

**CALIFORNIA STATE UNIVERSITY,  
LOS ANGELES**

**ENGINEERING & TECHNOLOGY BUILDING RENOVATION**

Final Report

June 14, 2001

## **PROJECT OVERVIEW**

This CSU Los Angeles project consisted of a complete renovation of a University Engineering and Technology (E & T) Building Complex. The structure included a six-story tower and two low-rise wings that are two stories each and is over a partial basement. Renovations included 170,000 square feet including hazard abatement, seismic upgrade, complete refinishing and refurbishing of all instructional, research and laboratory spaces, major modifications to utility and environmental systems, elevator upgrades, re-roofing, exterior painting, and site work and landscaping of the immediate vicinity. The project was constructed under the management of CSU Capital Planning, Design, and Construction (CPDC).

The project was hindered with poor design, especially relating to the mechanical systems. As of this writing, the HVAC system had not been accepted by CSU and monies are being withheld from the Contractor as a result. An outside engineering firm was engaged to evaluate the HVAC system design and has recommended possible solutions for the University. The questions of responsibility for additional costs that will be incurred are open matters being monitored by CPDC.

KPMG reviewed project records from CPDC and the following firms that were involved in the project's development and execution:

Contractor:	EMMA Corporation (Santa Monica)
Architect/Engineer (A&E):	La Cañada Design Group
Project Management (PM):	Twining Laboratories

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**CONSTRUCTION BID PROCESS**

The E & T renovation project, designed by La Cañada Design Group, was estimated to cost \$21,400,000 in construction costs. The original Notice to Contractors indicated an initial bid date of November 13, 1997. Through subsequent addenda, the bid date was revised to December 2, 1997. Five bidders were listed on the Abstract of Bids. The low bidder, EMMA Corporation, submitted a base bid in the amount of \$23,900,000. The initial specifications listed four deductive alternates:

<i>Alternate 1:</i> Delete the supply and installation of some lab equipment identified in Spec Section 01030	\$(368,000)
<i>Alternate 2:</i> Delete the supply and installation of audio and video equipment identified in Spec Section 01030	\$(800,000)
<i>Alternate 3:</i> Reduce Allowance A from \$600,000 to \$400,000	\$(200,000)
<i>Alternate 4:</i> Delete Network Terminal Resource equipment identified in Spec Section 01030	\$(700,000)

All alternates were accepted and incorporated into the original construction contract. EMMA Corporation was awarded the construction contract in the amount of \$21,832,000 on December 12, 1997.

Additional findings related to the project include:

- The Abstract of Bids was appropriately completed and signed.
- EMMA furnished an appropriate Payment and Performance Bond in the original contract amount as required.
- EMMA is a California Corporation.
- The original construction period was to cover 565 calendar days.
- Each of three wings (Phases 1, 2 and 3) had milestone completion dates.
- Liquidated damages were stated to be \$3,000 per day for each wing/phase.
- Notice to Proceed was given on January 7, 1998, with a start date of January 12, 1998.
- Original completion was established as July 30, 1999.
- Notice of Completion was recorded as July 6, 2000 (the Notice of Completion excluded completion of the HVAC Balance Report and permitting for the emergency generator).
- Extensions of 343 days were included in five change orders that extended the contractual completion date to July 7, 2000.
- There were five allowances established in the original bid documents.

## **SUBCONTRACTOR BIDDING PRACTICES**

EMMA cooperated with the subcontractor bid review process and provided all relevant documentation. In most cases EMMA prepared in-house estimates for each trade of work and compared those to a subcontractor bid(s). We examined the following trades:

