Alcosta Boulevard Project (PN: 1490.001): Informational update on necessary actions to initiate and complete the preparation of Plans, Specifications, and Estimate (PS&E) and Construction Contract Documents

Recommendation

This item is to provide the Authority with an update on the I-680 Southbound Express Lanes from SR 84 to Acosta Project (Project). This item is for information only.

Summary

The Alameda County Transportation Commission (Alameda CTC) is the project sponsor and implementing agency for the I-680 Express Lanes from SR-84 to Alcosta Boulevard Project (PN 1490.000), also referred to as the I-680 Express Lanes Gap Closure Project, which is located in the vicinity of the community of Sunol and the cities of Dublin and Pleasanton. The project is in the 2014 Measure BB Transportation Expenditure Plan (TEP No. 035) and proposes to construct express lanes in both directions within a 10-mile segment to complete the I-680 Express Lane Network through Alameda County. Upon completion, it will result in a 40-mile long I-680 express lane network from Marina Vista Boulevard in Martinez (in Contra Costa County) to South Grimmer Boulevard in north Fremont, relieving congestion on two (2) of the Metropolitan Transportation Commission's (MCT's) ten (10) most congested freeway segments, and unlocking critical benefits such as significantly relieving congestion and improving regional and interregional traffic, allowing for increased people-throughput by providing infrastructure for express buses and carpools, improving safety, and optimizing freeway system management and traffic operations.

The project is currently in the Project Approval and Environmental Document (PA&ED) phase, with the project report and environmental document scheduled for completion in summer of 2020. Based on the size and estimated cost of the project, it was anticipated that a phasing strategy would likely be required to deliver the project. As part of the PA&ED phase, staff and the engineering team carefully reviewed several options to

deliver the project in phases, and we have determined that it would be most beneficial and advantageous to construct the southbound express lane as the preferred first phase. Based on preliminary traffic studies and operational analysis, within the proposed project limits, the I-680 southbound lanes are experiencing much higher traffic demand and congestion than the northbound lanes, and these conditions are expected to worsen in future years.

Additionally, the delivery of the I-680 Southbound Express Lane Project could be integrated and coordinated with an upcoming major Caltrans pavement rehabilitation project along the same section of I-680. Coordination of these two projects will lead to a significant cost savings and, more importantly, will minimize inconvenience and reduce impacts to the traveling public during the many months of construction in an already very congested corridor. In order to combine the southbound HOV/EL project with the Caltrans pavement rehabilitation project, and to make the project competitive for Cycle 2 of the SB1 Solutions for Congested Corridors (SCCP) Program, PS&E phase work for the proposed I-680 Southbound Express Lane Project must begin before the end of 2019.

This item will go before the Programs and Project Committee for a recommendation to approve the following actions related to the Project:

1. Allocate \$12.5 million of Measure BB I-680 HOT/HOV Lane from SR-237 to Alcosta Project (TEP-35) funds for the Plans, Specifications and Estimates (PS&E) phase of the Project;
2. Allocate \$10 million of unencumbered contingency funds (CIP ID 0251) from the I-680 Sunol Express Lanes (Phase 1) to the Project for the Plans, Specifications and Estimates (PS&E) phase of this Project;
3. Approve release of a Request for Proposals (RFP) for professional services for preparation of the PS&E and Construction Contract Documents, and authorize the Executive Director to negotiate with the top ranked firms; and
4. Authorize the Executive Director to execute all necessary agreements for the delivery of the PS&E and the Construction Contract Documents.

Staff recommends that Alameda CTC approve the above actions in order to advance the southbound phase of the project. Upon approval of this item, staff intends to issue a RFP for professional services for PS&E and Construction Contract Documents in late July, 2019 and expects to return to the Commission in November, 2019 with an award recommendation. The estimated duration to complete the PS&E and Construction Contract Documents is 20 months.

The PS&E phase will be fully funded based on the two allocations requested in this staff report, along with previously allocated funds for the PA&ED phase of work.

Background

Alameda CTC is the project sponsor and implementing agency for the I-680 Express Lanes from SR-84 to Alcosta Boulevard Project (PN 1490.000), also referred to as the I-680 Express Lanes Gap Closure Project, which passes through the community of Sunol and the cities of Dublin and Pleasanton. This project proposes to widen and implement High

Occupancy Vehicle Lanes/Express Lanes (HOV/EL) along I-680 between SR-84 and Alcosta Boulevard (see Attachment A, Project Fact Sheet). The project is in the 2014 Transportation Expenditure Plan (TEP 35) and proposes to construct a 10-mile segment (one express lane in both the northbound and southbound direction) to complete the Express Lane Network through Alameda County.

