

**CALIFORNIA STATE UNIVERSITY,
EAST BAY**

VALLEY BUSINESS AND TECHNOLOGY CENTER

Final Report

May 29, 2007

CONSTRUCTION PROJECT EVALUATION
CALIFORNIA STATE UNIVERSITY, EAST BAY
VALLEY BUSINESS AND TECHNOLOGY CENTER

May 29, 2007

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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 on our evaluation, the Valley Business and Technology Center project at CSUEB 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. We found some control or process weaknesses that would expose CSUEB to major unnecessary risks. In addition, we did uncover several minor discrepancies and control issues that should be addressed.

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.	The executed architect agreement contains conflicting contract pricing information resulting in a variation in individual cost categories and a variation of total contract value.	Conflicting pricing information in the contract documents can lead to confusion of contract value, over billing and potentially result in frontloading of fees. It could put the CSUEB at risk of owing the maximum amount presented in the contract documents, contrary to CSUEB's intent.	(a) In the future, additional care should be taken to ensure contractual language, exhibits, and cost information are in agreement prior to contract execution. (b) Additionally, early invoices using a percentage of completion method should be scrutinized for accurate basis of calculation. (Ownership: CSUEB)
2.	CSUEB is using the Architect/Engineer Agreement form as an amendment to authorize extra services.	Using the Architect/Engineer Agreement form to authorize extra services is not in accordance with SUAM.	In the future, CSUEB should use Extra Services Authorization letters as recommended by SUAM 9210.03 to contract extra services. (Ownership: CSUEB)
3.	Signature authority is not clearly established, documented, or consistently followed at CSUEB.	Lack of formal authorization by appropriate individuals on change proposals or change orders may cause unnecessary cost and risk exposure to CSUEB.	CSUEB should review SUAM and establish a clear signature authority. In addition, CSUEB should review and update its Management Plan for Delegation of Authority. (Ownership: CSUEB)
4.	Not all charges in change orders are substantiated by sufficient backup such that a third party can understand it.	CSUEB may be at risk of overpayment if detailed supporting cost information is not carefully evaluated, justified, and documented.	On future Projects, CSUEB should include supporting documentation sufficient enough for a third party without detailed project knowledge to determine the cost basis agreed to in the change order. (Ownership: CSUEB)

EXECUTIVE SUMMARY

	Observation	Risk	Recommendation
5.	CSUEB takes longer than would be expected to execute a change order once a field instruction has been issued, and the contractor has begun work.	When CSUEB is not prompt in executing change orders for work that has started, the contractors must float the cost until the change is approved and invoicing for services performed can occur. This practice may create poor relations with contractors who may not bid on future CSU projects or elect to increase price.	On future Projects, CSUEB should attempt to be more prompt in executing change orders once contractor work has commenced. (Ownership: CSUEB)
6.	CSUEB inadvertently agreed to unfavorable and unintended contract terms and paid for services not expressly included with the scope of work.	CSUEB is at risk of paying excessively for services when unfavorable contractual terms and conditions are agreed to and invoices for work not expressly stated in the contract documents are approved and paid.	(a) In the future, better care should be taken to analyze proposed cost estimates to ensure correct information is taken into account and no inappropriate contract terms are being agreed to. (b) In addition, CSUEB should investigate the controls in place to prevent work from being performed that is out of the scope of the contract, and controls surrounding payment for work performed out of the scope of the contract. (Ownership: CSUEB)
7.	Close-out is progressing slowly, partially due to a change in superintendent by Flintco.	When key personnel are changed during a construction project, information and momentum are invariably lost. This can significantly impact the quality and progress of a project.	CSU should consider modifying the Contract General Conditions Section 4.17 to require written owner approval prior to contractor re-assignment of key personnel on CSU projects. (Ownership: CPDC)
8.	CSUEB did not have beneficial occupancy of the Project until three months after the scheduled completion and the contractor was slow to complete the Project.	CSUEB is incurring additional costs associated with use of resources to keep the Project moving forward.	CSUEB should consider pursuing liquidated damages in addition to holding retention until the Project is complete and the Notice of Completion has been issued. (Ownership: CSUEB)
9.	Each campus has their own method of tracking project costs. These methods vary widely, and are limited in their usefulness to provide project costs in a timely basis that encompasses multiple funding sources, and crosses fiscal years.	Without a comprehensive and uniform method of tracking construction costs, campuses lose efficiency due to the need to create a system for capturing the data. Each campus is at a greater risk due to the higher likelihood of error occurring by using a manually maintained shadow system.	The CSU system should design and implement a comprehensive and uniform method of tracking construction project costs to be used by all campuses for all construction projects. (Ownership: CPDC)

