

**San Diego State University  
San Diego, California  
Student Activities Center  
SD-965R**

**GOAL**

The goal of KPMG, Peat Marwick LLP's review of the San Diego State University (SDSU) - Student Activities Center (SAC) Project was to evaluate the following areas of the construction process:

**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 Student Activities Center Project. In addition, KPMG is providing recommendations that will, upon implementation, provide improvements to controls and contractor reporting, and provide opportunities for cost savings on future construction projects.

KPMG conducted a sampling audit of the SAC construction documents on November 24, 1997, through November 26, 1997. 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 management, meetings with Burnham, the Project Management (PM) firm employed for SAC, a physical tour of the SDSU Student Activities Center, file reviews at PP&D's (Owner) and at Blake Construction's (Contractor) offices, and a sample testing of documents for cost and process compliance.

This review is based on information contained in the project files at both the Owner's (Owner shall mean both SDSU and PP&D) and Contractor's offices.

## **PROJECT DESCRIPTION**

The scope of the Student Activities Center project included the demolition of existing facilities, the construction of a 158,000 s.f. arena building, a 75,000 s.f. recreational building, 2,600 s.f. in ancillary space, as well as associated utility infrastructure, hardscaping and landscaping for the project. The estimated total cost of construction was \$28,000,000.

Bids were received in December 1994. Blake Construction submitted a bid of \$28,931,000 which was also the budget established for construction cost on the CSU Capital Outlay Estimate (From PPPD 2-7). A contract with Blake Construction Co., Inc., San Diego, California, was executed on February 1, 1995.

Administrative responsibilities for construction were shared between San Diego State University and the Office of the Chancellor, Division of Physical Planning and Development. Functions and roles for each were set forth in a Memorandum of Delegation signed by SDSU in April 1995, and by the Office of the Chancellor in May, 1996.

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

### *Findings:*

In general, the Contractor was unable to provide KPMG with the appropriate project reports and was unwilling to cooperate with the audit team. Upon initial contact by KPMG, Contractor provided only the last page of their "Budget and Purchases Report" reflecting job cost totals by general cost categories. After numerous follow-up attempts, KPMG, with the assistance of the SDSU Auditors, was able to obtain additional documentation from the Contractor. However, with the exception of a few specific requested subcontracts, Contractor refused to provide a comprehensive report detailing all subcontracts. Based on the documentation provided, the methodology and reporting documents used by the Contractor appear to be adequate. However, Contractor did not provide KPMG with a complete set of cost reports. (See Exhibit B for details.)

### *Recommendation:*

1. We recommend CSU take action to require Contractor to provide all requested audit documents or provide appropriate sanctions for failure to do so.

### *Management's Response:*

1. We agree. Contractors should be sanctioned for failure to comply with the auditors' requests. In this instance we intend to review with General Counsel the Contractor's poor compliance using the evidence shown in Exhibit B. If it is determined that this non-compliance is sufficient reason to disqualify the Contractor from bidding California State University's projects, then we will issue a notice of disqualification. Staff has commenced discussion with General Counsel. We expect to finalize by 9/11/98.

## 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. At the time of the review, the Student Activity Center project had amassed 198 Cost Request Bulletins (CRB's) that were incorporated into 26 approved change orders totaling \$3,305,373. This added 11.4% in cost to the construction contract of \$28,931,000. During the review, KPMG was advised by PM of a pending final settlement Change Order No. 27 in the amount of \$284,924. If approved, total change order costs will equal \$3,590,297 which will increase the contract amount by 12.4%. This is approximately 60% greater than the \$2,242,414 contingency established in the project budget. According to SDSU's project manager additional funding was not required because non-construction budget surpluses were available to cover these unbudgeted costs.

As of this writing, the final "settlement" Change Order No. 27 has not been approved by the Contractor. Due to a pending claim against the Contractor and the University from the rebar subcontractor, Pacific Steel, Contractor is currently unwilling to sign a final change in which all future claims for additional costs would be waived. The campus has requested PP&D's assistance in resolving this issue.

Neither Owner, nor PM, provided a report listing total change orders issued and approved. On the copy of the final Change Order No. 27 provided to KPMG, "Approved Change Orders to Date" is indicated as \$3,503,452. The correct amount is \$3,590,297, a difference of \$86,845.