Based on the size and estimated cost of the project, it was anticipated that a phasing strategy would likely be required to deliver the project. As part of the PA&ED phase, staff and the engineering team carefully reviewed several options to deliver the project in phases, and we have determined that it would be most beneficial and advantageous to construct the southbound express lane as the preferred first phase. Based on preliminary traffic studies and operational analysis, within the proposed project limits, the I-680 southbound lanes are experiencing much higher traffic demand and congestion than the northbound lanes, and these conditions are expected to worsen in future years.

The I-680 Southbound Express Lanes from SR 84 to Alcosta Project (PN: 1490.001) includes reconstruction of the concrete median barrier, construction of retaining walls, relocation of existing sound walls, and pavement widening and reconstruction to accommodate the addition of 9-miles of southbound HOV/EL from SR-84 to Alcosta Boulevard. Tolling equipment, including vehicle sensors, toll readers, rear-facing cameras, enforcement beacons, and utility cabinets will be installed. The project includes HOV/EL signage, including larger signs mounted on cantilevered overhead sign structures spanning the HOV/EL, and smaller signs mounted on the concrete media barrier. The larger signs will include Variable Toll Message Signs (VTMS) to display the prices for using the express lane facility. No right-of-way acquisition is anticipated.

Anticipated benefits include improved efficiency of the transportation system on I-680 southbound lanes between SR-84 and Alcosta Blvd to accommodate the current and future traffic demand, improved travel time and travel reliability for all users, including High Occupancy Vehicle and transit users, and optimization of freeway system management and traffic operations. In addition when this project is complete, it will close the gap in Alameda CTC's southbound HOV/EL along I-680, and it will connect with MTC's I-680 HOV/EL in Contra Costa County, resulting in a 40-mile long I-680 express lane network from Marina Vista Boulevard in Martinez (in Contra Costa County) to South Grimmer Boulevard in north Fremont, relieving congestion on two (2) of MTC's ten (10) most congested freeway segments, and unlocking critical benefits such as significantly relieving congestion and improving regional and interregional traffic, allowing for increased people-throughput by providing infrastructure for express buses and carpools, improving safety, and optimizing freeway system management and traffic operations.

On September 21, 2017, Alameda CTC authorized the execution of a contract with AECOM Technical Services, Inc. for Scoping and PA&ED services. That work is on schedule to complete next year, with the project report and environmental document scheduled for completion in summer of 2020.

In early 2019, staff learned that Caltrans had recently begun the final design of a major project to rehabilitate the pavement along I-680 from SR-84 to Alcosta Boulevard. This

Caltrans project is programmed to be funded with the State Highway Operation and Protection Program (SHOPP) funds and is scheduled to start construction in 2021. Alameda CTC staff approached Caltrans to discuss combining the Caltrans project with Alameda CTC's I-680 Express Lane Project. Caltrans was receptive to combining the southbound portion of their SHOPP project with Alameda CTC's I-680 Southbound Express Lane Project. Combining the two projects required Caltrans to delay the construction of their project by one year, and Alameda CTC to expedite delivery of the I-680 Southbound Express Lanes from SR-84 to Alcosta Boulevard Project by one year. Staff has prepared an expedited schedule to meet this deadline.

The next step in project delivery is to move into preparation of PS&E and construction contract documents. In order to combine the I-680 Southbound Express Lane Project with the Caltrans pavement rehabilitation project, and to make the project competitive for Cycle 2 of the SB1 Solutions for Congested Corridors (SCCP) Program, PS&E phase work must begin before the end of 2019.

The estimated total project cost is \$252 million, including the costs associated with PS&E. As part of the 2014 Transportation Expenditure Plan, \$20 million was programmed for I-680 HOT/HOV Lane from SR-237 to Alcosta Project (TEP-35), of which \$12.5 million remains unallocated. Remaining funding for the project could come from Regional Measure 2, Regional Measure 3, and/or SB1. Caltrans has also committed to providing a portion of their State Highway Operations and Protection Program (SHOPP) funds, conditioned on combining the projects. The final amount of Caltrans contribution has not been determined.