INTRODUCTION

Purpose

KPMG LLP (“KPMG”) was retained by California State University’s (“CSU”) Office of the University Auditor on October 29, 2004 to perform an independent project evaluation of California State University, East Bay’s (“CSUEB”) Valley Business and Technology Center 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 the RFP and that which KPMG has performed in prior years, we also included additional items that we believe may provide benefit to CSU. KPMG identified specific areas within the scope listed below that present the potential for substantive loss or liability for CSUEB’s Valley Business and Technology Center project. The various scope categories are outlined in CSU’s Request for Proposal, 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 (“Assumptions”).

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, East Bay Valley Business and Technology Center project (“the Project”) is the first academic building to be built on the campus in 30 years. The building is a four story steel framed structure providing 67,997 square feet of space including office space on the upper floors and classroom space on the lower floors. The building features a high-bay gallery attached to a single story 250 seat presentation center. The Project has automatic sprinklers and a campus-wide signal system to protect the building from intrusion and fire. The Project required extensive wiring in the ceilings, walls and floors as well and use of wireless technology integrated to the building.

From February 12 through February 23, 2007, KPMG conducted fieldwork at the CSUEB campus for the Project as well as the Pioneer Heights Phase II Housing project. During the fieldwork, KPMG reviewed records from the following entities involved with the Project:

Architect	VBN Architects
General Contractor	Flintco Constructive Solutions, Inc.
Construction Management	Consolidated CM
Project Management and Administration	CSUEB’s Planning & Operations

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 contract delivery methodology.

Timeline

In December 2002, VBN Architects was retained to perform preliminary design services for the Project. Subsequent to completion of preliminary design, the Board of Trustees approved schematic plans in May 2003 at a project cost of \$25,000,000. Design was completed and construction was bid in December 2004. Flintco Constructive Solutions, Inc. (“Flintco”), was the lowest responsive and responsible bidder in a competitive selection process in with a base bid of \$18,870,000. Construction began with the Notice to Proceed effective March 15, 2005.

The Project was initially contracted for completion on July 16, 2006, but the completion date was formally extended to October 4, 2006 through a change order. CSUEB did not take beneficial occupancy until January 3, 2007 with the issuance of a Conditional Certificate of Occupancy. As of the last day of our fieldwork, the Notice of Completion had not been issued.

PROJECT BACKGROUND

A total of eight outstanding change orders were in the process of being executed at the end of our fieldwork in the total amount of \$279,086. The close out process was being initiated by collecting operation and maintenance manuals and working on an extensive punch list. Due to lack of progress by Flintco in completing the Project, CSUEB has expressed interest in pursuing liquidated damages.

Project Costs

The Project was approved by the Board of Trustees in the amount of \$27,662,330. At the time of our fieldwork, CSUEB had incurred \$22,460,157 in costs and had outstanding commitments of \$26,052,981, which is \$1,609,349 below the approved budget.