- **Asbestos & Lead:** Three bids were received ranging from \$710,000 to \$1,248,000. A subcontract was issued to AC&S in the amount of \$710,000.
- **Roofing & Insulation:** EMMA estimated the work in the amount of \$337,500. They solicited four bids ranging from \$289,322 to \$388,154. Originally they did not list the low bidder, but the third highest. Ultimately the low bidder, Howard Roofing, was substituted and awarded a subcontract in the amount of \$289,322.
- **Flooring:** The in-house estimate was \$337,000. Two bids were received in the amounts of \$376,800 and \$232,800. Reliable Floor Covering was issued a subcontract in the amount of \$232,800.
- **Metal Stud & Drywall:** The in-house estimate was \$1,218,000. Two bids were received in the amounts of \$1,300,000 and \$1,875,000. Gypsum Enterprises, Inc. was issued a subcontract in the amount of \$1,300,000.
- **Painting:** EMMA did not prepare an in-house estimate. Three bids were received ranging from \$358,350 to \$510,000. The low bidder, Michael's Painting was relieved from their contract and Bithell, Inc. was substituted. EMMA was able to further negotiate scope adjustments with Bithell and awarded a contract in the amount of \$322,500. KPMG did not find that practice in violation of Public Contract Code Section 4100.

EMMA included 3.58% for home office overhead and 6% for profit. KMPG found the subcontracting bidding practices straight-forward and adequately documented.

## **CONTRACTOR COMPLIANCE - SUBCONTRACTING PRACTICES**

For this project, the "List of Proposed of Subcontractors" (CM Form 701.04) identified 21 work divisions and subcontractors. The "Expanded List of Subcontractors" (CM Form 701.04 A), included the same 21 subcontractors. Our review found the following:

- KMK Construction was listed as the concrete subcontractor. The general contractor, EMMA, ultimately performed the work at no additional cost to the University. This substitution was appropriately approved by CPDC.
- Vance & Associates was listed as the roofing subcontractor. They requested to be excused from the project due to scheduling conflicts. EMMA requested that the next lowest bid roofing contractor be substituted. CPDC approved the substitution at no additional cost to the University.
- Michael Painting was the listed subcontractor for painting. They requested that their contract be cancelled. At the time of this writing we were not able to obtain a copy of CPDC's approval to substitute Bithell, Inc.
- The electrical subcontractor originally listed and contracted with, United Electric (UECI), voluntarily defaulted on their contract with 42% of their work remaining. UECI's bonding company and EMMA entered into a settlement that was appropriately covered by a waiver and release in conformance with Civil Code Section 3702. Walton Electric was issued a subcontract \$2,400,101 to complete United's work.

It has been standard practice for CSU to rely on the contractor and subcontractors to comply with Public Code 4100. Subsequent to the review of this project, SUAM (revised 11/00) now requires the University:

*... to police the use of subcontractors. The University shall compare a subcontract status report with the Expanded List of Subcontractors. If any listed firms have been substituted without approval in accordance with Public Contract Code, Section 4107(a) (SUAM, Section 9821), penalties are applicable per Public Contract Code, Section 4110 (SUAM, Section 9823)*

### ***Recommendation:***

1. For Michael Painting, CPDC should research Chancellor office files to determine if the substitution was approved. If approvals were not properly requested and approved, the Contractor should be assessed appropriate penalties in accordance with Section 4110 of the Public Contract Code.

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***Management Response:***

1. We agree. If the approvals were not properly requested and approved, we shall issue a demand assessing penalties and we shall pursue recovery or other appropriate sanctions.

**CONSTRUCTION CHANGE ORDERS**

There were 76 change orders totaling \$1,062,582 incorporating over 450 Change Order Requests (COR's) approved on the project. These changes added 4.87% to the contract amount. Included in the change order total was a credit for allowances in the amount of \$915,000. Excluding this amount, changes added 9.06% to the construction contract.

Although Twining Laboratories' project manager's change order log reflected the reason for changes, the report was inaccurate. The total change orders shown on the report was \$1,488,753 rather than the correct amount of \$1,062,582, a difference of \$426,171. As a result of our request, this report has since been corrected and reconciled by CPDC.

**Labor Burden:**

EMMA and their subcontractors often provided change order documentation that showed labor burden breakdowns. For those that did not, CPDC staff was able to discern an approximate amount charged for labor burden based on knowledge of prevailing wage rates and comparison with rates included on change orders. We found this methodology of evaluating labor costs could present challenges for campus personnel not as familiar with prevailing wage regulations. The development of a standard form for submitting change order costs would assist project managers in the change order review process.

