



**CHANCELLOR'S OFFICE
NEW HEADQUARTERS BUILDING**

Final Report

August 16, 1999

**California State University
CHANCELLOR'S OFFICE
NEW HEADQUARTERS BUILDING
CO-627B**

PRE-COMPLETION REPORT

GOAL

The goal of KPMG, LLP's review of the California State University, Chancellor's Office - New Headquarters Building was to evaluate the following areas of project delivery:

**CHANGE ORDERS
PROJECT MANAGEMENT SERVICES
CONTRACTOR BILLINGS
CONTRACTING COMPLIANCE
LIQUIDATED DAMAGES
PROJECT ADMINISTRATION PROCESS COMPLIANCE
VERIFICATION OF MAJOR EQUIPMENT AND COMPONENTS
CLOSEOUT DOCUMENTS**

INTRODUCTION

The purpose of this review is to provide the Trustees of California State University with assurance that appropriate procedures and controls are applied to the construction process as identified in the contract documents issued for the New Headquarters Building project at the Chancellor's office in Long Beach. Based on our 1998 review and subsequent findings, the Office of the University Auditor revised the scope of the 1999 engagement to include, among other changes, submittal compliance verification for a sampling of major equipment items and building components.

KPMG is reviewing this project in a "two-step" approach. The review prior to construction completion will provide CSU with project compliance information prior to final negotiations with the Contractor and ascertain that all project documents accurately reflect the completed project. We will provide an update to this interim report once the project closeout process is completed.

KPMG's work was conducted by reviewing project construction documents during the period of January 10, to February 26, 1999. The review included:

- Interviews with personnel from the Office of the Chancellor, Division of Capital Planning, Design and Construction (CPD&C), in Los Alamitos
- Discussions with Owner's Project Management consultant
- Reviews of project files at CPD&C's office
- Reviews of project files at S. J. Amoroso Construction Company, Inc.'s (Contractor) offices in Foster City and Owner's Project Management job site office
- Sample auditing of documents for cost and process compliance

This review is based on the information contained within the project files at both the Owner's (for the purposes of this report, Owner shall mean CPD&C), Contractor's office and Owner Project Management job site office. Physical inspections and field verifications were not conducted as a part of this review and were specifically excluded from KPMG's work.

CONSTRUCTION PROJECT DESCRIPTION

The project consisted of construction of a six-story office tower, conference center and related sitework located at Golden Shore, Long Beach, California. This was considered Phase II of the Project. Phase I was a separate project for the construction of a set of stone columns. The existing building currently located across from new construction is to be demolished after asbestos abatement and is being handled as a Change Order to the original project (referred to as Phase III). The administrative processes for the project remained the responsibility of CPD&C. The bid proposal provided \$2,000 per day for liquidated damages due to contractor delay.

Plans and specifications were prepared by LPA, Inc. (A/E Consultant). The pre-bid construction estimate was \$22,736,000. The Bid Proposal Form issued by California State University included requirements for seven Deductive Alternates.

Bids were received on July 8, 1997, at the Chancellor's Office - WestEd Location in Los Alamitos. There were six bidders. Nielsen Dillingham Builders submitted the low base bid but withdrew their bid based on clerical errors in accordance with the Public Contract Code Section 5100 *et seq.* The second lowest base bid was submitted by S. J. Amoroso Construction Company, Inc. in the amount of \$23,795,000. A contract was executed with S. J. Amoroso (Contractor) on July 28, 1997, in the base bid amount. Notice of Completion (Construction Mgmt. Form 702.02) had not been filed at the time of this review.

CHANGE ORDERS

Findings:

The original agreement entered into by the Owner and Contractor was based on a lump sum amount. KPMG's review included reconciling change orders issued by the Owner to the change orders issued to subcontractors by the Contractor. The Owner had methods to track requests for, causes of, associated costs, and final dispositions of change orders. At the time of this review, the Headquarters Building project had approved Change Orders through Number 13 totaling \$2,317,338. This represents an additional 9.7% in project costs beyond the original construction contract amount of \$23,795,000. At the time of this review, the Contractor had billed through Change Order No. 11 indicating that the project was approximately 85% complete (per Contractor's Payment Request No. 15 dated December 3, 1998).

In addition to data provided by CPD&C, the Owner's project management firm, O'Connor Construction Management, Inc. (O'Connor) provided a detailed Change Order Report that included a description of each Change Request. The report included a listing of the Contractor's Change Proposal Request (CPR), a reference to the appropriate Change Request Bulletin, Field Instructions, Request for Information, Owner's Change Order Number and the Final Change Order Amount.

