Meeting Notice

1-680 Sunol Smart Carpool Lane Joint Powers Authority

Monday, April 10, 2017, 9:30 a.m.

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.

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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-680 Sunol Smart Carpool Lane
Joint Powers Authority Meeting Agenda
Monday, April 10, 2017, 9:30 a.m.

1. Pledge of Allegiance

2. Roll Call

3. Public Comment

4. Consent Calendar
   4.1. Approve the March 13, 2017 I-680 Sunol Smart Carpool Lane Joint Powers Authority (JPA) meeting minutes.

5. Regular Matters
   5.2. Monthly status update of the I-680 Northbound Express Lane Project.

6. Committee Member Reports

7. Staff Reports

8. Adjournment

Next Meeting: May 8, 2017

All items on the agenda are subject to action and/or change by the Committee.
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1. **Pledge of Allegiance**

2. **Roll Call**
   A roll call was conducted. All members were present with the exception of Commissioner Haggerty and Commissioner Mei.

   Commissioner Biddle was present as an alternate for Commissioner Haubert.

   **Subsequent to the roll call:**
   Commission Haggerty arrived during Item 5.1.

3. **Public Comment**
   There were no public comments.

4. **Consent Calendar**
   4.1. Approve the February 13, 2017 I-680 Sunol Smart Carpool Lane Joint Powers meeting minutes.
   4.2. I-680 Southbound Sunol Express Lane FY2015-16 Annual Report

   Commissioner Biddle moved to approve the Consent Calendar. Commissioner Thorne seconded the motion. The motion passed with the following votes:

   Yes: Thorne, Haggerty, Biddle, Mei
   No: None
   Abstain: None
   Absent: Haggerty, Mei

5. **Regular Matters**
   6.1. **Status Update on the operation of the I-680 Southbound Express Lane**

   Liz Rutman provided an update on the operation of the I-680 Southbound Express Lane as of January 2017. She covered the number of toll trips, roadway segment speeds and corridor performance information such as the average lane density, travel speeds, toll rates during operational hours, corridor heat maps and estimated versus forecasted revenue for FY2016-17.

   Commissioner Thorne asked if the California Highway Patrol (CHP) is presented with statistics and data on the lane. Elizabeth stated that the CHP regularly attends the meetings and receives information then.

   **This item was for information only.**
Trinity Nguyen presented a monthly status update on the I-680 Northbound Express Lane project. She covered project implementation and reviewed key achievements as well as anticipated activities over the next three months.

Commissioner Haggerty asked whether the I-680 express lane is just pushing the traffic issues to SR 84. Art stated that the I-680 project limit extends beyond the I-680/SR 84 interchange. Additionally, through the SR 84 Expressway Widening and SR 84/I-680 Interchange Improvements Project which is currently in environmental, the additional lane and operational improvements at the interchange will significantly address the congestion and overall operation on I-680 and SR 84.

Commissioner Biddle asked (1) are several or just a few parcels to be acquired and are they in the rural areas. (2) Is there anything on the to-do list that is on critical path that would delay the beginning of construction this year? Trinity responded that there are just a couple and they are in the rural areas. Also, there is currently no outstanding issues on critical path that would prevent the project from beginning construction this year.

This item was for information only.

6. Committee Member Report
There were no committee member reports.

7. Staff Reports
There were no staff reports.

8. Adjournment/ Next Meeting
The next meeting is:

Date/Time: Monday, April 10, 2017 at 9:30 a.m.
Location: Alameda CTC Offices, 1111 Broadway, Suite 800, Oakland, CA 94607

Attested by:

Vanessa Lee,
Clerk of the Commission
DATE: April 3, 2017

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

RECOMMENDATION: Receive a status update on the operation of the I-680 Southbound Express Lane

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 February 2017. See Attachment A for express lane operation limits.

