



I-680 Sunol Smart Carpool Lane JPA Meeting  
**MINUTES OF JUNE 11, 2012**  
**OAKLAND, CALIFORNIA**

The meeting was convened by the Chair, Supervisor Haggerty, at 10:05am

**1 PLEDGE OF ALLEGIANCE**

Supervisor Haggerty led the pledge of allegiance.

**2 ROLL CALL**

Lee conducted a roll call in which a quorum was confirmed.

**3 PUBLIC COMMENT**

There were no public comments.

**4 CONSENT CALENDAR**

**4A Approval of the Minutes of May 14, 2012**

Councilmember Harrison motioned to approve the Consent Calendar. Mayor Green seconded the motion. The motion passed 3-0.

**5 REGULAR MATTERS**

**5A. Southbound I-680 Express Lane Operations Update**

Kanda Raj reviewed a summary of the operations of the I-680 Express Lane through May 2012. The summary included average travel speed during morning commute hours, average travel time during morning commute hours, average daily express lane revenue & trip comparison, average monthly/daily express lane trip comparison, and an average monthly/daily express lane revenue comparison.

Councilmember Harrison wanted to know the status of the JPA's ability to issue tickets. Mr. Raj informed the Committee that the JPA would need to adopt a local ordinance to be able to issue tickets. The CHP will not enforce the local ordinance, if the ordinance is in conflict with any provisions of the Vehicle Code. However, the staff has included this option in the work plan for future consideration.

This Item was for information only.

**5B. Approval of the Proposed Budget for Fiscal Year 2012-2013**

Patricia M. Reavey recommended that the JPA Board approve the proposed FY2012-13 I-680 Southbound Express Lane operating budget. She stated that there were no changes to the budget since May. The proposed budget reflects a budgeted roll forward net asset balance of \$1,281,567 from FY2011-12 and includes projected toll revenues of \$1,050,000. Ms. Reavey stated that FY2012-13 will be the first full year that the JPA becomes segregated from the ACCMA capital project and pays for the majority of its operating cost on its own. The proposed FY 2012-13 budget would provide resources of \$1,050,000 and authorize expenses of \$1,581,000 for FY2012-13 which would reflect an overall decrease in available

net assets of \$531,000 for a projected ending net asset balance of \$750,567 and a projected ending available net asset balance of \$250,567.

Supervisor Haggerty wanted to know if any analysis had been done connecting the opening of the 580 Express Lane and its affect on I-680. Art Dao stated that no formal analysis had been done, and that staff will begin the process of connecting both projects to check for potential revenue changes.

Mayor Green motioned to approve this Item. Councilmember Harrison seconded the motion. The motion passed 3-0.

**5C. Approval to amend existing Services Agreement with CHP**

Kanda Raj recommended the JPA Board approve authorization for the Alameda CTC to execute Amendment No. 2 to the Service Agreement with the California Department of Highway Patrol. The amendment would extend the contract to June 30, 2014 and increase the Service Agreement by an amount not-to-exceed \$350,000 for the CHP to provide traffic patrol and enforcement services for the next two fiscal years, FY 2012-13 and FY 2013-14.

Mayor Green wanted to know the cost of installing an automated violation enforcement system. Mr. Raj stated that the system cost was between two to three million.

Councilmember Harrison wanted to know if the JPA would be stuck with the CHP contract should they decided to go with automated system. Mr. Raj informed him that the contract included provisions for early termination; however the CHP services will still be required for verifying the number of occupants in vehicles (HOV violation enforcement).

Mayor Green motioned to approve this Item. Councilmember Harrison seconded the motion. The motion passed 3-0.

**6 STAFF REPORTS (Verbal)**

There were no staff reports.

**7 ADJOURNMENT/NEXT MEETING: July 09, 2012**

**Attested by:**



**Vanessa Lee  
Clerk of the Commission**



Date: July 2, 2012

To: Sunol Smart Carpool Lane JPA

From: Arthur L. Dao, Executive Director  
Kanda Raj, Manager of Operations and Maintenance

**Subject: Express Lane Operations Summary**

The following summarizes the operations of the I-680 Express Lane through June 2012:

**FY 2011/12 Year End Revenue  
(Actual Gross vs. Forecasted)**

Actual Gross	\$1,086,012
Forecasted	\$ 850,000

**Year Over Year Comparison by Month**

	<b>June 2011</b>	<b>June 2012</b>
Average Daily Revenue	\$3,629.80	\$4,466.89
Average Daily Trips	1,570	2,052
Average Peak Hour Toll Rate	\$2.78	\$2.61

**Attachments**

- Attachment A: Average Travel Speed During Morning Commute Hours
- Attachment B: Average Travel Time During Morning Commute Hours
- Attachment C: Average Daily Express Lane Revenue & Trip Comparison
- Attachment D: Average Monthly/Daily Express Lane Trip Comparison
- Attachment E: Average Monthly/Daily Express Lane Revenue Comparison