We sampled change orders that did include EMMA's breakdown for labor burden. We found their method for calculations reasonable and adequately supported. Even though Federal Unemployment Tax Act (FUTA) only applies to the first \$7,000 of an employee's earnings, EMMA charged the full .08%. We typically find an actual rate should be approximately 60% of this amount depending on labor pool turnover rate. This adjustment would be insignificant to the overall burden rate. Labor burden charged was as follows:

<b>Labor Burden Analysis</b>	<b>Percentage</b>
Payroll Taxes – FICA	7.65%
Payroll Taxes – FUTA	0.08%
Payroll Taxes - State Unemployment	3.77%
Worker's Comp & Liability	7.52%
Union Fringe	17.00%
<b>Total</b>	<b>36.02%</b>

**Change Order Analysis:**

The project included provisions for 5 allowances. All allowances were credited back in Change Order No. 1. Following is an itemization of the allowances:

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1. A \$400,000 allowance was established for University forces to refurbish academic equipment (Originally was \$600,000 and reduced by \$200,000 in Alternate No. 3).
2. A \$15,000 allowance was included for interior drawer compartmentalization of "SV" type metal base cabinets, as described on the Laboratory Furnishings ("LF") drawings and included in Specification Section 11602, Paragraph G.
3. A \$100,000 allowance for seismic design/build/installation of anchorage and bracing systems of the existing equipment identified in Specifications Section 11605.
4. A \$50,000 allowance for a head sump tank, CHST/1 referenced on plumbing equipment schedules.
5. The fifth allowance provided that \$350,000 would be available for "California State University Additional Services." (If this refers to A/E Additional Services, the inclusion of an allowance for A/E design services in a construction contract is not standard practice.)

Typically allowances are included in base bids and intended as estimates for work that will become part of the project's construction contract. It was unusual that the Bid Proposal Form included language stating that all the "allowances shall be deducted from the Base Bid by Change Order," indicating that the work was never intended to become part of the construction contract. It appears that this could possibly be a mechanism of funding work through the construction contract budget.

As a normal step in reviewing change orders, we sampled change orders and traced subcontractor estimates to the actual subcontractor change orders. The Contractor furnished all subcontract files. KPMG reviewed approximately 70 Change Order Requests and, for all significant costs (over \$5,000), were able to trace all subcontractor quotes to change orders issued to the applicable subcontracts with the exception of Change Order No. 16. This change, in the credit amount of \$26,985 omitted a credit for fee of \$1,619, which should have accrued to CSU.

**Change Order Report Analysis:**

As previously discussed in this section, Twining's change order log was not accurate and failed as an adequate management or reporting tool. Although they did provide a report subtitled by reason code, it was also incorrect and overstated total change s by \$423,171.

We found the following errors in the report:

1. Change Order 39 was overstated by \$119,831.
2. Change Order 68 was understated by \$160.
3. Change Order 71 was understated by \$169.
4. Change Order 77 was listed in the amount of \$117,143 but was never executed.
5. Change Order 78 was listed in the amount of \$189,524 but was never executed.
6. Numerous insignificant errors (\$1 to \$4).

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It is highly likely that this information is used by CPDC for annual reporting of change order totals and reasons for changes. In the event this data had been accepted as an accurate document, change orders would be calculated as 6.8% of the contract rather than the actual 4.87%.

We further found that Change Order 76 executed August 16, 2000, in the amount of \$17,400 had been billed by EMMA in the amount of \$21,400 and as of the November, 2000, retention billing, had still not been identified and corrected. Change Order 42 is also overstated by \$1,033 on the contractor's pay request. These errors could ultimately result in an overpayment to the Contractor in the amount of \$5,033. A change order log with an accumulating balance is a critical management tool and control mechanism when approving contractor's pay requests. Similarly, if appropriately utilized, the above errors would have been detected when reconciling EMMA's monthly invoices to approved change order amounts. The updated version of SUAM (11/00) (not utilized in this project) includes a "Change Order Log" (Form 703.04L (10/00)) that we believe to be an appropriate tracking tool and similar to those commonly used to monitor change orders.

