

**CALIFORNIA STATE UNIVERSITY,
LONG BEACH**

LIBRARY ADDITION AND RENOVATION PROJECT

Final Report

July 21, 2008

CONSTRUCTION PROJECT EVALUATION
CALIFORNIA STATE UNIVERSITY, LONG BEACH
LIBRARY ADDITION AND RENOVATION PROJECT

July 21, 2008

Prepared by:



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This report and all associated analysis contained herein are based upon information made available to KPMG LLP. KPMG LLP is not responsible for incomplete or inaccurate information provided during the preparation of this report. This report only presents and summarizes factual data and does not represent an opinion or attestation to the position, approach, or representation of information made by any other party involved with this evaluation.

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EXECUTIVE SUMMARY

Summary of Findings

Based upon our evaluation, the Library Addition and Renovation Project (“the Project”) at California State University, Long Beach (“CSULB”) was administered consistent with our expectations of a project of this size, scope, and complexity, but with certain areas in the contract administration process that could be improved.

Our observations, associated risks, and recommendations are summarized below. Examples of specific action steps are further detailed in the body of this report.

	Observation	Risk	Recommendation
1.	Extra work was not consistently authorized with ESA’s, as specified by SUAM 9210.03.	Using a non-standard method to formally contract for architectural services may put CSULB at an unnecessary contractual risk and could lead to disagreements over terms and conditions, including scope and fee.	In the future, CSULB should adhere to the guidance in SUAM 9210.03 and utilize ESA’s to authorize increases in the contractual amounts. (Ownership: CSULB)
2.	Schematic design services were performed before an agreement had been formally executed with the architect.	Allowing work to be performed prior to the execution of an agreement exposes CSULB to unnecessary contractual risk in the event of a later dispute.	Contractual agreements should be fully executed and effective prior to any work being performed on a project. (Ownership: CSULB)
3.	Countersignatures were not obtained from service providers on ESA’s as required by SUAM 9210.03.	Unilaterally signed contract documents may not sufficiently protect CSULB in case of a dispute.	In the future, CSULB should obtain countersignatures when authorizing ESA’s. (Ownership: CSULB)

INTRODUCTION

Purpose

KPMG LLP (“KPMG”) was retained by California State University’s (“CSU”) Office of the University Auditor on October 29, 2004 and subsequent amendment dated August 16, 2008 to perform an independent project evaluation of California State University, Long Beach’s Library Addition and Renovation Project (“the Project”).

The overall objective of the construction evaluation was to assess construction management practices for the Project and to substantiate that it was managed in accordance with law, Trustee policy, generally accepted business practices, and industry practices.

To the extent they were uncovered as part of our work, this report provides conclusions and recommendations addressing necessary process improvement and recovery of project costs. Recommendations are listed and numbered sequentially throughout this report.

Scope

While the basic scope of our work matches that required by CSU’s Request for Proposal (“RFP”) and that which KPMG has performed in prior years, we also included additional items that we believe may provide benefit to CSU. This includes assessing methodologies utilized in verifying reasonableness of contractor change requests, help ensuring that a meaningful submittal review procedures were followed, and a review of project accounting and cost reporting. KPMG identified specific areas within the scope listed below that present the potential for substantive loss or liability for the Project. The various scope categories are outlined in CSU’s RFP, dated July 14, 2004 and KPMG’s proposal, dated July 27, 2004 and contains the following sections:

- Project Background
- Design Cost
- Construction Bid Process
- Construction Change Orders
- Project Management or Inspection Services
- Major Equipment and Materials
- Close-Out Documentation
- Liquidated Damages
- Accounting

Methodology

KPMG's approach to this engagement incorporates a work plan shared with the University Auditor's office as outlined in our agreement with CSU. During the course of our work, we expanded on tasks related to scope sections with the greatest potential risk exposure, in our opinion. The work performed by KPMG was conducted in accordance with our aforementioned methodology, but is not limited to, the following tasks:

- Examine financial records, reports, written CSU procedures, CSU contract documents, and other material related to the Project and compare current practices and procedures with CSU requirements and best practices in the industry;
- Conduct a preliminary review to determine project emphasis;
- Interview key individuals involved in the Project;
- Identify significant deficiencies, if any;
- Recommend changes that may result in streamlining the design/construction process, assuring adequate project controls and reducing costs; and
- Prepare a written report of our findings and recommendations.

Exclusions

The services, fees, and delivery schedule for this engagement are based upon the following assumptions, representations, or information supplied by CSU.

1. KPMG is not responsible for and will not make management decisions relating to this Project or any other aspect of CSU's business. CSU shall have responsibility for making all decisions with respect to the management and administration of its real estate and capital projects.
2. CSU management accepts responsibility for the substantive outcomes of this engagement and, therefore, has a responsibility to be in a position in fact and appearance to make an informed judgment on the results of this engagement.
3. Our work under this engagement did not include technical opinions related to engineering, operations, and maintenance.
4. KPMG's work under this engagement did not include a review, audit, or evaluation of financial statements, tax services, or other services of KPMG not listed in this Statement.
5. We have, and will continue to consider the effect of this engagement on the ongoing, planned, and future audits, as required by *Government Auditing Standards* and have determined that this engagement will not impair KPMG's independence.