The table below summarizes the Project costs:

Description	Budget (2-7)	Commitments	Actual	Variance (Budget - Commitments)
Construction	\$ 19,234,374	\$ 20,685,628	\$ 18,397,035	\$ (1,451,254)
Architect and Engineering	1,757,000	1,551,295	1,547,433	205,705
Contract Management	1,487,000	1,681,695	1,557,036	(194,695)
Required Additional Services	406,700	202,605	188,451	204,095
Group II Equipment	3,000,000	1,570,315	708,759	1,429,685
Feasibility	-	6,550	6,550	(6,550)
Contingency	1,777,256	354,893	354,893	1,422,363
Subtotal	\$ 27,662,330	\$ 26,052,981	\$ 22,760,157	\$ 1,609,349

Costs are included in the construction commitments column for change orders negotiated, but not yet fully executed at the time of KPMG's fieldwork. Since the amounts were fully negotiated and the change orders were in the process of obtaining the required signatures for execution, we included them in the financial summary above.

The commitments and actual costs are shown in the table as represented by CSUEB.

DESIGN COSTS

VBN Architects (“VBN”) was selected by CSUEB to perform design and construction development services related on the Project. A standard CSU Architectural/Engineering Agreement was formally executed with VBN effective December 18, 2002 in the amount of \$1,155,000. KPMG noted the fee proposal submitted in Exhibit A of the contract and the schedule of lump sum fees presented in Exhibit B of the contract differed by \$54,052 as summarized in the following table:

Phase	Exhibit A	Exhibit B	Variance
Schematic Design	\$ 220,800	\$ 241,810	\$ 21,010
Design Development	154,560	169,267	14,707
Construction Documents	419,520	459,440	39,920
Bidding	22,080	24,181	2,101
Construction Administration	242,880	265,992	23,112
Record Drawings	44,160	48,362	4,202
Reimbursable Allowance	40,000	-	(40,000)
Site Development Plan	11,000	-	(11,000)
Total Base Contract Value	\$ 1,155,000	\$ 1,209,052	\$ 54,052

Since the contract was issued in the amount of \$1,155,000 based on the fee proposal in Exhibit A, KPMG used this amount as the contract value when conducting its analysis.

It became apparent when KPMG began analyzing the VBN invoices that VBN used neither the allocation of fees presented in Exhibit A or Exhibit B as a basis for its billing. Instead, VBN based the fees upon the total contract value divided among the various phases without regard for the \$51,000 allocated to reimbursable allowance and the site development option, as shown in the table below:

Phase	Exhibit A	VBN Invoices	Variance
Schematic Design	\$ 220,800	\$ 231,000	\$ 10,200
Design Development	154,560	161,700	7,140
Construction Documents	419,520	438,900	19,380
Bidding	22,080	23,100	1,020
Construction Administration	242,880	254,100	11,220
Record Drawings	44,160	46,200	2,040
Subtotal	\$ 1,104,000	\$ 1,155,000	\$ 51,000
Reimbursable Allowance	40,000	40,000	-
Site Development Plan	11,000	-	(11,000)
Total	\$ 1,155,000	\$ 1,195,000	\$ 40,000

By allocating the fees in this manner, the fees for schematic design, design development, construction documents, bidding, construction administration, and record drawings will eventually be over billed by up to \$51,000.

At the time of KPMG's fieldwork VBN had billed all phases at 100% with the exception of record drawings which had been billed at 20%. Based upon KPMG's calculations from the original fee proposal in Exhibit A of the contract there is \$14,964 remaining to be billed for the various phases design services. However, the VBN invoices show \$33,996 remaining to be billed.

Observation:

The executed architect agreement contains conflicting contract pricing information resulting in a variation in individual cost categories and a variation of total contract value.

Risk:

Conflicting pricing information in the contract documents can lead to confusion of contract value, over billing and potentially result in frontloading of fees. It could put the CSUEB at risk of owing the maximum amount presented in the contract documents, contrary to CSUEB's intent.

Recommendation:

1. (a) In the future, additional care should be taken to ensure contractual language, exhibits, and cost information are in agreement prior to contract execution.