Staff intends to issue a RFP for professional services for PS&E and Construction Contract Documents in late July, 2019 and expects to return to the Commission in November, 2019 with an award recommendation. The estimated duration to complete the PS&E and Construction Contract Documents is 20 months.

Fiscal Impact: If approved by Alameda CTC's Commission, the action will authorize the allocation of \$12,500,000 in TEP-35 Measure BB funds for subsequent obligation and expenditure. This action will also authorize the allocation of \$10,000,000 of Measure BB funds previously allocated to the I-680 Sunol Northbound Express Lanes (Phase 1) project. This amount is included in the appropriate project funding plans, and sufficient budget has been included in the Alameda CTC Adopted FY2018-19 Capital Program Budget.

Attachments:

- A. Project Fact Sheet
- B. I-680 Existing and Planned Express Lanes Map
- C. Project Funding Plan and Schedule



I-680 Express Lanes from SR-84 to Alcosta Boulevard^{5.2A}

MAY 2019

PROJECT OVERVIEW

The Interstate 680 (I-680) Express Lanes from State Route (SR) 84 to Alcosta Boulevard Project will close the gap between existing and in-progress high-occupancy vehicle (HOV)/express lane projects directly to the north and south. The project extends for approximately nine miles on northbound and southbound I-680 through Sunol, Pleasanton, Dublin and San Ramon.

The Alameda County Transportation Commission (Alameda CTC) has started environmental and preliminary engineering studies for the project. An environmental document is planned for public circulation in late 2019. Potential project phasing options will be determined based on the traffic analysis and future funding availability.

Concurrent projects in the area include:

- [SR 84 Widening \(Pigeon Pass to I-680\) and SR 84/I-680 Interchange Improvements](#)
- [I-680 Sunol Express Lanes \(Phase 1\)](#)

PROJECT NEED

- Planned and existing express lanes from SR-84 to SR-237 and from Alcosta Boulevard to Walnut Creek will leave a nine-mile gap in the express lane network between SR-84 and Alcosta Boulevard.
- Heavy commute traffic to and from Silicon Valley, especially in the morning peak period, results in traffic congestion for approximately 10 hours each day.



PROJECT BENEFITS

- Increases the efficiency of the transportation system on I-680 between SR-84 and Alcosta Boulevard to accommodate current and future traffic demand
- Improves travel time and travel reliability for all users, including HOV and transit users
- Optimizes freeway system management and traffic operations



I-680 northbound approaching the Calaveras Road off-ramp.



I-680 northbound approaching the SR-84 off-ramp in Sunol.

STATUS

Implementing Agency: Alameda CTC

Current Phase: Preliminary Engineering/Environmental (PE-ENV)

- Project Study Report-Project Delivery Support (PSR-PDS) was approved in September 2018.

PARTNERS AND STAKEHOLDERS

California Department of Transportation, Alameda CTC, the Federal Highway Administration, Alameda County, Contra Costa County, the community of Sunol and the cities of Dublin, Pleasanton and San Ramon

Note: Information on this fact sheet is subject to periodic updates.

COST ESTIMATE BY PHASE (\$ X 1,000)

Planning/Scoping	\$1,000
PE/Environmental	\$6,500
Final Design (PS&E)	\$27,000
Right-of-Way	\$10,500
Construction	\$435,000
Total Cost Estimate¹	\$480,000

¹Cost estimate assumes construction occurs in two phases.