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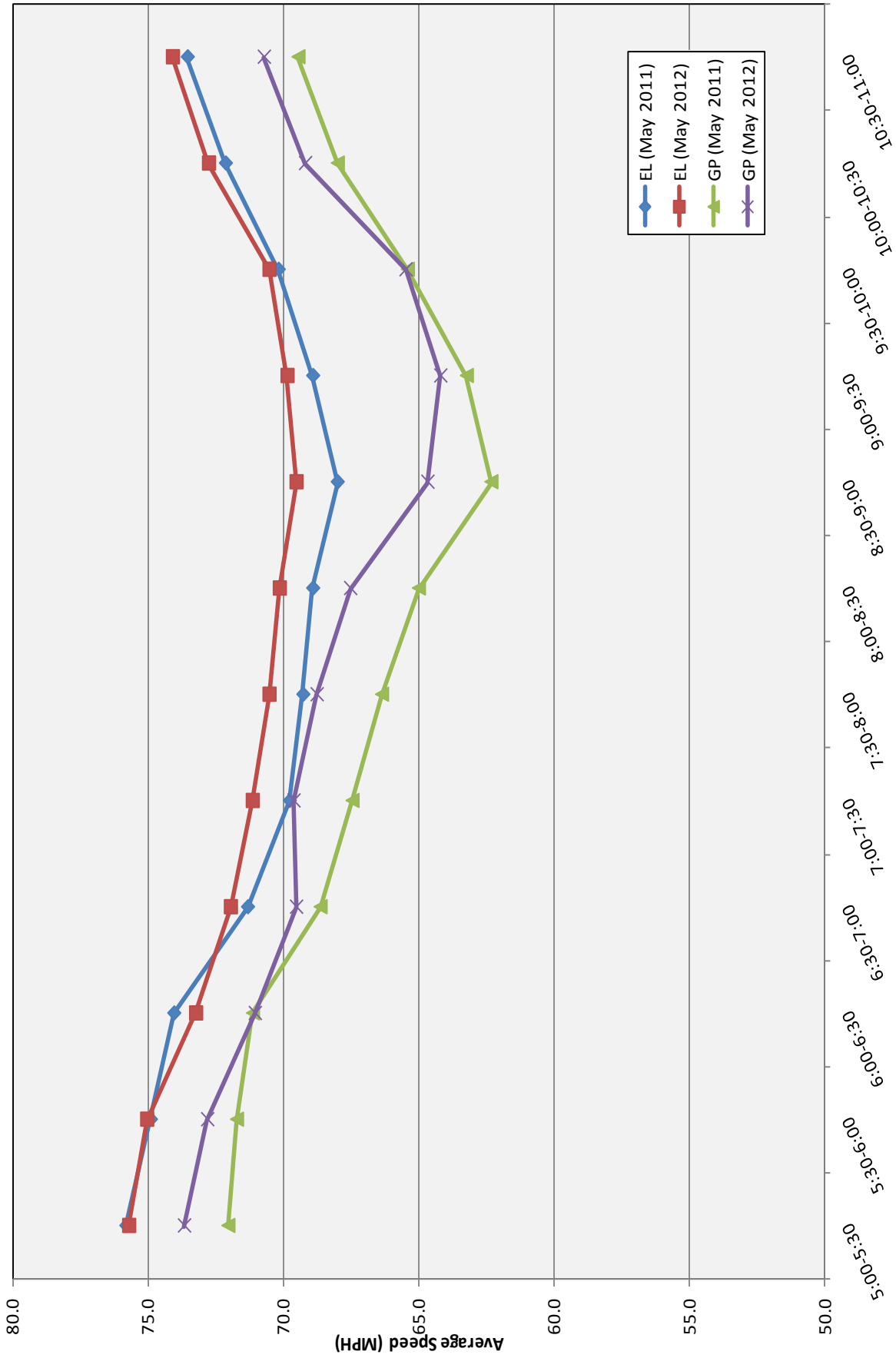


Figure 1 – Average Travel Speed During Morning Commute Hours (Within 14-mile Express Lane Facility)

