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April 1, 2016

Ms. Susan Bransen  
Executive Director  
California Transportation Commission  
1120 North Street  
Mail Station 52, Room 2233  
Sacramento, CA 95814

**Re: Toll Facility Application for the Interstate 405 Improvement Project**

Dear Ms. Bransen:

The Orange County Transportation Authority (OCTA) is pleased to submit the toll facility application for the Interstate 405 (I-405) Improvement Project, from State Route 73 (SR-73) to Interstate 605 (I-605), for consideration at the California Transportation Commission meeting (CTC) on May 18 to 19, 2016. The application has been developed consistent with the Toll Facility Guidelines that were adopted by the CTC on March 16, 2016. Thank you again for the timely adoption of the guidelines. CTC approval of this toll facility project is critical to the timely delivery of the project.

The I-405 corridor is one of the most heavily traveled freeways in the nation and one of the most congested in the state. The 16-mile project will add one general purpose (GP) lane in each direction on I-405 from Euclid Street to the I-605 interchange. Contingent upon CTC's approval of the toll facility, the project also adds a lane in each direction of I-405, from SR-73 to State Route 22. This will be managed jointly with the existing high-occupancy vehicle lanes as the I-405 Express Lanes, with two lanes in each direction between SR-73 and I-605. The I-405 Express Lanes will be located in the center of the freeway and will be the leftmost lanes of travel in each direction. The benefits of the project include reduced GP lane travel time, reduced express lane travel time, increased vehicle throughput in the corridor, reduced delay, improved travel times for carpoolers, and increased trip reliability through management of the I-405 Express Lanes to maintain free flow speeds.

The enclosed application provides the information required for the minimum eligibility criteria and the supporting application information, as requested through the toll facility guidelines. OCTA has also provided supplementary

Ms. Susan Bransen  
April 1, 2016  
Page 2

topics for the CTC's consideration, as well as a compact disc that includes:

- Project Initiation Document (Project Study Report/Project Development Support),
- Final Environmental Impact Report/Environmental Impact Statement
- Record of Decision,
- Notice of Determination, and
- Community Outreach Summary.

Thank you again for expediting development of the Toll Facility Guidelines to make this submittal possible for the meeting in May.

If you need any additional information or have any questions on the information enclosed in this submittal, please contact Jeff Mills, Program Manager, Highway Programs, at (714) 560-5925.

Sincerely,



Darrell Johnson  
Chief Executive Officer

DJ:ac  
Attachments

c: Ryan Chamberlain, California Department of Transportation

# **California Transportation Commission**

## **Application for Toll Facility**

### **Interstate 405 Improvement Project (State Route 73 to Interstate 605)**



**Submitted by:**

**Orange County Transportation Authority**



**March 28, 2016**

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Attached CD Includes:

- Project Initiation Document (Project Study Report/Project Development Support)
- Final Environmental Impact Report/Environmental Impact Statement
- Record of Decision
- Notice of Determination
- Community Outreach Summary

## Executive Summary

The Orange County Transportation Authority (OCTA) is applying under Streets and Highways Code Section 149.7, as amended by Assembly Bill (AB) 194, to operate a high-occupancy toll facility (the 405 Express Lane) on Interstate (I-) 405 between State Route (SR-) 73 and I-605 in Orange County.

Implementation of the 405 Express Lanes is part of the \$1.7 billion I-405 Improvement Project (Project). The 16-mile Project will add one general purpose (GP) lane in each direction on I-405 from Euclid Street to the I-605 interchange. The Project also adds a lane in each direction of I-405 from SR-73 to SR-22 that will be managed jointly with the existing high occupancy vehicle (HOV) lanes as the 405 Express Lanes with two lanes in each direction between SR-73 and I-605. The 405 Express Lanes will be located in the center of the freeway and be the leftmost lanes of travel in each direction. The Project also includes interchange improvements and arterial improvements in the vicinity of the freeway. It includes replacement of 18 bridges over the freeway all of whose cross sections will meet OCTA's Master Plan of Arterial Highways when the Project is complete.

The 405 Express Lanes will have dual lanes in each direction with single lanes connecting to/from SR-73 and I-405 at the southern end of the 405 Express Lanes and to/from I-605 and I-405 at the northern end of the 405 Express Lanes. The 405 Express Lanes will have single lane direct connectors to SR-22 and provide two additional intermediate access locations near the Bolsa Avenue/Goldenwest Street interchange and Warner Avenue/Magnolia Street interchange.

The I-405 corridor is one of the most heavily traveled freeways in the nation and one of the most congested in the state. The benefits of the Project include reduced GP lane travel time, reduced 405 Express Lane travel time, increased vehicle throughput in the corridor, reduced delay, increased trip reliability with management of the 405 Express Lanes to maintain free flow speeds, and improved travel times for carpoolers.

OCTA, the California Department of Transportation (Caltrans), and the Federal Highway Administration (FHWA) have formed a partnership to advance the Project to completion. A Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Project, as well as a Notice of Determination and a Record of Decision, have been completed and published with Caltrans as the lead agency and OCTA as a Responsible Party. Additionally, OCTA and Caltrans have executed a Cooperative Agreement establishing roles and responsibilities for the design and construction of the Project.

A design-build (DB) approach will be used to deliver the Project. OCTA has the experience with DB, Express Lanes, and debt financing to successfully deliver the Project. OCTA, in cooperation with Caltrans, led one of first major DB contracts in the state with the \$500 million construction of the SR-22 HOV DB project. OCTA has owned and successfully managed the 91 Express Lanes since 2003, requiring coordination and cooperation with Caltrans as owner and operator of the GP lanes and a maintenance contractor for the 91 Express Lanes. OCTA's 91 Express Lanes Toll Revenue Bonds are currently rated A1, AA-, and A- by Moody's, Standard & Poor's, and Fitch Ratings, respectively. OCTA has 25 years of experience in financing capital improvement projects and maintains high debt ratings with the debt rating agencies.

OCTA's Program Management Consultant (PMC) has extensive DB and tolling experience in California and around the United States. The PMC will assist OCTA in management of the implementation of the Project. Procurement of a DB contractor is currently underway with contract award anticipated in November 2016 and construction completion in 2022. The processes for right-of-way (ROW) acquisition and utility relocations have begun.

The overall programmatic cost of the Project is estimated at \$1.7 billion and will be funded with a ½-cent local sales tax for transportation known as Renewed Measure M (M2) funding, state and federal grant funding, and either a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan or non-recourse bonds issued by OCTA and secured by 405 Express Lanes net revenues. Full funding of the Project is included in the current Southern California Association of Governments (SCAG) Federal Transportation Improvement Program (FTIP). The Project is included in the SCAG Regional Transportation Plan (RTP).

OCTA has prepared this application for tolling authority consistent with the order of information identified in the application guidelines adopted by the Commission on March 16, 2016.

## Part A. Minimum Eligibility Criteria

The Commission must find, at a minimum, that the criteria identified in AB 194 are met. Therefore, every application should clearly discuss how it meets the following minimum criteria:

1. A demonstration that the proposed toll facility will improve the corridor's performance by, for example, increasing passenger throughput or reducing delays for freight shipments and travelers, especially those traveling by carpool, vanpool, and transit.

The Final EIR/EIS provides substantial information regarding increases in throughput and reduction in delay for freight, travelers, and those ride sharing. These data are summarized below in Part B Section 3.

2. A requirement that the proposed toll facility is contained in the constrained portion of a conforming regional transportation plan prepared pursuant to Section 65080 of the Government Code.

The Project is included in the SCAG RTP as described below in Part B Section 2.

3. For projects involving the state highway system, evidence of cooperation between the applicable regional transportation agency and Caltrans. Examples of acceptable evidence of cooperation could be in the form of a completed cooperative agreement or a signed letter between the parties to demonstrate that the parties are working cooperatively on the development of the toll facility.

Caltrans fully supports this Project as evidenced by the Caltrans District 12 Director's approval of and signature on the Final EIR/EIS (dated March 26, 2015) and Caltrans' approval of the Final Project Report (dated June 15, 2015). Both the Final EIR/EIS and Final Project Report were provided to the Commission by Caltrans in July 2015 in support of a Commission agenda item at the August 2015 meeting. Caltrans has approved, signed, and published the Record of Decision (signed May 15, 2015 and published in the *Federal Register* June 4, 2015). Additionally, Caltrans has signed (June 17, 2015) the Notice of Determination. The Final EIR/EIS, the Record of Decision, and the Notice of Determination are included on the compact disc (CD) accompanying this application.

OCTA and Caltrans are developing and implementing the Project in a partnership. OCTA and Caltrans jointly developed and agreed to the "I-405 Project Implement (Alternative 3) Preliminary OCTA/Caltrans Agreement on Terms and Conditions as of April 16, 2015" that specifies roles in Project delivery, identifies Project funding and financing, provides conditions for 405 Express Lane operations, and presents a framework for use of net excess revenues. Additionally, OCTA and Caltrans have executed a Cooperative Agreement establishing roles and responsibilities for the DB implementation of the Project.

Caltrans has committed \$82 million of State Highway Operation and Protection Program (SHOPP) funds under its control to the Project and these were previously approved by the Commission for auxiliary lanes included in the Project.

Caltrans and OCTA are currently partnering in the development of a DB Request for Proposals (RFP) for the Project's civil infrastructure and have, to date, undertaken numerous activities in support of the

Project including a Cost Estimate Review (CER), preparation of a draft Project Management Plan, preparation of a draft Concept of Operations for the 405 Express Lanes in addition to their joint development of the EIR/EIS, Project Report, Modified Access Report, and numerous other documents.

4. A discussion of how the proposed toll facility meets the requirements of Streets and Highways Code Section 149.7.

This topic is presented in Part B Section 2.

5. A complete project initiation document for the proposed toll facility.

A Project Study Report/Project Development Support (PSR/PDS) was completed by OCTA and signed by Caltrans on July 24, 2008. The PSR/PDS serves as the project initiation document for the Project. A copy is included on the CD accompanying this application.

6. A complete funding plan for development and operation of the toll facility.

The Project will be funded as provided below in Part B Section 5.A.

## Part B. Supporting Application Information

In evaluating applications, the Commission will consider all provided information to determine whether to approve the proposed toll facility. Accordingly, in conjunction with responding to the statutorily defined minimum criteria, applications should address the following questions whenever applicable.

### 1. Compliance with State Law

Has the applicant demonstrated that the proposed project is consistent with the established standards, requirements, and limitations that apply to the toll facilities in Section 149.7 of the Streets and Highways Code as well as all other applicable sections of state law?

OCTA is applying under Streets and Highways Code Section 149.7 as amended by AB 194, which became effective on January 1, 2016. As amended, Section 149.7(a) permits “a regional transportation agency ... to apply to the commission to develop and operate high-occupancy toll lanes or other toll facilities, including the administration and operation of a value pricing program....”

OCTA is a regional transportation agency as defined in Section 149.7(k)(2), as amended, established under Section 130050 of the Public Utilities Code and more particularly defined in Section 130052.

Section 149.7(c) requires that guidelines established by the Commission for approval include the following, each of which is addressed in this application as indicated.

- (1) A demonstration that the proposed toll facility will improve the corridor’s performance by, for example, increasing passenger throughput or reducing delays for freight shipments and

travelers, especially those traveling by carpool, vanpool, and transit. This topic is covered below in Part B Section 3.

- (2) A requirement that the proposed toll facility is contained in the constrained portion of a conforming RTP prepared pursuant to Section 65080 of the Government Code. This topic is covered in Part B Section 2.
- (3) Evidence of cooperation between the applicable regional transportation agency and the Caltrans. This topic is covered in Part A #3.
- (4) A discussion of how the proposed toll facility meets the requirements of this section. This topic is covered below in this section.
- (5) A requirement that a project initiation document has been completed for the proposed toll facility. A PSR/PDS (the project initiation document) was completed and approved by Caltrans on July 24, 2008. A copy is included on the CD accompanying this application.
- (6) A demonstration that a complete funding plan has been prepared. This topic is covered in Section 5.A.

