

**San Francisco State University  
San Francisco, California  
Seismic Rehabilitation - Administration Building  
SF-454**

**GOAL**

The goal of KPMG, Peat Marwick, LLP's review of the San Francisco State University (SFSU) - Administration Building Seismic Rehabilitation Project was to evaluate the following areas:

**CONTRACTOR'S JOB COST ACCOUNTING SYSTEM  
CHANGE ORDERS  
CONTRACTOR'S PAY REQUESTS  
CONTRACTOR COMPLIANCE  
LIQUIDATED DAMAGES  
CLOSE-OUT DOCUMENTS  
MISCELLANEOUS**

**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 Administration Building Seismic Rehabilitation Project at the San Francisco State University campus.

KPMG conducted a sampling audit of the SFSU Administration Building Seismic Rehabilitation construction documents during the period of April 23, 1998, through April 28, 1998. The audit included:

- Interviews with personnel from the Office of the Chancellor, Division of Physical Planning and Development (PP&D), in Los Alamitos
- Discussions with campus administrators
- Discussions with Consolidated CM (Owner's representative)
- File reviews at PP&D's (Owner) office
- File reviews at S. J. Amoroso Construction Company, Inc. (Contractor) offices
- Sample auditing of documents for cost and process compliance.

This review is based on the information contained in the project files at both the Owner's (for the purposes of this report, Owner shall mean both SFSU and PP&D) and Contractor's offices.

## **PROJECT DESCRIPTION**

The project involved the seismic rehabilitation of the Administration Building. The seismic rehabilitation included the construction of new steel and concrete elements around the perimeter of the building, within the buildings basement and at each elevator lobby. Building anchors were drilled approximately 75 feet below the bottom of the footings. The new steel and concrete elements were painted or clad with Glass-fibre reinforced concrete (GFRC). The construction was phased to allow continuous occupancy of the building during construction.

Plans and specifications were prepared by Hrtch, Kouyoumdijan and Associates (HKA). The engineer's pre-bid estimate for construction cost was \$8,492,098 for base bid work and \$1,091,607 for Alternate 1. The CSU Capital Outlay Estimate (Form PPD 2-7) included \$9,088,0000 as the construction budget. According to PP&D, the engineer's estimate was high and therefore they adjusted the estimate for base bid work to \$8,041,000 in the Notice to Contractors Advertisement.

Bids were received on April 25, 1996. There were four bidders, with S. J. Amoroso Construction Company, Inc. being the low bidder at \$8,428,000 (\$7,373,000 for base bid and Alternate 1 for \$1,055,000). A contract was executed with S. J. Amoroso (Contractor) on April 30, 1996. Notice of Completion was recorded on March 12, 1998, indicating a completion date of February 27, 1998.

## **CONTRACTOR'S JOB COST ACCOUNTING SYSTEM**

### *Findings:*

KPMG found the methodology and reporting utilized by the Contractor in conformance with industry standards and appropriate for the project. The Contractor cooperated with the audit team and provided all requested documentation during the review. A "Subcontract Status Report" was provided for all subcontractors, as was a summary of the "Job Cost to-Date Report".

### *Recommendations:*

None

## **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 the review, the

Administration Building Seismic Rehabilitation project had approved Change Orders through Number 67 totaling \$420,007. This added 4.98% in cost to the construction contract of \$8,428,000. This was within the range of the project's contingency of \$836,800 established during the budgeting phase of the project.

Owner did not provide a report listing total change orders issued and approved. Without this information included on the change order form, or a list of approved change orders, it was difficult to confirm the accuracy of the change order amounts billed on the Contractor's pay requests. KPMG prepared a schedule of all approved change orders and found eight change order numbers were omitted from the sequential numbering system. Numbers 1, 20, 21, 26, 49, 51, 52 and 55 were not used. The Contractor included a listing of approved change orders on their last billing. We verified that the Contractor's last pay request No. 20 accurately included all approved change order amounts.

Consolidated CM provided a report that included a description of each change estimate. This report listed the Owner's CRB number, Change Proposal Number, Field Instruction Number, and the final amount included in each change order. Additionally, this report was sorted by the reason for each change but was not totaled by change type as of the December 10, 1997, document (the latest report on file at the time of the review). KPMG manually calculated the amounts by code from this document to derive the information identified below. The Contractor's records listed a total of \$418,559 in approved change orders through CO 66 on their pay request No. 20, which was verified to be correct. Including CO 67 (which had not been billed as of S. J. Amoroso's pay request No.20), total changes were \$420,007. Consolidated CM's report totaled \$380,948. While the change orders included in the Consolidated CM report were accurate, the report was not all inclusive as of the December 10, 1997, document.