PROJECT BACKGROUND

The California State University, Long Beach (“CSULB”) Library Addition and Renovation Project (“the Project”) consisted of improvements to the existing library and Academic Services building. The work included reconfiguration of the HVAC, electrical, and telecommunications systems on the second and third floors of the Academic Services building and renovations to the lower level and floors one through five of the library. The library renovation work involved partition reconfigurations, replacement of HVAC equipment and ductwork, restroom upgrades and additions, and reconfiguration of electrical and telecommunications systems.

The new construction elements of this Project include a 45-foot high single-story warehouse for the books, an elevator tower and entry tower north of the Academic Services building including a ramp for ADA accessibility, various stairs and a vertical conveyor for moving books to the new book warehouse.

The work was completed in phases since the facilities were functional at the time the renovation work was performed. Phase A included the renovations to the second and third floors of Academic Services building as well as construction of the new elevator tower, and Phase B involved the construction of the book warehouse. Phases A and B were performed simultaneously. Phase C included the work on the library and was completed two floors at a time to minimize disruption to students and faculty.

From May 5 through May 9, 2008, KPMG conducted fieldwork at the CSULB campus. During fieldwork, KPMG reviewed records from the following entities involved with the Project:

Architect	Caldwell Architects, Inc.
General Contractor	Kemp Bros. Construction, Inc.
Inspector of Record	TGR Geotechnical, Inc.
Project Management and Administration	CSULB’s Physical Planning and Facilities Management Office

Follow-up discussions to clarify issues and supplement supporting documentation were conducted through the completion of this report.

Delivery Methodology

The Project was delivered using a design-bid-build, lump sum contracting methodology.

Timeline

CSULB retained Caldwell Architects, Inc. (“Caldwell”) to perform design services for the Project on April 3, 2003. Construction for the Project was initially bid on August 3, 2004, but the lowest bid exceeded the construction estimate by \$8.4 million, and CSULB and CSU Capital Planning, Design and Construction (“CPDC”) decided to re-bid the Project.

The Project was value engineered, new funding was secured, and the Project was re-bid on March 22, 2006. Kemp Bros. Construction, Inc. (“Kemp”) was selected as the contractor for the Project through the competitive bidding process, and a contract was signed between CSULB and Kemp on April 17, 2006.

The Notice to Proceed was issued establishing May 30, 2006 as the start of the Project and November 28, 2007 as the completion date. A total of 61 days were added to the Project through the change order process establishing the new completion date as January 29, 2008. The Notice of Completion was issued on January 28, 2008.

Project Costs

In September 2002, the CSULB Library Addition and Renovation project appeared on the Board of Trustees (“BOT”) Committee on Campus Planning, Buildings and Grounds Priority List for the State Funded Capital Outlay Program 2002/03 in the amount of \$19,083,000.

CSULB received a letter from the Assistant Vice Chancellor of CPDC on July 10, 2003 providing Schematic Approval for the Project, and authorizing them to proceed to the Preliminary Design phase base on Schematic Designs presented on June 9, 2003. Since this Project primarily consisted of a remodel, BOT did not need to approve the schematic plans in addition to CPDC, per BOT’s approval delegation authority.

The \$19,083,000 was initially allocated to the Project, but \$17,652,000 was reverted after the initial bid was unsuccessful and the decision was made to redesign and re-bid the Project. The \$1,431,000 difference was expended on the initial design efforts. Caldwell was not compensated any additional costs for the redesign.

In March of 2005, the Project was listed on the BOT Campus Planning, Buildings and Grounds Program 2005/2006 Priority list in the amount of \$31,326,000, exclusive of Group II Equipment. The Group II Equipment budget was established at \$481,000 in September 2007 bringing the total budgeted project costs to \$32,908,000. In addition to the allocated funding additional funding in the amount of \$3,403,940 was obtained by CSULB from other sources bringing the total available Project funding to \$36,311,940.

PROJECT BACKGROUND

At the time of our fieldwork, there were \$35,931,476 in commitments on the Project and \$35,739,454 had been expended in actual costs. At the time of this review, the budget on the Project exceeded commitments by \$380,463 and it was projected by CSULB that the Project would finish within the available budget.

Description	Budget (2-7)	Commitments	Actual	Variance (Budget - Commitments)
Construction	\$ 27,850,000	\$ 31,886,342	\$ 31,784,043	\$ (4,036,342)
Architect and Engineering	1,648,000	2,154,426	2,065,904	(506,426)
Contract Management	1,036,000	1,419,852	1,419,852	(383,852)
Contingency	1,206,000	-	-	1,206,000
Required Additional Services	687,000	400,567	400,567	286,433
Group II Equipment	481,000	70,289	69,087	410,711
Subtotal	\$ 32,908,000	\$ 35,931,476	\$ 35,739,454	\$ (3,023,476)
Funds provided from concessions ("49:er shop")	\$ 216,758			\$ 216,758
Funds provided from Library /General Fund	1,387,182			1,387,182
Funds provided from Equipment /General Fund	1,500,000			1,500,000
UCES - College Allocations/Faculty Mentoring Program	300,000			300,000
Subtotal Additional Funding	\$ 3,403,940			\$ 3,403,940
Total	\$ 36,311,940	\$ 35,931,476	\$ 35,739,454	\$ 380,464

Recommendation:

None

DESIGN COSTS

CSULB executed a Service Agreement in the amount of \$1,266,000 on April 3, 2003 to retain Caldwell Architects, Inc. ("Caldwell") to perform basic architectural services for a Project with estimated construction costs of \$14,997,000. As a result of a re-bid process and an increased construction cost estimate, portions of the basic architectural services were increased by \$337,840, as architectural services are computed as a percentage of construction costs. This increase did not include any design development services, as Caldwell was responsible for designing the Project within the original construction budget and when this failed, no additional cost was awarded for redesign of the Project with a revised construction budget of \$27,850,000. SUAM 9210.02 allows budget increases to the agreement through Phase Authorization letters. The following table shows the initial basic service amounts and the basic services, post design development, as increased by Phase Authorizations:

Description	Amount per Initial Agreement	Increases by Phase Authorizations	Revised Base Agreement Amount
Project A/E Agreement 8348			
Schematic Design (20%)	\$ 253,200	\$ -	\$ 253,200
Design Development (14%)	177,240	-	177,240
Construction Documents (38%)	481,080	-	481,080
Bidding (2%)	25,320	88,000	113,320
Construction Administration (22%)	278,520	210,480	489,000
Record Drawings (4%)	50,640	39,360	90,000
Total Project A/E Agreement 8348	\$ 1,266,000	\$ 337,840	\$ 1,603,840

One amendment and 13 Extra Service Authorizations (ESA's) were executed increasing the total amount of design services to \$1,825,175 as shown in the table below:

Description	Date	Amount
Project A/E Agreement 8348 (as increased by Phase Authorizations)	4/3/2003	\$ 1,603,840
Extra Services Authorizations to Agreement 8348		
Amendment #1 - Modify original East Library Program	6/17/2003	\$ 18,000
ESA #2 - Provide topographic survey for drainage purposes	6/14/2004	800
ESA #3 - Review code changes, cost estimate and schedule	6/22/2005	58,000
ESA #4 - Reimbursement plan approval	12/1/2005	4,900
ESA #5 - Various plan and specification modifications	3/7/2006	108,560
ESA #6 - Revise Internet Café and coordinate Starbucks	5/2/2006	24,975
ESA #7 - Modify construction documents for new Server Room	6/22/2006	5,450
ESA #8 - Structural calculations for Academic Services loads	7/10/2006	650
ESA #9 - Modifications for new electrical panel and circuiting	10/19/2006	2,000
ESA #10 - Modifications to relocate service window	12/14/2006	1,500
ESA #11 - Provide services related to the new emergency generator	2/14/2007	12,000
ESA #12 - Review HK Systems work and respond to RFI's	2/14/2007	10,000
ESA #13 - Services related to demolition and redesign of office space	8/22/2007	4,900
Total for Project A/E Agreement 8348		\$ 1,825,175

DESIGN COSTS

In addition to the initial Agreement, Phase Authorizations, Addendum, and ESA's, CSULB executed additional Service Agreements, ESA's, and addendums in the amount of \$116,300 bringing the total contracted value for design services by Caldwell to \$1,941,475 as follows:

Total for Project A/E Agreement 8348	\$ 1,825,175
Additional Design Agreements	
Agreement 9403 - University Library Internet Café	5,000
Amendment 1 - Site invest., contracts review, construction observation	18,000
Subtotal Agreement 9403	\$ 23,000
Service Agreement 12407 - Library Consulting Services	14,800
Subtotal Agreement 12407	\$ 14,800
Project A/E Agreement 16733 - Infill 3rd floor at Lobby Atrium	38,000
ESA #1 - Provide documents and obtain approvals	35,000
Subtotal Agreement 16733	\$ 73,000
Service Agreement 21753 - Library Lobby Floor Repairs	5,500
Subtotal Agreement 21753	\$ 5,500
Subtotal Additional Design Agreements	116,300
Total for Contracted Value for Design Services by Caldwell	\$ 1,941,475

According to SUAM 9208, Service Agreements should be used to authorize design services for minor capital projects and do not contain the comprehensive framework for deliverables as identified in the Architect/Engineer Agreement. According to SUAM 9210.03, ESA's are intended to authorize extra work and special project requirements beyond that required by the base agreement while not materially changing the scope of work. The scope of the additional agreements and amendments fit within this description and therefore this work should have been authorized using ESA's.

Observation:

Extra work was not consistently authorized with ESA's, as specified by SUAM 9210.03.

Risk:

Using a non-standard method to formally contract for architectural services may put CSULB at an unnecessary contractual risk and could lead to disagreements over terms and conditions, including scope and fee.

Recommendation:

1. In the future, CSULB should adhere to the guidance in SUAM 9210.03 and utilize ESA's to authorize increases in the contractual amounts.

(Ownership: CSULB)

Campus Response:

1. We concur. A memorandum was issued to staff on July 18, 2008 defining the process to be followed based on SUAM 9210.03. Corrective action on this issue is complete.

Work Performed Prior to Contract Execution

KPMG compared the execution date on the Service Agreement, Project Architect/Engineer Agreement, Amendments and ESA's to the dates on the first invoices for those authorizations to determine if work was performed prior to the execution of an agreement. According to SUAM 9210.01, agreements for professional services are not in force until approved by CSU Office of General Counsel.

The initial Agreement with Caldwell was executed on April 3, 2003, and the first invoice in the amount of \$126,000 for 50% schematic design services was issued the same day indicating design services were performed prior to full execution of the Agreement. No other deviations were found.

Observation:

Schematic design services were performed before an agreement had been formally executed with the architect.

Risk:

Allowing work to be performed prior to the execution of an agreement exposes CSULB to unnecessary contractual risk in the event of a later dispute.