KPMG adjusted Twining's data and extracted corrected totals by reason code. Following is the result of that analysis:

Type of Change	C.O. Totals	% Of CO	% Of Contract
4.1 Errors/Omissions from the Contract Documents	\$1,581,065	148.79%	7.24%
4.2 Unforeseeable job site conditions	361,255	34.00%	1.65%
4.3 Regulatory agency, bldg. code, safety, health	842	0.08%	0.00%
4.4 Originated by the University	30,773	2.90%	0.14%
4.4 Originated by the University – Allowances	-915,000	-86.11%	-4.19%
4.5 Unavailability of specified materials	-2,556	-0.24%	-0.01%
Miscellaneous not coded	6,203	0.58%	0.03%
Total Change Orders	\$1,062,582	100.00%	4.87%
Original Contract Amount	21,832,000		
Total	\$22,894,582		

***Recommendations:***

2. CPDC should more clearly define in SUAM appropriate uses and processes for establishing allowances.
3. For general contractors and major subcontractors, CPDC should include guidelines for auditing labor burdens at the time construction contracts are awarded. This would establish acceptable mark-ups at project start-up. This should be included in the construction procedural manual distributed to the campuses.

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4. CPDC should confirm the final amount billed by EMMA construction prior to releasing final payment and ensure that EMMA corrects the \$5,033 error contained in the pay request.
5. The Twining report should be corrected and made part of the project close-out files.
6. CPDC should develop a standard form for Contractor's submissions of change order costs for use on campus-managed projects. This should be included in the construction procedural manual distributed to the campuses.

***Management Responses:***

2. We agree. We will implement procedures for future projects by November 30, 2001.
3. We agree. We will implement guidelines for future projects by November 30, 2001.
4. We agree. Change Order No. 76 was processed correctly for \$17,400, and the final payment request was corrected to reflect this number. We will issue a demand requiring that the Contractor reimburse the project for the \$1,033 overstatement of Change Order No. 42 by August 31, 2001.
5. We disagree. The Twining report is a Contingency Status Report. This is the most useful management report produced during a construction project, because it tracks executed change orders, pending change orders, contractor claims, and percentage liability, A/E extra service costs, amendments to testing and inspection agreements, and any money transfers to the University. It is adjusted throughout construction and is used as a snapshot picture to define the total liability, both potential and actual, against the contingency at a given point in time. This was the type of report kept by Twining. A subset of this report is a list of executed change orders, and a simple sort can extract this information. The auditors did not extract this subset, but instead compiled the information from the API report. A copy of the relevant portion of this completed report as it pertained to project close-out, i.e., only fully executed change orders, is already in the close-out files.
6. We agree. We will develop a standard form for inclusion in our procedures manual by November 30, 2001.

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**DESIGN COSTS**

This project was a “re-start” from an earlier designed project. A new A& E firm was introduced to the project team to review previous plans and drawings, upgrade construction documents for conformance with current building codes, provide bidding phase services and construction administration. The scope of the project did not have the traditional components of a new project and, therefore CSU’s standard design fee schedule did not apply until the bidding and construction administration phases.

The project was originally designed by GPRA before the project was put on hold. La Cañada Design Group (LCDG) was brought to the project team in early 1997 to finalize existing working drawings and provide bidding and construction administration services. A contract was executed on March 31, 1997, in the amount of \$816,125. Subsequently, 30 additional services were approved totaling \$499,645, which increased the base contract by 61.22%. Given the state of the HVAC system design problems and the number of change orders flagged as errors and omissions, there is strong evidence that some of the re-design costs included in the additional service authorizations should have been the responsibility of the design engineers and not CSU. These additional services were higher than typical of similar projects. We performed a detailed review of these approved services. The breakdown for base contract services is as follows:

<b>Base Contract Scope</b>	<b>Amount</b>
Review Documents, Plan Check, WD's	\$210,000
Complete Arch & MEP Modif for Group II Equip	35,000
Revise Equipment Schedules	15,000
Telecomm/Data Outlets	15,000
CAD Conversion	20,000
Fire Pump/Fire Alarm Design Upgrades	35,000
Subtotal - Restart Phase	\$330,000
Bidding Phase	67,273
Construction Administration	418,852
<b>Total Base Contract</b>	<b>\$816,125</b>

KPMG found that \$144,218, or 29% of the additional services, was attributable to costs for additional site meetings. This increased the Construction Administration Phase by 34%. The base contract provided one (1) site visit each two (2) week period during construction. It appeared the fee structure utilized by CSU was not adequate to cover required services for construction administration.