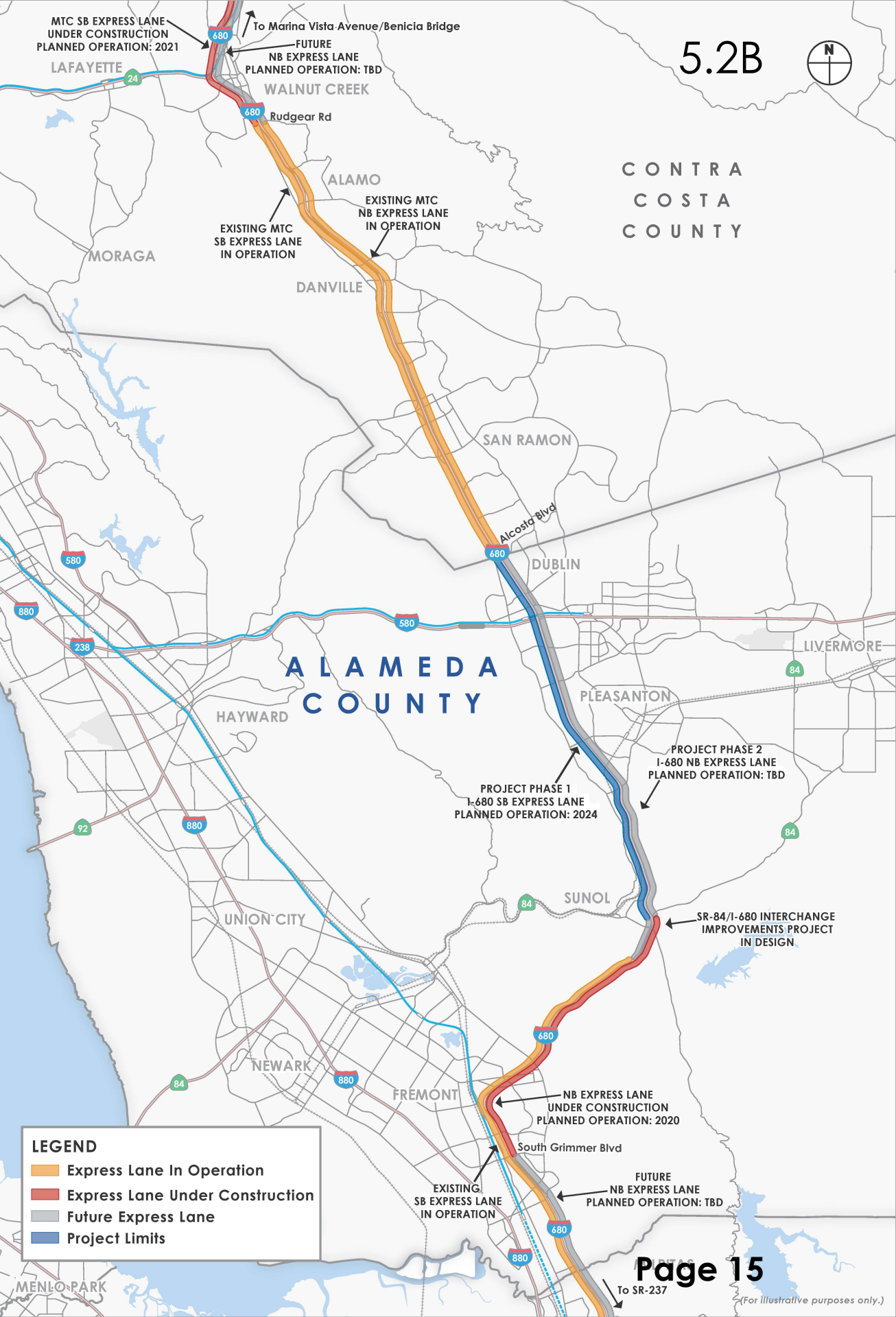
FUNDING SOURCES (\$ X 1,000)

Measure BB	\$20,000
Federal	TBD
State	TBD
Local	TBD
TBD	\$460,000
Total Revenues	\$480,000

SCHEDULE BY PHASE

	Begin	End
Scoping (PSR-PDS)	Fall 2017	Fall 2018
Preliminary Engineering/ Environmental (PE-ENV)	Fall 2018	Fall 2020
Final Design	Summer 2020	Fall 2022
Right-of-Way	Summer 2020	Fall 2022
Construction	Spring 2023	Fall 2026

Note: The project delivery schedule subsequent to PE-ENV is contingent upon funding availability.



5.2B



CONTRA
COSTA
COUNTY

ALAMEDA
COUNTY

LEGEND

- Express Lane In Operation
- Express Lane Under Construction
- Future Express Lane
- Project Limits

(For illustrative purposes only.)

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I-680 SB Express Lane From SR 84 to Alcosta Boulevard (PN: 1490.001)**Project Funding**

Measure BB	\$ 20,000
RM3	TBD
Federal	TBD
State	TBD
TBD	\$ 232,000
Total Revenues	\$ 252,000

Project Schedule

	Begin	End
Scoping (PSR-PDS)	Complete	Complete
Preliminary Engineer/Environmental (PE-ENV)	Complete	Spring 2020
Final Design	Winter 2019	Fall 2021
Right-of-Way	Winter 2019	Fall 2021
Construction	Spring 2022	Fall 2024

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Memorandum

5.3

1111 Broadway, Suite 800, Oakland, CA 94607

• 510.208.7400

• www.AlamedaCTC.org

DATE: July 1, 2019

TO: I-680 Sunol Express Lane Joint Powers Authority

FROM: Trinity Nguyen, Director of Project Delivery
Liz Rutman, Director of Express Lanes Implementation and Operations

SUBJECT: I-680 Sunol Express Lanes (PN 1369.000): Monthly Status Update

Recommendation

This item is to provide the Authority with an update on the status of I-680 Sunol Express Lanes – Phase 1 project. This item is for information only.