The February 2017 operations report indicates that the express lane facility continues to provide travel time savings and travel reliability along the corridor. Express lane users experienced average speeds up to 13 mph higher than the average for general purposes lanes, as well as lesser average lane densities than the general purpose lanes during the morning commute hours in the most congested segment of 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. See Attachment A for express lane operation limits. Motorists using the express lane benefit from travel time savings and travel reliability as the express lane optimizes the corridor capacity by providing a new 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.

An All Electronic Toll (AET) collection method has been employed to collect tolls. Toll rates are calculated based on real-time traffic conditions (speed and volume) in express and general purposes lanes and can change as frequently as every three minutes. California Highway Patrol (CHP) officers provide enforcement services and the California Department of Transportation (Caltrans) provides roadway maintenance services through reimbursable service agreements.
February 2017 Operations Update: Over 73,000 express lane toll trips with FasTrak® toll tags were recorded during operational hours in February. Along with the HOV-eligible users, these express lane users generally 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 1 summarizes the speed differentials and LOS at three segments during the morning commute hours in February.

<table>
<thead>
<tr>
<th>Express Lane Segment</th>
<th>Speed Differential Range (mph)</th>
<th>Average Speed Differential (mph)</th>
<th>Average Express Lane LOS</th>
<th>Average General Purpose Lane LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>North (Andrade Rd to Washington Blvd)</td>
<td>8 – 11</td>
<td>10</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Central (Washington Blvd to SR 262)</td>
<td>9 – 13</td>
<td>11</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>South (SR 262 to Calaveras Rd)</td>
<td>10 – 12</td>
<td>11</td>
<td>A</td>
<td>C</td>
</tr>
</tbody>
</table>

Due to a server issue occurring in mid-February, traffic data reporting by individual sensor and updated heat maps are unavailable for the month of February 2017. Attachment B presents the speed and density heat maps for the I-680 corridor during operational hours for the six-month period from August – January 2017. These heat maps are a graphical representation of the overall condition of the corridor, showing the average speeds and densities along the express lane corridor and throughout the day for both the express and general purpose lanes. From August through January, the average speeds in the express lane ranged from 60 to 70 mph during the morning commute hours (5 am to 11 am) with lower speeds occurring in the vicinity of Sheridan Road and Auto Mall Parkway; average speeds throughout the rest of the day exceeded 70 mph. The express lane operated at LOS C or better at all times, with LOS C occurring during the morning commute hours between Andrade Road and Sheridan Road, and for a short period of time between SR 238 and AutoMall Parkway. By comparison, the general purpose lanes experienced average speeds as low as 40 mph and LOS D for much longer periods of time throughout a greater portion of the corridor.

Table 2 presents the maximum posted toll rates to travel the entire southbound express lane corridor and the average toll assessed to non-HOV users. Toll rates are dynamically
adjusted based on congestion in the corridor; higher toll rates are typically observed during mid-week commute hours; lower rates are typically observed on Fridays.

Table 2. Toll Rate Data for February 2017

<table>
<thead>
<tr>
<th>Month</th>
<th>Maximum Posted Toll (Travel Entire Corridor)</th>
<th>Average Assessed Toll (All Trips)</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>$9.00</td>
<td>$2.07</td>
</tr>
</tbody>
</table>

The forecasted revenue is approximately 10 percent higher than the average of the three prior years of operations. The estimated gross revenue generated from the I-680 express lanes in fiscal year 2016/17 is $1.37 million, which is 2 percent higher than was forecasted.

**Fiscal Impact:** There is no fiscal impact.

**Attachments**

A. I-680 Southbound Express Lane Location Map

**Staff Contact**

Liz Rutman, Express Lanes Operations and Maintenance Manager
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Average Speed Heat Map
Monday-Friday, August 2016 – January 2017

Express Lane

General Purpose

5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM

Andrade Rd
Sheridan Rd
Mission / SR 238
Washington Blvd
AutoMall Pkwy
Mission / SR 262
Calaveras Blvd

75 55 35 15

Mile

0 3 6 9 12
Average Density Heat Map
Monday-Friday, August 2016 – January 2017

Express Lane

General Purpose

LOS A | LOS B | LOS C | LOS D | LOS E | LOS F

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DATE: April 3, 2017

SUBJECT: I-680 Northbound Express Lane (PN 1369.000): Monthly Status Update

RECOMMENDATION: Monthly status update of the I-680 Northbound Express Lane project.