Recommendation:

2. Contractual agreements should be fully executed and effective prior to any work being performed on a project.

(Ownership: CSULB)

Campus Response:

2. We concur. A memorandum was issued to staff on July 1, 2008 defining the process to be followed. Corrective action on this issue is complete.

Countersignatures

SUAM 9210.03 requires that ESA's be countersigned by the service provider. This guidance was effective starting in January 2007, and as such only applies to ESA's 11-13 of Agreement 8348 since these ESA's were issued after the effective date of the new guidance. None of these ESA's contained the required countersignature and had a total value of \$26,900. The lack of countersignatures was also found on ESA's issued between CSULB and the TGR Geotechnical, Inc. for Inspection Services.

Observation:

Countersignatures were not obtained from service providers on ESA's as required by SUAM 9210.03.

Risk:

Unilaterally signed contract documents may not sufficiently protect CSULB in case of a dispute.

Recommendation:

3. In the future, CSULB should obtain countersignatures when authorizing ESA's.

(Ownership: CSULB)

Campus Response:

3. We concur. A memorandum was issued to staff on July 1, 2008 defining the process to be followed based on SUAM 9210.03. Corrective action on this issue is complete.

CONSTRUCTION BID PROCESS

The bid notification for this Project was issued in May 2004 with bid opening taking place on August 3, 2004. Competitive bids were received from Douglas E. Barnhart, Inc., RQ Construction, Inc., Solpack, Inc., and Swinerton Builders ranging from \$23,487,629 to \$23,889,000. The construction estimate at the time was \$14,997,000 and the lowest bid exceeded this amount by more than \$8.4 million or 57%. This significant overage can be explained by the following factors:

- (1) The original construction cost estimate was completed in 2001 and had not undergone any revisions since appearing on the BOT Committee on Campus Planning, Buildings and Grounds Priority List for the State Funded Capital Outlay Program in September 2002.
- (2) The cost estimator hired by Caldwell produced cost estimates significantly lower than the actual market. CSULB and Caldwell relied on the cost estimator's representation.
- (3) Construction costs were rapidly increasing at the time of bid.

Since the bids were closely clustered and exceeded the budget by a significant amount, CSULB determined in conjunction with CPDC the Project should be re-designed and re-bid. The Project was value engineered during the fall 2004 and among other things, book retrieval system valued at approximately \$2.25 million was removed from the scope. There were significant changes made which required the plan check process to be performed again. In addition, the funds that initially had been allocated for the Project were reverted, and new funding needed to be secured for the Project. Once the revised plans were ready, a new bid package was created and the bid process began again in early 2006.

In preparation for the re-bid, CSULB placed the appropriate advertisements, sent notice to various contractors directly regarding the Project bid, and reportedly also called a few contractors to let them know about the bid. Despite efforts to encourage contractors to bid on the Project, when the Project was re-bid on March 22, 2006, Kemp Brothers Construction Inc. ("Kemp"), was the only bidder and had a base bid of \$27,850,000. This was significantly more than the original construction cost estimate of \$14,997,000 although the amount was in line with the revised estimate prepared for the rebid.

CSULB reached out to other contractors to determine why they did not bid on the Project and the consensus was that the contractors did not want this Project because it included renovation. This bid occurred during a time of rising material costs and the environment was not favorable for renovations because the profit margins were smaller and contractors preferred new known work as opposed to a project having the potential for more unknown existing conditions.

KPMG reviewed CSULB's bid files and bid process for the first bid, and nothing came to KPMG's attention that would indicate any discrepancies. The Project was appropriately advertised, a pre-bid walk was held and well attended, and the bids were properly evaluated. SUAM 9774 states that projects for which the low bid is grossly over the Trustee's filed estimate may have all bids rejected. As such, CSULB was within their rights to reject all bids, revise the plans and re-bid the Project.

With regard to the second bid process, the Project was properly advertised, a pre-bid walk through was conducted on January 19, 2006, the appropriate copy of the contract general conditions, supplementary conditions and prevailing wage rates were issued with the RFP. The successful bidder, Kemp, submitted a cost proposal as well as the other required forms and documentation at the time of bid followed by DVBE documentation and the Expanded List of Subcontractors as required.

Recommendation:

None

Subcontractor Substitution

A single subcontractor substitution was made on this Project. M.S. Rouse Company was included in the Expanded List of Subcontractors to perform the flooring scope of work. On May 22, 2006, M.S. Rouse sent a letter to Kemp retracting their flooring bid due to their workload. Kemp notified CSULB by letter on July 23, 2006 of their intent to substitute Progressive Floor Covering to perform the flooring scope of work. Per California Public Contract Code 4107(a), CSULB sent a letter to M.S. Rouse on July 26, 2006 notifying them of the request for substitution, and that the substitution would be approved if they did not respond within five working days. No response was received, and CSULB granted the request for substitution in a letter to Kemp dated August 4, 2006.

Recommendation:

None

CONSTRUCTION CHANGE ORDERS

At the time of KPMG's fieldwork, a total of 117 change orders had been executed on the Project with a total value of \$1,729,390. The following table summarizes the executed change orders:

C/O	Description	Date	Amount
1	Modify wire mold and data drops, relocate 3" conduit	11/30/2006	1,054
2	Install fire extinguishers and cabinets, provide 200 amp disconnect	11/30/2006	6,287
3	Provide tile material, delete building letters, delete power unit	11/30/2006	(34,341)
4	Substitution of shot pin anchor system for drilled expansion anchor	11/30/2006	(36,980)
5	Lamp disposal, add metal studs and hanger wires, furnish new hardware	12/21/2006	9,684
6	Abate flooring, remove fireproofing, remove shaft wall, demolish wall	12/21/2006	11,070
7	Delete projector mount install, add electrical panel	12/21/2006	4,314
8	Insulate toilet ceilings, install partitions and soffits	1/10/2007	3,258
9	Fill recess on deck, correct concrete slopes, provide curbs	1/10/2007	50,442
10	Install new acoustical ceiling grid, tile, air grilles	1/8/2007	72,598
11	Add toilet partition supports	1/10/2007	24,262
12	Install new ceiling system and lights	2/12/2007	36,006
13	Demolition and asbestos abatement of 1st floor ceiling	2/2/2007	32,062
14	Provide additional data and electrical services for library	2/2/2007	76,633
15	Add light fixtures, frame and drywall soffit to conceal piping	2/2/2007	1,455
16	Frame and drywall, install lath and level gap, delete fused disconnect	2/2/2007	2,007
17	Agreement to extend contract completion date to 12/24/2007	2/20/2007	-
18	Provide new opening including roll-down door, counter and misc work	2/20/2007	13,267
19	Delete door and modify and relocate other doors, replace frame	2/20/2007	(1,543)
20	Extend walls, additional material for infill, delete door work, build soffit	2/20/2007	2,067
21	Restore book storage area from water damage	4/6/2007	50,209
22	Provide beam and support, reroute water and waste pipe	4/6/2007	27,708
23	Reroute fire sprinkler, plaster columns, delete light fixtures	4/6/2007	4,111
24	Remove and replace wood flooring at elevator lobby	4/25/2007	76,575
25	Add marble thresholds, re-layout costs for wall partition dimension change	4/19/2007	928
26	Identify gas line for emergency generator for test & backfill	4/19/2007	14,121
27	Add drywall and sealant to walls to comply with fire marshal	4/19/2007	14,515
28	Remove bolts in flooring	4/19/2007	11,361
29	Extend wall to maintain fire rating and install three new louvers	4/19/2007	2,030
30	Delete demolition contract scope & install new openings & additional lights	5/4/2007	31,857
31	Replace louvers, floor preparation and patching, torch cut holes	5/4/2007	23,101
32	Modify exit sign design, replace water heater, reroute fire sprinkler drain	5/4/2007	24,135
33	Delete flashing requirements for brick installation	5/4/2007	(4,099)
34	Change paint colors and add duplex receptacle to Starbucks	5/4/2007	1,858
35	Relocate junction boxes	5/4/2007	953
36	CSULB taken beneficial occupancy of library lower level and 1st floor	5/24/2007	-
37	Changes to door frames, door and hardware, change type of door hinges	5/15/2007	22,022
38	Modify mechanical piping, additional water piping due to rerouting	5/24/2007	18,894
39	Demolition of water and waste piping, electrical modifications	5/24/2007	861
40	Provide access panel to mechanical shaft	5/24/2007	1,832
41	Add new wire and conduit to feed air handler, waterproof interior of planters	5/29/2007	29,025
42	Add lights and conduit, remove and install new breakers, add terminators	5/31/2007	9,936
43	Remove conflicting ductwork, radix floor prep, remove bolts in floor slab	5/31/2007	8,455
44	Move exit signs from Starbucks restrooms	5/31/2007	289
45	Remove existing ceilings and light fixtures, and add new ceiling registers	5/31/2007	15,747
46	Revised deep foundation system for ASRS building	5/31/2007	44,037