Summary

The Interstate 680 (I-680) Sunol Express Lanes (EL) Project will provide enhanced mobility for motorists in both the northbound and southbound directions as a combination of two projects, the I-680 Express Lanes (EL) project and the I-680 Southbound Conversion Project. The I-680 Sunol EL project will widen I-680 from SR 237 in Santa Clara County to SR 84 in Alameda County to construct a 14-mile long northbound High Occupancy Vehicle (HOV)/Express Lane in the corridor. The project is being implemented in a phased approach focused on providing immediate operational benefits based on funding availability. The I-680 Sunol Express Lane - Phase 1 (Phase 1) project, constructs an initial 9-mile HOV/Express Lane segment on northbound I-680 between south of Auto Mall Parkway and SR 84. The I-680 Southbound Access Conversion project will convert the existing southbound controlled access tolling configuration to an open access configuration to provide consistency with the new northbound express lane. This conversion has been incorporated into the northbound Phase 1 project.

The purpose of this item is to provide the Commission with a monthly status update on the project development and implementation activities which are either completed or planned for the Phase 1 project.

Background

The I-680 Sunol Express Lanes project will widen northbound I-680 from SR 237 in Santa Clara County to SR 84 in Alameda County to construct a 14-mile long northbound

HOV/Express Lane in the corridor. The project will provide a number of benefits including: 1) enhanced mobility by reducing traffic congestion; 2) reduced travel time and improved travel reliability; and 3) reduced congestion related accidents, thereby enhancing safety. The Express Lane facility will maximize available HOV lane capacity by offering solo drivers the choice to pay an electronic toll to access the lane, while regular carpool/carpool eligible users continue to use the lane at no cost. The Phase 1 project will provide an initial 9-mile segment of new HOV/Express Lane from south of Auto Mall Parkway to SR 84 to eliminate the bottlenecks and alleviate much of the daily traffic congestion.

The I-680 Southbound Express Lane was opened to traffic in September 2010 as a controlled access facility. To be consistent with the new northbound express lane and provide enhanced accessibility for users, the southbound direction will be converted to an open access configuration in conjunction with the Phase 1 project.

The Project Approval and Environmental Document (PA&ED) for the overall project was completed in July 2015. In December 2015, WMH Corporation was selected to prepare the civil design and will continue to provide design support during construction (DSDC). In June 2016, Kapsch TrafficCom Transportation NA, Inc. was selected to provide Toll System Integration Services. In November 2017, Bay Cities Paving & Grading Inc. was awarded the civil construction contract.

Alameda CTC, in partnership with Caltrans, is the implementing agency for preliminary engineering, environmental studies, design, right-of-way acquisition, and utility relocation. For the construction phase, Alameda CTC is the project sponsor and Caltrans is the implementing agency to administer the construction of the Phase 1 project. Attachment A, I-680 Sunol Express Lanes Progress Update, provides the current implementation schedule and delivery milestones.

The approved Environmental Document and Project Report (PA&ED documents) included studies and analysis for construction of both the full project limits (SR 237 to SR 84) and an initial segment (south of Auto Mall Parkway to SR 84). The initial segment (Phase 1 project) is focused on providing immediate operational benefits within currently available funding. During development of the Phase 1 project, staff identified and implemented several geometric refinements to reduce costs and minimize environmental impacts.

In the interest of expediting important improvements for the public, Alameda CTC and Caltrans have agreed to incorporate a pavement rehabilitation project into the Phase 1 project.

Civil construction began on March 5, 2018 after the approval of the required initial submittals. To date, the contractor has achieved 45% progress on various bid items at various locations. The following is a detailed discussion of work in progress and/or upcoming major tasks.

Recently Completed Project activities (April 15, 2019-June 15, 2019):

- Paving completed in Segments A and D.
- Sheridan traffic shift to stage 2 phase 1 configuration at abutment 3 completed.

