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June 30, 2011

**VICE CHANCELLOR MILLER**

**Subject: Final Audit Report No. M11A001B  
Construction Review of Social Sciences and Management Building  
Part II (Bid Process and Construction Manager Pay Applications)**

Attached is the final report on our Construction Review of the Social Sciences and Management Building No. M11A001B. It includes action plans that were developed by members of your staff. These action plans will be entered into the TeamCentral database and monitored until completion. With the issuance of this final report, please destroy any previous draft versions. As a project life-cycle review this report is the second of two reports during the course of this audit. I have assigned the letter B to indicate this is the second report.

We very much appreciate the assistance provided to us by you during our review. If you should have any questions, please feel free to contact me at 510-987-0482 (e-mail: [Susana.Atwood@ucop.edu](mailto:Susana.Atwood@ucop.edu)) or Doug Creech at 704-545-07833 (e-mail: [creechd155@msn.com](mailto:creechd155@msn.com)).

  
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Attachment

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UNIVERSITY OF CALIFORNIA  
ETHICS, COMPLIANCE AND AUDIT SERVICES  
OFFICE OF THE PRESIDENT  
INTERNAL AUDIT SERVICES

UNIVERSITY OF CALIFORNIA, MERCED  
CONSTRUCTION REVIEW OF SOCIAL SCIENCES AND MANAGEMENT BUILDING  
– PART II (BID PROCESS AND CONSTRUCTION MANAGER PAY APPLICATIONS)  
Audit Report No. M11A001B  
June 2011

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## **EXECUTIVE SUMMARY**

### **Introduction**

A construction review of the Social Sciences and Management Building (SSMB) was included as part of the annual audit plan for 2010-2011 approved both by the Chancellor's Cabinet and the Regents. The budget for the building is \$47,650,000 under a Construction Manager, multi-prime project delivery method. This document represents the last of two proactive project lifecycle reviews that are being carried out as the construction of the building is in progress. This report focuses on: 1) a review of the bid process used to select the prime contractors and 2) reviews of a selected sampling of pay applications submitted by the Construction Manager (CM).

### **Objectives and Scope**

The primary objective of the SSMB audit was to perform proactive audits of project management to assess the contractor's compliance with the provisions of their respective contract documents. The audit included:

1. The review of a prime contractor based on a risk analysis of the contracts/contractors and the work to be performed to include reviews of selected pay applications and change orders,
2. A review and evaluation of the bid process used to select the prime contractors, and
3. A review of selected pay applications submitted by the Construction Manager.

Audit Report No. M11A001A issued in January 2011 focused on prime contractor Berkeley Cement, Inc. This report includes the review of the bid process and selected pay applications submitted by the Construction Manager.

### ***Bid process***

The bid process as administered by the project team was compared to the requirements of the UC Facilities Manual. Bidding was administered via the use of two bid release packages:

1. Bid Release One (BR#1) which included eight packages of work associated with the early construction effort including Earthwork, Site Utilities and Surveys; Structural Concrete; General Conditions; others, and
2. Bid Release Two (BR#2) which included 18 packages of work consisting of Structural Steel, Mechanical, Electrical, Carpentry and Casework, Roofing, and others.

I reviewed the bidding procedures included in the UC Facilities Manual and evaluated the advertising for bids process, administration of the bid process including pre-bid conferences/attendance, the bid evaluations and bidder selections, and other processes as performed by the project team. Attention was focused on how well the bid process worked.

The bid climate was good and administration of the bidding process was generally well managed.

### ***Construction Manager Pay Applications***

A total of six judgmentally selected pay applications were reviewed to determine if contractor billings were submitted in compliance with the contract. Primary focus was on billing rates, hours billed and cost reimbursable expenses. A total of \$3,704 of over-billings was identified with no other significant exceptions noted.

## **Overall Conclusions**

A few issues and areas for improvement include:

1. Documentation of the advertisement for bids can be improved by archiving copies showing the names of the newspapers and trade periodicals used and dates of publication,
2. Pre-bid conference management and attendance recordkeeping can be improved to better document compliance with the UC Facilities Manual,
3. Packages of work that receive few bids may not fully profit from the competitive bidding process and could possibly benefit from alternative strategies,
4. Low ball bidders increase an owner's risks/exposure to inferior performance and other pitfalls and should be avoided, and
5. Verification of receipt of goods and services can be improved.

## **Management Corrective Actions**

*Management has provided Action Plans that address the issues identified in the report and as detailed in the Opportunities for Improvement Section.*

## **OPPORTUNITIES FOR IMPROVEMENT AND ACTION PLANS**

### **1. Advertisement for Bids**

University policy requires a request for bids be advertised twice within a 60-day period preceding the date set for receiving bids, in one newspaper AND one trade paper circulated in the county where a major portion of the work will be performed.

The University copies of the advertisement for both bid releases were obtained and reviewed. No copies or other documentation of the publication of the advertisement for bid release number one were provided. The project team did explain that the project was advertised in the Merced Sun Star and on web sites for the Valley Builder's Exchange in Modesto and Fresno and the Stockton Blue E-commerce site.

Proof of two separate publications in the Merced Sun-Star newspaper was obtained for bid release number two. No proof of publication in a trade paper could be obtained.

While it is apparent the requests for bids were advertised, documentation as to which publications were used and compliance with the 60-day requirement could not be confirmed. Improved record-keeping would better enable internal audit to independently assess whether the advertising process was in fact executed as required by UC policy.

#### ***Action Plan:***

*The Contract Administrator will require documentation and retention of advertising for all bids. Documentation for the two most recent bid packages has been retained. These packages did meet the requirement noted above. That is, two newspaper advertisements within 60 days and one trade publication.*

*Target Date: This action was implemented prior to the issuance of this report*

### **2. Pre-bid Conferences and Bidder Attendance**

The UC Facilities Manual, Vol. 5 Part 1, Chapter 5, Section 5.1.3 specifies "The Instructions to Bidders informs bidders that they must attend a pre-bid conference, in its entirety, to familiarize themselves with contract requirements. Bidders are required to sign an attendance list which is used to determine if bidders have met the attendance requirement...A bid submitted by a contractor failing to meet the pre-bid conference attendance requirement is considered non-responsive...and must be refused or returned unopened to bidder."

The advertisement for bids for both bid release #1 and bid release #2 indicated that the pre-bid conference was non-mandatory. The UC Merced project manager explained that the decision to make the pre-bid conference non-mandatory was made to, "encourage an increase in bidder response, since the remoteness of our location has often been cited as a reason for low bid response in the past. Our current practice is to require attendance at pre-bid conferences." He also stated that he personally had knowledge that sign-in logs for BR2 were maintained but the Construction Manager does not have the sign-in logs.

The current practice plus improved recordkeeping of pre-bid conference attendance will result in improved compliance with the Facilities Manual.

**Action Plan:**

*The current practice is to require attendance at pre-bid conferences for all large contracts. The Contract Administrator is currently in discussions with the UCOP Associate Director of Construction Policy to determine if an exception can be made on the pre-bid conference requirement for small value contracts which remains an obstacle to increase bidder response. These discussions will be concluded by the target date below.*

*The Contract Administrator will require attendance at pre-bid conferences for large contracts.*

*Target Date: 08/01/2011*

**3. Bidder Response**

An evaluation of the effectiveness of a bid process includes an examination of the number of bids received for each package of work put out to bid. The industry accepted norm for the preferred number of bids is 4-5 per package. When 4-5 bids are received the normal variance from a quality engineering estimate with complete construction documents is -4 to +4%. Fewer bids result in wider variances and increase the owner's risks to higher costs. Accepted deviations from quality engineering estimates are:

2-3 bids	+8 to +12%
1 bid	+15 to +40%

(Reference - Saylor Current Construction Costs, published annually by Saylor Publications, Inc. which uses the San Francisco area as the base, with major cities cost relationship indexes for nationwide use.)

A review of the bid summaries for both bid package #1 and bid package #2 determined the number of bids received for most packages of work were at the preferred 4-5 level or higher. However, four packages of work received less than the preferred level of bid participation and included:

- Bid Release #1, Package 1.2 - Rebar - The advertised (owner's estimate) value was \$400,000. Only one bid was received and it was in the amount of \$1,547,000 for both labor and materials. The work was awarded to the lone bidder at the bid amount.
- Bid Release #1, Package 1.6 - Elevators - The advertised value was \$911,633. Only one bid was received and it was in the amount of \$444,133. The work was awarded to the lone bidder at the bid amount. The project team explained that obtaining bids for elevator work at UC Merced is a recurring problem and they rarely get more than one bid.
- Bid Release #2, Package 2.03 - Concrete & Rebar - The advertised value was \$300,000. There were only two bids and the work was awarded to the low bidder at \$487,500.
- Bid Release #2, Package 2.13 - Flooring, Tile, Grind/Polish - The advertised value was \$900,000. There were only two bids and the work was awarded to the low bidder at \$1,197,190.

Packages 1.2 (Rebar), 2.03 (Concrete & Rebar), and 2.13 (Flooring, Tile, Other) at a combined award value of \$3,231,690 may have included a cost penalty of 10% or more.

**Action Plan:**

*UCM Design and Construction is reviewing other delivery methods. However, the remoteness of Merced from economic centers contributes to the low number of construction bids. Should they change their delivery method, it would lower their risks associated with accepting bids that deviate from quality engineering estimates. A pilot project using the Design Build delivery method is underway and will contribute to the discussions about an alternative solution for low bidder response. These discussion will be completed will be completed by the target date below.*

*Target Date: 08/01/2011*

#### **4. Potential Low Ball Bids**

In an environment where an owner is required by law to award work to the lowest responsible bidder, there is an increased risk of receiving low ball bids. Low ball bids may be defined as proposed pricings that are significantly lower than the average of the other competitive pricings and are intended to "buy" the work. Awarding work to low ball bidders significantly increases an owner's risk/exposure to incompetent bidders, distressed (in desperate need of cash) contractors, claims and related legal expenses, schedule delays, lesser skilled workers and poor quality work, substitutions of inferior materials and equipment, and excessive change order requests.

My analysis of the bids received for the SSMB project identified two potential low ball bids:

1. Bid Release #1, Package 1.3 Concrete - awarded to Berkeley Cement, Inc. at an amount 35% lower than the average of all other bids, and
2. Bid Release #2, Package 2.14 Paints & Coatings - awarded to Nelson's Painting, Inc. at an amount more than 40% less than the average of all other bids and greater than 50% less than the advertised estimate.

***Action Plan:***

*UCM Design and Construction is reviewing other delivery methods that might protect them from low ball bids. However, the remoteness of Merced from economic centers contributes to this risk. Should they change their delivery method, it might lower their risks associated with bids that are significantly lower than other qualified bids and related quality engineering estimates. The discussions about an alternative solution for low ball bids will be completed by the target date below.*

*Target Date: 08/01/2011*

#### **5. Construction Manager Man Hour Billings**

Construction Manager's contract specified a not-to-exceed amount for services rendered "payable monthly as services are rendered in accordance with the attached rate schedule . . ." Accurate verification of actual services received is required to ensure billings are appropriate.

A comparison of actual hours billed versus the CM's man hour report revealed potential over-billings in the amount of \$3,529. Additionally, one potentially non-billable overhead expense in the amount of \$175 (a business license) was identified.

***Action Plan:***

*The Construction Manager has already made corrections for the billing errors identified by this audit. The UCM Contract Administrator will review all other Construction Manager's billings compared to the man hour reports to determine if there are additional overpayments.*

*Target Date: 10/01/2011*