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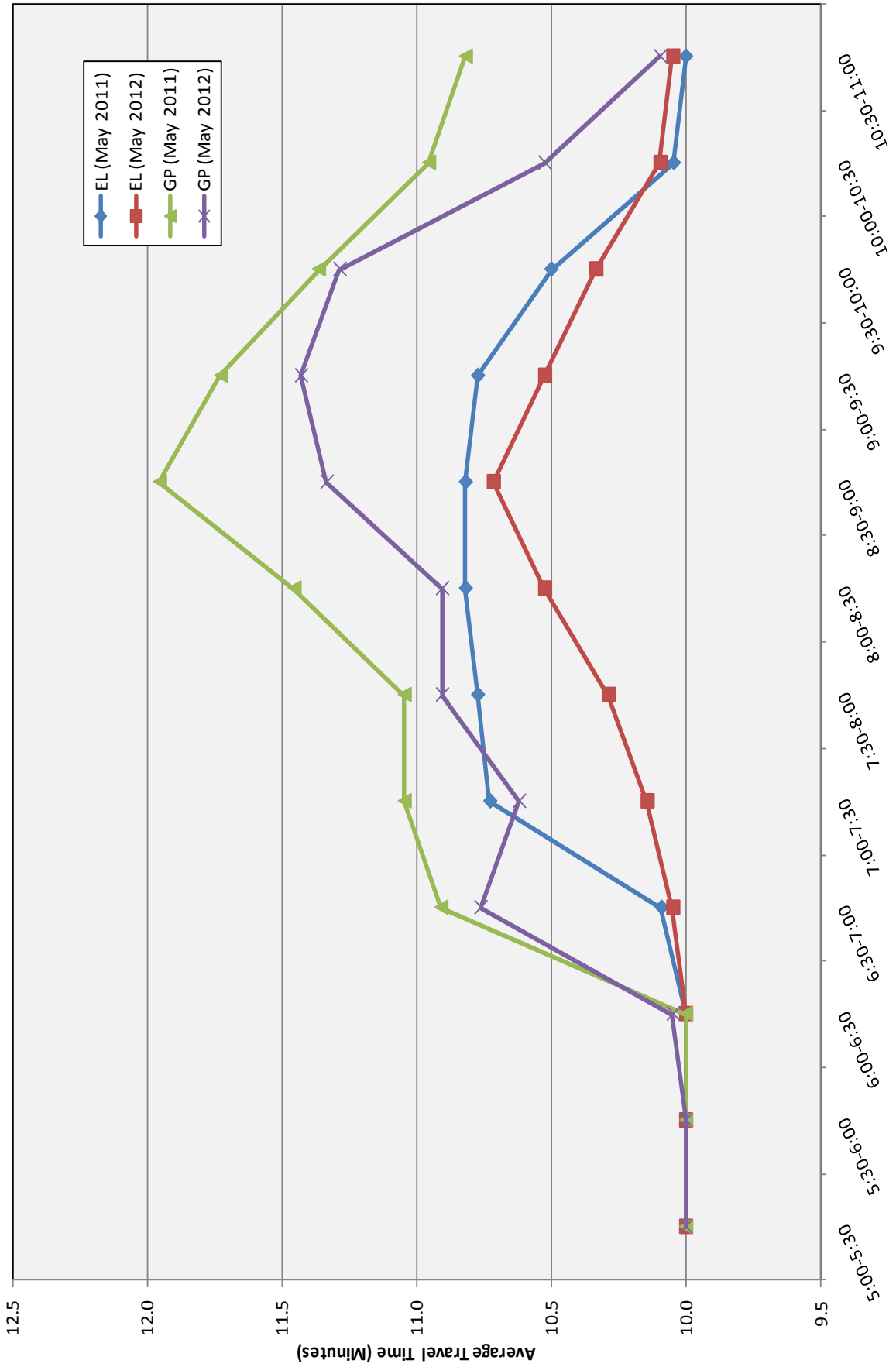


Figure 2 – Average Travel Time During Morning Commute Hours (Within 14-mile Express Lane Facility)

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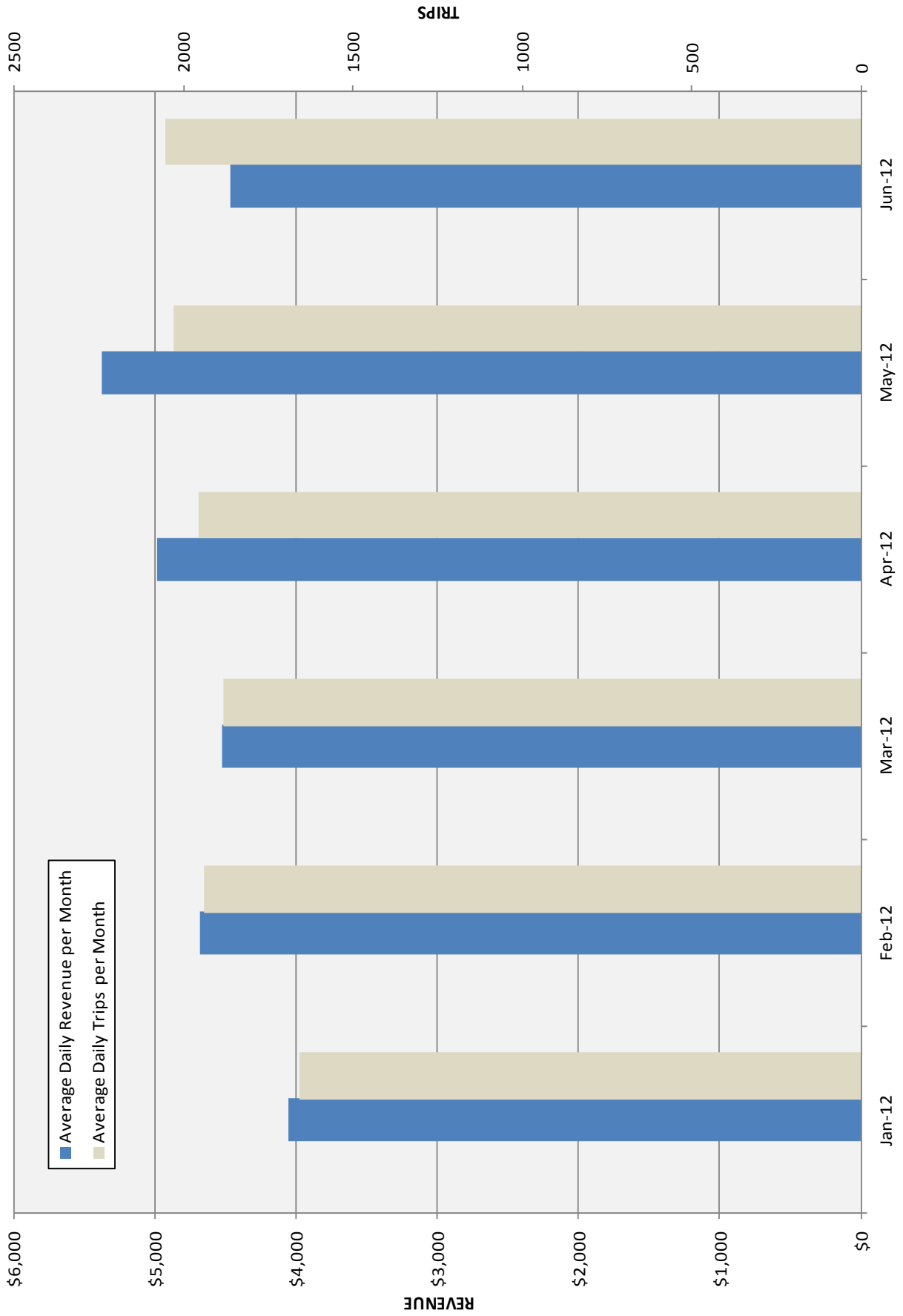


Figure 3 – Average Daily Express Lane Revenue & Trip Comparison

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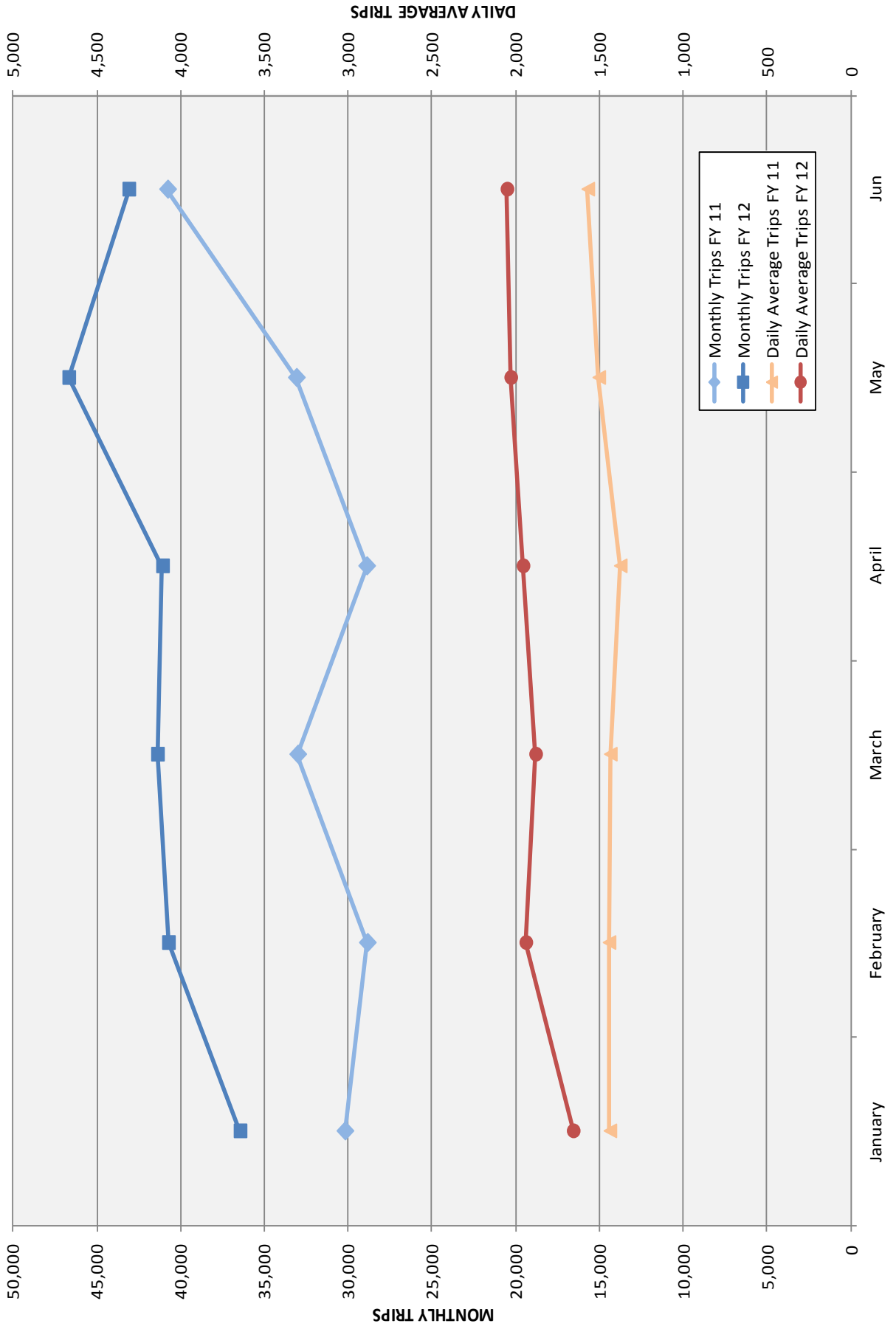


Figure 4 – Average Monthly/Daily Express Lane Trips Comparison

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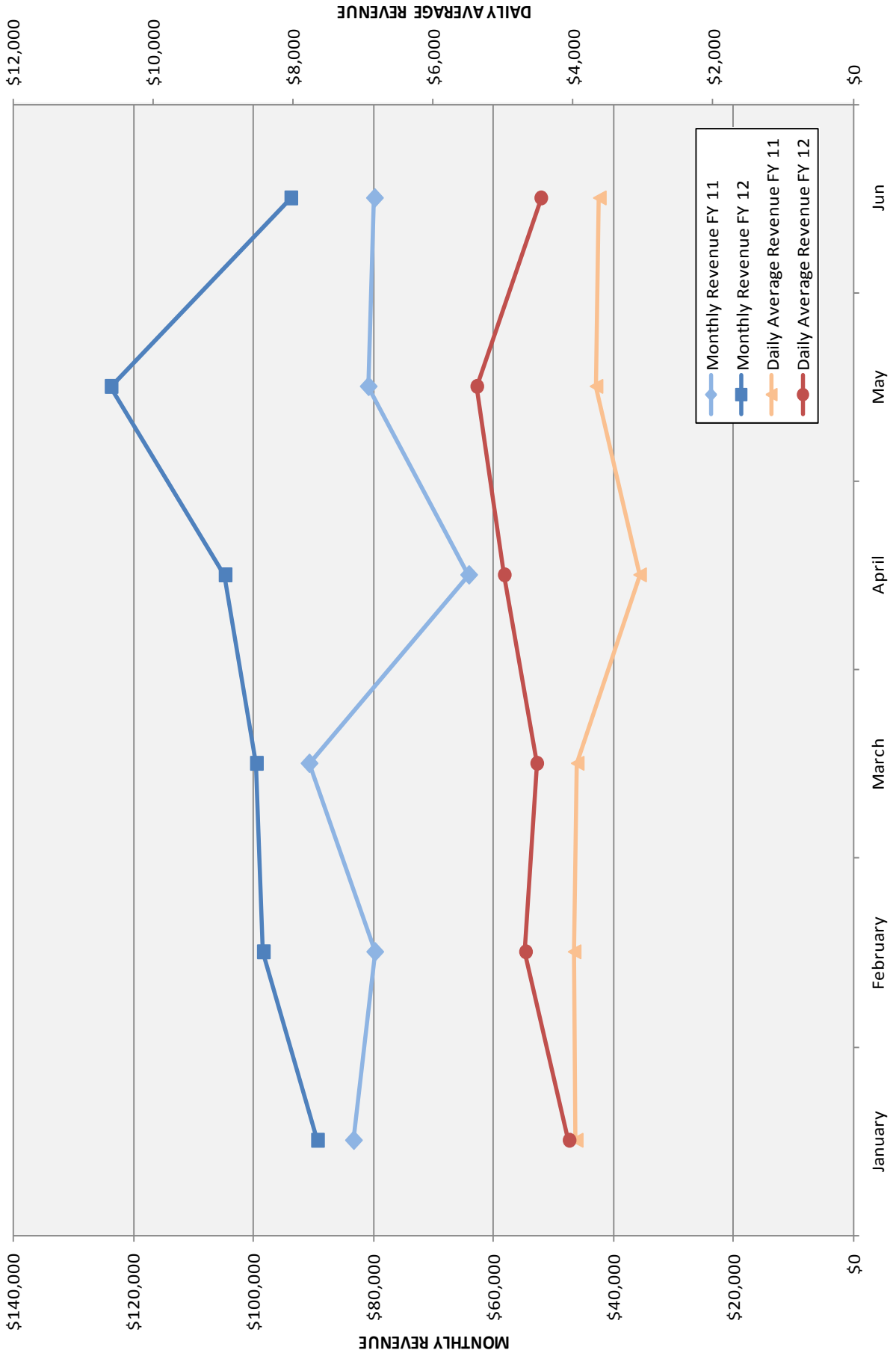


Figure 5 – Average Monthly/Daily Express Lane Revenue Comparison

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## Memorandum

**DATE:** July 2, 2012

**TO:** I-680 Sunol Smart Carpool Joint Powers Authority (JPA)

**FROM:** Beth Walukas, Deputy Director of Planning  
Stewart Ng, Deputy Director of Projects and Programming

**SUBJECT:** **Approval of Issuance of a Request for Proposals (RFP) for the Southbound I-680 Express Lane Evaluation and Authorization to Negotiate and Execute a Contract**

### Recommendation

It is recommended that the JPA:

- Authorize staff to issue an RFP with the attached scope of work (Attachment A) to conduct the “After” Study to evaluate performance of the Southbound I-680 Express Lane and report to the Legislature on findings, conclusions, and recommendations concerning the I-680 Express Lane program as required by the Streets and Highways Code Section 149.5;
- Authorize staff to proceed with the contract procurement process to retain a consultant to provide professional services; and
- Authorize the Executive Director, or designee of the Executive Director, to negotiate and execute a professional services agreement in accordance with procurement procedures.

This item is also being acted on by the Planning, Policy and Legislation Committee at its July 9, 2012 meeting following the I-680 Sunol Smart Carpool Joint Powers Authority’s meeting.

### Summary

The Alameda CTC is required to comply with statutory project evaluation requirements as part of administration and operations of the southbound I-680 Express Carpool Lane, which opened to traffic in September 2010. Specifically, the Streets and Highways Code Section 149.5 states that: *Not later than three years after the administering agency first collects revenues from the program authorized by this section, the administering agency shall submit a report to the Legislature on its findings, conclusions, and recommendations concerning the demonstration program authorized by this section. The report shall include an analysis of the effect of the High Occupancy Toll (HOT) lanes on the adjacent mixed-flow lanes and any comments submitted by the Departments of Transportation and California Highway Patrol regarding operation of the lane.* In Fall 2008, Alameda CTC collected the “Before” Study transportation data in the I-680 corridor before the construction and implementation of the southbound I-680 Express Lane occurred. The results of the “Before” Study were finalized in a report entitled: *Alameda I-680 Express Carpool Lane Project – Before Study and Existing Conditions*, dated April 2009. In order to meet the three year requirement for an evaluation of operations and to report back to the Legislature on the demonstration project by June 30, 2013, transportation data needs to be collected in

September/October 2012, the same season when the “Before” Study data was collected. To meet this timeline, staff needs to issue an RFP to retain a consultant by late August 2012 to conduct the “After” Study portion of the overall evaluation of the I-680 Express Lane Project.

### **Background**

The Alameda I-680 Express Carpool Lane Project – Before Study and Existing Conditions Report, dated April 2009, presents the goals, objectives and evaluation results for the I-680 Express Carpool Lane project pre-construction and operation (“Before” Study) and establishes procedures for an “After” Study to be completed no later than three years after the southbound I-680 Express Lane is open to traffic as required by AB 574 (Torrico). The southbound I-680 study corridor extends from SR 84 in Alameda County to SR 237 in Santa Clara County.

The goals of the before and after evaluation are to optimize the HOV/HOT lane usage to improve traffic throughput in the corridor, maintain service level C or better for all Express Lane users and improve highway and transit in the corridor with revenues generated. The Evaluation Plan identified in the “Before” Study describes data needed, performance measures and evaluation methods that were applied to the “Before” evaluation and will be applied to the “After” evaluation to determine how well the goals are met. A control corridor is also defined in addition to the study corridor to help determine if any changes in travel behavior are due to the Express Lane or to other travel trends in the San Francisco Bay Area.

The “After” Study would begin in late August with data collection slated for September and October 2012 to be consistent with the “Before” Study. The evaluation will be completed by January 31, 2013 so that a report can be prepared and sent to the Legislature by June 30, 2013.

### **Fiscal Impacts**

The budget for the I-680 Express Lane “After” Study is included in the Alameda CTC’s consolidated fiscal year 2012-2013 budget for an amount not to exceed \$180,000.

### **Attachments**

Attachment A: Southbound I-680 Express Carpool Lane Project Evaluation Framework



Southbound I-680 Express Carpool Lane  
Project Evaluation Framework

Attachment A

**Figure 1. Statutory Project Evaluation Requirements**

*Streets and Highways Code Section 149.5 (a) (1) states:*

*The Sunol Smart Carpool Lane Joint Powers Authority (SSCLJPA), may conduct, administer, and operate a value pricing high-occupancy vehicle program on the Sunol Grade segment of State Highway Route 680 (Interstate 680) in Alameda and Santa Clara Counties and the Alameda County Congestion Management Agency may conduct, administer, and operate a program on a corridor within Alameda County for a maximum of two transportation corridors in Alameda County.*

*Streets and Highways Code Section 149.5 (g) states:*

*Not later than three years after the administering agency first collects revenues from the program authorized by this section, the administering agency shall submit a report to the Legislature on its findings, conclusions, and recommendations concerning the demonstration program authorized by this section. The report shall include an analysis of the effect of the HOT lanes on the adjacent mixed-flow lanes and any comments submitted by the Departments of Transportation and California Highway Patrol regarding operation of the lane.*

On behalf of the I-680 Sunol Smart Carpool Lane Joint Powers Authority (SSCLJPA), the Alameda County Transportation Commission (“Alameda CTC” formerly Alameda County Congestion Management Agency) plans to hire an independent consultant to conduct the post-deployment portion of the overall evaluation of the I-680 Express Lane project (hereafter “Project” or “After” Study). A “Before” Study/Existing Conditions Report was prepared in April 2009 that established a benchmark for the operation of the pre-existing southbound High Occupancy Vehicle (HOV) and mixed flow lanes on I-680 prior to implementation of the Express Lanes. The report is included as Attachment A to this RFP.

The Evaluation Plan identified a detailed approach for evaluating the Express Lane performance against established goals and objectives and identified consistent procedures to be used in both the “before” and “after” studies so that conditions could be compared. To assist in this comparison, the Evaluation Plan also identified a control corridor to help determine if any changes in travel behavior are due to the Express Lane project or other travel trends within the San Francisco Bay Area.

This scope of services defines the requirements for the post-deployment or “After” Study evaluation. Results of this “After” Study will be incorporated in to a report to the California State Legislature concerning the findings, conclusions, and recommendations for the Alameda County Express Lanes demonstration program in accordance with statutory project evaluation requirements (see Figure 1). The evaluation will be based on the performance of the southbound I-680 Express Carpool lane and its effects on the I-680 corridor as a whole since the project was opened to traffic on September 20, 2010.

### **Goals of Evaluation**

The I-680 Express Carpool Lane “After” Study Evaluations and Report to the Legislature will provide feedback on the performance of the system in relation to the overall goals of the Express Lanes Demonstration Program, including answering the following questions that were identified in the “Before” Study:

- Has the project optimized HOV lane usage to improve traffic throughput in the corridor?
- What is the level of revenue generated from the operations of the Express Lane and is there excess net revenue to fund transit and highway improvements within the County?
- Has the southbound I-680 Express Lane maintained a Level of Service (LOS) “C” or better after the lane was converted from an HOV lane into an Express Carpool Lane?
- Did the project employ new Intelligent Transportation System (ITS) technologies such as dynamic pricing and in-vehicle electronic enforcement, and if so, what were the benefits from these ITS deployments?

In addition to the above referenced questions, the consultant will evaluate the following:

- Did the Express Lane ingress/egress locations lead to localized decreases in LOS (bottlenecks) or increases in illegal maneuvers by drivers entering/exiting the Express Lane outside of the designated ingress/egress locations? If so, what operational or geometric modifications could be made to improve performance and minimize bottlenecks and illegal maneuvers into and out of the Express Lane?

### **Scope of Work**

Evaluation services requested of the consultant are expected to include but not be limited to the tasks listed below:

#### **Task 1: Project Management**

The consultant will maintain project scope, schedule and budget control; maintain internal and external communication, quality, manage project risks, and perform administrative tasks required for successfully

completing the “After” Study. The coordination effort includes but is not limited to coordinating with Alameda CTC, Caltrans, the Bay Area Toll Authority (BATA), Metropolitan Transportation Commission (MTC), California Highway Patrol (CHP), and Federal Highway Administration (FHWA).

*Deliverable: Meeting minutes and support, revised scope of work, budget and schedule*

**Task 2: Refine Evaluation Plan**

The consultant will review the “Before” Study that was developed prior to the opening of the I-680 Express Lane, which provided a detailed approach for evaluating the project’s goals and objectives and recommend modifications to the Baseline Evaluation Plan if necessary.

The Project’s Study Limit is described below:

- Southbound I-680 – from SR 84 in Alameda County to SR 237 in Santa Clara County.

The consultant will review the “Before” Study/Existing Conditions Report to identify any deficiencies in the approach or data collection for the “Before” study and to identify adjustments in the approach for the “After” Study portion of the Evaluation. The consultant shall develop an “After” Study Evaluation Plan that identifies the consultant team’s approach for staffing, data collection and analysis procedures, performance measures (see Task 3), and schedule and resources required to complete the post-deployment evaluation. All of the evaluation approaches included in the “Before” Study will be used to address how the I-680 Express Lane performed against the goals and objectives. Use of the same control corridor to explain exogenous factors that may have had an effect on the I-680 corridor performance must be included in the refined Evaluation Plan. Consultant will submit one Draft of the Refined Evaluation Plan for review and one Final Refined Evaluation Plan that addresses one set of non-conflicting comments to be provided by Alameda CTC and its project partners. Both the Draft and the Final Evaluation Plans must address performance measures as described in Task 3 and data collection as described in Task 4.

*Deliverable: Draft and Final Refined Evaluation Plan*

**Task 3: Refine Performance Measures**

The Baseline Evaluation Plan developed before the I-680 Express Lane opening identified a series of performance measures that support the hypotheses and project objectives. Table 1 below lists the performance measures that will be used to test the various evaluation hypotheses during the “After” Study:

<b>Table 1. Performance Measures</b>
• Traffic flow and modal use: vehicles and person volumes by mode and by time of day
○ HOVs with number of occupants in the HOV and the mixed-flow lanes within the project limits on southbound I-680 over the Sunol Grade, and in a control corridor(s) (location to be determined)
○ Transit vehicles and number of transit passengers in HOV lane, mixed-flow lanes and control corridor(s)
○ SOVs in HOV lane mixed-flow lanes and control corridor(s)
• Level of service on HOV and mixed flow lanes
○ Speed/travel time by segment (point-to-point) and time of day in both mixed flow and HOV Lanes and in control corridor(s)
○ Travel time savings
○ Travel time reliability
• Enforcement
○ Level of violations in the HOV lanes
○ Hours of enforcement provided in the corridor
• Safety
○ Number and type of accidents by lane and location in the HOV, adjacent mixed-flow lanes and control corridor(s)

The consultant will review the Performance Measures that were included in the Baseline Evaluation Plan to determine if any additional measures of effectiveness would prove useful in explaining the outcomes of the I-680 Express Lane deployment, or if any of the existing measures should be removed or modified from the “After” Study Evaluation Plan due to lack of available data source or other reasons. Consultant will finalize the list of Performance Measures for the “After” Study Evaluation and document any recommended modifications. Consultant will present the proposed refined Performance Measures prior to submittal of the Draft Refined Evaluation Plan (see Task 2) and respond to one set of non-conflicting comments. .

*Deliverable: List of refined performance measures to be included in the refined Evaluation Plan described in Task 2*

#### **Task 4: Data Collection**

This task will identify the data needs to support the performance measures identified in Task 3 and perform data collection. The type of data to be collected could include, but should not be limited to, time of day traffic counts, travel time data, vehicle classification, vehicle occupancy, accident, violation, and enforcement statistics, transit performance data, including ridership, travel time, and on-time performance, and FasTrak® customer enrollment, usage, and overall satisfaction data. Data and data collection methods will be consistent with the “Before” Study and documented in the Evaluation Plan described in Task 2. See Attachment A for data sources that were used to collect baseline data prior to the opening of the I-680 Express Lane facility.

Availability of existing data should be explored wherever possible to reduce the overall cost of data collection. Special data collection efforts will need to be authorized in writing by the Alameda CTC Project Manager prior to commencing the work.. While some of the data may be collected on site, data such as accidents, violations and enforcement could be obtained from third party sources such as Caltrans or the CHP. Customer account data will be obtained from BATA. Transit data should be obtained from the transit service provider. Traffic data for the “After” Study should include the I-680 Express Lane and the I-680 general purpose/mixed-flow lanes as well as the control corridor. Consultant will assemble a preliminary list of data requirements for the “After” Study analysis, including the details associated with the source, timing, and other aspects of each data element and present them in a Draft Data Collection Plan. Data collection will be discussed with Alameda CTC and the project partners prior to submittal of the Draft Refined Evaluation Plan and consultant shall address comments received concerning data elements in the final version of the Data Collection and Evaluation Plans.

Data will be collected on Tuesday through Thursday and, 24 hours a day to capture representative conditions in the southbound I-680 and the control corridor. The collection of similar performance data on the control corridor will serve to determine if any of the changes in travel behavior on I-680 are all or partly due to the Express Lane Project or if some portion of the change can be explained by broader regional trends. Twenty-four hour analysis for both the Express Lane and mixed flow lanes is required. The data collected should provide meaningful statistical analysis of performance measures, accounting for seasonal variations, weather conditions, traffic incidents, special events, and other external influences. Construction of the I-680 Express Lane began in December 2008 and baseline data collection was implemented prior to initiation of the roadway construction to enable the compilation and analysis of data for conditions prior to the Express Lane implementation. The “After” Study will examine the change in data over the course of the statutory reporting period that began on September 20, 2010 and shall end on June 30, 2013, when compared against the pre-Express Lane data for the I-680 corridor.

*Deliverable: Draft and Final Data Collection Plan and Data Collection*

#### **Task 5: Evaluation and Report**

Once the consultant has obtained approval of the Refined Evaluation Plan, Refined Performance Measures, and Data Collection Plan, and the data is collected, consultant will analyze the data and prepare the “After” Study

Evaluation Report. The Existing Conditions Report (included as Attachment A to this RFP) provides a framework for the format for the “After” Study Report. Consultant will develop an outline of the Report for submittal to the Alameda CTC Project Manager prior to beginning development of the Report. Once the outline is approved, consultant will assemble a Draft of the Report, including a presentation that summarizes key findings, for presentation to Alameda CTC and the project partners. Based on input received from Alameda CTC staff and partners agencies, consultant will revise the Report and presentation, along with detailed supporting documentation, and deliver the materials to Alameda CTC for presentation to the SSCLJPA and/or Alameda CTC Board or other Committee(s). The consultant will be prepared, if requested, to present the Report to the SSCLJPA or Alameda CTC Board or Committee(s). The Report should adequately address the effect of regional economic conditions and high gas prices and the role that exogenous factors may have played in influencing traveler behavior in the I-680 corridor before and after the Project. If possible, the effects should be documented with the benefit of the control corridor. Seventy copies of both the draft and final plans will be required for distribution.

*Deliverable: Outline, Draft and Revised Final Draft of “After” Study Evaluation Report*

#### **Task 6: Report to California Legislature (Support)**

Following the presentation of the Final Draft report to the SSCLJPA and/or ACTC Board and other Committee(s), the agency will need to prepare its statutory Report to the California Legislature pursuant to California Streets and Highways Code Section 149.5 (g) that authorized the Alameda County Express Lane Demonstration Program. Per statute, this report is due to the Legislature on or before September 20, 2013, which date will be three years after the first tolls were collected on the southbound I-680 Express Lane. Alameda CTC will prepare the Report to the California Legislature.

The consultant shall prepare an Executive Summary version of the “After” Study Evaluation Report that includes the key findings, conclusions, and recommendations concerning the I-680 Express Lane performance and its impact on the remaining elements of the Alameda County Express Lane Demonstration Program authorized by this Statute.

*Deliverable: Executive Summary of “After” Study and all background material in hard copy and electronic format*

#### **Task 7: Geometric Operational Improvement Analysis**

Alameda CTC occasionally receives customer inquiries regarding the selection of ingress/egress locations. Consultant will meet with the Alameda CTC Project Manager and its partners and evaluate whether the Express Lane ingress/egress locations led to localized decreases in LOS (bottlenecks) or increases in illegal maneuvers by drivers entering/exiting the Express Lane outside of the designated ingress/egress locations. If the evaluation indicates that the locations of these ingress/egress caused unintended driver behavior and/or traffic bottleneck, then the consultant will analyze and recommend operational and/or geometric modifications that can be implemented in the future to improve express lane facility performance and minimize bottlenecks and illegal maneuvers into and out of the Express Lane. Consultant will meet with the Alameda CTC, Caltrans, MTC and CHP to present the key findings, conclusions, and recommendations. Based on comments received, the consultant shall revise the analysis and submit a final memorandum, summarizing the key findings, conclusions, and recommendations; and include all supporting technical data, graphs, and diagrams/graphics and/or maps.

*Deliverable: Technical Memorandum, summarizing the findings of the analysis and suggested improvements*

## Project Schedule

Consultant's proposal shall include a detailed project schedule for completing the Study by January 31, 2013. Field traffic data shall be collected during the months of September/October of 2012 to capture typical traffic conditions when schools are in sessions and maintain consistency with the "Before" Study. The schedule will include a list of the estimated duration and start and finish dates for each Task, sub-task activities, and all major milestones/deliverables and should assume a start date of August 30, 2012. See table below for a summary of major milestones and due dates.

<b>Procurement Schedule .....</b>	<b>Date(s)</b>
A. Advertise and Issue RFP .....	July 27, 2012
B. Pre-Proposal Meeting 2 p.m.....	August 7, 2012
C. Last Day to Submit Questions Regarding RFP .....	August 10, 2012
D. Proposal Due Date .....	August 17, 2012
E. Oral Interviews (if utilized) .....	week of August 27, 2012
F. Selection and Notification of Intent to Award or Intent to Negotiate.....	August 30, 2012
G. Notice of Award/Notice to Proceed .....	August 30, 2012