Upcoming Project Activities:

- Visible work activities for the three months ahead will include:
 - Continue construction of PG&E pedestals.
 - Continue progress on the widening at Calaveras Bridge; column casing work progressing.
 - Continue progress on the retaining wall on northbound I-680 between Paseo Padre Parkway and Palm Avenue (Approximately 1,012 feet long).
 - Continue progress on the retaining wall on northbound I-680 between Vargas Road and Sheridan Road off-ramps (Approximately 2,897 feet long).
 - Continue progress for retaining wall (Approximately 1,606 feet long) along northbound I-680 from north of the Alameda Creek Bridge Undercrossing to the Calaveras Road off-ramp.
 - Continue placement for median lights in Segment A and B
 - Continue progress for completion of median barrier in Segment A, B and C.
 - Construction of overhead sign foundations and sign installation in the median starting from the southern end of the project and proceeding northerly and removal of median toll signs.
- Preliminary tolling zone configuration and associated signing locations determined. Continue to finalize configuration of tolling facility (on-going).
- Continue preliminary toll system design and coordinate with civil design for construction staging/sequencing (on-going).
- Continue to coordinate with PG&E, AT&T and Comcast regarding power and communication service connection needs (on-going).
- Submittal of Toll System Integrator installation plan.

Fiscal Impact: There is no fiscal impact associated with the requested action.

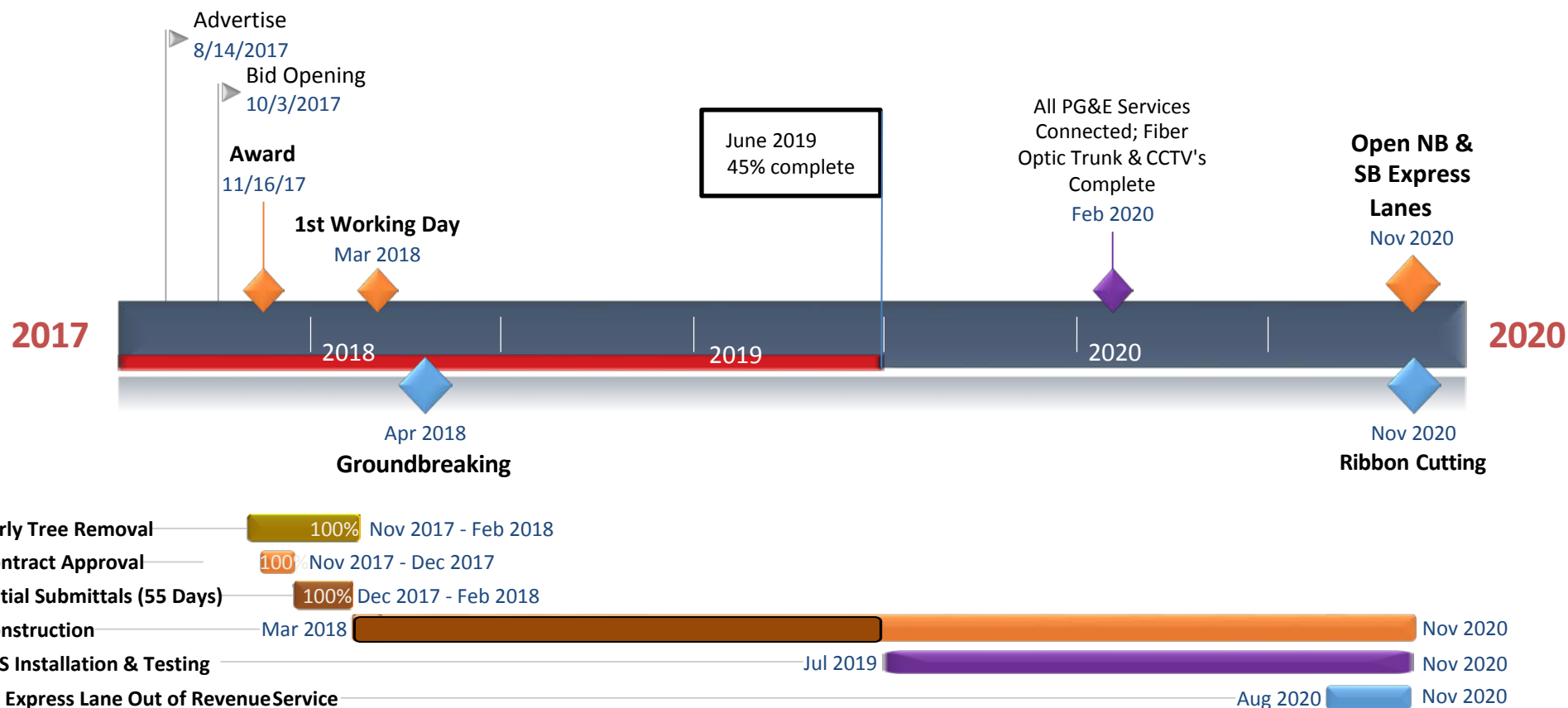
Attachment:

