



**June 26, 2013**

**To:** Finance and Administration Committee

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

**Subject:** Limited Review of Oversight Controls and Contract Compliance Related to the Orangethorpe Railroad Corridor Grade Separation Projects

### **Overview**

The Internal Audit Department has completed a limited review of oversight controls and contract compliance related to the Orangethorpe Railroad Corridor grade separation projects. Based on the review, controls to monitor and report the status of these projects are adequate and construction management procedures are generally adequate. However, the Internal Audit Department has made five recommendations to improve invoice review, contract amendment procedures, and monitoring of construction quantity-sheets, as well as seek reimbursement of \$907 for two duplicate payments.

### **Recommendation**

Direct staff to implement recommendations provided in the Limited Review of Oversight Controls and Contract Compliance Related to the Orangethorpe Railroad Corridor Grade Separation Projects, Internal Audit Report No. 11-501.

### **Background**

The Orange County Transportation Authority (OCTA), in coordination with the cities of Anaheim, Fullerton, Placentia, and Yorba Linda, is implementing the Orangethorpe Railroad Corridor Grade Separation Program. OCTA is the implementing agency in five grade separation projects: Kraemer Boulevard undercrossing; Placentia Avenue undercrossing; Lakeview Avenue overcrossing; Orangethorpe Avenue overcrossing; and Tustin Avenue/Rose Drive overcrossing.

OCTA has contracts for program management services and construction program management services, as well as design services, construction

management (CM) services, and construction for each project, based on the project phase.

***Discussion***

Review of a sample of invoice packages noted several instances of missing documentation and contract compliance issues that, while not individually significant in dollar value, were not identified by staff involved in the authorization and processing of these invoices. Policies, procedures, and checklists used by the various departments involved in handling the invoices are not detailed enough to indicate the depth and scope of invoice review or to designate responsibilities of the various employees involved. As a result, the Internal Audit Department (Internal Audit) recommended that an entity-wide invoice review policy and procedures be established. Management agreed and proposed issuing a revised Payment Authorization Policy and developing a Contract Invoice Review Policy that will be issued by the Chief Executive Officer and will delineate responsibility for ensuring that contract invoices are accurately paid in compliance with all applicable contract provisions and disbursed on a timely basis.

Internal Audit identified instances of contractor staff that performed work prior to the effective dates of amendments and/or letter amendments adding these individuals to the contracts. Internal Audit recommended that procedures be improved to address the authorization of contractor staffing changes and the parameters for back-dating these amendments and letter amendments. Management agreed and stated that procedures will be strengthened and revised to clarify any ambiguities.

Internal Audit identified a few instances of differences between billed quantities and the quantity-sheets (q-sheets) used by CMs to observe, calculate, and document the quantities of construction items. It was noted that the use of q-sheets by CMs is not consistent. Internal Audit recommended that OCTA project management establish consistent requirements for the use of q-sheets, as well as spot-check the q-sheets for accuracy and compliance with OCTA requirements. Management agreed and indicated that procedures will be strengthened and CMs will be reminded that q-sheets must be reviewed for accuracy and compliance with OCTA requirements.

CM contracts include an other direct costs (ODC) schedule (Schedule II) that identifies ODC items and the unit rates agreed-upon between OCTA and the consultant. Requiring a complete Schedule II allows OCTA to determine the necessity of ODC items and to review and negotiate unit rates. There are

currently no written procedures to address requirements for adding ODC items to the Schedule II, and staff has different interpretations as to whether an amendment is required. Internal Audit recommended management develop policy and procedures to outline requirements and advise applicable staff. Management agreed and indicated that procedures will be developed and staff trained.

Finally, Internal Audit identified two duplicate payments during review of extra work bills. Internal Audit recommended that management request credits for these payments totaling \$907. Management agreed and noted that a credit for the duplicate payments was applied to the contractor's May 2013 invoice.

### ***Summary***

Based on the review, controls to monitor and report the status of projects are adequate and CM procedures are generally adequate. However, recommendations were made to improve invoice review, contract amendment procedures, and monitoring of construction q-sheets, as well as recover \$907 of duplicate payments.

### ***Attachment***

- A. Limited Review of Oversight Controls and Contract Compliance Related to the Orangethorpe Railroad Corridor Grade Separation Projects, Internal Audit Report No. 11-501

**Prepared by:**



Serena Ng  
Principal Internal Auditor  
714-560-5938

**Approved by:**



Janet Sutter  
Executive Director, Internal Audit  
714-560-5591

# ORANGE COUNTY TRANSPORTATION AUTHORITY INTERNAL AUDIT DEPARTMENT



## Limited Review of Oversight Controls and Contract Compliance Related to the Orangethorpe Railroad Corridor Grade Separation Projects

### Internal Audit Report No. 11-501

June 17, 2013



**Internal Audit Team:** Janet Sutter, CIA, Executive Director  
Serena Ng, CPA, Principal Internal Auditor

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## **Conclusion**

The Internal Audit Department (Internal Audit) has completed a limited review of oversight controls and contract compliance related to the Orangethorpe Railroad Corridor grade separation projects. Based on the review, controls to monitor and report the status of these projects are adequate and construction management procedures are generally adequate. However, Internal Audit has made five recommendations to improve invoice review, contract amendment procedures, and monitoring of construction quantity-sheets, and to seek reimbursement of \$907 for two duplicate payments identified during the review.