KPMG's review of this document revealed that approximately 68 Change Proposal Requests have been incorporated into the 13 Change Orders. O'Connor presented a report that sorted each change request by origination/source of the change. Of the \$2,317,338 in change orders, \$1,850,000 (Change Order No. 12) is directly related to the demolition of the existing Chancellor's office. Since the project was not complete at the time of the KPMG review, we have not included a final recap of changes by source. This will be included in the final report submitted to CSU.

Exclusive of Change Order 12 for demolition of the existing building, KPMG sampled approximately 27 CPR's totaling \$501,734. The CPR's sampled were traceable to actual subcontract change orders without any significant deviations. The Contractor's records cross-referenced the Owner's change order on each subcontract change order. KPMG found the Contractor's records to be in adequate order.

Recommendations:

1. We recommend the following:
 - a. A standardized change order log or summary be prepared that includes a sequential, running total of changes issued to the construction contract. Alternatively, a running total of previously approved changes should be identified on the change order form. Both of these methods of change order tracking are standard industry practices utilized to provide information necessary to verify the accuracy of contractor's billings.

Guidelines and standard forms should be developed for system-wide use wherever feasible.

- b. CPD&C should develop University standardized change order logs to be utilized by all project management firms wherever feasible. We have found that these important management tools vary from project to project, depending on the consultants employed.

Management's Response:

- a. We agree to develop a standard form and guidelines for systemwide use. Form 703.04L, Change Order Log, was included in Project Administrative Reference Manual, revised September, 1999.
- b. We agree, as stated above in Item 1-a.

PROJECT MANAGEMENT SERVICES

Findings:

Six project management firms were invited by CPD&C to present fee proposals and descriptions of their proposed project approach for the Headquarters Building project. Five firms submitted proposals and O'Connor Construction Management was selected to provide project management services. A service agreement formalizing this decision was executed on June 23, 1997.

Project Management services were to be provided from August 1, 1997, through March 31, 1999. The agreement included Project Management (\$56/hr), Construction Inspector (\$48/hour), and Clerical Assistance (\$24/hour) at a cost of \$450,000, or \$23,684 per month over a 19-month period. The agreement provided that office supplies and postage were not to exceed \$1,500. Amendment No. 1 in the amount of \$9,451.20 was issued October 9, 1998, to cover a 4% increase in billing rates and to cover additional services of the inspector to review a claim filed at Humboldt State University. The revised service agreement equaled \$459,451.20.

Contractual project management services were calculated to be 1.9% of the original construction contract amount of \$23,795,000, and 1.8% of the construction contract amount to date in the amount of \$26,112,338 (through Change Order No. 13). At the time of KPMG's review, the amount paid to O'Connor was \$234,731 (51% of the Service Agreement). Due to reduced scope of services and an overlap of Phase I services (covered under a separate agreement with O'Connor), CSU will realize substantial savings on this service. The cost paid for project management service is well within industry averages (2.5% - 3.5%). A final analysis of O'Connor's billings will be performed at project completion.

As noted in previous reports, CPD&C procedures include minimum desired qualifications for construction inspectors. These include certification by either ICBO (in general building,

structural steel and concrete), or OSHPD, or DSA, or an equivalent level of certification. There was no reference in the service agreement requiring O'Connor to provide evidence of their personnel's certification. Contract documentation notwithstanding, KPMG was able to confirm that the Inspector of Record employed for this project is certified by ICBO.

Recommendations:

2. We recommend:
 - a. CPD&C develop Project Management cost guidelines for future projects.
 - b. Standard language be included in Project Management Service Agreements requiring Inspectors of Record to be certified by ICBO, OSHPD, DSA, or to hold an equivalent certification. Additional language should be incorporated requiring that proof of certification for key personnel be filed with CPD&C upon execution of the service agreement.
 - c. Expending funds for another campus project (HU-245, Humboldt) within the scope of this project represents unusual project management and accounting methodology. CPD&C should provide documentation to confirm that funds from the Humboldt project were used to cover these costs.

Management's Response:

- a. We agree to develop project management and inspection cost guidelines for systemwide use. This will be done by December 31, 1999, and will be included in SUAM.
- b. We agree, but we have also successfully used engineers and architects as inspectors. Therefore, we would add to the credential requirements "... architect, engineer, or equivalent qualification." This clarification was included in the Project Administration Reference Manual, revised September, 1999. Requiring proof of certification to be included in service agreements will be done by December 31, 1999, and will be included in SUAM.
- c. We agree this was an unusual expense, and documentation was provided at the auditor's exit conference demonstrating that the services were paid by the Humboldt campus.

CONTRACTOR BILLINGS

Findings:

The A/E Consultant is required under the Contract General Conditions (Article 8.02 and 8.05) to review and approve each "Contractor's Pay Request." We found S. J. Amoroso's pay requests to be appropriately approved by the A/E Consultant, Inspector and CPD&C.

Recommendations:

None

CONTRACTING COMPLIANCE

Findings:

KPMG sampled the most significant statutory compliance requirements identified in the contract specifications. The following requirements were tested:

- **Bonding:** KPMG examined Contractor's Payment and Performance bonds in the amount of \$23,795,000 and found them to be in accordance with Owner's specifications.
- **Bid Tabulation Procedures:** KPMG found the bid process to be acceptable as outlined in the CSU Contract General Conditions (Article 2.00 Bidding). The Abstract of Bids (CSU Construction Management form 701.01) identified the six bidders and pricing for the project. KPMG reviewed the original bids and found the Abstract of Bids was completed correctly and included the certifications and signatures of the persons receiving and recording the bids.
- **Proposed Subcontractors:** Per Article 2.06.b of the CSU Contract General Conditions, each Contractor shall submit a list of each subcontractor which will perform work or labor or render services in excess of one-half of one percent of the Contractor's total bid. This information was submitted on CSU's Construction Management form 701.04, "List of Proposed Subcontractors".
- **Expanded List of Subcontractors:** Per the same article of the Contract General Conditions, the low bidder was to resubmit the subcontractor list (CSU Construction Management form 701.04A) with detailed addresses, phone numbers and license numbers. This "Expanded List of Subcontractors" reflected the same subcontractors as proposed. There were no phone numbers included for any subcontractor and a license number was omitted on one subcontractor (this subcontractor was eventually substituted).

KPMG found the "Expanded List of Subcontractors" included 16 subcontractors that performed

work. Eight subcontractors had been substituted. We confirmed that six of the eight subcontractors were substituted in accordance with the Contract General Conditions Article 4.03. Of the remaining two, one subcontractor's cost value was less than ½ of 1% of the construction contract and therefore did not have to be listed nor are they subject to the requirements for substitution. The remaining subcontractor did not have a license and therefore was appropriately substituted.

Recommendations:

3. We recommend:

- a. Owner should require Contractor to confirm that contractors submitted on the "Expanded List of Subcontractors" are issued subcontracts by the Contractor for work on the project. If deviations exist, Owner shall make certain that any substitutions comply with the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100 *et seq.*).

Management's Response:

- a. We agree. We will develop procedures for systemwide use for policing use of subcontractors. This will be done by December 31, 1999, and will be included in SUAM.

LIQUIDATED DAMAGES

Findings:

Liquidated damages in the amount of \$2,000 per calendar day were included in the Bid Proposal Form for the New Headquarters Building project. Since the project was incomplete at the time of the review, final settlements had not been completed.

Recommendations:

None

PROJECT ADMINISTRATION PROCESS COMPLIANCE

Findings:

KPMG selected various areas of review to determine if CPD&C provided adequate controls to assure that construction was in accordance with project specifications. As part of this review,

KPMG examined procedures for both geotechnical and materials testing. Per Article 2.16 of the General Conditions, the Owner, rather than the contractor, utilizes at least three proposals and arranges for outside testing laboratories through a service agreement. This practice is standard industry procedure and designed to assure that firms providing testing services remain independent of the project contractor.

Twining Laboratories was awarded the materials testing service agreement that included test and inspections for concrete, reinforcing steel, structural steel and assembly, masonry, roofing, waterproofing, and fireproofing. Based on KPMG research, Twining Laboratories is a reputable testing firm that is approved by California Division of the State Architect and an approved inspection agency for structural inspection and certification. Twining's original agreement, dated August 4, 1997, was in the amount of \$98,028 and covered services through August 31, 1999. Twining submitted comprehensive testing reports for review by the A/E Consultant, CPD&C, Contractor and O'Connor. Additionally, a review of the firm's invoices determined that individual invoices were approved by both the Construction Inspector and CPD&C. O'Connor utilized actual time tickets and field reports in authorizing payment. O'Connor maintained these records as part of their files. KPMG sampled laboratory invoices and found that tests and pricing were in accordance with the service agreement. Based on a random review of specific tests, we found that the testing specifications and requirements of Volume 2 of the Project Manual were generally met or exceeded.

Geotechnical services were provided by Woodward-Clyde Consultants. KPMG found that Woodward-Clyde is a worldwide organization with 85 offices. They are a multi-service firm based in Denver, Colorado, with an office in Santa Ana, California. A service agreement was executed February 10, 1997, in the amount of \$177,147 for Phase I foundation work. Due to field operations, additional services for Phase II and consultation on general contractor's claim related to Phase I foundation work, two amendments were issued which increased the total agreement to \$220,147. Woodward-Clyde Consultants submitted a satisfactory proposal that dealt with the unusual site conditions at Golden Shore. At the time of our review, total amounts expended against the service agreement were \$212,274.35.

In addition to outside consultants performing independent testing services, O'Connor utilized an "Inspection Log Request". At the time of our review, the log identified 176 tests that were performed by the Inspector of Record, the date of inspection, area/material inspected, and the approval of work. We found this log to be an excellent tool for added control and valuable project documentation.

Recommendations:

4. We recommend:

- a. Testing Laboratories should attach the "time tickets" and/or testing reports to each invoice approved prior to submission to Owner for payment.

Management's Response:

- a. We agree to modify our systemwide guidelines to include this recommendation. This will be done by December 31, 1999, and will be included in SUAM.

VERIFICATION OF MAJOR EQUIPMENT AND COMPONENTS

Findings:

As part of our evaluation to verify whether equipment and construction components were provided in accordance with project specifications, KPMG reviewed the submittal procedures outlined under the General Conditions, Article 5.04. As is standard throughout the construction industry, the Contractor was responsible for submitting data and specifications for materials and equipment, along with shop drawings if required, to the A/E Consultant. Article 3.11 of the CSU Project Administration Reference Manual states that the Project Manager/Construction Inspector shall assist in the submittal process.

KPMG found that O'Connor (Project Manager) included a submittal log in their monthly reports to CPD&C. As of February 22, 1999, there were 368 Submittals and Revisions. Approximately 106 submittals were approved upon initial submission. An additional 113 submittals were approved upon initial submission but included A/E notations. KPMG's review covered approximately 14% of all submittals. Since the project was still in progress, a number of submittals were still actively being reviewed as part of the submittal approval process.

While in O'Connor's job site office, we were provided all submittal detail and sampled a number of the approved submittals and found that all included appropriate evidence of conformance with CSU specifications.

We reviewed the following submittals in greater detail:

Submittal 06 - Concrete Mix Designs 03300: Submitted on September 30, 1997, and approval for elevator pit only was issued October 8, 1997. Requested re-submittal of mix designs #16546 and #15336. These were resubmitted as part of 036A.1 on October 24, 1997. The concrete mix designs were approved on October 24, 1997, and stamped by a Registered Professional Engineer.

Submittal 045 B - Screw Chillers 15800: Original submittal dated October 29, 1997, was noted "Revised and Resubmit" on November 11, 1997. Was resubmitted as 045B.1 on December 16, 1997 and returned with the same indication. On March 26, 1998, 045B.2 was resubmitted and approved on April 1, 1998.

Submittal 045 C, H, I, K, S - Cooling Towers, Build Up Speed Driver, Built-Up AHU, Cooling Coils, Large Utility Set Fans, HVAC Sound Traps, 15800: Original submittals were dated October 29, 1997. Rejected proposed substitutions stating "Not Equal Product" on November 01, 1997. Overland Mechanical (subcontractor) furnished an extensive analysis

between the Marley and Evapco systems. Submittal 045C was resubmitted on February 6, 1998, and approved on March 4, 1998. 045H, I, K and S were resubmitted December 16, 1997. The A/E Consultant presented a letter from the Consulting Mechanical Engineers dated December 19, 1997. They found the Marley system failed to meet specifications. Subsequent to this letter, submittals 045 H, I, K, and S were rejected on January 8, 1998. Submittals 045 H, I, K, and S were resubmitted and approved on March 19 and 30, 1998.

Submittal 078 - Sanitary Sewer Lines 02720: Originally submitted on November 24, 1997. With the exception of the sewer line clean-out, the submittal was approved December 3, 1997. KPMG questioned O'Connor regarding the clean-outs and was informed that clean-outs are not being installed in Phase II and therefore a re-submittal was not required.

Submittal 131 - Dimming System 16915: Originally submitted on January 26, 1998. The Consulting A/E submitted a letter from the Electrical Engineer dated February 23, 1998. The engineer found the Lithonia dimming system did not meet project specifications. Specifically; 1) system was not ISO 9001 certified, 2) dimming panels were not pre-wired, and 3) circuit panels were UL489 listed. Submittal was rejected February 26, 1998. Resubmitted as 131.1 on July 6, 1998, with a Lutron system. Again, the Electrical Engineer rejected the submittal based on significant operational variances from what was required in the project specifications. On September 23, 1998, 131.2 a revised Lutron system was resubmitted. The Electrical Engineer approved the system on October 15, 1998, indicating minor adjustments.

In addition to reviews by the A/E Consultant, Owner's representative, Inspector of Record and regulatory city/state inspectors, the CSU Construction Mgmt. Form 702.19 requires that the general contractor and subcontractors guarantee that materials/systems have been installed in accordance with the Plans and Specifications.

Recommendations:

None

CLOSE-OUT DOCUMENTS

Findings:

Since the project was not complete at the time of this review, no close-out documentation existed. Client and KPMG agree that follow-up review of this project is unnecessary based on the findings of our pre-completion review.

CONCLUSION

KPMG found the project to be competently managed by CPD&C with the assistance of O'Connor. We found O'Connor's personnel diligent and thorough in project responsibilities. Given the scope of the project, the current Change Order total to date, exclusive of CO No. 12 for the demolition of the existing Headquarters Building, represents less than 2% of the overall construction cost. This is well within the expected range for a project of this size and, overall, is indicative of a well-managed construction process.

This project is unique since it is not a campus improvement. However, KPMG found the "two-step" review approach provided a means of evaluating the services of the Owner's project management firm while still on-site, rather than relying on documents contained in closed project files after construction completion. We feel that this approach provides the Owner with information that could be critical in negotiating final change order settlements, as well as the more "intangible" benefit of notifying both the Contractor and Project Manager that the Owner will be actively reviewing project documents for contract compliance. We would recommend that this approach be utilized on future engagements.

Memorandum

To: Mr. Larry Mandel
University Auditor
Office of University Auditor

Date: September 21, 1999
Updated: October 25, 1999

RECEIVED
University Auditor

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The California State
University

From: Richard P. West
Executive Vice Chancellor and Chief Financial Officer
Business and Finance Division

Subject: **Audit Report**
New Headquarters Building, Project No. CO-627B
California State University, Chancellor's Office

I am pleased that the overall theme of the report is positive and found general compliance with established procedures. I have reviewed the report's findings with my Capital Planning, Design and Construction (CPDC) staff and our specific comments to the auditors' findings and recommendations follow.

Change Orders

Recommendations:

- 1-a. We agree to develop a standard form and guidelines for systemwide use. Form 703.04L, Change Order Log, was included in Project Administrative Reference Manual, revised September, 1999.
- 1-b. We agree, as stated above in Item 1-a.

Project Management Services

Recommendations:

- 2-a. We agree to develop project management and inspection cost guidelines for systemwide use. This will be done by December 31, 1999, and will be included in SUAM.
- 2-b. We agree, but we have also successfully used engineers and architects as inspectors. Therefore, we would add to the credential requirements "...architect, engineer, or equivalent qualification." This clarification was included in the Project Administration Reference Manual, revised September, 1999. Requiring proof of certification to be included in service agreements will be done by December 31, 1999, and will be included in SUAM.

Memo to Mr. Mandel
September 21, 1999, *Updated* October 25, 1999
Page Two

- 2-c. We agree this was an unusual expense, and documentation was provided at the auditor's exit conference demonstrating that the services were paid by the Humboldt campus.

Contracting Compliance

Recommendations:

- 3-a. We agree. We will develop procedures for systemwide use for policing use of subcontractors. This will be done by December 31, 1999, and will be included in SUAM.

Project Administration Process Compliance

Recommendations:

- 4-a. We agree to modify our systemwide guidelines to include this recommendation. This will be done by December 31, 1999, and will be included in SUAM.

JRC:bn

cc: Mr. J. Patrick Drohan
Mr. W. Clifford Hahn



THE CALIFORNIA STATE UNIVERSITY

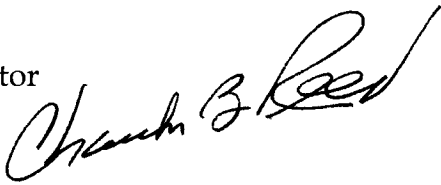
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CHARLES B. REED
CHANCELLOR

December 14, 1999

MEMORANDUM

TO: Larry Mandel
University Auditor

FROM: Charles B. Reed 
Chancellor

SUBJECT: KPMG Peat Marwick Draft Final Report on the *New Headquarters Building Project* at California State University, Chancellor's Office

In response to your memorandum of December 13, 1999, I accept the response as submitted with the draft final report on New Headquarters Building Project, California State University, Chancellor's Office.

CBR/cw

Enclosure

cc: Richard P. West, Executive Vice Chancellor and Chief Financial Officer
Business and Finance