- A. I-680 Sunol Express Lanes Progress Update

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I-680 Sunol Express Lanes

Progress Update: June 2019



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Memorandum

5.4

1111 Broadway, Suite 800, Oakland, CA 94607

• 510.208.7400

• www.AlamedaCTC.org

DATE: July 1, 2019

TO: I-680 Sunol Express Lane Joint Powers Authority

FROM: Ashley Tam, Associate Transportation Engineer
Liz Rutman, Director of Express Lanes Implementation and Operations

SUBJECT: I-680 Sunol Southbound Express Lane (PN 1408.000): Operations Update

Recommendation

This item is to provide an update on the Operation of the I-680 Southbound Express Lane. This item is for information only.

Summary

The purpose of this item is to provide the I-680 Sunol Smart Carpool Lane Joint Powers Authority ("Sunol JPA") with a Monthly Operation Update of the existing I-680 Southbound Express Lane facility for April and May 2019. See Attachment A for express lane operation limits.

The April/May 2019 operations report indicates that the express lane facility continues to provide travel time savings and travel reliability along the corridor.

Background

The I-680 Sunol Southbound Express Lane spans approximately 14 miles from SR 84 near Pleasanton to SR 237 in the City of Milpitas. Motorists using the express lane benefit from travel reliability as the express lane optimizes the corridor capacity by providing a choice to drivers: single occupancy vehicles (SOVs) have the option to pay a toll and travel within the express lane, while carpool, clean-air vehicles, motorcycles, and transit vehicles enjoy the benefits of toll-free travel in the express lane. The Alameda CTC, acting as the managing agency for the Sunol JPA, has been operating the express lane facility since it opened to traffic in September 2010. California Highway Patrol (CHP) officers provide enforcement services, and the California Department of Transportation (Caltrans) provides roadway maintenance services through reimbursable service agreements.

An All Electronic Toll (AET) collection method has been employed to collect tolls. Through June 2017, toll rates were calculated based on real-time traffic conditions (speed and volume) in express and general purposes lanes evaluated every three minutes. Beginning

July 1, 2017, in preparation for the construction of the new northbound express lane and conversion of the southbound lane to continuous access, a time-of-day pricing schedule has been in effect with rates changing as frequently as every 15 minutes.

April-May 2019 Operations Update:

Over 151,000 express lane toll trips were recorded during operational hours in April and May. Table 1 summarizes the monthly and average daily toll trips during the operational hours. All express lane users typically experience higher speeds and lesser lane densities than the general purpose lanes. Lane density is measured by the number of vehicles per mile per lane and reported as Level of Service (LOS). LOS is a measure of freeway performance based on vehicle maneuverability and driver comfort levels, graded on a scale of A (best) through F (worst).

Table 2 summarizes the express lane speed and LOS at three points in the corridor during the morning commute hours in April and May. Although comprehensive traffic data is not currently available, daily observation of the corridor via closed circuit television cameras suggests that the express lane continually provides higher speeds and better LOS than the general purpose lanes, particularly during peak commute hours.

Table 1. Toll Trips in Express Lane

Month	Total Monthly Toll Trips	Average Daily Toll Trips
April	74,000	3,400
May	76,000	3,500

Table 2. Speeds and Level of Service in Express Lane

Express Lane Location	5 AM – 11 AM		8 AM – 9 AM	
	Avg Speed (mph)	Avg Express Lane LOS	Avg Speed (mph)	Avg Express Lane LOS
Andrade Rd	68	C	66	C
Washington Blvd	65	C	48	E
Mission Blvd / SR 262	74	B	70	B

Table 3 presents the maximum posted toll rate to travel the entire southbound express lane corridor and the average toll assessed to non-HOV users.