Summary
The I-680 Northbound Express Lane project will widen I-680 from SR 237 in Santa Clara County to SR 84 in Alameda County and construct a 14-mile long northbound High Occupancy Vehicle (HOV)/Express Lane in the corridor. The project will be implemented with a phased approach focused on providing immediate operational benefits within current projected funding availability. The I-680 Northbound Express Lane - Phase 1 (Phase 1) project, will provide an initial 9-mile HOV/Express Lane segment on northbound I-680 between south of Auto Mall Parkway and SR 84. 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 Northbound Express Lane 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 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.

Currently, there is heavy afternoon congestion on I-680 Northbound from Scotts Creek Boulevard to Andrade Road. Traffic studies have confirmed that it is caused by two bottleneck locations affecting northbound I-680 between SR 237 and SR 84 during weekday evening commutes between 2pm and 7pm. The bottlenecks occur near Washington Boulevard and at the lane drop at the truck scales (located between Sheridan Road and Andrade Road). 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 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. In June 2016, Kapsch TrafficCom Transportation NA, Inc. was selected to provide Toll System Integration Services. The following is a detailed discussion of work in progress and/or upcoming major tasks.

**Project Implementation Approach**

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 that will administer the construction of the Phase 1 project.

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.

To provide consistency in the tolling access configuration between I-680 northbound (NB) and southbound (SB) express lanes, the existing SB controlled access tolling configuration is being converted to an open access configuration. The I-680 SB tolling access conversion work is being incorporated into the Phase 1 project. 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.

**Project activities already completed and anticipated over the next three months:**

- 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).
- Contractor’s Outreach conducted on March 15, 2017.
- Respond to Caltrans review and prepare Final PS&E package for submittal to Caltrans (April 2017)
- Complete final civil design (May 2017).
- Work with the Consultant design team and Caltrans to complete activities necessary to secure permits/agreements required for Ready to List (RTL) milestone (May 2017)
  - Final Lake or Streambed Alteration Agreement received from the California Department Fish & Wildlife – completed February 2017.
o The species mitigation agreement with the Ohlone West Conservation Bank—completed March 2017.
o Approval for a License Agreement for a temporary construction agreement from the San Francisco Public Utility Commission is underway.
o Obtain approval of Incidental Take Permit (ITP).
o Find an off-site planting site for riparian trees.
o Five of the eight parcels needed already acquired. Continue negotiations with the remaining two property owners for right of way acquisition needed for the project.
o Execute cooperative agreement with Caltrans for construction phase.

- Contractor’s Outreach (May 2017)
- Initiate advanced tree removal contract (May 2017)

The Phase 1 schedule is as follows:

<table>
<thead>
<tr>
<th>Event</th>
<th>Timeframe</th>
</tr>
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<tbody>
<tr>
<td>Complete Final Design (PS&amp;E)</td>
<td>May 2017</td>
</tr>
<tr>
<td>Ready To List (RTL)</td>
<td>May 2017</td>
</tr>
<tr>
<td>CTC Vote SHOPP funds</td>
<td>June 2017</td>
</tr>
<tr>
<td>Construction contract advertisement</td>
<td>July 2017</td>
</tr>
<tr>
<td>Construction</td>
<td>late 2017 - late 2019</td>
</tr>
<tr>
<td>Toll System Installation</td>
<td>mid 2019- late 2019</td>
</tr>
<tr>
<td>Testing</td>
<td>late 2019/early 2020</td>
</tr>
<tr>
<td>Express Lane opening</td>
<td>late 2019/early 2020</td>
</tr>
</tbody>
</table>

**Fiscal Impact:** There is no fiscal impact.

**Staff Contact**

Trinity Nguyen, Director of Project Delivery
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