CONSTRUCTION CHANGE ORDERS

C/O	Description	Date	Amount
47	Remove existing emergency generator and install new one	6/5/2007	134,461
48	Mitigate cleanup of asbestos, mechanical piping insulation, remove slurry	6/28/2007	31,940
49	Add smoke seals to doors as required by state fire marshal	6/28/2007	303
50	Haul and dispose of excess soil	7/2/2007	16,087
51	Delete contract requirements for coordination drawings	7/2/2007	(29,680)
52	Remove and abate floor mastic, fill openings in fan rooms	7/2/2007	3,216
53	Remove and install new breakers, frame and drywall area	7/2/2007	2,572
54	CSULB taken beneficial occupancy of Academic services phase of project	7/16/2007	-
55	Revised locations for data and electrical at first floor library info area	7/2/2007	5,615
56	Relocate water filtration system at Starbucks	7/2/2007	5,443
57	Additional painting of existing handrails and brick walls	7/2/2007	1,371
58	Install wire and conduit, install new doors and frames, step footing revision	7/2/2007	13,755
59	Install elevator guide rail supports, additional framing at elevator roof	7/2/2007	13,596
60	Plaster existing pebble columns, modify door opening	7/16/2007	6,901
61	Modification to piping and sprinklers due to ceiling layout change	7/16/2007	10,021
62	Add smoke fire dampers, close off ledge condition	7/16/2007	3,906
63	Landscape and irrigation change	7/16/2007	7,975
64	Reinstall handrail, add drop plates, reframe walls to support new door frames	7/16/2007	2,330
65	RFI's 216, 217, 474R1, 492, 567, 572, 588, 605, 613 no cost/time impact	8/3/2007	-
66	Contractor unresponsive in COR, credit changes processed under no dispute	8/3/2007	(16,450)
67	Relocate booster pump, move outlets and cut access holes, install kick plates	8/3/2007	11,045
68	Replace acoustical ceiling, remove conflicting concrete footing, new floor	8/3/2007	11,803
69	Modify existing door frames as stated by fire marshal	8/3/2007	2,990
70	Relocate smoke guard reset switches	8/3/2007	1,533
71	Relocate of underground utilities in conflict with elevator tower foundation	8/3/2007	64,714
72	Lower ceilings in corridors, rework column steel	8/13/2007	5,309
73	Removal of unknown ACBM piping, ductwork revision, install gas line	8/13/2007	62,518
74	Demolish and remove wood flooring. Install new tile flooring	8/13/2007	20,096
75	CSULB taken beneficial occupancy of library 2nd and 3rd floor	9/4/2007	-
76	Install 2 VAV boxes, add welded studs, install new doors and metal cover	9/13/2007	31,611
77	Add framing, decking, curb, install temporary doors, delete new windows	9/13/2007	27,334
78	Delete painting of walls in storage area	9/13/2007	(3,435)
79	Memorialize official acceptance of Academic Services phase completion	9/20/2007	-
80	New contract completion date for main library and ASRS.	10/11/2007	-
81	Protect shelved books, additional fire detectors and drypack grout	10/11/2007	46,952
82	Modify ceiling, replace wires, add piping components, install new fan	10/11/2007	37,535
83	Change fence enclosure for emergency generator, replace copper piping	10/11/2007	19,530
84	Contractor unresponsive in COR, estimated costs processed with no dispute	11/6/2007	129
85	Contractor and subcontractor settlement of claims (Elljay Acoustics)	11/16/2007	2,434
86	Delete work in bookstacks, change light fixtures, provide restroom light	11/6/2007	(43,529)
87	Add door, relocate air duct, reframe ceilings, add supply air duct	11/6/2007	15,291
88	Delete internet café scope, add Starbucks scope, repair fire alarm system	11/6/2007	34,757
89	Changes required to ASRS deck	11/16/2007	86,902
90	Contractor and subcontractor settlement of claims	12/5/2007	27,028
91	Replace ceilings, add two smoke fire dampers, reconfigure fire alarm devices	11/16/2007	6,113
92	Change doors, electrical panels at mechanical fan rooms, remove floor bolts	11/16/2007	37,018
93	Add door, frame, and hardware	11/16/2007	3,314
94	Contractor and subcontractor settlement of claims (AireMasters)	1/28/2008	39,875
95	Rework opening relocate AHU, remove beam in elevator shaft	11/29/2007	14,185
96	Offset ductwork and rebuild soffit, additional demolition and reconstruction	11/29/2007	4,741
97	Provide temp generator for emergency power, install new water flow bell	11/29/2007	29,537
98	Removal of portion of acoustical ceiling soffit and replace with new tiles	11/29/2007	6,736
99	Contractor unresponsive in COR, credit changes processed under no dispute	12/19/2007	(3,811)

CONSTRUCTION CHANGE ORDERS

C/O	Description	Date	Amount
100	Add light fixtures, lighting in mechanical rooms, reroute roof drain	12/14/2007	5,094
101	Relocate conflicting utilities, modify sprinkler lines, relocate fire alarm	12/19/2007	12,684
102	Delete restroom fixtures from contract, provide room number sign	12/19/2007	(1,214)
103	CSULB taken beneficial occupancy of ASRS	1/11/2008	-
104	Enlarge opening of mezzanine, install guardrail, run condensation line	1/11/2008	15,898
105	Add framing and exp. Joints, repair ductwork, relocate utilities	1/11/2008	43,034
106	Clean, slurry coat, re-stripe parking lot, delete new trash enclosure extension	1/11/2008	2,346
107	Reconfigure admin offices on 4th floor in library	1/11/2008	53,239
108	FI #159, 184, 201, and 201R1 considered no cost and time impact	1/22/2008	-
109	Remove smoke check door hold opens in stairwell	1/23/2008	1,250
110	Doors, frames, hardware changes to library, fire caulking for doors	1/22/2008	31,718
111	FI #165 and 213 considered no time or cost impact	2/1/2008	-
112	CSULB taken beneficial occupancy of library 4th and 5th floor	2/1/2008	-
113	Install smoke fire damper, sheet metal drip edge, relocate lighting switch	2/1/2008	26,127
114	Curb repair, install additional data cabling, install annunciator panel	2/1/2008	14,612
115	Furnish and install exit signs and rewire fixtures to emergency circuits	2/1/2008	2,787
116	Remove and reinstall existing light fixtures on library 4th and 5th floor	2/1/2008	10,442
117	Delete requirements to furnish and install metal louvers in mech. Room	2/1/2008	(6,301)
Total			1,729,390

The Delegation Outlay Management Authority, dated May 28, 1997 establishes the signature authority for the Project. Only one instance out of the 117 change orders was not in complete compliance with the signature authority, as a result of an emergency situation where the Director of Physical Planning signed in lieu of the Associate Vice President of Physical Planning and Facilities Management. The Director who signed during the emergency was later formally granted written authority to sign in the temporary absence of the Associate Vice President and did so on subsequent change orders. As a result, the technical violation was reasonable in the circumstances to allow the Project to proceed.

KPMG sampled 12 change order line items for detail testing. The total value of the line items tested was \$684,703, and the testing included a review of the documentation to support the changes and performing a recalculation of the amounts and mark-up based on the documentation provided. Support for the change order line items was appropriately included or CSULB was easily able to provide it upon request. CSULB performed cost estimates for the changes and included notes discussing how negotiated amounts were determined. On two occasions, costs were not supported directly by the change order documentation, but the total amount of unsupported items was not material at \$2,110. CSULB determined the costs were reasonable based on experience with prior projects. Additionally, KPMG found a small variation in calculation of mark-up with a cumulative dollar variance of \$540.