Table 3. Toll Rate Data

Month	Maximum Posted Toll (Travel Entire Corridor)	Average Assessed Toll (All Trips)
April	\$9.50	\$3.17
May	\$9.50	\$3.24

The estimated gross revenue generated from the I-680 Sunol express lane thus far in Fiscal Year 2018-19 is \$2.61 million, while the pro-rated forecast operation budget is \$2.38 million.

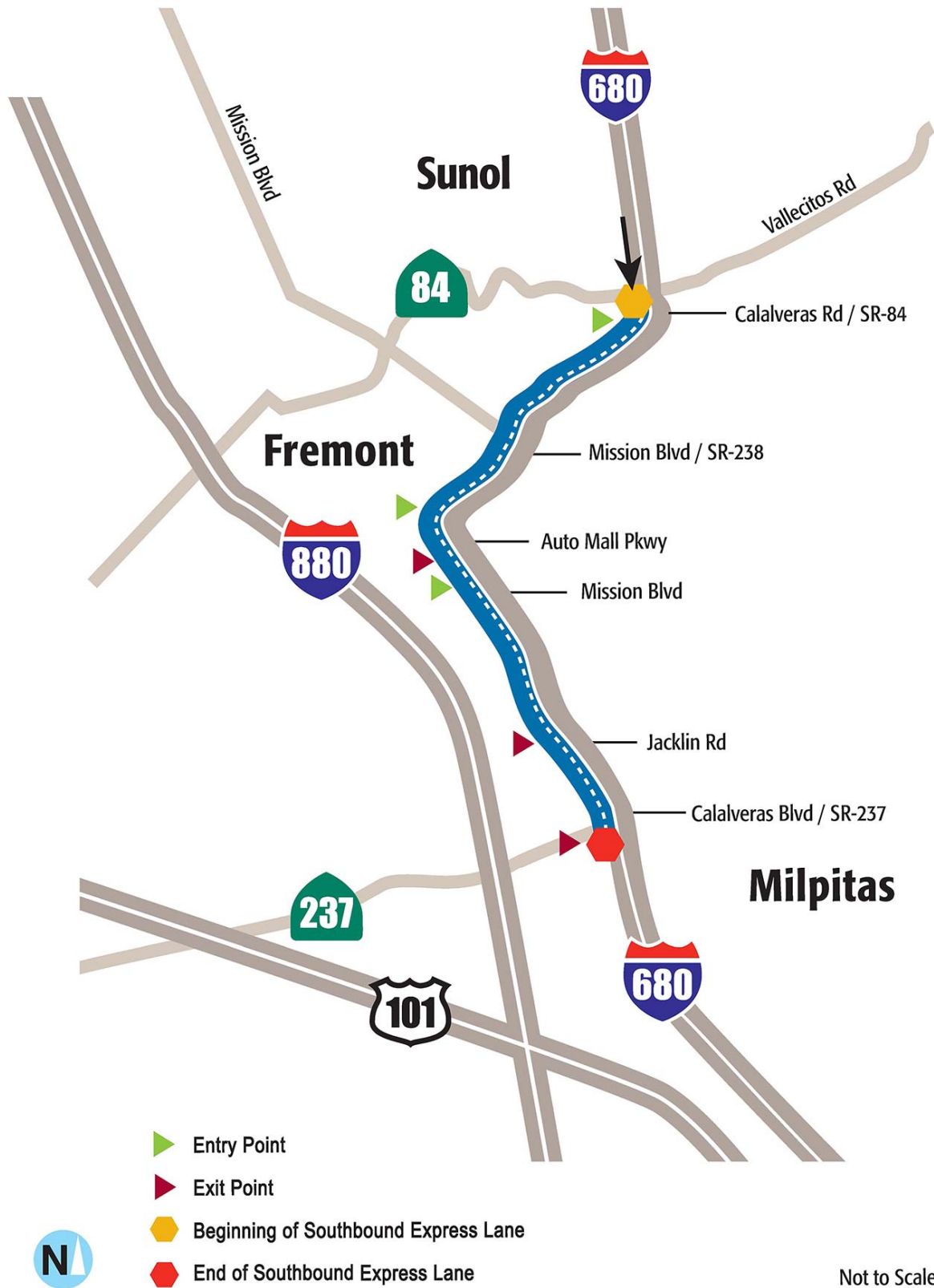
Fiscal Impact: There is no fiscal impact associated with the requested action.

Attachment:

A. I-680 Southbound Express Lane Location Map

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Sunol I-680 Southbound Express Lane Location Map



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