



**October 1, 2018**

**To:** Regional Planning and Highways Committee

**From:** Darrell E. Johnson, Chief Executive Officer

**Subject:** Contract Change Order for Additional Design and Construction Efforts for the Interstate 405 Improvement Project Between State Route 73 and Interstate 605

### **Overview**

On November 14, 2016, the Orange County Transportation Authority Board of Directors approved Agreement No. C-5-3843 with OC 405 Partners, a joint venture, for the design and construction of the Interstate 405 Improvement Project between State Route 73 and Interstate 605. A contract change order is required for additional design and construction efforts related to bridge width standards in the cities of Fountain Valley, Huntington Beach, and Westminster, right-of-way changes that minimize impacts to property owners, implementation of a revised design concept at the Ellis Avenue on-ramp to southbound Interstate 405, and other miscellaneous items.

### **Recommendation**

Authorize the Chief Executive Officer to negotiate and execute Contract Change Order No. 13 to Agreement No. C-5-3843 between the Orange County Transportation Authority and OC 405 Partners, a joint venture, in the amount of \$8,560,556, for additional design and construction efforts for the Interstate 405 Improvement Project between State Route 73 and Interstate 605.

### **Discussion**

The Orange County Transportation Authority (OCTA), in cooperation with the California Department of Transportation (Caltrans), is implementing the Interstate 405 (I-405) Improvement Project between State Route 73 (SR-73) and Interstate 605 (I-605) (Project). The Project will add one general purpose lane from Euclid Street to I-605, consistent with Measure M2 (M2) Project K, and will add an additional lane in each direction that would combine with the existing high-occupancy vehicle lane to provide dual express lanes in

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each direction on I-405 from SR-73 to I-605, otherwise known as the 405 Express Lanes.

On November 14, 2016, the OCTA Board of Directors (Board) approved Agreement No. C-5-3843 with OC 405 Partners (OC405), a joint venture, for the design and construction of the Project. The contract was executed and Notice to Proceed (NTP) No. 1 was issued to OC405 on January 31, 2017. NTP No. 2, for the full design and construction of the Project, was issued to OC405 on July 27, 2017.

A contract change order (CCO) is required for additional design and construction efforts related to several changes to the contract that have been identified in the 20 months since the contract was executed with OC405. These changes are summarized in the table below and then described in more detail.

<b>Change Description</b>	<b>Dollar Amount</b>
Cities of Fountain Valley, Huntington Beach, and Westminster (City) bridge widths	\$ 4,865,564
Construction changes to minimize right-of-way (ROW) impacts	\$ 2,134,436
Revised design concept at Ellis Avenue on-ramp to southbound I-405	\$ 1,138,228
SR-73 overhead sign structures	\$ 112,152
Sendero Apartments left-turn pocket on Magnolia Street	\$ 33,947
Newland Street waterline extension	\$ 211,928
Signal improvements at Ellis Avenue/Bushard Street	\$ 64,301
<b>Total</b>	<b>\$ 8,560,556</b>

#### City Bridge Widths

The contract documents provided OC405 with documents and standards by which to design the Project. This included documents and design standards for the six City bridges that have no ramp connections to the freeway. These bridges are Ward Street, Slater Avenue, Bushard Street, Newland Street, McFadden Avenue, and Edwards Street.

The contract documents included some inconsistencies regarding the appropriate width of these six City bridges. For instance, the contract documents assigned the American Association of State Highway and Transportation Officials (AASHTO) standards as the governing standard for these six City bridges. In some cases, AASHTO allows narrower bridges than OCTA intended for these bridges, and OC405 included the narrower bridges in its bid.

The M2 ordinance requires that these bridges be built to the ultimate Master Plan of Arterial Highways width. As such, a directive letter was sent to OC405 requiring the ultimate bridge width, which resulted in additional time and effort to redesign each of the six City bridges to match the larger width requirement. The changed design for the wider bridges also requires additional time, labor, and materials during construction.

#### **Construction Changes to Minimize ROW Impacts**

The contract documents provided OC405 with documents reflecting the planned ROW limits and property interests to be made available for each parcel. As typically done in a design-build (DB) project, staff continued to examine the ROW impacts associated with the parcels identified in the contract documents after contract execution. In a DB project, the design is progressed after contract execution and the ROW limits are refined as necessary. The review identified 77 parcels for which adjusting the ROW interests or limits could minimize or eliminate ROW impacts to property owners for a majority of the parcels. Project staff analyzed the adjusted ROW limits to confirm that OC405 would continue to have sufficient ROW to construct the Project. As a result, OC405 needed to alter its construction operations in certain locations to adjust to these ROW changes.

Although OCTA will have to compensate OC405 for impact costs due to reduced ROW limits available to construct the Project, this cost is more than offset by a reduction in ROW capital acquisition costs anticipated to be significantly more than \$10 million.

#### **Revised Design Concept at Ellis Avenue On-Ramp to Southbound I-405**

The original design concept in the contract documents proposed a new on-ramp bridge over the Santa Ana River from eastbound Ellis Avenue to southbound I-405. The original design concept also included improvements to the south side of Ellis Avenue, including the relocation of the entrance to the Orange County Sanitation District (OCSD) property. These improvements would have required property rights to be acquired from the OCSD. Due to impacts identified by OCSD to its facilities, an alternative ramp design was developed by OCTA to provide similar traffic operational benefits on Ellis Avenue without impacts to OCSD property. The alternative ramp design eliminates the new on-ramp bridge and reconstructs the existing Ellis Avenue on-ramp to southbound I-405 in the same location in which it currently exists. On November 15, 2017, OCTA issued a directive letter to OC405 to implement the alternative ramp design.

The total cost negotiations with OC405 related to the alternative ramp design have not been completed since negotiations for construction impacts have not

concluded. However, the contract documents allow design and construction costs to be covered by separate CCOs. OCTA staff has worked with OC405 to reach agreement on the design costs only. Since design efforts have been underway since November 2017, staff proposes to execute a CCO for design cost impacts only, as allowed by the contract documents, in the amount of \$1,138,228. Staff will prioritize working with OC405 to determine the construction cost impacts which will be addressed through a separate future CCO.

Although OCTA will have to compensate OC405 for the noted design costs due to the revised design concept at this location, this cost is more than offset by a reduction in ROW capital acquisition costs of over \$15 million.

#### **SR-73 Overhead Sign Structure**

The Manual on Uniform Traffic Control Devices (MUTCD), a Project standard, requires advance warning signs to be placed at a sufficient distance from the off-ramp to provide motorists sufficient time and space to make a decision and maneuver appropriately. At one location in the Project corridor, there was insufficient ROW to construct an overhead sign along the northbound SR-73 for the Harbor Boulevard off-ramp pursuant to MUTCD requirements.

A solution was developed and then approved by Caltrans to build a new sign bridge at the existing Fairview Avenue advanced warning sign location that would combine the signs needed for Harbor Boulevard, Fairview Avenue, and I-405. This solution will avoid ROW impacts; however, this solution includes out-of-scope costs for additional design work, existing Fairview Avenue sign demolition, and additional construction costs for the new sign bridge.

#### **Sendero Apartments Left-Turn Pocket on Magnolia Street**

The property owner and the City of Huntington Beach requested to preserve the existing left-turn access from northbound Magnolia Street to the Sendero Apartments.

The contract documents required OC405 to extend the dual left-turn pockets on southbound Magnolia Street at the intersection with Warner Avenue, which would eliminate any room to preserve the left-turn pocket into Sendero Apartments. After further traffic analysis was performed and agreed to with the City of Huntington Beach, OCTA directed OC405 to include (preserve) the left-turn pocket into Sendero Apartments and shorten the extension of the dual left-turn pockets at the Magnolia Street intersection with Warner Avenue. This resulted in additional design and construction costs for OC405.

#### Newland Street Waterline Extension

The contract documents showed a City of Fountain Valley waterline in Newland Street ending at Barry Place. The City of Fountain Valley informed OCTA that OC405's proposed relocation design consistent with the contract documents would cause additional stress on its system at Barry Place due to the existing pipe sizes at that intersection. The Barry Place system was not designed to handle the flow from the larger newly relocated system on Newland Street. OCTA directed OC405 to extend the waterline on Newland Street approximately 300 feet to connect to a larger system in Heil Avenue. This resulted in additional design and construction costs for OC405 due to the extension of the waterline, a more complex tie-in to the Heil Avenue system, and more complex traffic control strategies at the intersection of Heil Avenue and Newland Street due to significantly higher traffic volumes at this location.

#### Signal Improvements at Ellis Avenue/Bushard Street

The City of Fountain Valley required protected/permissive left-turn pocket signal heads at the intersection of Ellis Avenue and Bushard Street related to the approval of the Transportation Management Plan (TMP) for the Project. This was not included in the contract documents, but deemed appropriate as part of the TMP.

#### ***Procurement Approach***

The procurement was handled in accordance with the best-value selection process authorized by AB 401 (Chapter 586, Statutes of 2013) for DB projects, and with OCTA's Board-approved procedures for public works projects, which conform to both federal and state requirements. On November 14, 2016, OCTA approved Agreement No. C-5-3843 with OC405 for the design and construction of the Project through a DB contract.

Board approval is required for this proposed CCO, in the amount of \$8,560,556, to provide compensation to OC405 for the additional design and construction efforts related to the aforementioned out-of-scope efforts.

Attachment A lists the CCOs that have been executed to date, and the pending CCOs that are currently under negotiation with OC405.

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**Fiscal Impact**

The cost for the additional design and construction efforts described in CCO No. 13 is funded from the Project contingency and will not increase the total Project estimate of \$1.9 billion. The amendment amount is offset by a reduction in ROW capital acquisition costs anticipated to be more than \$25 million. The funding for this work was approved in OCTA's Fiscal Year 2017-18 Budget, Capital Programs Division, accounts 0017-9084-FK101-0GM and 0037-9017-A9510-0GM, and is funded with a combination of federal, state, and local funds. M2 funds will be used for improvements specific to M2 Project K, and non-M2 funds will be used for improvements specific to the 405 Express Lanes.

**Summary**

Staff recommends Board of Directors' authorization for the Chief Executive Officer to negotiate and execute Contract Change Order No. 13 to Agreement No. C-5-3843 with OC 405 Partners, a joint venture, in the amount of \$8,560,556, for additional design and construction efforts for the Interstate 405 Improvement Project between State Route 73 and Interstate 605.

**Attachment**

A.     OC 405 Partners, Agreement No. C-5-3843, Contract Change Order Log

**Prepared by:**



Jeff Mills, P.E.  
Program Manager  
(714) 560-5925



Virginia Abadessa  
Director, Contracts Administration and  
Materials Management  
(714) 560-5623

**Approved by:**



James G. Beil, P.E.  
Executive Director, Capital Programs  
(714) 560-5646