The PM on the project provided a "Cost Report" that included a description of each change estimate. This report included the Owner's CRB Number, Change Proposal Number, Field Instruction Number, and the final amount included in each change order. Additionally, this report reflected the reasons for each change and was totaled by change type. Following is a recap of the total changes:

<u>Type of Change</u>	<u>C.O. Totals</u>	<u>% of CO</u>	<u>% of Contract</u>
4.1 Error/Omission from the Contract Documents	\$ 844,156	23.5%	2.9%
4.2 Unforeseeable job site conditions	357,510	10.0%	1.2%
4.3 Regulatory agency, bldg. code, safety, health	177,587	4.9%	.6%
4.4 Originated by the University	1,736,999	48.4%	6.0%
4.5 Unavailability of specified materials	0	0%	0.0%
4.6 Other	189,076	5.3%	.7%
To balance to "Cost Report"	45	0%	0.0%
Change Order No. 27 - Not yet classified	<u>284,924</u>	<u>7.9%</u>	<u>1.0%</u>
Total Change Orders	\$3,590,297	100.0%	12.4%
Original Contract Amount	\$28,931,000		

At the time of KPMG's review, Change Order No. 27 had not been included on the Project Manager's "Cost Report" of approved changes. This change order had not been approved nor did the copy indicate the reason code for the change.

Of the total changes, approximately 24%, or \$844,000, was attributed to reason code 4.10, "Errors/Omissions by Architect/Engineer." This amount represented 2.9% of the total construction contract. It is our experience that the range for errors and omissions is 2% - 3%. By these standards, the total change order costs are acceptable.

KPMG sampled approximately 21 CRB's representing \$1,069,000 (32.4% of total changes). On January, 16, 1998, we requested clarification on \$536,000 of subcontractor discrepancies from Contractor and received acceptable responses on February 9, 1998, for \$178,800. We requested assistance from the SDSU Auditor on February 24, 1998, for the remaining \$357,200 in question. As a result of this request, the Contractor provided acceptable support for the remaining items on March 20, 1998.

Our findings are summarized as follows (see Exhibit A for additional information):

<u>Change Order Info.</u>	<u>Subcontractor</u>	<u>Approved</u>	<u>Sub C.O.</u>	<u>Difference</u>	<u>GC Fee</u>	<u>Total</u>
CO 10, CRB 70, File 281	Maya Steel	\$119,409	\$117,632	\$1,777	267	\$2,044
CO 8, CRB 56, File 213	Maya Steel	12,158	10,238	1,920	288	2,208
CO 12, CRB 97, File 237	Gunitite	59,178	40,550	18,628	2,794	21,422
CO 12, CRB 24, File 143	Sierra Pacific	7,500	0	7,500	1,125	8,625
CO 26, CRB 9R	American Fence	16,190	0	16,190	2,429	18,619
Totals				<b><u>46,015</u></b>	<b><u>6,903</u></b>	<b><u>52,918</u></b>

From the documents provided, it appears that many subcontractor Change Orders had been further negotiated, subsequent to Owner approval, in an attempt to increase Contractor profits.

*Recommendations:*

2. We recommend:
  - 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. In KPMG's opinion, quotes submitted from subcontractors for change orders are pass through costs upon which Contractor adds a fee for overhead and profit. Further reductions in pricing negotiated by the Contractor should revert to the Owner.
  - b. Owner should set parameters for Errors and Omissions change orders, establish an acceptable range for non-recovery, and document recovery efforts.  
PP&D should assist SDSU in resolving the pending rebar claim.
  - c. Change Order Number 27 should be revised to reflect the correct contract total.

- d. PP&D's new change order tracking system, currently being implemented, should include provisions to track change estimates submitted by the Contractor similar to the SDSU "type of change" report.
- e. A change order log or summary should be prepared by PM and reviewed by PP&D that includes a running total of changes issued to the construction contract. Alternatively, 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 contractor's billings. These reports were unavailable for this project.

*Management's Response:*

- 2-a. 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 Project.
- 2-b. We agree. PP&D in conjunction with General Counsel will work towards establishing a guideline policy on pursuing recovery of costs incurred due to excessive errors and omissions in the Construction Documents. Staff has started review with General Counsel. We expect to finalize by 9/11/98.

PP&D have been assisting and will continue to assist SDSU in resolving the pending rebar claim.