Section 149.7(e) provides the additional requirements pertinent to the 405 Express Lanes including:

- a. That the regional transportation agency shall enter into an agreement with the California Highway Patrol (CHP) for enforcement services related to the toll facility and reimbursement to CHP for its costs. OCTA and CHP have met on several occasions and such an agreement will be negotiated before the 405 Express Lanes are open to traffic.
- b. That the regional transportation agency shall enter into an agreement with Caltrans addressing “all matters related to design, construction, maintenance, and operation of the toll facility, including, but not limited to, liability, financing, repair, rehabilitation, and reconstruction” and reimbursement of Caltrans expenses by the regional transportation agency. These items will be included by OCTA and Caltrans in an Operating Toll Agreement, which the agencies will be developing after Commission approval of the Project and upon which OCTA and Caltrans have an initial agreement embodied in the “I-405 Project Implementation (Alternative 3) Preliminary OCTA/Caltrans Agreement on Terms As of April 16, 2015”.
- c. That the sponsoring agency shall be responsible for activities related to toll collection. OCTA will procure a contractor(s) to implement OCTA’s toll policies and collection.
- d. That the revenue generated by the tolls will be used to cover debt obligations of the toll facility and “development, maintenance, repair, rehabilitation, improvement, reconstruction, administration, and operation of the toll facility” and a reserve fund with all remaining funds used in the corridor pursuant to an expenditure plan developed by the sponsoring agency. OCTA is committed to managing the revenue generated by the tolls in strict accord with these requirements and will define the corridor in which remaining funds may be expended as part of the expenditure plan for net excess revenues. The disposition of net excess toll revenue is covered in Section 5.B.
- e. That “[f]or any project under this section involving the conversion of an existing high-occupancy vehicle lane to a high-occupancy toll lane, the sponsoring agency shall demonstrate that the

project will, at a minimum, result in expanded efficiency of the corridor in terms of travel time reliability, passenger throughput, or other efficiency benefit.” This topic is covered in Part B Section 3.

- f. That the sponsoring agency will provide information to the Commission or Legislative Analyst upon request. OCTA will provide information annually or as otherwise requested as noted in Part B Section 7.
- g. That a regional transportation agency may issue bonds to finance construction and construction-related expenditures but that the bond must not pledge the full faith and credit of the State of California. Bonds issued by OCTA will contain the required language as provided in the statute.
- h. That a regional transportation agency will consult with local transportation authorities and congestion management agencies whose jurisdictions include the toll facility. OCTA has met and coordinated on numerous occasions with all of the jurisdictions through which the 405 Express Lanes will pass and will continue to do so, as needed, for the life of the Project.

In implementing the 405 Express Lanes, OCTA will abide by all appropriate state and federal statutes. AB 2250 (codified in the California Government Code Section 14106) requires that the revenues generated by the 405 Express Lanes be spent within the Project corridor. As noted below and in Section 5.B, OCTA and Caltrans will, in partnership, develop an expenditure plan for net excess revenues on transportation improvements in the Project corridor.

Sections 21655.9 and 5205.5 of the California Vehicle Code provide for use of exclusive or preferential HOV lanes to vehicles displaying stickers issued by the Department of Motor Vehicles for vehicles meeting specified low and zero emissions standard regardless of vehicle occupancy. The 405 Express Lanes will be operated consistent with these provisions.

The Project’s civil infrastructure will be procured using a DB delivery method. OCTA will select, with the approval of Caltrans and FHWA, a DB Contractor by implementing a two-step procurement process, in accordance with the Code of Federal Regulations (CFR) Title 23, Part 636, DB Contracting and AB 401 (codified in the California Public Contract Code Sections 6820 -6829 and the California Streets and Highways Code Section 91.2). There are a host of additional state and federal requirements applicable to contracts entered into by OCTA and its contractors, including federal authorization to issue RFPs or other procurement solicitations with respect to those portions of the Project that are receiving federal funding. Required contract provisions such as non-discrimination and equal employment opportunity, payment of prevailing wage and the avoidance of conflicts of interest, will be included.

All toll transactions and accounts will be processed and maintained by OCTA and its contractor(s). Privacy of personal account information and use the 405 Express Lanes will be strictly maintained and will comply with all applicable state and federal statutes, rules, and regulations.

ROW acquisitions and utility relocations needed for the Project will be undertaken in compliance with applicable federal and state laws, regulations, and procedures. All property rights and program implementation shall be under the authority and guidance of local, state, and federal law, policies, and procedures. At the federal level, compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (the Uniform Act) and the *Code of Federal Regulations* (CFR) Section 49, Part 24,

shall be adhered to. With respect to the Project, FHWA will retain responsibility for oversight of the Project's adherence to the Uniform Act. The property acquisition process shall be guided by the Caltrans ROW Manual and the OCTA Real Property Policies and Procedures Manual. In the instances where legal proceedings are required to retain possession and property rights, the governing body of law shall include all relevant state and federal statutes and case law, including but not limited to the *California Code of Civil Procedure* §§1230.010-1273.050 (Eminent Domain Law). In conjunction with Caltrans and federal regulations, OCTA has established certain prescribed land acquisition procedures that are followed for the acquisition of property by OCTA, or by any person having an agreement with or acting on behalf of OCTA.

The Project is subject to the design standards in the Caltrans Highway Design Manual (HDM) and FHWA's 13 controlling criteria. For exceptions to the advisory and mandatory standards included in the HDM, Fact Sheets are required to explain and justify the design exceptions. Fact Sheets must be approved by Caltrans.

There are numerous permits and approvals required for the Project from federal, state, and local agencies. These are identified in the Project Management Plan and included in the Project schedule.

## 2. System Compatibility

**If on the state system, has the applicant demonstrated that the project is consistent with State Highway System requirements? Does this project propose improvements that are compatible with the present and planned transportation system? Does the project provide continuity with existing and planned state and local facilities?**

The Project is consistent with Caltrans District 12's October 2010 Corridor System Management Plan (CSMP) for I-405, which defines how the corridor will be managed. The CSMP focuses on operational strategies in addition to the already funded expansion projects with the goal of increasing the efficiency of the existing system and maintaining or improving corridor performance. With the Project, the number of managed and GP lanes along the Project corridor will meet or exceed the strategies considered in the CSMP. As noted in Part A Section 1, the Project is subject to the design standards in the Caltrans HDM and both Mandatory and Advisory Fact Sheets for the Project have been approved by Caltrans.

The Project is included in the 2012 RTP Sustainable Communities Strategy adopted by SCAG as project #ORA030605. The Project description in the 2012 RTP Sustainable Communities Strategy, as amended, is "Add 1 MF [mixed flow] lane each direction, and additional capital improvements (by 2022); convert existing HOV to HOT [high occupancy toll], add 1 additional HOT lane each direction (by 2035)."

The Project is included in the OCTA's 2014 Long Range Transportation Plan (LRTP) titled "*Outlook 2035: Because Mobility Matters*", described as a project to add one mixed flow lane in each direction to the San Diego Freeway (I-405) between I-605 and SR-73, generally within the existing ROW. The LRTP serves as a blueprint for transportation system investment strategy in Orange County for OCTA over a 20-year period and is updated every four years.

The LRTP also includes a project to add one HOV lane in each direction on SR-73 between I-405 and MacArthur Boulevard and another project to construct a direct connector between the HOV lanes on SR-73 and I-405. The Project includes that direct connector linking the 405 Express Lanes on I-405 to the inside lanes on SR-73.

As noted in Section 6.A the Project will:

- construct the ultimate cross section of arterials crossing above the freeway ROW on bridges, as defined by the Orange County Master Plan of Arterial Highways;
- construct or provide pavement for Class II bike facilities along all existing and planned bike routes, respectively; and
- provide pedestrian facilities with the Americans with Disabilities Act (ADA).

### 3. Corridor Improvement

**AB 194 specified the Legislature's intent that highway tolling should be employed for the purpose of optimizing the performance of the transportation system on a transportation corridor and should not be employed strictly as a revenue generating facility. Has the applicant provided compelling evidence that demonstrates that the proposed toll facility will significantly improve the corridor's performance?**

The reason the Project is being pursued is to address the current deficiencies of I-405 within the Project limits:

- The I-405 mainline GP lanes peak-period traffic demand exceeds available capacity;
- The I-405 mainline HOV lanes peak-period traffic demand exceeds available capacity;
- The I-405 mainline GP traffic lanes have operational and geometric deficiencies;
- The interchanges along I-405 within the study area have geometric, storage, and operational capacity deficiencies; and
- I-405 currently has limitations in detecting traffic incidents and providing rapid response and clearance due to lack of capacity and technological infrastructure.

In a report dated August 20, 2013 the FHWA Office of Highway Policy Information released the Summary of the Extent, Usage, and Condition of the U.S. Interstate System and noted that the I-405 had the highest average annual daily traffic of any freeway in the nation at 379,000 based on the Data Source: 2011 Highway Performance Monitoring System. Based on vehicle hours of delay, Caltrans calculated that the I-405 corridor in Orange County suffered 3,119,284 vehicle hours of delay in 2013. Caltrans ranked I-405 as the second most congested freeway in California in Caltrans' The Mile Marker, January 2015.

The purpose of the Project is to:

- Reduce congestion;
- Enhance operations;
- Increase mobility, improve trip reliability, maximize throughput, and optimize operations; and

- Minimize environmental impacts and ROW acquisition.

In furtherance of the Project’s purpose, an objective of the Project is to be consistent with regional plans and find a cost-effective early Project solution for delivery.

Once complete, the Project will reduce commute time, encourage shared rides and public transit, increase safety and economic productivity, and enhance the quality of life for Southern California residents and visitors. Based on information provided in the Final EIR/EIS, a copy of which is provided on the CD accompanying this application, the benefits of the Project will:

- Reduce GP lane travel times from 133 minutes to 29 minute (2040 No-Build vs Project scenario), as shown in Exhibit 1;
- Reduce tolled 405 Express Lanes travel time from 121 minutes to 13 minutes (2040 No-Build in the HOV lane vs Project scenario in the 405 Express Lane), as shown in Exhibit 1;
- Eliminate HOV lane degradation per Federal requirements as defined in the federal Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21);
- Increase throughput in the Project corridor from 23% to 50% depending upon location within the corridor;
- Reduce annual vehicle hours of delay in the Project corridor by 2 million hours in the opening year and 78 million hours in 2040;
- Increase trip reliability in the corridor with congestion free operation of the 405 Express Lanes for HOVs or those willing to pay a toll;
- Increase efficient use of the transportation system by encouraging transit and carpools;
- Improve safety by addressing operational and geometric deficiencies, reducing congestion and reducing emergency vehicle access time to freeway incidents;
- Enhance quality of life for Project corridor communities by reducing demand on local streets;
- Create an estimated 42,000 jobs due to construction; and
- Generate excess toll revenues that will be reinvested in the I-405 corridor.

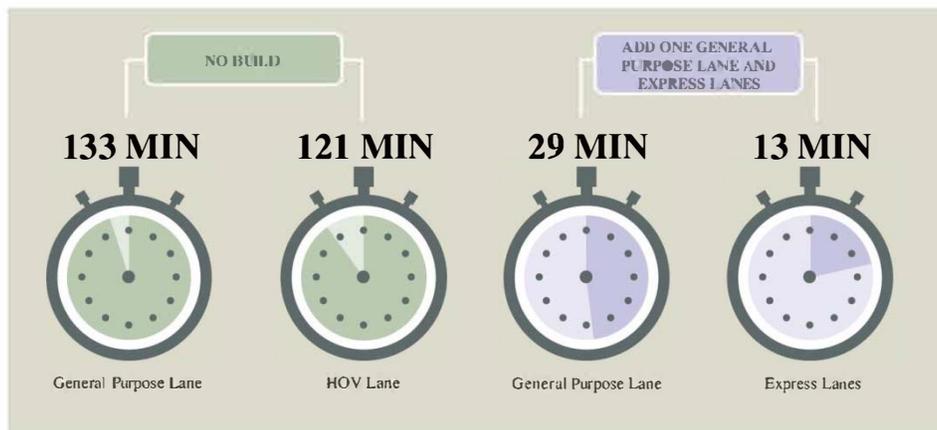


Exhibit 1. The Project Will Reduce Travel Time in 2040

## 4. Technical Feasibility

**4.A Project Definition** – Has the applicant described the proposed facility in sufficient detail to determine the type and size of the project, the location, all proposed interconnections with other transportation facilities, the communities that may be affected, and alternatives (e.g. alignments) that may need to be evaluated?

To ensure mobility, maximize the operational efficiency of one the nation’s important infrastructure assets, OCTA and Caltrans have committed to delivering the Project.

The Project will improve the safety, reliability, and operational efficiency of the I-405 in Orange County from SR-73 to I-605 and fix deficiencies along 16 miles of the most heavily congested freeway corridor in the nation. Exhibit 2 shows the location of the Project. The Project will add one GP lane between Euclid Street and I-605. The Project also adds a lane in each direction between SR-73 and SR-22 that will be managed jointly with the existing HOV lanes as the 405 Express Lanes with two lanes in each direction between SR-73 and I-605. The lane schematics in Exhibits 3 and 4 show the additional lanes added by the Project.



Exhibit 2. Project Location and Bridge Improvements

The 405 Express Lanes will have dual lanes in each direction with single lanes connecting to/from SR-73 and I-405 at the southern end of the 405 Express Lanes and to/from I-605 and I-405 at the northern end of the 405 Express Lanes. The 405 Express Lanes will have single lane direct connectors to SR-73, SR-22, and I-605 and provide two additional intermediate access locations near the Bolsa Avenue/Goldenwest Street interchange and Warner Avenue/Magnolia Street interchange.

The tolled 405 Express Lanes will use congestion management pricing to optimize throughput at free flow speeds. It will also provide an incentive for ridesharing and increased transit use as an alternative to driving alone. In addition, the Project will improve local interchanges at 17 locations along I-405 in Orange County between SR-73 and I-605, as well as portions of SR-22, SR-73, and I-605 to reduce congestion and improve lane continuity through the corridor. The Project will replace 18 freeway overcrossings with bridges that meet the requirements of OCTA's Master Plan of Arterial Highways and accommodate both existing and planned bikeways. Additionally, the Project includes six bridge widenings or modifications and eight new bridges. Exhibit 2 shows the replacement, widened, and new bridges. The Project provides ADA compliant facilities including sidewalks and crosswalks within the Project limits. The Project will provide additional soundwalls along the Project corridor by constructing new sound walls in areas not currently served by a soundwall or by closing gaps between existing soundwalls as identified in the Final EIR/EIS.

The 405 Express Lanes will enhance ridesharing modes including carpools, vanpools, and transit by providing more reliable freeway speed travel for these modes. These modes will be able to reach destinations and intermodal facilities along the corridor, such as park-and-ride lots, John Wayne Airport and the Long Beach Airport, more quickly and more predictably. The Project significantly enhances active transportation modes by connecting local street pedestrian and bicycle traffic from one side of the freeway to the other. The Project provides sidewalk on both sides of freeway arterial crossings, except in 5 instances where sidewalk on only one side of the arterial crossing is reasonable. Many crossings currently provide sidewalk on only one side of the arterial and, in two cases, there are no continuous pedestrian facilities crossing the freeway. There are currently 5 planned Class 2 bikeways on arterials crossing the freeway where there are no existing facilities. The Project provides pavement to accommodate these future bikeways and for the 6 existing facilities.

The 16-mile Project is located within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Garden Grove, Seal Beach and the community of Rossmore and in the vicinity of Los Alamitos and Long Beach (which is in Los Angeles County), as shown in Exhibit 2.

No alternative alignments are under evaluation because the goal of the Project is to address congestion on an existing facility. Alternatives along the existing corridor alignment were considered during preparation of, and are included in, the Final EIR/EIS. Additional detail about the Project can be found in the Final EIR/EIS, a copy of which is provided in the CD attached to this application.

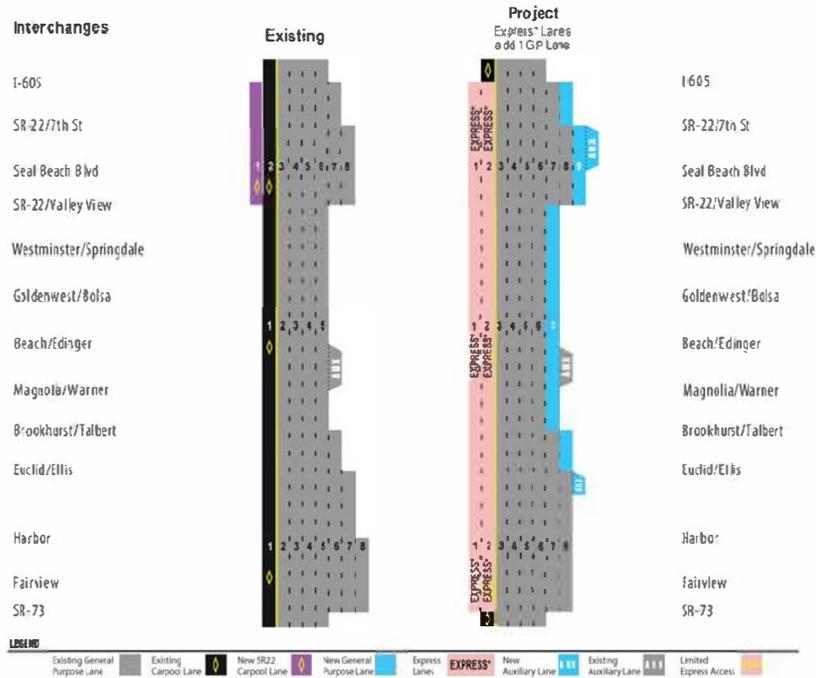


Exhibit 3. Northbound Lane Schematic Showing Existing Condition and Project Improvements

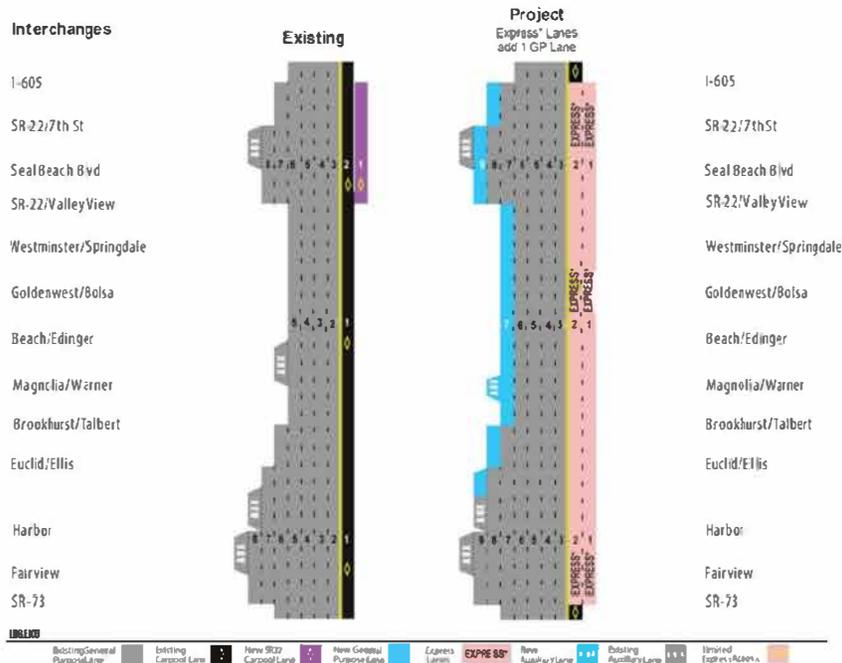


Exhibit 4. Southbound Lane Schematic Showing Existing Condition and Project Improvements

4.B *Proposed Project Timeline* – Is the time frame for project completion clearly outlined? Is the proposed schedule reasonable given the scope and complexity of the project? Does the proposal contain adequate assurances that the project will be completed on time?

Exhibit 5 provides the current schedule leading to the start of construction after Notice to Proceed (NTP) 2 in 2017 and completion of construction in 2022.

As shown in Exhibit 5, the DB Contractor is not given NTP 2 (to start construction) until the financial planning for the Project is complete and financing is secured. The schedule provides ample time to complete all aspects of Project finance before major costs of construction are incurred.

Exhibit 5. Project Timeline

PROJECT ACTIVITIES	TIMELINE
<b>ENVIRONMENTAL</b>	
Final EIR/EIS	Mar 2015
Record of Decision	May 2015
<b>FINANCIAL</b>	
Evaluate Tolling Policy Options	Mar-May 2016
Adopt Toll Policy Assumptions and Options	Oct 2015
Investment Grade Traffic and Revenue Study (IGT&R)	Sep 2015-May 2016
Commission Approval of Tolling Authority	May 2016
Adopt Initial Toll Policy/Preliminary Finance Plan	May 2016
TIFIA Loan Pursuit	2016
Financial Plan	Apr-Oct 2016
Operating Toll Agreement	Jun 2016
Financial Legal Documents	Jul-Dec 2016
Secure/Issue Debt	Jan-May 2017
<b>PROCUREMENT</b>	
Release Revised Request for Qualifications (RFQ)	May 2015
Shortlist & Release Draft RFP	Nov 2015
Release Final RFP	Mar 2016
DB Contract Award	Nov 2016
NTP 1	Jan 2017
NTP 2	Jun 2017
Project Completion	2022

The duration of the DB contract is anticipated to be approximately six years. A construction staging concept has been developed that shows one way in which construction could be staged to complete the

Project within that timeframe. The DB Contractor will determine the construction staging but the DB RFP includes a 2,049 day limit from NTP 2 to substantial completion of construction. NTP 2 is not an authorization to commence construction and it is not anticipated that construction will commence for a few months after NTP 2.

A number of methods will be used to assure that the Project will be completed and completed on time. These are summarized below.

As shown in Exhibit 5, the DB Contractor is not given NTP 2 (to start construction) until the financial planning for the Project is complete and the ability to secure and issue debt is assured. The schedule provides ample time to complete all aspects of Project finance before major costs of construction are incurred.

A number of methods will be used to assure that the Project will be completed and completed on time. These are summarized below.

### **Project Reporting**

Reports will be prepared to assess status and track progress on costs, budgets, schedules, quality, environmental mitigation status, safety, labor compliance, and many other items for the Project. These reports will cover periods ranging from one week to as long as one year. Additionally, special reports concerning a particular topic will be prepared, when necessary or requested. OCTA will ensure that these reports are prepared by the PMC and/or DB Contractor, as appropriate.

A formal cost, schedule, and status report will be produced and reviewed monthly with agency management from OCTA, Caltrans, and FHWA. A status meeting will be held quarterly with the Executive Oversight Committee, or more frequently, upon its request. The Executive Oversight Committee consists of the executives from the three agencies partnering to deliver the Project:

- OCTA Chief Executive Officer;
- Caltrans District 12 Director; and
- FHWA Associate Division Administrator.

### **Monthly Status Meeting**

Senior representatives from OCTA, Caltrans, FHWA, and PMC will attend a monthly status meeting. The meetings will be led by OCTA. The purpose of the meetings is to discuss costs, schedules, quality issues, compliance with federal and State requirements, and other status items in sufficient detail to allow all involved parties to be fully aware of the significant issues and actions planned to mitigate any adverse impacts. The PMC will prepare a monthly status report for discussion at the meeting. The format of the report may change over time as the Project proceeds and new topics are identified. The monthly Project status report will include:

- Executive Summary;
- Activities and Deliverables;
- Action Items/Outstanding Issues;

- Schedule Adherence;
- Cost Adherence;
- Quality Adherence; and
- Safety Summary.

### **Weekly Progress Meetings**

A weekly progress meeting among the DB Contractor, OCTA, PMC, the Construction Management Consultant, and Caltrans will be held beginning at DB contract NTP 1 and continuing throughout construction until completion. The meetings will be led by the DB Contractor, and the purpose of these weekly meetings is to:

- Review the schedule with emphasis on a three-week look ahead;
- Provide ongoing dialogue;
- Report Project construction status;
- Identify problems encountered and proposed resolutions;
- Review and address safety issues;
- Address coordination issues with utilities or others; and
- Identify those issues or barriers to success that require immediate action or elevation to senior Project management.

One key purpose of these weekly meetings is to identify those significant issues that need to be elevated to senior management of OCTA and Caltrans for their discussion at bi-weekly management team meetings. Immediate communication of progress and issues will mitigate any adverse impacts that might occur without prompt action. Project stakeholders will be invited to attend regularly, or as needed.

### **4.C Operation – Has the applicant presented a reasonable statement setting forth plans for operation of the facility?**

The 405 Express Lanes include dual lanes in each direction of I-405 from SR-73 to I-605. The tolling and signage infrastructure needed to operate the 405 Express Lanes include:

- Toll gantries (toll reader) with transponder readers and high-speed digital cameras in illuminated areas at approximately 18 locations (nine in each direction);
- Enforcement areas at approximately 6 toll gantry locations (three in each direction) and an additional enforcement area in each direction that may not include a toll gantry;
- Signage approaching 405 Express Lane entry and exit points, including changeable message signs upstream of entry points indicating the toll amount;
- Complete closed-circuit television coverage of the entire 405 Express Lanes facility to provide security for tolling equipment and to enable quick response to breakdowns and other incidents in the 405 Express Lanes; and
- Fiber optics linking the electronic infrastructure to a centralized toll operations office.

The policies under which the 405 Express Lanes will be operated have not been finalized. The policies presented here provide the current plans to operate the 405 Express Lanes based on the October 12, 2015 approval by the OCTA Board of Directors of "Approval of Assumptions and Options for 405 Express Lanes Toll Policy and Finance Plan – Staff Report" (Assumptions). Final decisions on operating policies will be made by the OCTA Board after completion of the Investment Grade Traffic and Revenue Study (IGT&R) and detailed financial plan that are currently under development. The IGT&R forecasts traffic in the 405 Express Lanes and the associated potential toll revenue, which is used in the development of a financial plan to fund the Project. The Assumptions include the following toll policy elements that are subject to change as the Project develops.

*Type of Tolling and Method of Determining Toll Amounts.* The type of tolling to be used in the 405 Express Lanes is time of day. Time of day pricing uses fixed tolls that vary by time of the day and day of the week, are predetermined, and are available on a published schedule that is adjusted periodically as described below. It is anticipated that tolls will vary hourly, although some consecutive hours may have the same toll. Toll variation in peak hours is designed to:

- a) maintain free-flow travel speeds in the 405 Express Lanes;
- b) maintain travel time savings for customers;
- c) reduce the likelihood of congestion by incentivizing traffic to travel during other hours;
- d) accommodate projected growth in travel demand and;
- e) ensure that the 405 Express Lanes generate sufficient revenue.

The method for adjusting peak tolls will be similar to the method used on OCTA's 91 Express Lanes. The method uses trigger points to adjust an hourly toll upwards when historical average hourly volumes consistently reach 92 percent of maximum optimal throughput. (Maximum optimal throughput is defined below.) If the adjustment results in an hourly volume that, on average, is less than 80 percent of maximum optimal throughput, the toll is reduced. If the adjustment results in a volume that is, on average, 80 percent of maximum optimal throughput or more, pricing is held constant and monitored. Toll amounts are reviewed every 12 weeks but, if tolls are raised, the new amount is not adjusted during the following 6 months. The 12 week and 6 month periods may be shortened during the ramp up period (immediately following opening of the 405 Express Lanes during which motorists familiarize themselves with use of the lanes) and other periods of unusual traffic demand. The ramp up period may last as long as 36 months and will terminate when 405 Express Lane volumes and pricing stabilize.

For non-peak hours tolls the method for adjusting peak tolls will be similar to the method proposed for use on the 91 Express Lanes in Riverside County. Under this method tolls generally remain at fixed levels within a broad band category, increasing annually by an inflation factor. Vehicle volumes increasing from one category to the next will be subject to a toll increase. The categories will be roughly defined as follows:

- A - 0 to 800 vehicles per hour in the dual 405 Express Lanes in one direction;
- B - 800 to 1600 vehicles per hour;
- C - 1600 to 2400 vehicles per hour;

D - 2400 to 2800 vehicles per hour; and

E - 2800 to 3100 vehicles per hour.

Toll rates **will** be adopted for each category reflecting the time savings value to the driver as traffic moves into the next level of congestion.

*Toll Discounts.* No final determination has been made regarding vehicles that **will** travel in the 405 Express Lanes free or **with** a reduced toll. Free or discounted tolls **will** be used to encourage ridesharing and transit usage. The IGT&R **will** provide information on the revenue and operational characteristics of various scenarios of free and discounted tolls. In addition to HOVs, other vehicles that may receive free or discounted use of the 405 Express Lanes include **law** enforcement and emergency vehicles, pure zero emission vehicles, vehicles displaying green or **white** clean air vehicle (CAV) decals, and transit vehicles. The initial toll policy to be adopted by the OCTA Board of Directors, anticipated for May 2016, **will** identify those vehicles to be afforded free and/or discounted use of the 405 Express Lanes. The assumptions identify in-service transit vehicles, emergency vehicles, and **law** enforcement vehicles as free users of the 405 Express Lanes and explicitly postpones consideration of free or discounted use by HOVs and CAV decal vehicles pending completion of the IGT&R. Requirements of state **law** with respect to free use of the 405 Express Lanes by CAV decal vehicles **will** be met by OCTA's toll policy.

*Maximum Optimal Throughput Volume in the 405 Express Lanes.* During peak periods of traffic congestion, the volume of traffic using the 405 Express Lanes **will** be managed to maintain free flow speeds and minimize congestion in the 405 Express Lanes. This **will** be accomplished by optimizing the volume of traffic in the 405 Express Lanes by using congestion management pricing as described above.

*Methods of Toll Collection.* The 405 Express Lanes **will** employ all electronic toll collection, like OCTA's 91 Express Lanes and the Los Angeles County Metropolitan Transportation Authority toll facilities on I-10 and I-110. All electronic toll collection maintains highway speeds, allowing drivers to pay using a FasTrak® account on any California toll facility. An account may have a single or multiple transponders and license plates associated **with** it for identification and billing. An account may be established through OCTA's toll operations or through another California toll agency.

All vehicles using the 405 Express Lanes **will** initially be required to use a California Title 21 transponder, even if not subject to a toll. (FasTrak® is the trademarked California Title 21 interoperable transponder. Title 21 is explained below.) A transponder is a radio frequency identification unit that transmits a signal to a roadside or overhead reader. Each transponder transmits a unique signal that uniquely identifies the transponder unit.

Transponders **will** be equipped **with** a **switch** that motorists **will** utilize to declare their vehicle occupancy. The position of the **switch** **will** be used to assess the correct toll amount based on HOV occupancy status.

Transponders **will** be read and tolls charged at toll gantries. A toll gantry is the overhead structure on which transponder readers **will** be mounted. Because there are intermediate access areas along the 405 Express Lanes, a toll **will** be collected for use of each toll zone of the 405 Express Lanes. A toll gantry **will**

be located along each separately tolled zone of the 405 Express Lanes where transponders will be read to charge the toll.

Along with transponder based payments, OCTA will deploy a license plate recognition system to capture license plates for drivers with a valid FasTrak® account and those without an account (permitted under California Vehicle Code Section 23302). The license plate recognition system will allow OCTA to charge valid FasTrak® accounts, identify vehicles that are not registered, and issue a violation notice.

The 405 Express Lanes will be supported by a toll operation that services its regional FasTrak® customers and reconciles payment with registered customers from other California toll agencies. California toll agencies using electronic toll collection created a California Toll Operators Committee. The California Toll Operators Committee developed standards and provisions that OCTA follows to ensure that customers of toll facilities in California can use a FasTrak® account established by any toll facility in the state for the electronic payment of tolls on all toll facilities in the state.

Registered FasTrak® drivers will be able to use the 405 Express Lanes and pay the toll seamlessly as OCTA continues to maintain interoperability with other toll agencies both locally and statewide. FasTrak® is Title 21 compliant. All toll equipment will meet interoperability and other state and federal requirements and standards. For FasTrak® transponders, California regulations specify using RFID technology, commonly referred to as Title 21, on toll facilities in California for automatic vehicle identification (1992 California Senate Bill 1523, Chapter 1080, Section 27565). OCTA supports this current regulation and is working closely with the California Toll Operators Committee, composed of the various California toll agencies, on future electronic tolling technology to ensure continued interoperability.

It is anticipated that the 405 Express Lanes will open with the requirement for motorists to use a Title 21 compliant transponder. However, under federal law (MAP-21, Section 1512(b)) interoperability is required nationwide by October 1, 2016. There is currently no federal interoperability standard. One possibility for the future federal standard is the International Standards Organization 18000-6c standard, which defines an automatic vehicle identification protocol for radio frequency identification devices such as transponders. When a federal interoperability standard is adopted, OCTA will comply with it.

**Methods of Toll Enforcement.** Ensuring that each motorist pays the correct toll and minimizing toll evasion are essential to operation of the 405 Express Lanes. Failure to use a transponder will be a toll violation. Using a transponder set to an occupancy that results in a discounted toll charge to which the motorist is not entitled will be a toll violation. These violations will be enforced by CHP officers in the field. Enforcement of the HOV occupancy requirement will be accomplished in a manner similar to that used to enforce the HOV occupancy requirement in the current I-405 HOV lanes: officers will use visual checks to determine if occupancy requirements are met.

There will be eight enforcement areas along the 405 Express Lanes, four in each direction. Six of the enforcement areas will be located near the toll gantries at electronic toll and traffic management (ETTM) toll collection sites; two (one in each direction near the Springdale/Westminster interchange) will not be located at an ETTM toll collection site and will be used for enforcement stops and/or observation of violations other than vehicle occupancy. The enforcement areas will be located such that

every vehicle using the 405 Express Lanes will pass at least one enforcement area with an ETTM toll collection site. There is an enforcement area with an ETTM toll collection site between each entry point and all of its downstream exit points. The only way to avoid an enforcement area with an ETTM toll collection site will be to cross the buffer between the 405 Express Lanes and GP lanes, which is a violation.

ETTM toll collection sites will be equipped with a toll gantry and a transponder reader. Enforcement areas at ETTM toll collection sites will be lighted to assist officers observing traffic from the enforcement area with visual inspection of the number of occupants in a vehicle. Enforcement areas at ETTM toll collection sites will also be equipped with a set of lighted indicators that will be illuminated to show a CHP officer stationed at the enforcement area whether the vehicle has a transponder and what vehicle occupancy the transponder declares. The lighted indicators will be positioned to allow a CHP officer to view both the lighted indicators and traffic at the same time.

*Hours of Operation.* The 405 Express Lanes operate 24 hours per day, seven days per week.

*Intermediate Access.* There are Intermediate access points at the locations described above consistent with the Final EIR/EIS and they are provided in such a way as not to preclude continuous access in the future.

*Account and Violation Fees.* The account and violations fee structures are the same as on OCTA's 91 Express Lanes.

*Truck Access.* Large trucks (over 10,000 pounds) and towed trailers are prohibited in the 405 Express Lanes.

*Additional Aspects of the Plan for Operations.* Although not included in the Assumptions, provision of a Customer Service Patrol similar to the existing Freeway Service Patrol is anticipated between the hours of 5:00 A.M. and 9:00 P.M. The Customer Service Patrol will be available to assist motorists with a disabled vehicle, move disabled vehicles out of the 405 Express Lanes onto the shoulder, and assist CHP in removing vehicles from the 405 Express Lanes following a collision.

Customer service centers (CSC) will be provided for 405 Express Lane customers. Quality customer service is an essential component of the 405 Express Lanes. The back-office functions that are performed by the CSC encompass customer account setup and management, customer access and communications, mail handling, payment processing, and transponder distribution. The operations that support customer service will be accessible via multiple means, including Web, e-mail, fax, and phone. There will be at least one and potentially more than one CSC.

The 405 Express Lanes require the collection of tolls from motorists who do not meet occupancy requirements or other conditions for free use of the 405 Express Lanes. A Traffic Operations Center (TOC) will operate on a 24/7 basis and perform support activities related to emergency service management and coordination for the 405 Express Lanes. At a minimum, the following functions must be provided:

- Monitoring conditions on the roadways;
- Identifying incidents and problem situations;

- Alerting appropriate response personnel and resources to address and remedy problems;
- Dispatching tow trucks; and
- Coordinating with other contractors and agencies, including law enforcement.

These functions will be carried out in cooperation with the Caltrans District 12 Traffic Management Center (TMC). These functions may be fully carried out by the TOC, or jointly between the TOC and TMC, or under a shared responsibility arrangement with the TMC or completely by the TMC. Agreement between Caltrans and OCTA on these topics will be completed prior to opening of the 405 Express Lanes.

Lane tolling equipment and back office tolling equipment and systems will be maintained initially by the contractors installing these systems prior to opening of the 405 Express Lanes. Periodic procurements of this equipment and systems will occur and include maintenance agreements.

A Concept of Operations document for the 405 Express Lanes has been prepared and submitted to FHWA as required. The Concept of Operations includes substantial detail regarding all of the systems necessary to construct, operate, and maintain the 405 Express Lanes.

**4.D Federal Involvement – Is the project outside the purview of federal oversight, or will it require some level of federal involvement due to its location on the National Highway System or Federal Interstate System or because federal permits are required? If so, has the applicant provided a reasonable plan for addressing all federal responsibilities?**

The Project is on the Interstate System and FHWA will be involved in the Project. As a Project of Corporate Interest, FHWA will perform full oversight of the Project as defined in the Project Joint Stewardship and Oversight Agreement executed between Caltrans and FHWA in May 2015 and the Project Oversight Agreement currently under development for agreement among FHWA, Caltrans, and OCTA. FHWA approval actions are required for the Major Project deliverables and other documents required by FHWA.

FHWA has assigned a Project Oversight Manager from its southern California office in Los Angeles, which is an extension of the FHWA Division office in Sacramento. The Project Oversight Manager will provide or facilitate all FHWA actions and approvals with oversight from the FHWA Division office and assistance of other FHWA personnel. The Project Oversight Manager will be responsible for oversight of the local agency administration of the Project.

FHWA will perform oversight through inspections, review of data, and various other means, including audits and independent testing. The United States Department of Transportation Office of Inspector General may also perform audits of costs and other financial data, as required.

A Project Management Plan has been prepared and is anticipated to be approved by FHWA in April 2016 that summarizes the roles and responsibilities of FHWA in fulfilling its oversight and other functions.

#### **4.E Maintenance – Is there a process in place to clearly define assumptions and responsibilities during the operational phase including law enforcement, toll collection, and maintenance?**

There is a process in place to develop a maintenance plan with Caltrans and define assumptions and responsibilities during the operational phase of the Project. OCTA and Caltrans will develop an Operating Toll Agreement related to this topic. The agreement will provide the terms of the lease arrangement for construction and operation of the 405 Express Lanes by OCTA, the liabilities and responsibilities of each party, and an agreement with respect to maintenance. The agreement will also identify 405 Express Lanes operations and collection of tolls. It is anticipated that Caltrans will own the facility; OCTA will lease the 405 Express Lanes and own the tolling equipment both in the field and in the back office support facilities. OCTA and CHP will negotiate a contract under which CHP will provide enforcement and emergency management services along the 405 Express Lanes with compensation from OCTA. Toll collection services will be competitively procured under contracts to be let by OCTA.

## **5. Financial Feasibility**

### **5.A Funding Plan – Is the funding plan built on a reasonable basis for funding project development and operations? For example, are the assumptions on which the plan is based well defined and reasonable in nature? Are the plan’s risk factors identified and dealt with sufficiently? Are the planned sources of funding and financing realistic? Has the applicant demonstrated evidence of its ability to obtain the necessary financing? Does the applicant have the ability to fund shortfalls if revenues do not meet projections?**

The Project will be funded with local sales tax M2 funding, state and federal funding, and the proceeds of non-recourse toll revenue-backed obligations using a direct TIFIA loan and/or toll revenue bonds. The Project’s capital cost expense (CAPEX) estimate is \$1.7 billion. CAPEX includes Project construction cost plus items such as inflation, program management, public awareness & outreach, and environmental processes.

The current Project funding is shown in Exhibit 6. Exhibit 6 shows \$561 million from a TIFIA loan. If the TIFIA loan is not forthcoming or reduced, the required amount will be financed through municipal debt issued by OCTA and solely secured by 405 Express Lane revenues. Forecast toll revenues are currently under study in the IGT&R, which is scheduled to be completed in May 2016. Exhibit 6 shows \$1.011 billion in Orange County Sales Tax M2 funds. This funding will be raised partly through bond financing against the stream of anticipated sales tax revenue and partly through “pay-as-you-go” funding, as explained below.

The Financial Plan for funding the Project during construction consists of eight sources of funds shown in Exhibit 6, each of which is more fully explained below:

Exhibit 6. Project Funding  
(all amounts in thousands)

F/S/L*	Source	Engineering	ROW	Construction	Total
L	Orange County Sales Tax M2	\$75,144	\$96,000	\$840,208	\$1,011,352
F	Demonstration TEA-21	\$5,560	\$0	\$0	\$5,560
F	Demonstration SAFETEA-LU	\$2,968	\$0	\$0	\$2,968
F	FFY 2006 Appropriate Earmarks	\$990	\$0	\$0	\$990
F	Surface Transportation Block Grant	\$10,923	\$746	\$23,331	\$35,000
F	Interstate Maintenance – Discretionary	\$0	\$0	\$1,130	\$1,130
F	TIFIA Loan	\$27,000	\$4,000	\$530,000	\$561,000
S	SHOPP**	\$24	\$0	\$81,976	\$82,000
<b>TOTAL PROGRAMMED</b>		<b>\$122,609</b>	<b>\$100,746</b>	<b>\$1,476,645</b>	<b>\$1,700,000</b>

\*F/S/L = federal, state, or local funding source

\*\* The FTIP amount is \$82,050,000; \$50,000 has been reserved for internal Caltrans processes and is not available to the Project.

- (1) As of December 31, 2015, OCTA has contributed \$32 million to date from its M2 sales tax revenues to the Project and will continue to provide pay-as-you-go cash from M2 sales tax revenues. OCTA will contribute proceeds from periodic issuance (currently anticipated in 2019 and 2021) of OCTA’s M2 Sales Tax Revenue Bonds, which are currently rated Aa1, AA+, and AA+ by Moody’s, Standard & Poor’s, and Fitch Ratings respectively;
- (2) A demonstration grant under the federal Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21);
- (3) A demonstration grant under the federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU);
- (4) A federal grant earmark in the federal fiscal year (FFY) 2006 transportation appropriate;
- (5) A Surface Transportation Block Grant Program (formerly Surface Transportation Program) federal grant,
- (6) An Interstate Maintenance – Discretionary federal program grant,
- (7) A contribution from Caltrans under the SHOPP; and
- (8) A TIFIA loan and/or toll revenue bonds secured by 405 Express Lanes net toll revenues generated from congestion management pricing. Due to construction risk and challenging toll revenue “ramp up” risk in the first several years of the 405 Express Lanes operation, OCTA expects that the TIFIA loan and/or toll revenue bonds will be rated in the BBB- category initially. OCTA recently learned from TIFIA that the LOI submitted in February 2016 had been reviewed and the project was advancing to the next phase in the TIFIA review process, which is a creditworthiness evaluation. The TIFIA loan could fund up to 33% of the Eligible Costs (as defined by TIFIA) or up to

\$561 million. The non-recourse toll revenue obligations will be solely secured by the 405 Express Lanes net revenues.

The OCTA's Board of Directors has dedicated up to \$1.254 billion of M2 sales tax revenues to the successful completion of the \$1.7 billion Project. The M2 contribution is limited to \$1.254 billion in the M2 Expenditure Plan. As noted above, OCTA has already contributed \$32 million to date from its M2 sales tax and will continue to provide pay-as-you-go M2 sales tax revenues. Based on the current M2 forecast and for the reasons noted below, OCTA believes the additional bond guidelines in its M2 Indenture clearly show sufficient debt capacity to fund up to a \$1.254 billion contribution to the Project.

The OCTA Board of Directors has directed that M2 funds will only be used for the additional GP lane improvements associated with the Project. The cost of the GP lane improvements associated with the Project is estimated at \$1.3 billion; therefore, as shown in Exhibit 6, the M2 funding does not exceed the cost of the GP lane improvements associated the Project.

OCTA has a long standing history of successfully repaying its debt obligations for large capital projects and delivering capital improvement projects, which includes major highway improvements on most Orange County highways. OCTA has issued and repaid over \$1.0 billion of its Measure M (M1) Sales Tax Revenue Bonds. Although OCTA expected to collect \$3.1 billion of M1 sales tax receipts, OCTA collected over \$4.0 billion of M1 sales tax receipts. With the additional funds and cost savings on several M1 highway projects, OCTA was able to add the recent \$550 million DB contract project on SR-22, which intersects the I-405 corridor, to its M1 accomplishments.

OCTA's outstanding \$332.7 million Measure M2 (M2) Sales Tax Revenue Bonds are currently rated Aa1, AA+, and AA+ by Moody's, Standard & Poor's, and Fitch Ratings, respectively. OCTA issued approximately \$353 million of M2 Sales Tax Revenue Bonds in 2010 for other M2 projects. The M2 Indenture has an Additional Bonds test that allows OCTA to issue additional parity Bonds to fund the GP lanes of the Project provided OCTA satisfies certain conditions, including the delivery of a certificate that the amount of Sales Tax Revenues or Pro Forma Sales Tax Revenues collected during the twelve (12) consecutive months during the eighteen (18) month period preceding the date on which such Additional Bonds will become outstanding shall have been at least equal to 1.3x Maximum Annual Debt Service on all Series of Bonds and Parity Obligations then Outstanding and the additional Series of Bonds then proposed to be issued. Even after issuing the M2 Sales Tax Revenue Bonds needed to fund the Project, the lowest expected debt service coverage ratio will be 4.08x, as shown in Exhibit 7.

OCTA's M2 sales tax revenues have historically grown at an approximate rate of 5.5% a year since 1994. OCTA is highly confident of its ability to contribute \$1.254 billion of the M2 sales tax revenues to the Project. The ability of OCTA to contribute \$1.254 billion of M2 sales tax revenues to the Project is based on the current nominal forecast of \$15.6 billion M2 sales tax receipts shown in Exhibit 8.

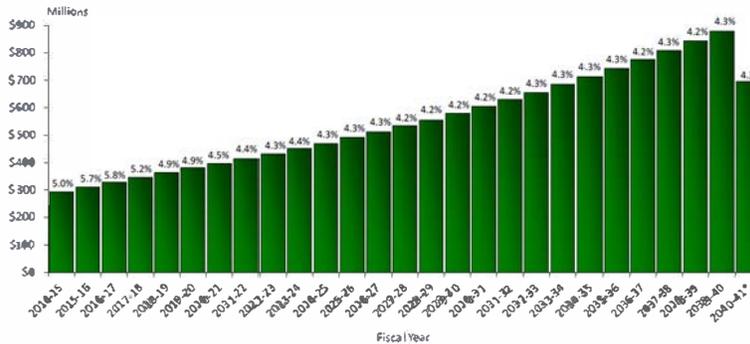
OCTA purchased the 91 Express Lanes in 2003. OCTA's 91 Express Lanes Senior Lien Refunding Toll Revenue Bonds are currently rated A1, AA-, and A- by Moody's, Standard & Poor's, and Fitch Ratings, respectively. OCTA refunded its 91 Express Lanes bonds in 2013 to the original maturity date in 2030 despite the State Legislature extending the 91 Express Lanes franchise to 2065. The 91 Express Lanes is one of two single-asset tolled facilities in the U.S. that Standard & Poor's rates in the AA category. In its

**Exhibit 7. Existing and Estimated Future M2 Debt Service Coverage Ratios**

Fiscal Year	M2 Revenues (1)(2)	Estimated Future M2 Issues				Debt Service Coverage Ratio
		\$352,570,000	\$470,973,780	\$301,423,220	\$1,124,967,000	
		2010 Sales Tax Revenue Bonds Debt Service <sup>(3)</sup>	2019 Sales Tax Revenue Bonds <sup>(4)</sup> Debt Service	2021 Sales Tax Revenue Bonds <sup>(5)</sup> Debt Service	Total Parity Sales Tax Revenue Bond Debt Service	
2011	\$48,384,592	\$2,228,051			\$2,228,051	21.72x
2012	\$196,566,834	\$15,424,967			\$15,424,967	12.74x
2013	\$208,703,666	\$21,834,967			\$21,834,967	9.56x
2014	\$219,057,890	\$21,832,667			\$21,832,667	10.03x
2015	\$228,477,379	\$21,833,967			\$21,833,967	10.46x
2016	\$241,454,895	\$21,835,417			\$21,835,417	11.06x
2017	\$255,468,785	\$21,834,417			\$21,834,417	11.70x
2018	\$268,807,328	\$21,835,417			\$21,835,417	12.31x
2019	\$282,103,269	\$21,836,667	\$2,959,183		\$24,795,850	11.38x
2020	\$296,011,090	\$21,836,167	\$33,511,500		\$55,347,667	5.35x
2021	\$309,194,669	\$21,837,317	\$33,513,500	\$2,072,904	\$57,423,721	5.38x
2022	\$322,709,590	\$21,834,955	\$33,511,900	\$23,675,125	\$79,021,980	4.08x
2023	\$336,427,362	\$21,836,015	\$33,509,900	\$23,678,650	\$79,024,565	4.26x
2024	\$351,065,697	\$21,833,275	\$33,510,400	\$23,678,575	\$79,022,250	4.44x
2025	\$366,150,558	\$21,836,046	\$33,511,000	\$23,683,275	\$79,030,321	4.63x
2026	\$382,066,302	\$21,837,543	\$33,509,300	\$23,680,475	\$79,027,318	4.83x
2027	\$398,429,200	\$21,836,928	\$33,512,900	\$23,683,550	\$79,033,378	5.04x
2028	\$415,138,416	\$21,834,535	\$33,508,800	\$23,679,900	\$79,023,235	5.25x
2029	\$432,645,993	\$21,834,467	\$33,509,600	\$23,682,575	\$79,026,642	5.47x
2030	\$451,017,890	\$21,835,601	\$33,512,000	\$23,678,650	\$79,026,251	5.71x
2031	\$470,081,600	\$21,836,814	\$33,512,700	\$23,680,850	\$79,030,364	5.95x
2032	\$490,041,906	\$21,836,984	\$33,508,400	\$23,680,925	\$79,026,309	6.20x
2033	\$510,871,592	\$21,834,989	\$33,510,800	\$23,680,950	\$79,026,739	6.46x
2034	\$532,716,108	\$21,834,705	\$33,510,700	\$23,682,675	\$79,028,080	6.74x
2035	\$555,506,383	\$21,834,785	\$33,509,200	\$23,682,525	\$79,026,510	7.03x
2036	\$579,227,394	\$21,833,884	\$33,512,100	\$23,681,925	\$79,027,909	7.33x
2037	\$603,762,642	\$21,835,653	\$33,509,600	\$23,681,975	\$79,027,228	7.64x
2038	\$629,478,990	\$21,838,521	\$33,512,200	\$23,683,450	\$79,034,171	7.96x
2039	\$656,183,560	\$21,835,916	\$33,509,500	\$23,681,800	\$79,027,216	8.30x
2040	\$684,094,186	\$21,836,492	\$33,511,400	\$23,682,475	\$79,030,367	8.66x
2041	\$535,035,172	\$21,838,452	\$33,511,900	\$23,680,275	\$79,030,627	6.77x

- 1 Actual FY 2011 - FY 2015; Sales Tax assumed to grow at 4.5% annually thereafter as approved by the Board
- 2 Revenues equals all Sales Tax Revenues plus interest income. Sales Tax Revenues means 100% of Sales Tax collected by Board of Equalization less the sum of (i) 1% paid BOE, (ii) 1% paid to CTA for administration, 2% for environmental clean up, and (iii) 18% for a local fair share to cities.
- 3 After Build America Bonds Subsidy Payments
- 4 Based on market rates as of February 2, 2016 Aa1/AA+/AA+ scale plus 100 basis points
- 5 Based on market rates as of February 2, 2016 Aa1/AA+/AA+ scale plus 150 basis points

Exhibit 8. M2 Annual Sales Tax Receipts



August 2014 credit report, Standard & Poor’s noted that the 91 Express Lanes had very strong liquidity with unrestricted assets equal to 2,404 days’ cash on hand.

OCTA has an Express Lanes toll management team with 13 years of 91 Express Lanes operating experience and a capital projects management team that successfully manages billions of dollars’ worth of highway improvements. The Capital Projects Division of OCTA provides oversight and implementation of capital improvement projects across all modes of transportation. Projects include various freeways, chokepoint and soundwall projects, Smart Streets, planned high-frequency Metrolink service, local transit connectors, grade crossing safety and quiet zone improvements, and development of key rail stations into gateways to regional rail. OCTA’s experience also includes managing a \$550 million DB contract to rebuild the SR-22 during ongoing daily operations. In addition, OCTA’s consultants, Parsons, Nossaman, and Sperry Capital, have significant Express Lanes and DB experience.

OCTA has retained Stantec Consulting Services (Stantec) to complete an IGT&R to forecast gross potential toll revenue for the 405 Express Lanes. Stantec is a nationally recognized leader in IGT&Rs and is familiar with traffic and revenue forecasts for tolled facilities in southern California, including the 405 Express Lanes. Stantec completed a Phase I traffic and revenue study for the 405 Express Lanes in 2009 and a Phase II study in December 2010. Stantec has provided OCTA with 91 Express Lanes IGT&Rs since 2003. Stantec has provided the Riverside Transportation Commission (RCTC) with IGT&Rs for RCTC’s 91 Express Lanes Extension and is currently engaged to provide an IGT&R for RCTC’s I-15 Express Lanes. In addition, Stantec provides the Transportation Corridor Agencies in Orange County with IGT&Rs for the Foothill/Eastern and San Joaquin Hills toll roads.

On March 23, 2016, the TIFIA Joint Program Office informed OCTA that the LOI had been reviewed and the project was advancing to the next phase in the TIFIA review process, which is a creditworthiness evaluation. Consequently, OCTA is preparing an indicative credit rating for the TIFIA staff’s creditworthiness review. With the projected net toll revenues and reserve funds, OCTA expects to receive a BBB- (investment grade) credit rating. OCTA expects to fund a debt service reserve fund, an operations and maintenance (O&M) reserve fund, and a major maintenance fund. Subsequently, the TIFIA Joint Program Office will request a formal application from OCTA that requires OCTA to pay certain

loan fees and to submit a rating agency investment grade indicative rating opinion. A minimum BBB-rating is required.

After review of Stantec's IGT&R and associated financial plans, the OCTA Board of Directors will adopt an initial toll policy. Thereafter, OCTA expects to finalize its preliminary 405 Express Lanes financial model, cost estimates prepared by the PMC, and the latest CAPEX estimate based on the second FHWA CER in April 2016.

OCTA has selected a rating agency for the indicative credit rating required for the TIFIA staff's creditworthiness review. OCTA plans to submit a final Base Case Financial Model to two rating agencies in December 2016 after selection of the DB contractor that reflects the DB cost and current interest rates. The two investment grade credit ratings will be used for the toll revenue bonds and/or TIFIA financial close in early 2017.

Against the event of revenue shortfall during operations, OCTA intends to fund a debt service reserve fund, O&M reserve fund and a major maintenance reserve fund, which will mitigate any future revenue shortfalls and enhance the credit for the toll revenue obligations.

In the event that the TIFIA loan is not received or it is received in a substantially lower amount, OCTA, as noted above, can issue toll revenue bonds including subordinate lien toll revenue obligations.

Against the event of cost increases during construction, higher than anticipated interest rates, lower proceeds than expected from the TIFIA loan and/or toll revenue bonds, OCTA has additional M2 funding available up to \$1.254 billion, or \$243 million more than is shown in Exhibit 6.

**5.B Expenditure Plan for Excess Revenues – If an expenditure plan for excess revenues has not yet been adopted by the appropriate governing entity, has the applicant included a discussion of its intentions for revenues collected beyond those necessary for any debt service, operations, and reserved as defined in AB 194?**

Expenditure of excess net revenue generated on the 405 Express Lanes is subject to an expenditure plan developed in consultation with Caltrans and approved by the OCTA Board of Directors, as required by AB 194. No expenditure plan has been developed to date. However, OCTA and Caltrans jointly developed and agreed to the "I-405 Project Implement (Alternative 3) Preliminary OCTA/Caltrans Agreement on Terms and Conditions As of April 16, 2015" that specifies to following with respect to "Net Excess Revenues (after payment of O&M on the managed lanes including toll collection costs, debt service for obligations payable from tolls, funding of debt and project reserves, and required repayment of TIFIA loan)":

"The parties agree that development of an Expenditure Plan will be developed in partnership between each agency and consistent with the following terms below:

- a. The Parties shall develop a multiyear expenditure plan for use of Net Excess Revenues within the Corridor. This expenditure plan shall cover a period of either ten years or the full term of all financing used to construct or repair any portion of the toll facility project, whichever is longer. The Expenditure Plan shall be updated annually.

- i. OCTA's Board of Directors shall review and adopt the expenditure plan and each update.
- b. Net Excess Revenues shall be used for projects that maintain or improve the safety, operation, or travel reliability of any transportation mode in the corridor, or provide or improve travel options in the corridor.
- c. GP lanes capital and preventive maintenance and operational improvements are eligible expense and will be included in the annual Expenditure Plan in compliance with Federal law.
- d. The use of net excess revenue to pay for projects in the Expenditure Plan will not result in reducing SHOPP funds targets available to the County.
- e. Similar to the SR 91 Express Lanes, the Parties agree that OCTA will be responsible for implementing all projects required for the operation and maintenance of the Project tolled Express Lanes and associated toll collection facilities. Caltrans will be responsible for implementing non-toll related projects on the State Highway System that are funded from Net Excess Toll revenue."

Additional details with respect to net excess revenues are anticipated to be included in the expenditure plan for excess revenues required under AB 194 that Caltrans and OCTA agree above to develop.

## 6. Regional Transportation Plan & Community Support

### 6.A Consistency with Existing Plans – Is the project consistent with the regional transportation plan and affected city and county comprehensive plans? If not, does the applicant discuss strategies that may help achieve consistency with such plans when possible or practicable?

The Project is consistent with city, county, and regional plans. The Final EIR/EIS for the Project includes an evaluation of local, county, and regional plans and their consistency with the Project. (A copy of the Final EIR/EIS is included in the CD attached to this application.) Table 3.1.1.1 of the Final EIR/EIS identifies applicable goals, policies, and objectives of plans covering the Cities of Costa Mesa, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, Westminster, and Seal Beach, the County of Orange, OCTA, and SCAG. The Final EIR/EIS concludes that "This alternative [Alternative 3, the alternative selected for construction] would also be consistent with the goals, objectives, and policies of the general plans and regional plans." (pg. 3.1.1-32) The SCAG RTP includes the Project as follows: (ORA030605) "Add 1 MF lane in each direction, and additional capital improvements (by 2022); convert existing HOV to HOT, add 1 additional HOT lane each direction (by 2035)".

The 2012 SCAG RTP "includes a regional Express Lane network that would build upon the success of the 91 Express Lanes in Orange County and two demonstration projects in Los Angeles County."

The Project will construct the ultimate planned cross section of arterials crossing above the freeway ROW on bridges. The Orange County Master Plan of Arterial Highways identifies planned cross sections for all arterial highways in the county. As part of the replacement of 17 arterial overcrossings of the

freeway, the Project will provide overcrossings that meet the planned cross sections specified in the Master Plan of Arterial Highways.

The 2009 Commuter Bikeways Strategic Plan was adopted by OCTA and identifies both existing and planned bike routes within the Orange County. Within the Project limits the Project will construct Class II bike facilities along all existing and planned bike routes. For locations where there is no existing bikeway facility to which the Project bikeway improvements could connect, the pavement and other improvements will be provided; when the local municipality(ies) provide a connecting bikeway, the appropriate signing and striping can be added to provide a continuous bikeway through the Project limits.

The Project provides ADA compliant facilities including sidewalks and crosswalks. The Heil Avenue pedestrian overcrossing of the freeway will be replaced with a structure meeting current ADA requirements.

### **6.B Consideration of Impacts – Does the applicant explicitly consider the potential diversions of vehicles onto adjacent routes that could lead to congestion, safety problems, and infrastructure damage due to the imposition of tolls on particular facilities?**

OCTA has explicitly considered the potential diversions of vehicles onto adjacent routes that could lead to congestion, safety problems, and infrastructure damage due to the tolls on the 405 Express Lanes and concluded that the opposite will occur; traffic will be diverted from adjacent routes to the freeway. Improvements to the freeway will reduce congestion on the freeway and thereby reduce traffic avoiding the freeway and using local arterials streets because of freeway congestion. This topic is covered in the Final EIR/EIS on page 3.1.6-10: “The increase in ADT [average daily traffic] and VMT [vehicle miles of travel] anticipated along the I-405 mainline results from reductions in congestion diversion from the freeway. Currently, motorists avoid I-405 and use local streets because the freeway is heavily congested. As traffic demand grows, this condition is expected to intensify under the No Build Alternative. VMT can be expected to increase on I-405 under the build alternatives because freeway congestion would be reduced with a consequential reduction in diversion from the freeway to local streets.”

The Project includes one new lane in each direction from the SR-73 to I-605 and a second new lane in each direction from Euclid Street to SR-22. The new lane in the segment from Euclid Street to I-605 is a GP lane and will not be tolled and is anticipated to attract traffic to the freeway from the arterial system. The segment from SR-73 to Euclid Street, in which the only additional lane is a tolled lane, provides additional capacity to the freeway corridor and is anticipated to encourage diversion to I-405 from local streets because of the additional freeway corridor capacity; the existing HOV lane in this segment is degraded and is anticipated to serve more traffic when managed as an Express Lane than it currently serves as a free HOV lane.

Interchanges along the Project corridor will be improved by the Project; improvements to local arterials crossing the freeway, both at interchanges and at locations without interchanges, will reduce delay to users of the arterial system including the local transit system operated by OCTA.

6.C *Fulfilling Policies and Goals* – In what ways does the proposed project help achieve performance, safety, mobility, economic, or transportation demand management goals?

The Project will achieve significant performance, safety, mobility, economic, and transportation management improvements. As explained more fully in the Final EIR/EIS, the Project will:

- Reduce GP lane travel times from 133 minutes to 29 minute (2040 No-Build vs Build scenario);
- Reduce tolled 405 Express Lanes travel time from 121 minutes to 13 minutes (2040 No-Build vs Build scenario);
- Increase efficient use of the transportation system by encouraging transit and carpools with free or discounted use of the 405 Express Lanes for vehicles meeting the vehicle occupancy requirements;
- Improve safety by addressing operational and geometric deficiencies and by reducing congestion;
- Enhance quality of life for corridor communities by reducing demand on local streets;
- Potentially generate excess toll revenues that will be reinvested in the corridor; and
- Eliminate HOV lane degradation as defined by MAP-21.

The Final EIR/EIS also indicates states on pg. 3.2.6-30: “Alternative 3 [the alternative selected for construction] emissions would be less than existing and future no build emissions. This decrease is due to higher vehicle speeds under Alternative 3, which generally result in lower emission rates. Therefore, Alternative 3 would result in a beneficial effect related to regional operational emissions.”

Traffic in the 405 Express Lanes will be managed to maintain freeway speeds with minimal congestion. The 405 Express Lanes represent a traffic management tool deployed to enhance mobility along the Project corridor by providing motorists with the ability to choose to pay for an uncongested trip at free flow speeds as a dependable alternative to congestion expected in the GP lanes even with mainline freeway improvements.

To safeguard the quality of life throughout southern California and ensure the nation’s economic productivity, the Project will increase the throughput of the freeway mainline and interchanges to reduce congestion and ensure the efficient flow of goods on one of the nation’s most heavily congested corridor. Moreover, the addition of congestion-managed tolled 405 Express Lanes economic competitiveness by supporting reliable and timely access to employment centers, educational opportunities, services, and other basic worker needs as well as improved business access to markets.

I-405 is an essential part of the National Highway System, and an integral part of the FHWA’s Primary Freight Network because the I-405 provides an essential link between Orange and Los Angeles Counties, and is a critical goods movement corridor connecting the San Diego and United States/Mexico border region with the ports of Long Beach and Los Angeles. According to the 2014 California Freight Mobility Plan, the I-405 freeway

**10th Most  
Congested  
Bottleneck in  
California**

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**Among the Top  
200 freight  
bottlenecks in  
the nation**

corridor in Orange County supports the movement of 15,000 to 22,000 freight trucks daily.

Despite its importance to the nation’s economy, the I-405 within the Project limits has not benefited from substantial improvement since 1989. As a result, FHWA has ranked the I-405 at the I-605 junction as the tenth most congested bottleneck in California, and one of the top 200 freight bottlenecks in the nation. Travelers and freight haulers alike currently contend with over 4.1 million vehicle hours of delay each year, which is expected to increase to more than 90 million vehicle hours of delay within the next 25 years if unimproved, as shown in Exhibit 9.

Exhibit 9.  
Current and Projected Vehicle Hours of Delay

Year	Alternative	Daily	Annual
2009	Existing	19,083	4,198,209
2020	No Project	102,984	22,656,558
2040	No Project	413, 278	90,921,066

The congestion and reduced travel speeds along the I-405 reduce the number of trips per truck per day, resulting in diminished efficiency, elevated costs of goods and services, and more pollution. The longer freight sits idle in traffic, the more prices of the delayed products and services increase. Efficiency diminishes as the number of trips per day per truck is reduced, and the potential for same-day vehicle turnaround is lost. The reduced trip numbers negatively impact the fiscal viability of the all business sectors that rely on the nation’s freight distribution system, which may impact jobs creation when it is needed most. Higher speeds are linked with faster and reliable delivery times, resulting in a more efficient movement of goods and services.

To support continued economic growth and recovery, the Project will increase the movement of goods and services that flow through the following national points of entry:

- The Port of Los Angeles is ranked number one in terms of national container volume, with the Port of Long Beach ranked as number two in national container volume. Together, these ports make up the largest container port complex in the US (see Exhibit 10), both in terms of capacity and containers shipped, and are considered the eighth busiest port complex in the world based on container volume. Moreover, demand is rising as the nation’s economy recovers. In April 2015, Port of Long Beach officials recorded the highest cargo flow number in nine years, which represented a 7.9 percent increase when compared to last year.
- Long Beach Airport is located within five miles of the Project’s northern limit and is considered among the five busiest general

Exhibit 10. Container Trucks Leaving the Ports of Los Angeles and Long Beach



aviation airports in the world with 365,000 general aviation operations annually. The airport is a center for air cargo carriers, DHL, FedEx, and UPS which transport more than 49,000 tons of goods each year.

- Santa Ana (John Wayne) Airport is located within two miles of the Project's southern limit and is ranked as one of California's top 12 airports in terms of major cargo operations by volume, supporting over 14,000 metric tons of cargo each year.
- The United States/Mexico border in the San Diego/Tijuana region has critical commercial land border points of entry that serve as the main arteries for freight movement between the two nations. According to the United States Census Bureau, Mexico was California's top trading partner in 2013 and the third largest trading partner of the United States.

Once completed, the Project will increase economic efficiency and productivity by minimizing delays in the supply chain, supporting competition in the state, national, and global economies, and reducing the environmental and community impacts of freight transport.

#### **6.D Environmental Considerations – Is the proposed project consistent with applicable state and federal environmental statutes and regulations? Does the proposal adequately address or improve air quality and other environmental concerns?**

The Project is consistent with applicable state and federal environmental statutes and regulations. With Caltrans as the lead agency, both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) processes have been complete. A joint CEQA/NEPA final document (Final EIR/EIS) was prepared and approved on March 26, 2015 with issuance (on May 15, 2015) and publication in the *Federal Register* (on June 4, 2015) of a Record of Decision. A Notice of Determination was signed on June 17, 2015 and published by the State Clearinghouse. A copy of the Final EIR/EIS and the Record of Decision, and the Notice of Determination is included on the CD attached to this application.

The Project is included in the RTP and thereby meets the requirements for regional air quality conformity. By letter dated February 9, 2015 FHWA has agreed that the Project meets project level conformity and localized Particulate Matter 2.5 and Particulate Matter 10 requirements.

Based on data in the Final EIR/EIS Tables 3.2.6-6, 3.2.6-7, and 3.2.6-8, the following reductions in emissions are anticipated for the Project upon opening and in year 2040. (Note that opening year in the Final EIR/EIS is 2020.)

- In the opening year Volatile Organic Compounds are anticipated to be reduced by 42% and 67% compared to the 2020 No Build and existing conditions, respectively. In 2040 reductions of 63% and 67% are anticipated.
- In the opening year Nitrogen Oxide is anticipated to be reduced by 13% and 55% compared to the 2020 No Build and existing conditions, respectively. In 2040 reductions of 33% and 70% are anticipated.

- In the opening year Carbon Monoxide is anticipated to be reduced by 24% and 61% compared to the 2020 No Build and existing conditions, respectively. In 2040 reductions of 30% and 67% are anticipated.
- In the opening year Particulate Matter 2.5 is anticipated to be reduced by 4% and 7% compared to the 2020 No Build and existing conditions, respectively. In 2040 a reduction of 15% compared to the 2040 No Build is anticipated.
- In the opening year Particulate Matter 10 is anticipated to be reduced by less than 1% compared to the 2020 No Build. In 2040 a reduction of 5% compared to the 2040 No Build is anticipated.

An Environmental Commitment Record for the Project has been approved by Caltrans and lists all of the mitigations to be implemented in response to significant environmental impacts of the Project identified during the NEPA/CEQA process.

Section 3.1.4.3 of the Final EIR/EIS covers environmental justice topics and finds that: “Based on the above discussion and analysis, and with incorporation of all avoidance, minimization, and/or mitigation measures discussed throughout Chapter 3, the proposed project alternatives would not cause disproportionately high and adverse effects on minority or low-income populations within the context and intent of EO [Executive Order] 12898.” (p 3.1.4-40)

At its September 28, 2015 meeting the OCTA Board of Directors adopted a resolution adopting the CEQA Findings and approving the Project. The OCTA Board passed a resolution to “Adopted the findings and facts in support of Findings and Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Program, and approve the Interstate 405 Improvement Project as identified and approved by the California Department of Transportation, the lead agency under the California Environmental Quality Act.”

**6.E Community/Stakeholder Support – What is the extent of support or opposition for the project? Does the project proposal demonstrate an understanding of the national and regional transportation issues and needs, as well as the impacts this project may have on those needs? Is there a demonstrated ability to work with the affected communities?**

There is widespread support for the Project as evidenced by the OCTA Board’s action approving the Project, as noted in Part B Section 6.D. There is some opposition to tolling and increasing the HOV occupancy requirement for free use of the 405 Express Lanes from the current HOV2+ (vehicles having two or more occupants) occupancy requirement to use the existing HOV lanes. There is more localized opposition to specific aspects of the Project including relocation of a particular sound wall, additional peak period traffic on roadways in the City of Long Beach, replacement of the Fairview Avenue freeway overcrossing, and termination of the additional northbound GP lane at I-605. Each of these sources of opposition has been addressed in the Final EIR/EIS. Despite this opposition, the OCTA Board has approved the Project after numerous meetings at which proponents and opponents repeatedly stated and restated their positions. The Cities of Long Beach and Seal Beach have filed suit against Caltrans over the adequacy of the Final Environmental Impact Report. OCTA and Caltrans are working to resolve this litigation.

Among the national and regional transportation issues and needs to be addressed by the Project, corridor congestion and delay rank high. As noted above in Part B Section 6.D, the Project is within seven miles of the busiest ports in the nation, the Ports of Los Angeles and Long Beach, includes the tenth most heavily congested bottlenecks in California. It is among the top 200 freight bottlenecks in the nation. The Project will reduce delay and travel time in both the GP and 405 Express Lanes along the corridor (as noted in Part B Section 3).

Degradation of HOV lanes is a national issue addressed by MAP-21. The HOV lanes along I-405 within the Project limits are degraded. The Project will address degradation by managing the 405 Express Lanes to provide free flow speeds in the 405 Express Lanes and free or discounted travel to HOVs meeting the occupancy requirement.

Funding for infrastructure improvements nationally and regionally has not kept pace with increases in travel and congestion. The 405 Express Lanes provide a critical source of funding for the completion of the 405 Express Lane portion of the Project, as well as additional funding for transportation improvements in the Project corridor from net excess toll revenues.

An extensive outreach and coordination effort is underway by OCTA to inform the community and city staff along the corridor about the Project as it moves toward construction. Additionally, extensive outreach efforts have been in place for over a decade as evidenced by the outreach summary included on the CD accompanying this application. Because there are substantial Project improvements in the vicinity of freeway interchanges, many arterial improvements are on city-owned streets, requiring direct city participation in design and construction activities.

The local jurisdictions in the corridor include the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Garden Grove, Seal Beach, Los Alamitos, Long Beach, and the community of Rossmore, as shown in Exhibit 2. In general the cities in Orange County have supported improvements to I-405 but do not support the alternative selected by Caltrans for construction. The cities generally oppose the tolling aspect of the Project and have stated a preference for the addition of 2 GP lanes in each direction and no change to the existing HOV2+ occupancy requirement. However, the cities have not identified a source of funding for the second GP lane, which is beyond the funding capacity of available funds, nor have they proposed a method to address HOV lane degradation to meet the federal requirements for HOV lane operations. The Project will add one GP lane in each direction on I-405 from Euclid Street to the I-605 interchange with available funding. The Project also adds a lane in each direction of I-405 from SR-73 to the Garden State Freeway (SR-22) that will be managed jointly with the existing HOV lanes as the 405 Express Lanes with two lanes in each direction between SR-73 and I-605 funded with toll revenues. The 405 Express Lanes will permit free or discounted use by HOVs meeting the occupancy requirement and be price managed to avoid degradation and meet federal requirements.

Since selection by Caltrans of the alternative for construction, the local jurisdictions in the corridor have been working cooperatively with OCTA on Project topics affecting local streets such as construction detours and Project improvements on local arterial streets. Cooperative Agreements will be negotiated with each of the jurisdictions.

## 7. Supplementary Topics

This section provides supplementary information not specifically requested in the Commission’s “Guidelines for Toll Facility Applications”. The first supplementary item covers the section of the guidelines under the heading “Report to the Legislature”. The second item expands upon the first by indicating that OCTA will collect performance data on the 405 Express Lanes, as reporting on performance is required in the Commission’s report to the Legislature. Additional items in this section provide the Commission with a more robust understanding of the Project.

### 7.A Commission Annual Report to the Legislature

In recognition of Streets and Highways Code Section 149.7(h), as amended by AB 194, OCTA will provide information or data requested by the Commission of Legislative Analyst. Additionally, OCTA recognizes that the Commission is obligated by that section to report to the State Legislature annually on the progress in the development and operation of each toll facility approved under Streets and Highways Code Section 149.7, as amended by AB 194. OCTA will provide information to the Commission annually on the 405 Express Lanes including:

- (a) A progress report for the Project;
- (b) A comparison of the Project baseline budget and the current or projected budget;
- (c) A comparison of the current or projected schedule and the baseline schedule;
- (d) If construction is complete and operations have begun, a discussion of the operations of the facility and how actual performance compares to the Project’s original expected performance; and
- (e) A discussion of any other issues identified and actions taken to address those issues.

### 7.B Performance Measurement

OCTA will define and monitor the performance measures in a comprehensive manner consistent with regional and state requirements. The performance measures will provide criteria for evaluating the Project and the effects of pricing, eligibility, and congestion management in achieving the adopted goals. The goals included in the Assumptions, which are subject to change, are:

- Provide 405 Express Lanes customers with a safe, reliable, predictable commute;
- Optimize throughput at free-flow speeds;
- Increase average vehicle occupancy;
- Balance capacity and demand to service customer who pay tolls, as well as people who rideshare or use transit;
- Generate sufficient revenue to sustain the financial viability of the 405 Express Lanes;
- Ensure all covenants in the financing documents are met; and
- Ensure any potential net excess revenues are used for I-405 corridor improvements.

Existing roadway systems and new systems will be installed as part of the Project to monitor and report on performance. Performance reporting requirements will be defined further as the Project develops.

OCTA is currently reporting on performance of the 91 Express Lanes and that reporting will serve as a model for 405 Express Lanes reporting. Reporting will be consistent with the requirements for annual and other periodic reports required by Commission pursuant to Section 149.7(h), as amended.

### **7.C Procurement Approach**

To achieve the benefits of the corridor improvements in a timely and cost-effective manner, the Project's civil infrastructure will be procured and contracted through a single, private entity under a competitive, best-value, DB procurement.

The toll facility procurements (the Toll Lane Systems Integrator, the Toll Back Office System Integrator, the CSC Operations Provider, and the 405 Express Lanes O&M Contractor) and some other minor procurements will be conducted approximately two years after the DB procurement. Toll systems integration will be procured through a competitive, best value, design-build-maintain procurement. There will be two or three additional separate procurements related to the tolling elements of the Project. The Toll Back Office System Integrator will provide the resources and personnel for electronic tolling and traffic operations and management under a design-build-operate-maintain contract. The CSC Operations Provider will provide the resources and personnel for toll revenue collection and management including customer service of toll accounts, transponder distribution, and establishment on operation of CSCs. The CSC Operations Provider may be procured separately or combined with the Toll Back Office System Integrator. The 405 Express Lanes O&M Contractor will dispatch and operate a Customer Service Patrol and perform light maintenance on the roadway under a more traditional performance-based contract.

Before beginning the two-step DB procurement process for the civil infrastructure, OCTA issued a LOI Submittal Request. The request asked potential prime and subcontractors potentially interested in proposing on the DB contract to submit a LOI indicating the type of participation they sought, along with contact information. An LOI was not a prerequisite to participate in the two-step DB procurement process, but rather an initial outreach effort to inform interested parties about the opportunity and to solicit potential interest from the design, construction, and DBE contracting communities. The closing date for OCTA receipt of LOIs was October 22, 2014. A total of 48 LOIs were received from potential prime contractors and subcontractors.

OCTA will select a DB Contractor by implementing a two-step procurement process, in accordance with CFR Title 23, Part 636, DB Contracting and AB 401. The first step consisted of issuing an RFQ, receiving Statements of Qualifications from interested proposers, and "short-listing" the most highly qualified proposers based on criteria identified in the RFQ. This step was completed on November 9, 2015. The second step consists of issuing an RFP to the shortlisted proposers, receiving price and technical proposals from those proposers, and evaluating the price and technical proposals submitted by the shortlisted proposers based on the "best value" criteria identified in the RFP. The RFP is scheduled to be issued on March 28, 2016.

The procurement process for the Toll Lane Systems Integrator, the Toll Back Office System Integrator, and the CSC Operations Provider will generally conform to the same process outlined above for the DB Contractor procurement. The procurement process for the 405 Express Lanes O&M Contractor will be a

traditional competitive procurement based on performance criteria to be developed exclusively for this procurement.

**7.D Cost Estimates – Is the estimated cost of the facility reasonable in relation to the cost of similar projects?**

The estimated cost of the Project is reasonable in relation to the cost of other similar projects. The summary results of a benefit cost analysis with a discount rate of seven percent are provided in Exhibit 11. The results demonstrate that the throughput and efficiency benefits provided by the Project are a highly cost-effective infrastructure investment. Overall, the Project will produce a benefit-cost ratio of 7.1, which indicates that the benefits of the improvements far outweigh the costs of the improvements. Additionally, the results show that the Project will deliver user benefits equal to the Project costs within a very short timeframe of three years.

The benefit cost investment analysis was completed for the Project by Caltrans using the California Life-Cycle Benefit/Cost Analysis Model. The model was developed in accordance with guidance issued by the United States Department of Transportation and the American Association of State and Highway and Transportation Officials (User and Non-User Analysis for Highways) and is referenced in the California Life-Cycle Benefit/Cost Analysis Model Technical Supplement to User’s Guide Volumes I through III. The

Exhibit 11. Investment Analysis Summary Results

<b>Life-Cycle Costs (mil. \$)</b>	\$1,650.5	<b>ITEMIZED BENEFITS (mil. \$)</b>	Average Annual	Total Over 20 Years
<b>Life-Cycle Benefits (mil. \$)</b>	\$11,728.8	<b>Travel Time Savings</b>	\$463.2	\$9,265.0
<b>Net Present Value (mil. \$)</b>	\$10,078.3	<b>Veh. Op. Cost Savings</b>	\$110.9	\$2,217.9
<b>Benefit / Cost Ratio:</b>	7.1	<b>Accident Cost Savings</b>	\$1.0	\$19.1
<b>Rate of Return on Investment:</b>	33.3%	<b>Emission Cost Savings</b>	\$11.3	\$226.8
<b>Payback Period:</b>	3 years	<b>TOTAL BENEFITS</b>	\$586.4	\$11,728.8
		<b>Person-Hours of Time Saved</b>	95,835,165	1,916,703,304
		<b>CO<sub>2</sub> Emissions Saved (tons)</b>	761,497	15,229,936
		<b>CO<sub>2</sub> Emissions Saved (mil. \$)</b>	\$9.1	\$182.9

model was revised to reflect the standardized monetization values provided in the TIGER Benefit-Cost Analysis Resource Guide, Updated April 2, 2015.

The current Project CAPEX estimate is \$1.7 billion. The construction cost estimate developed during the Project Approval and Environmental Document (PA/ED) step of project development used historical cost information published by Caltrans. ROW costs were estimated based on a parcel-by-parcel assessment during the PA/ED step. Support costs were estimated as a percentage of construction costs. The level of detail in the estimate was appropriate for a project at the PA/ED level. It was updated with an increasing level of detail from preliminary cost estimates developed during the Major Investment Study and PSR/PDS steps. The PA/ED construction cost estimate was last updated in early 2015.

The construction cost estimate, which included construction, ROW (escalated to estimated date of acquisition), and support, were used by OCTA to develop the CAPEX estimate. In addition to the construction cost estimate, CAPEX includes inflation to year of expenditure, program management, public awareness and outreach, environmental process costs, and other costs including, but not limited to, the following:

- Construction and ROW capital;
- Roadway, drainage, structures, and civil tolling infrastructure;
- Utility relocation;
- ROW acquisition and damages;
- IGT&R;
- Tolling system integration;
- Electronic tolling equipment;
- System testing and start-up;
- Support costs;
- Legal counsel;
- Financial advisors;
- Project and construction management;
- Caltrans independent quality assurance;
- Third-party agency costs; and
- Offsite environmental mitigation.

FHWA's California Division Office, Caltrans, OCTA, and its consultants conducted a formal NEPA-level CER on June 10-12, 2014. The NEPA-level CER covered PA/ED Alternative 1, addition of one GP lane in each direction, and was conducted to comply with FHWA requirements for major projects with estimated costs above \$500 million. An abbreviated CER update was performed in January 2015 with a Supplement to the Final Report issued for the incremental additional cost (for express lanes) of the Project over Alternative 1. A construction-level CER is planned for April 26-28 2016, and its findings will be used to revise the CAPEX estimate.

The objective of the CER is to verify the accuracy and reasonableness of the Project's estimate for total cost and schedule and to develop probability ranges for the estimate that represent the Project's current level of development. The CERs are performed by Caltrans with FHWA oversight under FHWA's delegation of CER responsibility to Caltrans in October 2011. The January 2015 Supplement to the CER Final Report found that the base estimate, after adjustments made during the CER, was \$1.69 billion.

REIMBURSEMENT AGREEMENT  
Between ORANGE COUNTY TRANSPORTATION AUTHORITY  
And CALIFORNIA TRANSPORTATION COMMISSION  
For REIMBURSEMENT OF EXPENSES RELATED TO  
REVIEW OF A TOLL FACILITY APPLICATION

THIS AGREEMENT is made and entered into this First day of April, 2016, by and between the ORANGE COUNTY TRANSPORTATION AUTHORITY and the California Transportation Commission (hereinafter called "COMMISSION").

R E C I T A L S

WHEREAS, the Streets and Highways Code § 149.7 calls for the ORANGE COUNTY TRANSPORTATION AUTHORITY to reimburse the COMMISSION for all costs and expenses incurred in the process of reviewing an application for a proposed toll facility; and

WHEREAS, the COMMISSION's adopted 2016 Toll Facility Guidelines require an applicant to submit a signed reimbursement agreement in conjunction with an application for a proposed toll facility; and

WHEREAS, the ORANGE COUNTY TRANSPORTATION AUTHORITY intends to submit an application for a proposed toll facility to the COMMISSION for review and approval.

NOW THEREFORE, the parties hereto agree as follows:

1. The Chief Executive Officer of the ORANGE COUNTY TRANSPORTATION AUTHORITY and the Executive Director of the COMMISSION enter into this AGREEMENT wherein they set out the reimbursement rates and expected workload limits involved in the review and approval of the proposed toll facility application as provided in the attached addendum.

2. COMMISSION AGREES

- A. The COMMISSION shall provide to the ORANGE COUNTY TRANSPORTATION AUTHORITY an estimated staffing plan and budget for work directly related to its activities required for the review of the proposed toll facility application within five days after receiving the application.
- B. If the COMMISSION determines that it needs to employ the services of any consulting firms to assist in the review of the proposed toll facility application, the COMMISSION will separately contract with the ORANGE COUNTY TRANSPORTATION AUTHORITY for reimbursement of the costs of those services.
- C. Upon completion of the work described in this AGREEMENT, the COMMISSION shall provide an itemized invoice to the ORANGE COUNTY TRANSPORTATION AUTHORITY for its expenses related to its activities required for the review of the proposed toll facility application.
- D. The COMMISSION shall deliver or mail invoices to ORANGE COUNTY TRANSPORTATION AUTHORITY, as follows:
- Orange County Transportation Authority  
550 South Main Street  
Orange, CA 92863-1584
- E. The COMMISSION shall cooperate fully with the ORANGE COUNTY TRANSPORTATION AUTHORITY in any auditing and reporting processes, as well as any other financial or internal control reports that may be undertaken by the ORANGE COUNTY TRANSPORTATION AUTHORITY with respect to the COMMISSION's review of the application.

3. ORANGE COUNTY TRANSPORTATION AUTHORITY AGREES

Within thirty (30) days of receipt and verification of the itemized invoice submitted to ORANGE COUNTY TRANSPORTATION AUTHORITY from the COMMISSION, ORANGE COUNTY TRANSPORTATION AUTHORITY agrees to reimburse the COMMISSION for its expenses related to its activities required for the review of the proposed toll facility application.

4. IT IS MUTUALLY AGREED

- A. If, during the course of reviewing a toll facility application, the COMMISSION experiences unexpected workload levels and unbudgeted costs, the COMMISSION shall be entitled to submit an amended staffing plan and budget to ORANGE COUNTY TRANSPORTATION AUTHORITY seeking reimbursement for these unbudgeted costs within the limitation of the attached addendum.
- B. The term of this AGREEMENT shall commence when fully executed, and unless amended earlier, shall terminate thirty (30) days after the application has been approved or rejected by the COMMISSION.
- C. This AGREEMENT may be terminated by either party with a thirty (30) day written notice.
- D. This AGREEMENT may only be amended by mutual written consent of the parties hereto.
- E. Any dispute concerning a question of fact arising under this AGREEMENT shall be decided by agreement of both Parties. If no mutual agreement is reached, the AGREEMENT shall be terminated forthwith.

- F. If any term, provision, covenant or condition of this AGREEMENT is held to be invalid, void or otherwise unenforceable, to any extent, by any court of competent jurisdiction, the remainder of this AGREEMENT shall not be affected thereby, and each term, provision, covenant or condition of this AGREEMENT shall be valid and enforceable to the fullest extent permitted by law.
- G. Either Party shall be excused from performing its obligations under this AGREEMENT during the time and to the extent that it is prevented from performing by an unforeseeable cause beyond its control, including but not limited to: any incidence of fire, flood; acts of God; commandeering of material, products, plants or facilities by the federal, state or local government; or a material act or omission by the other Party; when satisfactory evidence of such cause is presented to the other Party, and provided further that such nonperformance is unforeseeable, beyond the control and is not due to the fault or negligence of the Party not performing.
- H. The laws of the State of California and applicable local and federal laws, regulations and guidelines shall govern this AGREEMENT.
- I. This AGREEMENT and any attachments or documents incorporated herein by inclusion or reference constitute the complete and entire AGREEMENT between the ORANGE COUNTY TRANSPORTATION AUTHORITY and the COMMISSION related to the review of a proposed toll facility application.

IN WITNESS WHEREOF, this AGREEMENT has been executed by the parties hereto as of the  
day and year first written above.

ORANGE COUNTY TRANSPORTATION AUTHORITY	CALIFORNIA TRANSPORTATION COMMISSION
 _____ Darrell Johnson Chief Executive Officer	_____ Susan Bransen Executive Director
<b>03.29.2016</b> _____ Date	_____ Date

**REIMBURSEMENT AGREEMENT ADDENDUM**

Based on the estimates contained in the figure below, the COMMISSION estimates that the Full Reimbursement Contract shall be for a minimum of \$15,000 and not to exceed \$50,000.

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	<b>Total hourly cost</b>	<b>Estimated hours (min)</b>		<b>Estimated hours (max)</b>	
<b>Deputy Director</b>	\$ 103.44	80	\$ 8,274.94	300	\$ 31,031.02
<b>Supervising TP</b>	\$ 98.07	40	\$ 3,922.92	150	\$ 14,710.93
<b>AGPA</b>	\$ 67.11	8	\$ 536.89	24	\$ 1,610.68
<b>Meeting Expenses</b>			\$ 1,000.00		\$ 1,000.00
<b>Travel</b>			\$ 1,000.00		\$ 1,000.00
<b>Total</b>			\$ 14,734.75		\$ 49,352.63

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