Change Order Report Analysis

CSU has historically considered change order costs incurred due to errors and omissions by the architect of up to 3% of the initial award construction cost as falling within the architect's 'standard of care'. However, the agreement as executed does not contain any language defining 'standard of care', but states the architect shall secure and maintain

appropriate errors and omissions insurance of no less than \$1,000,000 per occurrence, \$2,000,000 per annual aggregate. This language has been changed in a later version of the CSU standard agreement to define ‘standard of care’.

CSULB provided a change order log reflecting the source of each change order. The table below provides a summary:

Class	Type of Change	Amount	Percent of Total CO	Percent of Original Contract
4.0	Error in the contract documents	\$ 394,711	22.8%	1.4%
4.1	Omission from the contract documents	102,705	5.9%	0.4%
4.2	Unforeseeable job site condition	730,629	42.2%	2.6%
4.3	Change in the requirements of a regulatory agency	78,173	4.5%	0.3%
4.4	Change originated by the University	417,730	24.2%	1.5%
4.5	Changes in specified work due to the unavailability of specified materials	5,443	0.3%	0.0%
Total Change Orders		\$ 1,729,390	100.0%	6.2%
Original Contract Amount		\$ 27,850,000		
Total		\$ 29,579,390		

Based on the information provided, the errors and omissions total \$394,711 and represent 1.4% of the original contract amount. This is less than the 3% ‘standard of care’ and as such, this amount is acceptable.

Recommendation:

None

INSPECTION SERVICES

TGR Geotechnical, Inc. (“TGR”) was retained by CSULB to provide special materials inspection and testing services for the Project. A Service Agreement was executed on May 11, 2007 in the amount of \$330,000. Two ESA’s were issued to the agreement revising the contract amount to \$370,000 as follows:

Contract	Date of Execution	Agreement Total
Service Agreement	5/11/2006	\$ 330,000
ESA #1 - Additional geotechnical investigation and design of deep foundation services	10/8/2007	25,000
ESA #2 - Additional services due to unforeseen changes	2/12/2008	15,000
Total		\$ 370,000

SUAM 9210.03 requires ESA’s to be countersigned by the service provider, effective January 2007. The two ESA’s for TGR’s services were executed after this effective date and neither contained a counter signature by the inspector. The total value of these two agreements was \$40,000. A recommendation for counter signature of ESA’s is included with the Design Costs section of this report.

KPMG selected a sample of charges from the inspection invoices and compared them to the allowable charges as specified in TGR’s contract terms and conditions. The sample charges were selected to come from time periods throughout the contract period and included a variety of personnel and overtime. The samples were reviewed for appropriate back up supporting the charges, verification the proper rate was used, and mathematical accuracy. No discrepancies were noted.

KPMG found reimbursable charges billed on the invoices, but no mention of reimbursable expenses in the Service Agreement. The reimbursable charges were not material.

Recommendation:

None

MAJOR EQUIPMENT/MATERIALS REVIEW

KPMG selected and reviewed a sample of materials and equipment based on construction cost and accessibility to the installed items. The Project was a functional facility at the time of KPMG's fieldwork and consideration was given to select equipment and materials for testing with minimal disruption to students or faculty.

CSULB allowed access to drawings, specifications, material samples, and submittals. The equipment and materials located in the field were compared to submittals approved by the architect and/or engineer and were verified against performance specifications, submittals, and drawings.

The following equipment items and specific model data were approved and visually confirmed as installed on the Project:

Division	Drawing No.	Brand	Model No./ Capacity	Description
15721	M0.3	Energy Lab	C114276-FLC / 28,5000 CFM	AHU-4, Air Handling Unit
15130	M0.3	Carrier	38 QRC-060 / 5 Ton	SHP-4, Split System Heat Pump and Condensing Unit
15130	M0.6	Bell and Gossett	1510-1 1/2 AC / 60 GPM	P-2A, Hot Water Pump
03450	A5.1L	Custom	Custom	Architectural Precast
09511	A2.8L	Armstrong	Fine Fissured #746 / 12x12	Acoustical Ceiling Tiles
09680	A2.1L	Crossley	30274 - Wireless / 03298 - Telecom	Carpet
06402	A10.3L	K&Z Cabinet Co., Inc.	Quarter Sawn cherry Veneer	Finish Carpentry
16000	E0.3	Kohler Power Systems	Medium Grained Brown Stone	Millwork/Casework
16430	E0.3	GE Spectra Series	100REOZJD / 100 KW/125KVA	Emergency Generator
14240	A7.1B	Tyssen Krupp	277/80 V 30 / 4W W.P.	Switchgear
			2500 lbs.	Elevator - 1

The equipment and materials observed in the field conformed to the specified requirements, specifications, and submittals based on a visual inspection of equipment labeling, and comparison to manufacturer specifications provided and approved by the architect.

Recommendation:

None

CLOSE-OUT PROCESS

Since this Project was completed in two Phases, CSULB obtained occupancy at two separate dates for the two Phases. Certificate of Occupancy was granted for Academic Services on July 17, 2007 followed by the Library Renovation Phase on January 24, 2008. Completion of the construction portion of the Project occurred on January 28, 2008 after the Project punch list items were complete and the final Notice of Completion was issued.

KPMG verified the close-out requirements established by the Contract General Conditions and SUAM. The CSU standard close-out checklist was used by CSULB to track the close-out items, and KPMG reviewed the items on the list including warranties, operation and maintenance manuals, documentation of staff training, permits, inspections, the as-built drawings and other relevant close-out documentation. Nothing came to the KPMG's attention that would indicate issue with the close-out process.

Recommendation:

None

LIQUIDATED DAMAGES

The Notice to Proceed established May 5, 2006 as start of the Project, and the final completion date for the Project was to be 548 consecutive calendar days later on November 29, 2007 to avoid liquidated damages. Liquidated damages were set at \$5,000 per each consecutive calendar day until completion of the Project. Through the change order process a total of 61 days were added to the Project bringing the final contracted completion date to January 29, 2008.

The Notice of Completion was issued on January 28, 2008, which is prior to the contracted completion date. The Project was completed on time and as such, no liquidated damages were warranted.

Recommendation:

None

ACCOUNTING

CSULB maintained a shadow system in spreadsheet form to track Project costs. The spreadsheet was reconciled to CSULB's PeopleSoft mainframe accounting system on a monthly basis. Since the funding for the Project was reverted and a new allocation issued, CSULB maintained two separate spreadsheets.

CSULB provided KPMG with a copy of the payment detail for the Project. KPMG traced physical invoices from the architect, contractor, and inspector of record to the entries in the detail information provided by CSULB and found no exceptions. KPMG noted that invoices not approved were also entered into the PeopleSoft system along with a credit so a record of the invoice number would be included in the accounting system for future reference. A sample of invoices was tested for appropriate approvals prior to payment. No exceptions were noted.

Recommendation:

None



CALIFORNIA STATE UNIVERSITY, LONG BEACH

DIVISION OF ADMINISTRATION AND FINANCE

RECEIVED
UNIVERSITY AUDITOR

AUG - 4 2008

THE CALIFORNIA STATE
UNIVERSITY

July 30, 2008

Mr. Larry Mandel
University Auditor
California State University
401 Golden Shore
Long Beach, California 90802

Re: Response to Construction Project Evaluation – Library Addition and Renovation Project

Dear Larry:

Please find enclosed California State University, Long Beach's response to the above report. The campus is committed to addressing and resolving the issues identified in the audit report.

Please let me know if we can provide you with any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Stephens".

Mary Stephens
Vice President for Administration and Finance

Enclosure

IA-0186

- c: F. King Alexander, President
Susan Brown, Director, Physical Planning and Facilities Management
Ted Kadowaki, Associate Vice President, Budget and University Services
Aysu Spruill, Director, Internal Auditing Services
Sharon Taylor, Associate Vice President, Financial Management
Mark Zakhour, Senior Construction Manager, Physical Planning and Facilities Mgmt.

CONSTRUCTION PROJECT EVALUATION
CALIFORNIA STATE UNIVERSITY, LONG BEACH
LIBRARY ADDITION AND RENOVATION PROJECT

DESIGN COSTS

Recommendation:

1. In the future, CSULB should adhere to the guidance in SUAM 9210.03 and utilize ESA's to authorize increases in the contractual amounts.

(Ownership: CSULB)

Campus Response:

1. We concur. A memorandum was issued to staff on July 18, 2008 defining the process to be followed based on SUAM 9210.03. Corrective action on this issue is complete.

Recommendation:

2. Contractual agreements should be fully executed and effective prior to any work being performed on a project.

(Ownership: CSULB)

Campus Response:

2. We concur. A memorandum was issued to staff on July 1, 2008 defining the process to be followed. Corrective action on this issue is complete.

Recommendation:

3. In the future, CSULB should obtain countersignatures when authorizing ESA's.

(Ownership: CSULB)

Campus Response:

3. We concur. A memorandum was issued to staff on July 1, 2008 defining the process to be followed based on SUAM 9210.03. Corrective action on this issue is complete.

THE CALIFORNIA STATE UNIVERSITY
OFFICE OF THE CHANCELLOR



BAKERSFIELD

August 5, 2008

CHANNEL ISLANDS

CHICO

MEMORANDUM

DOMINGUEZ HILLS

EAST BAY

TO: Mr. Larry Mandel
University Auditor

FRESNO

FROM: Charles B. Reed
Chancellor

A handwritten signature in black ink that reads "Charles B. Reed".

FULLERTON

HUMBOLDT

SUBJECT: KPMG Draft Final Report on the *Library Addition and Renovation*
Construction Project at California State University, Long Beach

LONG BEACH

LOS ANGELES

In response to your memorandum of August 5, 2008, I accept the response as submitted with the draft final report on the *Library Addition and Renovation* construction project at California State University, Long Beach.

MARITIME ACADEMY

CBR/jt

MONTEREY BAY

NORTHRIDGE

Enclosure

POMONA

cc: Dr. F. King Alexander, President, CSULB

SACRAMENTO

Ms. Erika Alvord, KPMG

SAN BERNARDINO

Ms. Colleen Nickles, Assistant Vice Chancellor, Financial Services

SAN DIEGO

Ms. Elvyra San Juan, Assistant Vice Chancellor, CPDC

SAN FRANCISCO

Ms. Mary Stephens, Vice President, Administration and Finance, CSULB

SAN JOSÉ

Mr. Richard P. West, Executive Vice Chancellor and Chief Financial Officer

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS