

RIVERSIDE: AUDIT & ADVISORY SERVICES

June 27, 2013

To: Timothy Ralston, Associate Vice Chancellor
Capital Programs

Subject: Internal Audit of Construction Financed with Proposition 1D Funding

Ref: Audit Report Number R2013-02

We have completed an audit of Construction Financed with Proposition 1D Funding in accordance with the University of California, Riverside Audit Plan. Our report is attached for your review.

We appreciate the cooperation and assistance provided by your division. Should you have any questions concerning the report, please do not hesitate to contact me.

Gregory Moore
Director

xc: UCR Audit Committee Members
Associate Vice Chancellor Carlson
Capital Programs, A&E Executive Director Racicot
Capital Programs, CFRE Executive Director Lee
Capital Programs, CFRE Director of Finance Koenig
Capital Programs, A&E Director of Contracts Administration Saito

UNIVERSITY OF CALIFORNIA AT RIVERSIDE
AUDIT & ADVISORY SERVICES
MEMBER OF ASSOCIATION OF COLLEGE & UNIVERSITY AUDITORS

INTERNAL AUDIT REPORT R2013-02

INTERNAL AUDIT OF CONSTRUCTION
FINANCED WITH PROPOSITION 1D FUNDING

JUNE 2013

Approved by:

Noahn Montemayor
Principal Auditor

Rodolfo L. Jeturian, Jr.
Assistant Director

Gregory Moore
Director

**UC RIVERSIDE
INTERNAL AUDIT OF CONSTRUCTION
FINANCED WITH PROPOSITION 1D FUNDING
INTERNAL AUDIT REPORT R2013-02
JUNE 2013**

I. MANAGEMENT SUMMARY

Based upon the results of work performed within the purpose and scope of the audit, it is our opinion that, overall, construction management policies and procedures and internal controls and processes related to the administration of construction projects financed with Proposition 1D funding – specifically, the bid and award process, change order execution, and compliance with funding requirements – are operating satisfactorily and generally in compliance with applicable University policies and procedures.

Capital Programs has developed and implemented financial and administrative processes and procedures with the goal of providing effective controls over construction management processes.

We observed an area that needs improvement to strengthen internal controls and/or effect compliance with University policy.

At the time that the Student Services Building (formerly the Student Academic Support Services Building) construction project Change Order No. 3 was processed, Capital Programs did not include the Office of Design & Construction (currently known as Architects & Engineers), and the former Office of Design & Construction did not have a consistent and effective procedure for reviewing and approving the work of consultants or performing detailed checks of contractor change order cost proposals at that time.

Minor items that were not of a magnitude to warrant inclusion in the report were discussed verbally with management.

II. INTRODUCTION

A. PURPOSE

University of California, Riverside (UCR) Audit & Advisory Services (A&AS), as part of its Audit Plan, performed an audit of construction management activities to evaluate compliance with certain University policies and procedures, efficiency and effectiveness of selected operations,

and adequacy of certain internal controls. This audit is a systemwide effort under the direction of the Office of Ethics, Compliance and Audit Services.

B. BACKGROUND

The University operates an extensive design, construction, and renovation program. The University makes a substantial investment in each capital project and has instituted policies and procedures to guide project construction.

In November 2006, California voters approved Proposition 1D, general obligation bonds that provided a total of \$10.4 billion. The bond measure allotted a total of \$890 million to the University of California: \$690 million to fund construction and renovation of facilities to address enrollment growth, seismic and life safety needs, and renewal of outdated infrastructure, and an additional \$200 million for infrastructure to expand medical school enrollment and build and enhance telemedicine programs throughout the state.

UCR construction projects financed with Proposition 1D funding are as follows:

Boyce Hall and Webber Hall Renovations	\$32,676,000	Design & Construction
Student Academic Support Services Building	18,035,000	Construction
Geology Building Renovations	9,025,000	Design & Construction
East Campus Infrastructure Improvements	8,893,000	Design & Construction
Culver Center for the Arts	8,065,000	Design & Construction
Materials Science and Engineering Building	4,620,000	Equipment
Psychology Building	1,612,000	Equipment
CHASS Instruction and Research Facility	940,000	Equipment
Batchelor Hall Building Systems	402,000	Design
TOTAL	<u>\$84,268,000</u>	

The UC Facilities Manual (FM) is intended to allow easy access to important policies, procedures, and guidelines for facilities management and operation, including construction contracting, construction documents, bidding, and construction administration. Each Campus within the UC System is encouraged to develop its own procedures manual that expands on and complements FM content.

In August 2011, the UCR Capital Programs division was organized to foster administrative efficiencies and maximize the operational effectiveness of the planning, design, and construction enterprise on campus. The division consists of four major units: Capital Resource Management, Capital Finance & Real Estate, Architects & Engineers (A&E) formerly known as the Office of Design & Construction, and Sustainability.

Capital Resource Management is responsible for the development of the Capital Improvement Program, physical planning, and campus-wide space management and inventory. A&E is responsible for the design and construction of new buildings, renovation of existing buildings, renewal of building systems and facilities and deferred maintenance, and seismic retrofit projects on campus.

C. **SCOPE**

Audit procedures were performed to evaluate the effectiveness of construction management policies and procedures and internal controls and processes related to the administration of construction activities, specifically: the bid and award process, change orders execution, and compliance with funding requirements.

The scope of the audit was principally limited to the review of selected construction projects financed with Proposition 1D funding.

Overall Business Operations Review

- Reviewed University policy and procedures pertaining to facilities management, in general; and bidding and construction administration policies, construction contracting, construction documents, contract modifications, and capital budget and finance, in particular.
- Discussed significant capital improvement program activities with Capital Programs management and staff and selected campus department personnel.

Bidding and Contract Awards

The evaluation and selection of contractors leading to the award of construction contracts is a vital part of the construction process. California State law requires University projects that exceed a cost of \$100,000 to be publicly advertised for competitive bidding and the construction contract to be awarded to the bidder submitting the lowest dollar bid who is qualified and deemed to have the ability to satisfactorily perform the work.

- Reviewed Capital Programs' bidding and contract award process and available documentation, including prescribed bid package documents and pro-forma records for compliance with University policy and procedures.
- Selected the Boyce Hall and Webber Hall Renovations project (Project No. 950462);
 - This design and construction project will upgrade and modernize the mechanical, electrical and plumbing building systems within both buildings; reconfigure and renovate existing obsolete laboratories,

- support and office areas on the fourth and fifth floors of Boyce Hall and third floor of Webber Hall;
- Proposition 1D funds for this project: \$32,676,000;
- Work on this project commenced on November 5, 2012 and should be completed 730 days thereafter on November 4, 2014;
- This project was advertised for contractor prequalification and for competitive bidding by prequalified bidders.
- Reviewed advertisements for contractor prequalification and for bids (after prequalification), prequalification submittals, including questionnaires, associated documents, and evaluation records, prequalified contractors' submittals, bidding and contract award documents, and related records, notes, and correspondence provided by Capital Programs, A&E.

Change Orders

A change order is a post-award modification to the contract. A change order may revise, add to, or delete previous requirements of the work, adjust the contract sum, or adjust the contract time.

A contract may require substantial changes to the work after award. If the cost of a change in the scope of work to be accomplished by a change order or series of change orders exceeds \$100,000 or if the proposed changes in design are not incidental to the scope of the work as bid, the work may only be performed by change order if FM provisions for substantial change orders are met.

- Selected the Student Services Building project (Project No. 950457);
 - This building was formerly called the Student Academic Support Services Building
 - This construction project provided a new building for office and support space to address the needs of core administrative student services functions including Admissions, Financial Aid, and the Registrar in response to current and projected enrollment growth;
 - Proposition 1D funds for this project: \$18,035,000;
 - This project was completed in January 2009;
 - The contract was modified by 10 change orders, for a combined (net) additive amount of \$444,674;
 - Only one (1) change order was for an amount exceeding \$100,000.
- Selected Change Order No. 3 (\$202,481) for a detailed review of change order processing and cost verification procedures.
- Reviewed Change Order supporting documents including change order justification / cost verification records, project management and design team review notes and correspondence, contractor/subcontractor cost proposals, estimates, and other cost information details provided by Capital Programs, A&E.

Restrictions / Requirements Attached to Funding

- Reviewed the UCOP Capital Markets Finance Guide and major capital improvement Project Approval Process.
- Reviewed and evaluated the adequacy of departmental practices, procedures, and control structure to monitor compliance with funding restrictions and requirements for construction projects.

D. INTERNAL CONTROLS AND COMPLIANCE

As part of the review, internal controls were examined within the scope of the audit.

Internal control is a process designed to provide reasonable, but not absolute, assurance regarding the achievement of objectives in the following categories:

- * effectiveness and efficiency of operations
- * reliability of financial reporting
- * compliance with applicable laws and regulations

Substantive audit procedures were performed during March through May 2013. Accordingly, this evaluation of internal controls is based on our knowledge as of that time and should be read with that understanding.

III. OBSERVATIONS, COMMENTS, AND RECOMMENDATIONS**Insufficient Review of Change Order Cost Proposal Summary**

At the time that the Student Services Building construction project Change Order No. 3 was processed, Capital Programs did not have a consistent and effective procedure for reviewing and approving the work of consultants or performing detailed checks of contractor change order cost proposals.

COMMENTS

Capital Programs A&E retains all original records that support completed construction change orders. During our review of Change Order No. 3 documents, we determined that the cost proposal summary was not adequately supported by detailed calculations that demonstrate the correct summation of contractor and subcontractor costs. For our review, A&E contract administration applied its current change order due diligence process and performed a detailed verification of contractor/subcontractor prices, cost computations, and proper summarization using original contractor quotes and vendor invoices. We discovered numerous

calculation errors that were not detected by the construction management firm responsible for reviewing and recommending approval of change orders or by the designated A&E project manager. Verified contractor prices and vendor invoices support a total change order cost of \$216,305. Although this amount is about \$13,824 greater than the \$202,481 change order that was actually executed, the fact that errors were not detected by construction managers (consultants) and Capital Programs indicates a risk for miscalculations and/or errors in amounts charged because of an ineffective process of performing detailed reviews of contract change order cost proposals submitted by contractors at that time. Capital Programs relies on consultants to review change orders and make recommendations as part of its management contract. However, responsibility for construction projects and all change orders remains with Capital Programs and ultimately, with Campus management.

RECOMMENDATIONS

Capital Programs should develop and implement a policy or standard procedure for reviewing and approving the work of consultants as well as processing change orders, to include verifying contractor and vendor prices, determining if prices are reasonable, negotiating prices, auditing change order cost proposal summaries for correctness, and ensuring adequate and appropriate documentation.

MANAGEMENT RESPONSE

The current change order due diligence process did not exist in the Office of Design & Construction at the time Change Order No. 3 was processed in 2008. Since that time, the University has hired personnel with experience in internal controls policies and procedures. In June 2010, the University centralized responsibility for internal controls with specific critical positions in Capital Programs. As demonstrated by the application of the current change order due diligence process to Change Order No. 3, the personnel in these positions have since developed and implemented policies and procedures for reviewing and approving the work of consultants as well as processing change orders, verifying contractor and vendor prices, determining if prices are reasonable, negotiating prices, auditing change order cost proposal summaries for correctness, and ensuring adequate and appropriate documentation.