- 2-c. We agree. Change Order No. 27 was corrected prior to issuance to the signatory parties.
- 2-d. We agree. The new Capital Project Management (CPM) System does identify under each cost item in the change order the Cost Request Bulletin, Field Instruction (if there is one), the Change Proposal, the type of change, and the agreed upon price.
- 2-e. We agree. The new CPM project tracking system will perform that task. We do not agree that Construction Management staff in the field should be required to generate this additional data. 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.

## **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 all payments processed at the time of the audit had been approved by the architect/engineer.

### *Recommendations:*

None.

## **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 Enterprise (M/W/DVBE) Documentation:** Blake Construction included 5.14% for Minority Business Enterprises, 19.58% from Women Business Enterprises and .0% for Disabled Veterans Business Enterprises as adequately evidenced by the CSU Contract Administrator and M/W/DVBE Coordinator.
- **Insurance Requirements:** A Certificate of Insurance documenting required coverage through 09/01/98 was obtained for Blake Construction. When this report was prepared, this certificate was standard in the industry as acceptable proof of insurance.
- **Bonding:** KPMG examined the Contractor's Payment and Performance Bonds (executed February 23, 1995) in the amount of \$28,931,000 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:*

Although contractual provisions for liquidated damages exist 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.

At the time of this review, final warranties, maintenance manuals, and as-built drawings were not yet due. The PM on the Student Activities Center project has prepared a "List of Submittals" as required by contract. The list appeared to be comprehensive, well maintained, and a reliable source for assurance that all final submittals will be obtained. KPMG was informed that the consulting Architect/Engineer is responsible for the compilation of the final set of "as-built" drawings.

### *Recommendations:*

None

## MISCELLANEOUS

The following areas have been included as miscellaneous findings which may, in some cases, warrant further review by CSU:

- **15% Change Order Overhead & Profit Fee** - Per Article 6.01.c.(5) General Conditions of the CSU Construction Contract, "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% - 10% is a more typical General Contractor's mark-up on changes. Change orders for the SAC project totaled \$3,590,297 which included \$468,300 for the 15% mark-up. . . a 5% to 10% fee would have reduced costs by \$156,000 (10%) to \$312,000 (5%). Currently, a "sliding scale" for contractor's overhead and profit is under consideration by PP & D.

- **Project Management Services** - A service agreement was entered into between Owner and Burnham (PM) on March 30, 1995. Project management services were to include three full-time personnel from April 10, 1995 through June 30, 1997, approximately 27 months, at a cost of \$675,000 or \$25,000 per month. PM was to provide on-site project manager, inspector, and secretary. This base amount is 2.3% of the original construction contract.

In March, 1996, an amendment (change order) was issued to PM contract in the amount of \$108,783 to cover overtime for the project manager, inspector, additional Executive Project Management time, and schedule review services from a third party for the remaining project duration. Near the end of the contract term (June 30, 1997), PM was issued an additional amendment for \$15,000 to complete the project. A breakdown of these services include:

<u>Service</u>	<u>Total</u>	<u>Per Month</u>
Project team (original PM, inspector, secretary)	\$742,200	\$27,481
Part-time management to extend original term - lump sum	15,000	N/A
Executive Project Manager (16 mos. only)	24,000	1,500
Scheduling Review (initial review & 16 mo. updates)	<u>17,583</u>	1,099
Total Service Contract	\$798,783	
Reimbursables	\$88,605	
Less Errors/Omissions Insurance	<u>- 26,496</u>	
Net Reimbursables	<u>\$62,109</u>	
<b>Total PM Services</b>	<b>\$860,892</b>	

Total project management services were 2.6% of the total construction contract after consideration of all change orders to PM and Contractor. Considering the staffing and services provided by PM, these costs appear to be reasonable and within the norm of 2% to 3% of the cost of construction.

*Recommendation:*

3. We recommend PP&D obtain a legal opinion whether errors and omissions insurance for project management services is necessary. Errors and omissions insurance added \$26,496 to PM's fee and SDSU's costs on this project.

*Management's Response:*

3. We agree. We are presently reviewing with General Counsel the necessity of requiring errors and omissions insurance in construction management contracts. Staff has commenced review with General Counsel. We expect to finalize by 9/11/98.
- **Final Accounting** - The Contractor's final cost (excluding fee) submitted as of February 26, 1998, is \$31,808,868. The contract amount through Change Order 27 is \$32,521,297. The difference of \$712,429 represents the Contractor's profit for this project, or 2.24%. From the calculations indicated on the February 26, 1998, cost report, the Contractor reflected a projected profit of \$1,335,928, or 4.2%.