LCDG was paid \$67,273 for the bidding phase of their contract. They were paid an additional \$27,214, 40% more, for “audit services to review bid prices for EMMA, Overland, Thorpe & Arrow.” CPDC explained that this additional cost was for a LCDG sub-consultant to provide a detailed audit of certain original trade bids. A copy of the report was provided for our review. We found that CSU paid a 10% mark-up that

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equated to \$2,633. This cost was a direct result of contracting services through the A/E firm for a sub-consultant that could have been hired direct.

We performed a comprehensive review of 48 invoices representing additional services. In all but two cases, we were able to confirm that billings were in accordance with the approved services. For two additional services, we showed balances due for less than \$1,000. CPDC provided a detailed spreadsheet that accurately reflected all additional service amounts.

***Recommendations:***

7. CPDC should address whether the design firm should share in some of the additional costs for change orders and additional design services.
8. CSU should contract directly with service providers in order to avoid unnecessary mark-ups by vendors.

***Management Responses:***

7. We agree. CPDC is presently pursuing recovery from the designers for costs due to an excessive amount of errors and omissions. It is anticipated that this effort will likely take as much as two years to resolve.
8. We agree to contract directly with service providers where we judge it to be appropriate. However, in this case, this was an audit of the contractor and subcontractors to determine whether the submitted costs and credits were reasonable and fair. This effort was led by the A/E team. The hiring of a company to supplement the A/E team's efforts was appropriately maintained under the control and guidance of the A/E team. Therefore, under the A/E agreement, the 10% mark-up is correct.

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**PROJECT MANAGEMENT SERVICES**

Twining Laboratories of Southern California, Inc. performed limited administrative duties, on-site inspection, and testing services. KPMG reviewed all seven amendments issued against the service agreement and 33 invoices processed throughout the project. We found the term of services consistent with the actual construction term. Billings against the agreement were \$44,225 less than the authorizations. We found no agreement or change order reducing the scope of services commensurate with this fee reduction.

The original inspection and testing agreement with Twining was executed on December 15, 1997, in the amount of \$600,000. Six subsequent amendments increased the final agreement by \$120,730. The original agreement provided \$500 for expenses even though Twining's original proposed fee schedule, Exhibit A of the agreement, did not request reimbursement for expenses. At the request of the University, Twining requested that \$5,000 be authorized for "pagers, computers, e-mail, business cards, phone system, and other miscellaneous items." CPDC issued Amendment 1 that authorized an additional \$10,000 for these costs. Actual costs expended were \$4,901. We also discovered that Twining charged a 15% mark-up on expenses for the invoices we selected to review. There was no provision in the agreement or in the amendments that authorized such a mark-up.

We note that Twining provided limited PM services for this project as part of their scope of services. Although limited, it is not consistent with best industry practice to engage the same firm for testing and contract project management.

The project agreement and payments are as follows:

Base Contract Scope	Amount
Original 1 - From 1/5/98 to 9/30/99	\$600,000
Amend 1 - Additional Reimbursable Costs	10,000
Amend 2 - Added Testing & Three Months to 12/31/99	200,000
Amend 3 - Two Additional Months to 2/29/00	6,000
Amend 4 - Deleted Amend. 2 - Added 3 Months to 5/31/00	(200,000)
Amend 5 - Extra Services	4,730
Amend 6 - Rate Change and Added 2 months to 7/30/00	100,000
Total Revised Agreement	\$720,730

Services Paid	Amount
Assistant Project Manager	\$55,200
Inspector of Record	542,604
Testing	62,152
Reimbursable Expenses	4,901
Total Amounts Paid	\$664,857