The following is a recap of total changes based on the information available:

<u>Type of Change</u>	<u>C.O. Totals</u>	<u>% of CO</u>	<u>% of Contract</u>
4.1 Errors/Omissions from the Contract Documents	\$ 35,278	8.4%	.4%
4.2 Unforeseeable job site conditions	188,567	44.9%	2.2%
4.3 Regulatory agency, bldg. code, safety, health	- 22,925	- 5.4%	- .3%
4.4 Originated by the University	94,243	22.4%	1.1%
4.5 Unavailability of specified materials	0	0%	0.0%
4.6 Other	65,650	15.6%	.8%
CO 42 not coded on Consolidated CM Report	20,135	4.8%	.2%
CO Amounts omitted on Consolidated CM Report	39,059	9.3%	.5%
Total Change Orders	\$420,007	100.0%	4.9%
Original Contract Amount	\$8,428,000		

KPMG sampled approximately 40 Change Proposal Estimates (CPE's) representing \$372,600 (88.7% of total change orders). In our review of the CPE's sampled, we found that the subcontract proposals were traceable to actual subcontract change orders with relatively minor 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.

Our findings are summarized as follows:

1. Owner Change Order 44, CPE 135 - Included a quote from Portola Plastering in the amount of \$5,900 for Saturday work. \$1,800 was manually added to this amount and initialed by Tim Kirsch (Consolidated CM) and included in the final change order. The \$1,800 was never included in a change order to Portola by S. J. Amoroso.
2. Owner Change Order 23, CPE 85 - Additional work for sawcutting columns for GFRC was quoted by Cal West in the amount of \$15,246. After KPMG was unable to trace this to a change order to Cal West, KPMG was informed by the Contractor this work was self-performed by S. J. Amoroso. We find this outside normal practices in the industry, but it does occur when a contractor determines it is in the best interest of the project to self-perform work after it has been quoted by a subcontractor.
3. Owner Change Order 6, CPE 8 - Included a quote from Dura Art Stone for \$16,800. The subcontractor's change order was issued for \$16,000.
4. Owner Change Order 17, CPE 30 - Included a quote from F. W. Spencer for change order work to the SE Water Main in the amount of \$5,585. KPMG did not find a subcontract for this vendor in Amoroso's files. KPMG was informed by S. J. Amoroso that their payment to the sub was posted against the subcontract on the Corporate Yard project for SFSU. Although the change order was appropriately billed on the Seismic Rehab project, the contractor failed to post this cost on their own internal accounting reports.

*Recommendations:*

1. We recommend the following:
  - a. Owner develop and include appropriate language within the construction contract to provide for subcontractor re-negotiations that result in savings that accrue to Owner.
  - b. A change order log or summary should be prepared by PP&D that includes a running total of changes issued to the construction contract in a consecutive manner. Alternatively, a running total of accumulated 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. This process is currently being implemented by PP&D.
  - c. PP&D should take steps to ensure that Change 17 (item four in above "Findings") does not appear as a change order on the Corporate Yard project.
  - d. Owner should adhere to a numerical sequencing of change orders or identify voided orders for proper control.

*Management's Response:*

- 1a. We agree. The owner should be able to realize unexplained savings generated by the contractor and subcontractor renegotiating change orders. This recommendation has already been included in the May, 1998 Contract General Conditions per the earlier recommendation in the audit of the California State University, Long Beach, Central Plant.
- 1b. We agree. The new CPM project tracking system will perform that task. CPM is fully functional on 8 projects, all of which started in the 97/98 fiscal year. It will be used for all future projects administered by PPD.
- 1c. We agree. We have verified that a double billing has not occurred.
- 1d. We agree. It is our normal practice to follow sequential numbering of change orders. However, we will reinforce this requirement by adding clarification to our procedures regarding this requirement. Procedures will be reinforced immediately.

**CONTRACTOR'S PAY REQUESTS**

*Findings:*

The consulting architect/engineer is required under the contract specifications (Paragraph 8.02 and 8.05) to review and approve each "Contractor's Pay Request." KPMG found that the pay requests had no such approval from the architect/engineer on a routine basis.

*Recommendations:*

2. We recommend:
  - a. The established approval process should be reinforced by Owner, without exception. If there are reasonable exceptions to this policy, they should be defined by Owner and incorporated into the contract documents. This recommendation is presently under consideration by PP&D.
  - b. If the scope of services (i.e. obligatory approvals of pay requests) provided in the Architect/Engineer contract was reduced, then Owner should request a credit for services not received.

*Management's Response:*

2a. We agree. The recommendation that the established approval process for contractor pay requests should be strictly followed. At the same time, on occasion, valid exceptions may occur, especially after the Notice of Completion has been filed. We will incorporate the potential exception to Architect certification into the contract accordingly. After review by General Counsel, the change to Contract General Conditions will be made via Supplementary General Conditions; this will occur by 8/12/98.

2b. We agree. The Architect should have performed this service as part of his contract. We were in error in not requiring this service or in not adjusting the Architect's fee accordingly.