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**Exhibit A**

**Change Order Findings**

1. Maya Steel (OCO 10, CRB 70, File 281) - \$119,409: The Contractor provided a subcontractor change order in the amount of \$115,000 issued 4/12/96 to Maya Steel referring to this CRB. In May, 1997, the Contractor issued another change to Maya which included File 281 again for additional costs of \$2,632. Possible overpayment: \$1,777 plus 15% GC fee, or \$2,044.
2. Maya Steel (OCO 8, CRB 56, File 213) - \$12,158: The subcontractor submitted a quote which was mathematically incorrect. The Owner adjusted the quote by adding \$1,920 not originally included in the subcontractor's addition. The Contractor did not adjust the quote and paid \$1,920 less to the Maya Steel. Possible overpayment: \$2,208 including the GC 15% fee.
3. Gunitite - \$59,178: The Contractor submitted a quote from North County Gunitite Co. for approximately 49,315 s.f. @ 1.20 for a total of \$59,178. This amount was included in the Owner's Change Order 12. Contractor subsequently obtained a bid for \$40,550 and issued a contract to Mission Gunitite in the amount of \$40,550 to cover approximately 45,000 s.f. The result of this re-negotiation, savings of \$18,628 plus the GC fee of \$2,794, was not passed on to the Owner. Possible overpayment: \$21,422.
4. Sierra Pacific West (OCO 12, CRB 24, File 143) - \$7,500: When asked to support this subcontractor change order, the Contractor indicated that neither he nor the subcontractor "could straighten out the accounting". Contractor was not able to show this amount being paid to the subcontractor but indicated they "gave up \$3,393.60 in back charges to settle with Sierra". While it is the Contractor's position that it is "too late for any credit", it is the opinion of the audit team that, until such time as the Contractor can provide evidence to the Owner substantiating payment, this item represents an overcharge of \$7,500.
5. KPMG found PP&D issued Change Orders 22 and 26 including amounts of \$11,414 and \$16,190 on behalf of American Fence. These represented CRB's 9 and 9R. Review of documentation indicated that American Fence had missed a gate on the drawings, but asked for consideration for the additional \$16,190. PP&D approved the change, even though the subcontractor had admitted to the mistake. In our final review of the Contractor's records, we found that the \$16,190 was not included in a change order to the Subcontractor. Contractor was presented with this information and provided copies of all change orders to the Subcontractor. Possible overcharge: \$18,618.50 (including the Contractor's fee of 15%).

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**Exhibit B**

**Construction Accounting Documents**

November 25, 1998

At the start of our on-site review, we requested from Blake Construction a complete cost report reflecting job costs to date. We were provided only the last page of a report dated 10/10/97. Details were “blacked out” except for the grand totals in the following categories; material, equipment, general, labor, subcontract and profit.

Additionally, we requested a subcontractor report stating the original subcontract amount and all change orders. Contractor refused to provide the requested report. Eventually, after intervention by the SDSU Auditor, we did receive a version of the requested report, but it was not current (dated 7/30/97.)

January 16, 1998

A memo request was faxed to Blake Construction for 17 specific items which we needed to support the subcontractor payments for CRB’s. We also requested an up-to-date page with totals for job costs. We requested that we receive this information by January, 19, 1998. The request was ignored. We followed up with a telephone call during the last week of January, 1998 repeating our request.

February 9, 1998

Blake faxed 16 pages in response to our January 16<sup>th</sup> request. Ten (10) of the requested 17 items were clearly identified and met the objective of the request. We did not receive an updated listing of total job costs.

February 24, 1998

A fax was sent to Blake (copied to SDSU auditor) requesting additional documentation for the remaining seven (7) items which were not fully explained. Additionally, we requested current subcontract reports (Sub History Reports) for each subcontractor and repeated our request for the total job cost report.

March 20, 1998

Blake faxed 40 pages explaining the remaining seven (7) items and a few (7) of the updated Sub History Reports. We also received an updated total listing for job costs. They explained that the “February questions were much more complicated and took far more research to answer than our questions dated January 16, 1998...” They apologized for the delay.

From Blake’s final response, we arrived at the potential overcharges detailed in Exhibit A of this report.

Although we eventually obtained most of the data we requested, we found this contractor to be minimally cooperative and in our opinion, evasive.