## **Background**

### Orangethorpe Railroad Corridor Grade Separation Projects

The Orange County Transportation Authority (OCTA), in coordination with the cities of Anaheim, Fullerton, Placentia, and Yorba Linda, is implementing the Orangethorpe Railroad Corridor Grade Separation Program. There are seven Orangethorpe Railroad Corridor grade separation projects:

Project	Implementing Agency	Phase
Placentia Ave. Undercrossing	OCTA	Construction
Kraemer Blvd. Undercrossing	OCTA	Construction
Orangethorpe Ave. Overcrossing	OCTA	Construction awarded
Tustin Ave./Rose Dr. Overcrossing	OCTA	Construction awarded
Lakeview Ave. Overcrossing	OCTA	Design completed
Raymond Ave. Undercrossing	City of Fullerton	Design completed
State College Blvd. Undercrossing	City of Fullerton	Design completed

In January 2008, OCTA and the cities of Fullerton and Placentia applied for funding from the state's Trade Corridor Improvement Fund (TCIF) program for the seven railroad grade separation projects. The California Transportation Commission programmed a total of \$182.8 million in TCIF funds for the projects toward the total estimated cost of \$416.7 million.

In January 2009, OCTA hired consultants to evaluate and optimize the design of the five City of Placentia projects, confirm the right-of-way requirements, and provide a revised estimate of the cost of the projects. The City of Fullerton was also asked to update cost estimates for its two grade separation projects. In July 2010, OCTA's Board of Directors (Board) approved a \$172.9 million budget adjustment with a revised cost of \$589.6 million, based on this updated cost information. The related staff report outlined causes for the increase in cost estimates as follows:

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1. Original estimates prepared by the cities of Fullerton and Placentia were based on preliminary designs that did not accurately reflect the full requirements for the projects.
2. Estimates for right-of-way acquisition, structures construction, and railroad items were significantly lower than needed.
3. The Burlington Northern Santa Fe Railway required a continuous shoofly detour for four of the projects.
4. A new roadway detour was needed for the Tustin Ave./Rose Dr. project to accommodate concurrent construction of the Lakeview Ave. project and assist with overall north/south traffic flow in the project area.

At that same Board meeting, the Board approved a modified sequencing plan for the Lakeview Ave., Tustin Ave./Rose Dr., and Orangethorpe Ave. projects to accommodate the City of Anaheim's requested modifications to the design and construction schedule for the Lakeview Ave. project.

Contracts

OCTA has contracted with Hatch Mott MacDonald (HMM) to provide program management services. HMM personnel serve as project managers on the various grade separation projects. Parsons Transportation Group (PTG) serves as the construction program management consultant.

OCTA also has contracts for design services, construction management (CM) services, and construction work for each project, based on the project phase:

Project	Design	Construction	CM
Placentia Ave.	Mark Thomas & Co.	Flatiron West, Inc.	AECOM
Kraemer Blvd.	HNTB Corporation	Atkinson Contractors, LP	Arcadis US, Inc.
Orangethorpe Ave.	AECOM	Flatiron West, Inc. <sup>1</sup>	Stantec
Tustin Ave./Rose Dr.	Biggs Cardosa	USS Cal Builders <sup>1</sup>	Jacobs
Lakeview Ave.	CH2M Hill		Athalye

Construction Changes

Construction changes may be initiated by a change request from the construction contractor or by a change directive issued from OCTA. If a change request proposes an adjustment in contract price, the construction contractor submits a complete breakdown of costs including detailed pricing information and back-up for all work and any impacts. If the change request is acceptable to OCTA, OCTA issues a Construction Change Order (CCO).

<sup>1</sup> The Board authorized the Chief Executive Officer to execute the contracts on January 14, 2013 and February 25, 2013, respectively, but the contracts have not yet been executed.

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In a change directive, OCTA notifies the construction contractor of changes to the contract by issuing the change directive. The basis for compensation is either, or a combination of: an increase or decrease in quantity of contract items; a negotiated lump sum price; or force account work as determined by OCTA. Maximum allowable markups are 20 percent on cost of labor, 15 percent on cost of material, 15 percent on equipment rental, and 5 percent on cost of subcontractors. Upon agreement, OCTA issues a CCO.

Project Status Controls

Weekly status meetings are held at OCTA to review project issues, including design, utilities, and right-of-way issues. Weekly construction progress meetings for the Placentia Ave. and Kraemer Blvd. projects are held at the field offices. At the end of each week, construction program management emails a high-level detail of activities for the Placentia Ave. and Kraemer Blvd. projects to stakeholders, OCTA project management, and the OCTA Deputy Chief Executive Officer.

Monthly project status control meetings are held with the Director of Highway Programs to discuss major issues and costs. Monthly OC Bridges Steering Committee meetings are held with the stakeholders, including designers and cities/agencies. Design status and other project issues are discussed.

The Capital Programs Division recently began reporting its Capital Action Plan performance metrics to the Board on a quarterly basis. These Capital Action Plan performance metrics reports include the status of the grade separation projects. Quarterly Measure M2 progress reports are submitted to the Board, and these progress reports also include discussion of grade separation projects.



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## **Objectives, Scope and Methodology**

The objective was to review contract compliance and oversight controls.

The methodology consisted of identifying and testing controls to monitor and report project status, identifying and testing CM controls, reviewing compliance with significant contract provisions such as payments, and review of a sample of contract amendments and CCO's.

The scope is limited to the Orangethorpe Railroad Corridor grade separation projects being implemented by OCTA. The scope included contracts with HMM and PTG for program management and construction program management services and invoices paid on the contracts through early October 2012. Since the Kraemer Blvd. and Placentia Ave. projects are in the construction phase, the scope included the design, CM, and construction contracts for the Kraemer Blvd. and Placentia Ave. projects. It included invoices paid on the design contracts from fiscal year (FY) 2010-11 through early October 2012, the CM contracts from FY 2011-12 through early October 2012, and construction contracts through early October 2012. Finally, the scope included review of procedures for addition of Other Direct Costs to contracts.

This review was conducted in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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**Audit Comments, Recommendations and Management Responses**

**Noteworthy Accomplishments**

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There are adequate controls to monitor and report on the status of the grade separation projects. Periodic status meetings with project management and stakeholders are held. The status of all capital projects, including grade separation projects, is reported to the Board quarterly.

There are controls in place for payment of force account work in CCO's. For force account work, the construction contractor fills out and signs daily extra work tentative agreements that identify staff hours and equipment hours. These daily extra work tentative agreements are submitted to the CM, who signs off as verification of hours based on his daily inspections and observations. When the construction contractor submits extra work bills, the CM reconciles the extra work bills to the daily extra work tentative agreements prior to certification.

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**Invoice Review**

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OCTA does not maintain a comprehensive invoice review policy to outline responsibilities assigned to individuals involved in the review, approval, and processing of invoice payments. Invoices are handled by project management staff and consultants, project controls staff, and accounts payable staff. Both the Accounting Department and the Project Controls Section maintain written policies, procedures and/or checklists for their individual areas; however, these are not detailed enough to provide sufficient guidance on the depth and scope of invoice review or to designate responsibilities of the various employees involved.

Review of a sample of invoices and supporting documents noted several instances of missing documentation and contract compliance issues that, while not individually significant in dollar value, were not identified by staff handling the invoices.

Invoice review requirements can differ depending on the type of contract (i.e. design, CM, construction, program management). Procedures may include review of billing rates and other direct costs to contract pricing schedules, review of progress on invoices to progress reports, review of billed hours and materials-on-hand to supporting timesheets and invoices, review of percentage completion, and review for required invoice certifications and payment authorization.

**Recommendation 1:**

Internal Audit recommends that an entity-wide invoice review policy and procedures be established. The invoice review policy and procedures should assign responsibilities, such as review of billed rates for contract compliance and review of billed hours to supporting documentation, as well as expected depth and scope of review (e.g. requirement for submission of complete timesheets or detailed summaries, 100 percent review versus sampling, sampling size and methodology, review of prime versus subcontractors, etc.). Procedures should also address enforcement of progress report and invoice certification requirements.

**Management Response (Finance and Administration Division):**

Management agrees with the recommendation and proposes the following:

- The Payment Authorization Policy (FA-ACCT-340.09PAYAUTH) will be reissued as a policy of the Chief Executive Officer.
- A new Contract Invoice Review Policy will be issued by the Chief Executive Officer that delineates responsibility for ensuring that contract invoices are

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accurately paid in compliance with all applicable contract provisions and disbursed on a timely basis.

**Consultant Staffing Costs Incurred Prior to Amendments Adding Staff**

We identified 44 consultant staff that performed work prior to the effective dates of the amendments and/or letter amendments that added these individuals to the contracts.

The Review of Contract and Project Management Controls: State Route 57 Improvement Projects, Internal Audit Report No. 11-503, dated January 18, 2012, cited similar exceptions. To address the issue, management responded that letter amendments would be used to expedite staff and rate changes. However, some of the exceptions noted in this review occurred after the new letter amendment procedures were implemented.

**Recommendation 2:**

Internal Audit recommends that procedures be updated to address the authorization of consultant staffing changes prior to processing of amendments or letter amendments adding staff. Procedures should include the parameters for back-dating these amendments and letter amendments.

**Management Response (Finance and Administration Division):**

Management agrees that procedures for authorizing contractor staffing changes and parameters for establishing an effective date on letter amendments should be strengthened. There are existing procedures in place; however, staff will revise the procedures to clarify any ambiguities that may exist. Staff will also work with project managers to ensure notification of these type of staffing changes are reported to the Contracts Administration and Materials Management Department in a timely manner.

**Reconciliation of Quantity Sheets to Construction Payment Applications**

The construction contracts contain a Schedule of Quantities and Prices that lists all items with quantities, unit prices, and item totals. The construction contractors are paid for the value of all accepted quantities for the various items of work satisfactorily completed in accordance with the contract. As construction is performed, the CM's observe, calculate, and document the quantities of construction items in quantity sheets (q-sheets).

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During our testing, we noted that most construction contractor payment applications were supported by the CM's q-sheets. However, on the Placentia Ave. project, there were three instances of billed quantities in the application not agreeing with quantities in the CM's q-sheets, as well as several missing q-sheets.

On the Kraemer Blvd. project, the CM did not use q-sheets for items that they can easily see and do not require calculations. There was also one instance of the billed quantity exceeding the quantity on the CM's q-sheet, because the quantity was taken from the wrong line item. The over-billing of \$174,232 was corrected in subsequent payments based on updated quantities.

**Recommendation 3:**

Internal Audit recommends that OCTA project management establish consistent requirements for q-sheets, as well as spot-check the CM's q-sheets for accuracy and compliance with OCTA requirements.

**Management Response (Capital Programs Division):**

Management has determined that the identified inconsistencies are due to field adjusted quantities that were not updated on the q-sheets. Management agrees with the recommendation and will ensure that the construction program management personnel reinforces with the construction management teams the requirements of updating the q-sheets frequently, and checking the q-sheets for accuracy and compliance with OCTA requirements. In addition, the Construction Management Procedures Manual will be updated by June 18, 2013, to strengthen the procedures regarding updates and reviews of the q-sheets.

**Procedures for Additions to Other Direct Costs (ODC)**

CM contracts include a Schedule II that identifies ODC items and the unit rates agreed-upon between OCTA and the consultant. Requiring a complete Schedule II allows OCTA to determine the necessity of ODC items and to review and negotiate unit rates. Schedule II includes some ODC items with "At Cost" as the unit rate and a note stating that, "All other direct expenses will be paid at cost when adequate supporting documentation is provided with invoices."

There are currently no written procedures to address the requirements for adding ODC items to Schedule II, and there are different interpretations of the requirements. There are also different interpretations as to whether the note on Schedule II simply clarifies that "At Cost" items require receipts, or actually allows consultants to bill ODC items not identified in Schedule II as long as invoices are accompanied by receipts.

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**Recommendation 4:**

Internal Audit recommends that CAMM develop policy and procedures over Schedule II and the billing of ODC's. Once written procedures are prepared, CAMM should train staff and advise project management of the requirements.

**Management Response (Finance and Administration Division):**

Management agrees and procedures will be developed that address the requirements for adding ODC items to the contract. Management also agrees to train staff on the new procedure and to notify project management of the procedures.

**Duplicate Payments on Force Account Work**

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When additional construction work is required and a unit price or lump sum for the work has not been agreed upon, OCTA will utilize a force account to pay for labor, materials, equipment, and specified mark-ups, up to a stated maximum.

For force account work, the construction contractor fills out and signs daily extra work tentative agreements that identify staff and equipment hours. The CM reconciles the extra work bills (EWB) to the daily extra work tentative agreements prior to certification for payment by OCTA.

During review of EWB's for force account work, Internal Audit identified two duplicate payments. EWB No. 208, CCO No. 8, included two billings for the same contractor staff, resulting in a duplicate payment of \$759.39. EWB No. 95.0 and No. 95.1, CCO No. 9, both billed for the same work, resulting in a duplicate payment of \$147.92.

**Recommendation 5:**

Internal Audit recommends management request credits for these, and any other identified duplicate payments.

**Management Response (Capital Programs Division):**

Management agrees with the recommendation. A credit for the total of the duplicate payments was applied to the contractor's May 2013 invoice. The construction management teams will also check other past payments to ensure there were no additional duplicate payments. The construction program management team will strengthen their communication with the construction management teams to conduct accurate invoice reviews before approving future invoices for payment.