### **CONTRACTOR COMPLIANCE**

*Findings:*

KPMG sampled the most significant statutory compliance requirements identified in the contract specifications. The following requirements were tested and found to be in accordance with the requirement of the contract specifications:

- **Minority, Women, and Disabled Veterans Business Enterprises (M/W/DVBE)**  
Documentation: Contractor included 8.4% for Minority Business Enterprises, 2.61% from Women Business Enterprises and .0% for Disabled Veterans Business Enterprises as adequately evidenced by the CSU Contract Administrator and M/W/DVBE Coordinator in a memorandum dated April 30, 1996. Although only partial goals were met for DVBE, MBE and WBE, Contractor did document good faith efforts and was considered eligible for contract award according to Title 5 of the California Code of Regulations and Section 10115.2 of the Public Contract Code.
- **Insurance Requirements:** A Certificate of Insurance documenting required coverage was obtained from Contractor. At the time of preparing this report, this certificate is considered to be a standard in the industry.
- **Bonding:** KPMG examined Contractor's Payment and Performance bonds (executed May 20, 1996) in the amount of \$8,428,000, and found them to be in accordance with Owner's specifications.
- **Drug-Free Workplace Certification:** The required form, STATE of CA Std. 21 (New 11-90), was on file and in accordance with CSU requirements.

*Recommendations:*

None

**LIQUIDATED DAMAGES**

*Findings:*

While contractual language for liquidated damages exists for this project, there was no cause for the enforcement of these provisions.

*Recommendations:*

None

**CLOSE-OUT DOCUMENTS**

*Findings:*

PP&D maintains a “Stop Notice Log” that identifies all claimants and amounts claimed. The log was found to be adequately maintained. PP&D had completed a “Project Close-out Checklist” which indicated the dates that all close-out documents were received. We found this checklist to be an excellent tool for monitoring the close-out process.

*Recommendations:*

None

**MISCELLANEOUS**

The following observations may warrant consideration for further review by CSU:

- **15% Change Order Overhead & Profit Fee** - Per Article 6.01.c.(5) General Conditions the CSU Construction, “Where changed work is performed, the Contractor may add to the total cost estimate for such work no more than fifteen (15) percent for profit, overhead, ...”. From our experience with similar projects in the construction industry, 5% to 10% is a more typical General Contractor’s mark-up on changes. Change orders for the SFSU Admin. project totaled \$420,007 which included approximately \$54,780 for the 15% mark-up. A 5% to 10% fee would have reduced costs by \$18,280 (10%) to \$36,500 (5%). Currently, a “sliding scale” fee process is under consideration by PP&D.
- **Construction Inconveniences** - PP&D, campus management and contractor unanimously agreed the construction process for the seismic rehabilitation to the Administration

Building presented an inordinate amount of inconvenience to the tenants' daily work routines because of noise and fumes. Since project funding was not included to relocate the tenants during construction, the contractor was forced to alter construction work schedules around normal business hours. Because of the specific challenges with this type of renovation, relocation of personnel during construction may prove to be a better alternative on future projects of this nature.

- **Project Management Services** - A service agreement was entered into between Owner and Consolidated CM on April 30, 1996. Project Management services were to be provided from June 10, 1996, through October 31, 1997. The agreement included a General Inspector (\$53/hour) and Intern (\$13/hour) on a full-time basis and a Construction Manager (\$79/hour) and Scheduler (\$69/hour) on a part-time basis at a cost of \$222,280. This agreement additionally provided for reimbursable expenses up to \$2,000.

Three contract amendments were issued during the course of the project.. The following is a recap of the Consolidated CM agreement and amounts expended:

<u>Service</u>	<u>Contract Amount</u>	<u>Amount Paid</u>
Original Contract	\$222,280	
Amendment No. 1	17,864	
Amendment No. 2	50,892	
Amendment No. 3	5,712	
<b>Subtotal Fee</b>	<b>\$296,748</b>	<b>\$293,697</b>
Reimbursable Supplies	2,000	3,580
<b>Totals</b>	<b>\$298,748</b>	<b>\$297,277</b>

Consolidated CM did not request reimbursement for any computers, software or other tangible purchases. Their reimbursables included only supplies and project related expenses we found to be reasonable. On the actual invoices from Consolidated CM, reimbursables for supplies carried a 10% mark-up. According to KPMG findings, reimbursables exceeded the \$2,000 allowance by \$1,580. However, the consulting service portion of the agreement was \$3,051 less than the final contract amount.

The total project management services were calculated to be \$297,277 (including reimbursables), or 3.4% of the total construction contract amount of \$8,848,007 (through CO No. 67). Although the cost for services provided is a slightly above industry standards (2% - 3%), there was ample documentation that Consolidated CM provided PP&D valuable project management tools in monitoring the project status on the SFSU Administration Seismic Rehabilitation project.

- **Final Accounting** - The Contractor's final cost (excluding his fee) at the time of our review was \$7,896,569. The contract amount at the time of our review, including change

orders, was \$8,848,007. The difference of \$951,438 represents the Contractor's profit for this project, or 12%. Subsequent to our initial review, KPMG obtained additional information from S. J. Amoroso indicating that internal overhead costs were not posted to job accounting records. S. J. Amoroso did not charge yard equipment, area manager time, operations management, safety inspector, liability insurance, estimating service or in-house scheduling to the project costs. This is not a common contractor practice. When contacted, they would not provide requested details of these overhead amounts. Normal contractor overhead costs range from 5% to 6%. Applying these rates, S. J. Amoroso's profit would have been approximately 6.7% to 5.7%.