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KPMG considered only those costs for project management and inspection services when comparing services rendered to total construction costs. Total fees paid for these services were \$614,353 and represented 2.68% of total construction costs. This amount is within industry standards of 2.5% to 3.5% for project management/inspection services. The table below places the project PM/Inspection fees in the context of other projects reviewed as part of our CSU construction assurance work:

Project	Final Construction	Final PM Costs	Percent	Year	
SL-98-500	\$9,000,000	\$839,943	9.33%	00-01	
LB-610	10,651,263	680,000	6.38%	98-99	
HA-434	8,908,995	360,878	4.05%	99-00	
ST-462	13,040,983	501,048	3.84%	98-99	
SJ-535	22,754,755	783,431	3.44%	99-00	
SF-454	8,848,007	297,277	3.36%	97-98	
PO-261	23,642,238	736,330	3.11%	00-01	
CH-604	8,890,473	245,000	2.76%	99-00	
LA-443	22,895,615	614,353	2.68%	00-01	
SD-965R	32,521,297	860,892	2.65%	97-98	
HU-437	8,885,916	224,243	2.52%	99-00	
SL-475	26,084,489	590,187	2.26%	98-99	
NO-496R	24,271,292	531,500	2.19%	98-99	
SA-448	12,045,295	259,698	2.16%	00-01	
SF-476	27,847,804	543,477	1.95%	98-99	
LA-442	18,881,340	336,340	1.78%	97-98	
CO-627B	26,112,338	459,451	1.76%	98-99	<i>(Pre Completion)</i>
SSU-1878	35,417,507	523,630	1.48%	00-01	
SJ-200R	13,795,810	190,000	1.38%	99-00	<i>(Limited Scope)</i>
SM-460	12,534,361	160,643	1.28%	99-00	<i>(Limited Scope)</i>
SD-001-98	17,916,852	114,286	0.64%	00-01	<i>(Limited Scope)</i>
LB438	<i>(Not Evaluated)</i>			97-98	<i>(Not Evaluated)</i>
Totals	\$384,946,630	\$9,852,607	2.56%		

**Recommendations:**

9. When authorizations are issued and it is later determined that the work is no longer required or the scope of service is reduced, CPDC should issue amendments to document actual services so that encumbered funds are not expended against unauthorized invoices.
  
10. Service agreements/amendments should clearly state what expenses are allowable and how they will be reimbursed. Any equipment should be formally relinquished to the campus and documented at completion of the project.

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11. On-site project managers acting on behalf of the owner should be hired independently of testing service firms whenever economically practicable.

***Management Responses:***

9. We agree. We will implement procedures for future projects by November 30, 2001. In this particular case, services were continuing after the audit for the inspection of the construction of completion items and resolution of mechanical problems. Therefore, the work was performed against basic services of the contract, and no amendment was necessary to document any reduced scope or funds.
10. We disagree. Our standard agreements are set up with an allowance for project-related reimbursables. The reimbursables must be authorized in writing in advance and a final review and acceptance of any miscellaneous costs occurs at the time of receiving and approving the invoices.
11. We agree. We will implement procedures for future projects by November 30, 2001.

**LIQUIDATED DAMAGES**

The original contractual completion date was extended by 343 days that revised the completion date to July 7, 2000. Notice of Completion indicated a July 6, 2000, completion date and was recorded on July 7, 2000. We found no record that liquidated damages were assessed; they had been waived through change orders issued throughout the project and in two final settlement change orders, Nos. 75 and 76. These interim change orders established revised completion dates for each phase as they were completed.

Change Order 75, in the amount of \$100,000 added 112 days to the construction schedule. EMMA had requested extended jobsite costs of \$161,748 and an additional 96 days. Documentation that supported this change order indicated aggressive negotiation by CPDC. The final amount accepted by the Contractor and CPDC was \$100,000. We did not determine why the additional 16 days were granted, which would have equated to \$48,000 in liquidated damages, if assessed.

Change Order 76 addressed 14 open Change Order Requests in the amount of \$21,400 and was appropriately supported. CSU deducted \$4,000 from this negotiated amount to cover communication costs incurred by the University.

The following shows the number of days for each overlapping phase and specific change orders that included time extensions:

Description of CO	Tt. Days	Phase 1	Phase 2	Phase 3
Original Completion Dates by Contract	565	241	264	180
		9-Sep-98	14-Jun-99	30-Jul-99
Change Order 3	42	14-Dec-98	10-Sep-99	10-Sep-99
Change Order 30	75	9-Apr-99	24-Nov-99	24-Nov-99
Change Order 50	93		25-Feb-00	25-Feb-00
Change Order 75	112		16-Jun-00	16-Jun-00
Change Order 76 - Final Completion	21	7-Jul-00	7-Jul-00	7-Jul-00
Total Change Orders	908			

***Recommendation:***

- CPDC should document the variance in the Contractor’s requested 96 days and why 112 days were granted in Change Order 75.

***Management Response:***

12. We disagree. At the time of the Contractor submitting his claim for a delay and compensation for extended overhead due to these owner-caused delays, the construction contract was ongoing. Required changes to the design were still being discovered. In many cases these changes had to be implemented to enable the occupancy and the proper functioning of the building. Therefore, though the Contractor claimed for \$161,748 and 96 calendar days, additional delays and costs continued to be realized. Contract Change Order No. 75 reflects a global settlement of all the issues as they were manifested at the time of the agreement to the change order.

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**MAJOR EQUIPMENT REVIEW**

The initial review of Contract Documents and Specification was performed in the office of CPDC on January 29-31, 2001. Submittal records were provided and reviewed on February 1-2, 2001, at EMMA's office.

Of the submittals reviewed, all were traced from Project Specifications through submittal data and final acceptance. We found that the equipment specified was supported with required acceptance documentation. A project walk-through was conducted on February 23, 2001, with representatives from campus personnel. The intent of this walk-through was to verify that specified and approved equipment had been provided and installed by the Contractor. Of the areas selected for review, all sampled specified equipment had been installed.

The following equipment items and specific model data, were approved and visually confirmed as installed at the campus:

Submittal	Division Section	Equipment Description	Specified Manufacturers
39	11131	Projection Screens	Da-Lite Screen Co (sole-sourced)
57.2	11605	Screen Printing Press	American Cameo 24 - 43-4570-8 (American M&M)
57.3	11605	Hydroblaster Water Reclaiming	Hydro Engineering Model 325 E
57.3	11605	Hydroblaster Stand	Hydro Stand 325ESTD
46	11605	Paint Booth	Bleaker Brothers Model PF-DF-8-8-7 (Mon Dragon)
24	16210	Engine Generator	Generac (sub company) 133DTA Model SD230
		Including:	18 Light Programmable Annunciator (Power Monitor)
			Battery Index - Part 61915
			Coolant Heaters - Part BSP220/KSP
			Governors - Model 79525
			Dual Rate Batter Charger - 10 AMP
			Rampower 232 touch-Sensitive Keypad
			Rampower 232 Communication Ports
			Rampower 232 Status Indicators
			Rampower 232 Output Metering

***Recommendation:***

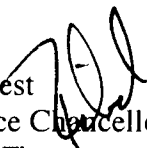
None

# Memorandum

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

**Date:** July 17, 2001

**REVISED:** September 14, 2001

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

**RECEIVED**  
University Auditor

SEP 18 2001

**Subject:** **Audit Report**  
Engineering & Technology Building Renovation, Project No. LA-443  
California State University, Los Angeles

The California State  
University

I am pleased that the overall 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.

### Contractor Compliance – Subcontracting Practices

#### Recommendations:

1. We agree. If the approvals were not properly requested and approved, we shall issue a demand assessing penalties and we shall pursue recovery or other appropriate sanctions.

### Construction Change Orders

#### Recommendations:

2. We agree. We will implement procedures for future projects by November 30, 2001.
3. We agree. We will implement guidelines for future projects by November 30, 2001.
4. We agree. Change Order No. 76 was processed correctly for \$17,400, and the final payment request was corrected to reflect this number. We will issue a demand requiring that the Contractor reimburse the project for the \$1,033 overstatement of Change Order No. 42 by August 31, 2001.
5. We disagree. The Twining report is a Contingency Status Report. This is the most useful management report produced during a construction project, because it tracks executed change orders, pending change orders, contractor claims, and percentage liability, A/E extra service costs, amendments to testing and inspection agreements, and any money transfers to the University. It is adjusted throughout construction and is used as a snapshot picture to define the total liability, both potential and actual, against the contingency at a given point in time. This was the type of report kept by Twining. A subset of this report is a list of executed change orders, and a

simple sort can extract this information. The auditors did not extract this subset, but instead compiled the information from the API report. A copy the relevant portion of this completed report as it pertained to project close-out, i.e. only fully executed change orders, is already in the close-out files.

6. We agree. We will develop a standard form for inclusion in our procedures manual by November 30, 2001.

#### *Design Costs*

##### *Recommendations:*

7. We agree. CPDC is presently pursuing recovery from the designers for costs due to an excessive amount of errors & omissions. It is anticipated that this effort will likely take as much as two years to resolve.
8. We agree to contract directly with service providers where we judge it to be appropriate. However, in this case, this was an audit of the contractor and subcontractors to determine whether the submitted costs and credits were reasonable and fair. This effort was led by the A/E team. The hiring of a company to supplement the A/E team's efforts was appropriately maintained under the control and guidance of the A/E team. Therefore, under the A/E agreement, the 10% mark-up is correct.

#### *Project Management Services*

##### *Recommendations:*

9. We agree. We will implement procedures for future projects by November 30, 2001. In this particular case, services were continuing after the audit for the inspection of the construction of completion items and resolution of mechanical problems. Therefore, the work was performed against basic services of the contract, and no amendment was necessary to document any reduced scope or funds.
10. We disagree. Our standard agreements are set up with an allowance for project-related reimbursables. The reimbursables must be authorized in writing in advance and a final review and acceptance of any miscellaneous costs occurs at the time of receiving and approving the invoices.
11. We agree. We will implement procedures for future projects by November 30, 2001.

#### *Liquidated Damages*

##### *Recommendations:*

12. We disagree. At the time of the Contractor submitting his claim for a delay and compensation for extended overhead due to these owner-caused delays, the construction contract was ongoing. Required changes to the design were still being discovered. In many cases these changes had to be implemented to enable the occupancy and the proper functioning of the building. Therefore, though the Contractor claimed for \$161,748 and 96 calendar days, additional delays and costs continued to be realized. Contract Change

Memo to Mr. Mandel  
July 17, 2001, *REVISED September 14, 2001*  
Page 3

Order No. 75 reflects a global settlement of all the issues as they were manifested at the time of the agreement to the change order.

RPW:JRC:su

cc: Mr. J. Patrick Drohan  
Mr. James R. Corsar  
Mr. Robert Schulz

THE CALIFORNIA STATE UNIVERSITY  
OFFICE OF THE CHANCELLOR

BAKERSFIELD

CHANNEL ISLANDS

October 4, 2001

CHICO

MEMORANDUM

DOMINGUEZ HILLS

FRESNO

TO: Larry Mandel  
University Auditor

FULLERTON

FROM: Charles B. Reed  
Chancellor

HAYWARD

HUMBOLDT

SUBJECT: KPMG Peat Marwick Draft Final Report on the *Engineering & Technology Building Renovation Project (LA-443)* at California State University, Los Angeles

LONG BEACH

LOS ANGELES

MARITIME ACADEMY

In response to your memorandum of October 4, 2001, I accept the response as submitted with the draft final report on the *Engineering & Technology Building Renovation Project* at California State University, Los Angeles.

MONTEREY BAY

NORTHRIDGE

CBR:amd

POMONA

Enclosure

SACRAMENTO

cc: Dr. James M. Rosser, President  
Richard P. West, Executive Vice Chancellor and  
Chief Financial Officer

SAN BERNARDINO

SAN DIEGO

SAN FRANCISCO

SAN JOSE

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS