



BOARD COMMITTEE TRANSMITTAL

*January 26, 2009*

**To:** Members of the Board of Directors  
**From:** <sup>WK</sup> Wendy Knowles, Clerk of the Board  
**Subject:** Consideration of the San Diego Freeway (Interstate 405) Improvement Project for Future High-Occupancy Toll Lane and Design-Build Authority

Highways Committee Meeting of January 19, 2009

**Present:** Directors Amante, Cavecche, Dixon, Glaab, Green, Norby, and Pringle  
**Absent:** Director Mansoor

**Committee Vote**

This item was passed by all Committee Members present.

**Committee Recommendation**

Approve the consideration of the San Diego Freeway (Interstate 405) Improvement Project for the implementation of high-occupancy toll lanes utilizing the design-build and public-private partnership method of procurement and authorize staff to move forward with further evaluation of high-occupancy toll lanes and next steps in the project development process and any future project nomination process.



**January 19, 2009**

**To:** Highways Committee  
**From:** Arthur T. Leahy, Chief Executive Officer  
**Subject:** Consideration of the San Diego Freeway (Interstate 405) Improvement Project for Future High-Occupancy Toll Lane and Design-Build Authority

**Overview**

Special session proposals related to State of California budget negotiations have included additional public-private partnership and design-build authority. The most recent proposal, Assembly Bill x1 5 (Evans, D-Santa Rosa), was vetoed by the Governor on January 6, 2009; however, similar proposals are expected to re-emerge as budget negotiations continue. Staff recommends that the Orange County Transportation Authority consider the option of adding high-occupancy toll lanes into the San Diego Freeway (Interstate 405) Improvement Project as a candidate for future public-private partnership and design-build project delivery.

**Recommendation**

Approve the consideration of the San Diego Freeway (Interstate 405) Improvement Project for the implementation of high-occupancy toll lanes utilizing the design-build and public-private partnership method of procurement and authorize staff to move forward with further evaluation of high-occupancy toll lanes and next steps in the project development process and any future project nomination process.

**Background**

On October 14, 2005, the Orange County Transportation Authority (OCTA) Board of Directors (Board) approved staff's recommendation to proceed with the San Diego Freeway (Interstate 405) major investment study's locally preferred strategy, alternative 4. This alternative proposed the addition of new lanes to Interstate 405 between the San Gabriel River Freeway (Interstate 605) to the north and the Costa Mesa Freeway (State Route 55) to the south, generally within the existing right-of-way.

A report on the project was presented to the Board in April 2008, and the related project study report was approved by the California Department of Transportation in July 2008. The report proposed two options for further development in addition to the no-build alternative. Build alternative 1 would add one general purpose lane in each direction, and build alternative 2 would add two general purpose lanes in each direction. Both of these alternatives would provide other improvements, including auxiliary lanes between on-ramps and off-ramps and local interchange improvements.

Assembly Bill (AB) x1 5 (Evans, D-Santa Rosa), approved in special session on December 18, 2008, and vetoed by the Governor on January 6, 2009, built upon authority granted by AB 1467 (Chapter 32, Statutes of 2006) and would have expanded the number of public-private partnership projects in California from four to ten - five projects in Southern California and five projects in Northern California. The bill also detailed performance objectives for the projects including improving mobility, implementing operational or safety improvements, and providing quantifiable air quality benefits. These public-private partnerships would be permitted to use the design-build method of procurement when selecting a contractor to design and construct any of the projects. The projects would also permit the awarding of contracts on the basis of the lowest bid or "best value" (i.e., a value determined by objective criteria, including price, features, functions, life-cycle costs, and other criteria).

While this bill was ultimately vetoed by the Governor, it is expected that this or a similar proposal will return to the Legislature for consideration as part of continued budget negotiations. At that time, there are a few key elements that were omitted from AB x1 5 that should be included in the next proposal. AB 1467 included Streets and Highways Code (SHC) Section 149.7, which allowed regional transportation planning agencies to develop and operate the public-private partnership project, rather than being simply the lessor as permitted in SHC Section 143; AB x1 5 only modified SHC Section 143. To enable future projects such as the 91 Express Lanes, which is operated by OCTA, this section would also need to be updated to reflect the expanded number of projects and updated deadlines.

### ***Discussion***

Under future potential authority, OCTA may be able to apply to the California Transportation Commission to develop and operate high-occupancy toll (HOT) lanes through a public-private partnership within its jurisdiction. There are numerous benefits to adding HOT lanes to the Interstate 405 Improvement Project. The HOT lanes could function much like the 91 Express Lanes, with

OCTA being the owner and a private operator managing the lanes. The additional costs of the HOT lanes compared to building general purpose lanes would be minimal and would be far outweighed by the revenues anticipated to be generated. In addition, the HOT lane facility would significantly alleviate congestion on this critical high-volume corridor and provide additional choices to commuters.

The current estimated cost from the project study report to add one or two general purpose lanes ranges from \$1.1 billion to \$1.85 billion, but only \$500 million is available in Renewed Measure M for this project. Implementing a HOT lane system on Interstate 405 would generate additional revenues to help fund these improvements and facilitate an early implementation of a more comprehensive traffic congestion relief project in the corridor. A traffic and revenue analysis is needed to determine the extent of additional funding that could be generated.

Assembly Bill x1 5 also contemplated the use of design-build delivery for the public-private partnership project. Under the design-build approach, an owner completes a preliminary design of a project and describes the final configuration and attributes of the desired facility. The owner then hires a design-build team, comprised of one or more contractors and one or more engineering design firms, who will complete the design and construct the project. The primary advantage of the design-build approach is to speed up project delivery by allowing design and construction activities to proceed concurrently rather than sequentially.

Based on a very preliminary analysis, design-build could result in an earlier project completion by one to two years as compared to the traditional design-bid-build schedule. This time savings would result from performing design in parallel with construction, advancing design ahead during the standard contract award period, and allowing the contractor to identify and build time savings into the sequencing and staging of construction activities.

Currently, the Interstate 405 project is in the initial stages of environmental analysis. If directed, an additional alternative to assess the HOT lanes can be evaluated with the other alternatives that include: 1) adding one general purpose lane in each direction, 2) adding two general purpose lanes in each direction, and 3) an alternative that fits within currently available funding through traditional sources.

The HOT lanes alternative would add one general purpose lane and one HOT lane in each direction; converting the existing carpool lane to a HOT lane would result in a total of two HOT lanes in each direction of Interstate 405. Analysis of these

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alternatives will include evaluating options to stay generally within the existing right-of-way. If the Board approves the consideration of Interstate 405 as recommended, staff will brief project corridor cities and other partners and stakeholders.

Staff intent is to undertake the environmental phase as expeditiously as possible since the freeway corridor improvements must be environmentally cleared before any necessary right-of-way acquisition can begin and before release of the final request for proposals document to the design-build teams under the design-build scenario. The environmental phase includes extensive public outreach, including scoping meetings during the initial stage of the process.

As the successful operator of the 91 Express Lanes, and having achieved accelerated design and construction completion of the Garden Grove Freeway (State Route 22) design-build HOV project, which has garnered multiple awards and recognitions, OCTA is ready to compete with other counties to implement HOT lanes as a public-private partnership project using design-build and to compete for anticipated federal economic stimulus funding.

Pending Board direction and the outcome of the possible enabling legislation, staff will return to the Board with more specific information regarding implementation strategy and schedule for this project.

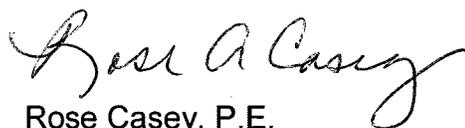
**Summary**

Staff is requesting that the Board approve the consideration of the Interstate 405 Improvement Project for the implementation of HOT lanes under future potential public-private partnership and design-build authority and authorize staff to move forward with further project development.

**Attachment**

None.

**Prepared by:**



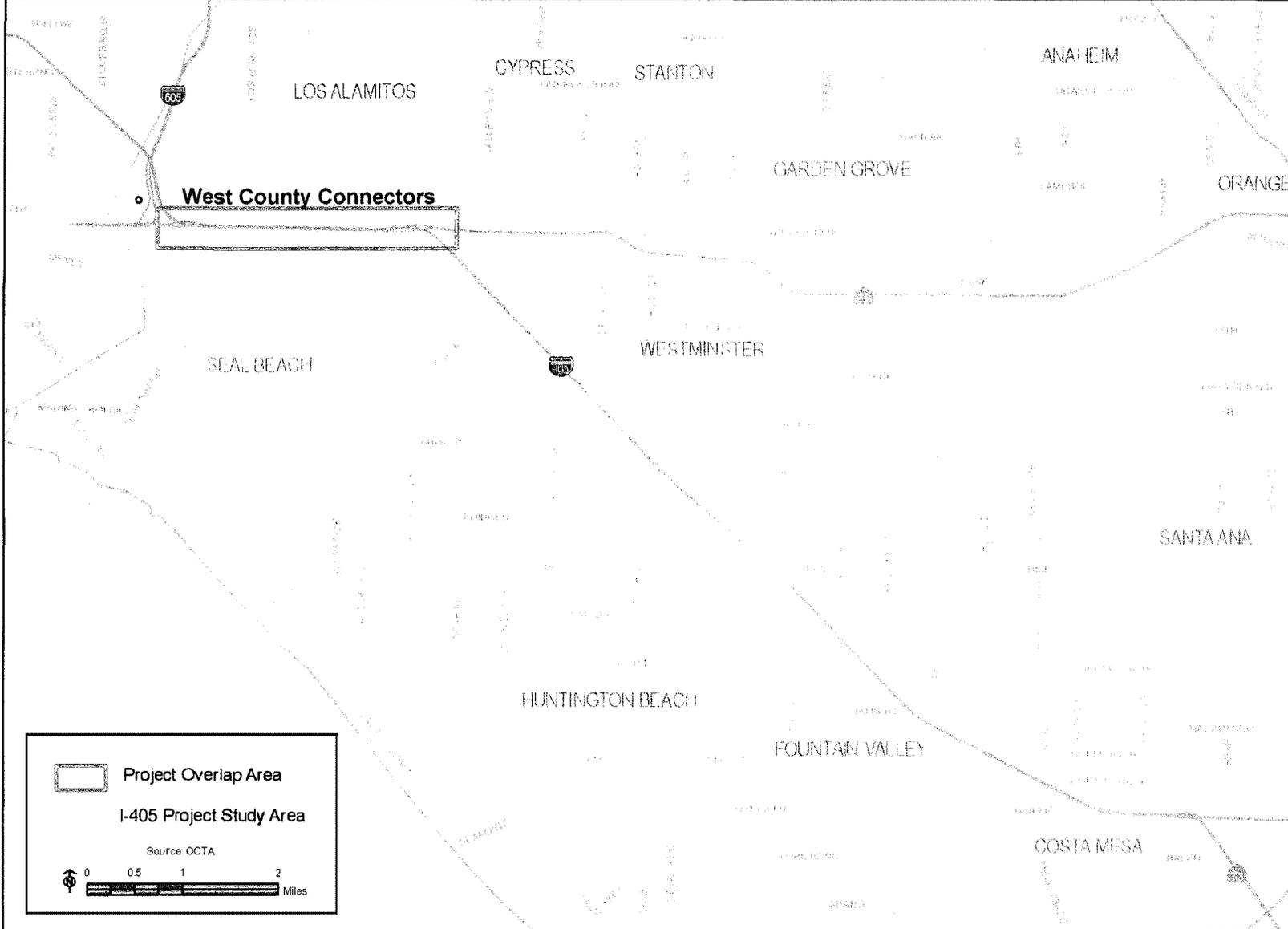
Rose Casey, P.E.  
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**Approved by:**



Kia Mortazavi  
Executive Director, Development  
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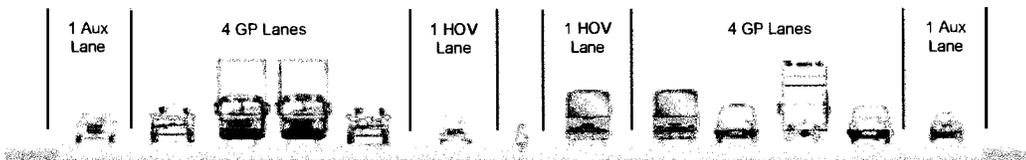
# Project Study Areas



# I-405 Improvement Project

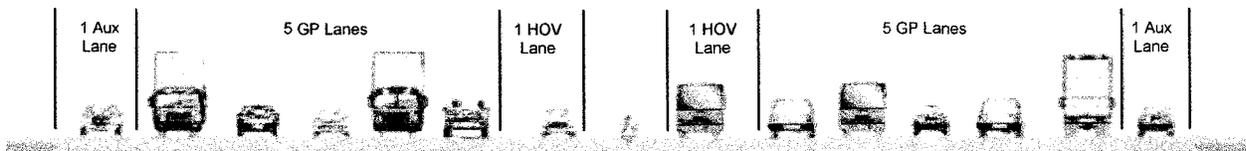


## Existing I-405 Corridor



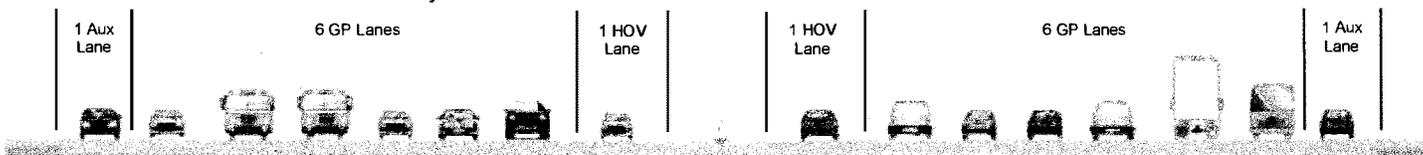
## Alternative 1 (Locally Preferred Strategy)

- Adds 1 general purpose lane
- Adds auxiliary lanes



## Alternative 2

- Adds 2 general purpose lanes
- Adds auxiliary lanes



## Alternative 3

- Adds 1 general purpose lane
- Adds 1 HOT lane from I-605 to SR-73
- Adds auxiliary lanes



## Alternative 4 Funding Constrained Alternative