(b) Additionally, early invoices using a percentage of completion method should be scrutinized for accurate basis of calculation.

(Ownership: CSUEB)

Campus Response:

1. We concur.

(a) Procurement has reviewed procedures and will ensure that hourly rates provided in proposals are incorporated into the contracts in addition to current procedure of not to exceed or total cost. Review will include confirmation of consistency between Rider A and Schedule B.

Completion date: August 31, 2007

(b) Construction managers and construction administrator staff will ensure invoices correctly reflect contract values, validate amounts complete and previous payments before approving Architect/Engineer invoices for payment.

Completion date: August 31, 2007

Nine authorizations for extra design services were executed as amendments in an aggregate amount of \$396,295 resulting in a revised contract value to \$1,551,295. The architectural base agreement and additional amendments are summarized in the table below:

	Date	Contract Total
Total Base Agreement Value	12/18/2002	\$ 1,155,000
Amendment #1 - Provide topographic field survey	8/20/2007	7,150
Amendment #2 - Provide early award package for site development	3/11/2004	46,667
Amendment #3 - Redesign footings based on new bearing pressures	4/23/2004	2,200
Amendment #4 - Repackaging Phases 1 and 2	3/8/2005	132,614
Amendment #5 - Provide various value engineering services	4/20/2005	72,084
Amendment #6 - Design and bid documents for upgraded A/V system	7/1/2005	103,234
Amendment #7 - CRB for design of additional HVAC equipment	11/4/2005	10,536
Amendment #8 - Conceptual Design package for fundraising	12/9/2005	16,820
Amendment #9 - Review contractors suggestions for ramp correction	3/9/2006	4,990
Amendment Subtotal		396,295
Total Revised Agreement Value		\$ 1,551,295

KPMG noted that authorizations of extra services were issued using the CPDC Project Architect/Engineer Agreement form as an amendment. SUAM 9210.03 states, "it is not appropriate to amend design or service agreements to authorize extra services." Instead SUAM 9210.03 promotes the use of Extra Service Authorization letters. While CSUEB did not use an Extra Services Authorization letter, they did execute the agreements and required a counter signature from the architect.

Observation:

CSUEB is using the Architect/Engineer Agreement form as an amendment to authorize extra services.

Risk:

Using the Architect/Engineer Agreement form to authorize extra services is not in accordance with SUAM.

Recommendation:

2. In the future, CSUEB should use Extra Services Authorization letters as recommended by SUAM 9210.03 to contract extra services.

(Ownership: CSUEB)

Campus Response:

2. We concur. Procurement has reviewed procedures and will ensure proper forms are used in the completion of Architect/Engineer change orders and extra services contracts.

Completion date: August 31, 2007

CONSTRUCTION BID PROCESS

The construction bid process for this project was administered through the CSUEB Procurement and Support Services office.

Plans and specifications were made available to bidders on November 12, 2004 and a mandatory jobsite inspection was held on November 22, 2004. A total of six addenda were issued to revise the construction documents and answer bidder questions. Bids were due and opened on December 14, 2004.

Four companies submitted competitive bids including Bogard Construction, Flintco, Fedcon General Contractors, and West Coast Contractors. The bids ranged from \$18,493,000 to \$20,343,161 which was in range of the architect's estimate of \$19,910,120.

The bids were received by CSUEB, a ranking was completed, and an abstract of bids was created. The apparent low bidder was West Coast Contractors with a bid of \$18,493,000. However, West Coast Contractors failed to submit all required documentation in a timely manner, including mandatory Disabled Veteran Business Enterprise (DVBE) paperwork. As a result, West Coast Contractors was deemed non-responsive. Flintco was the lowest responsive and responsible bidder with a base bid of \$18,870,000. This bid was \$230,000 less than the next lowest bid, and \$1,040,120 less than the architect's estimate.

KPMG reviewed CSUEB's bid files and bid process and found the project administrative team in compliance with requirements related to pre-bid meeting, advertising for bids, availability of project plans and specifications, review of bid proposal package, issuing of addenda during bidding, and obtaining required documentation from the successful bidder.

Subcontractor Substitution

There were four instances of subcontractor substitution on the Project, where subcontractors proposed by Flintco at the time of bid subsequently had to be replaced. AICal Roofing, Insulation & Waterproofing was substituted for Strong Roofing when Strong was unable to obtain proper bonding. Architectural Glass was replaced by Guarantee Glass, Inc. after the Architectural Glass's bid expired and they formally withdrew their bid. Northern States Electric and Flintco were unable to reach agreeable subcontract terms and as a result, Redtop Electric Co. was substituted for Northern States. School Specialty replaced Stanislaus School Equipment, Inc. when Stanislaus was unable to obtain proper bonding.

All four substitutions were granted in conformance with SUAM and Public Contract Code Section 4107(a) without exception.

Recommendation:

None

CONSTRUCTION CHANGE ORDERS

A total of 33 change orders, including additions in the amount of \$711,748 and deductions in the amount of \$700,755, had been formally executed at the time of KPMG's fieldwork. Additionally, there were eight change orders in the amount of \$279,086 in the process of being executed. Six of these change orders were executed subsequent to KPMG's fieldwork. The table below illustrates all 41 change orders for a total net amount of \$284,334:

CO	Description	Date	Amount
1	Partnering Workshop and rebar under auditorium seating	7/11/2005	\$ 15,833
2	Tree removal and revised framing at the roof	8/23/2005	18,677
3	Revise wheelchair lift	under negotiation	871
4	Revise planting, add turf and revise stair	9/27/2005	42,793
5	Site demolition originally with Phase I and install valves on waterline	12/6/2005	86,806
6	Change in irrigation line and oil switches	12/1/2005	14,507
7	Fur drywall at fire dampers and revise handrails and guardrails	3/24/2006	19,174
8	Locate bottom of footing at the intersection of grid lines F2 and G2	3/24/2006	6,904
9	Various electrical	3/24/2006	30,940
10	Building equipment rack and removal of transit drain pipe	3/24/2006	15,010
11	Modify plumbing chase and cabinet	3/24/2006	966
12	Electrical fixtures and revised drawings	4/12/2006	5,614
13	Modify plumbing, motion detectors and conduits	4/12/2006	7,303
14	Revise drawings for depressed floor, and delete storm drain lines	4/12/2006	(940)
15	New sewer line run and addition of metal stud framing	4/12/2006	5,847
16	Change from plywood to cementitious panels	4/12/2006	13,684
17	Changes to light fixtures	4/12/2006	5,803
18	Survey conditions of vaults and wires of electrical power manholes	4/12/2006	19,323
19	Maintenance on electrical equipment and switchgear	4/13/2006	160,173
20	Settlement of deleted casework and finish carpentry	4/28/2006	(203,934)
21	Relocate the chiller and modify floor covering	5/23/2006	28,518
22	Settlement of deleted painting scope of work	5/23/2006	(171,180)
23	Modify gallery supply air sidewalls diffusers	6/8/2006	10,982
24	Additional fire/smoke dampers and detectors	7/26/2006	19,778
25	Substitution of projectors, revisions to cable race way, inertia pumps	7/26/2006	22,211
26	Revise lower ramp and slope seating area due to trip hazard	7/26/2006	24,116
27	Duplex receptacle and light fixture revisions	9/19/2006	2,948
28	Carpet and flooring termination of convenience and seating modification	9/19/2006	(163,904)
29	Extension of days including 41 commensurable days	9/27/2006	87,500
30	Landscape termination of convenience and additional telecom ports	11/16/2006	(77,669)
31	Revise elevator control sequence and revise wiring	11/16/2006	26,045
32	Add lighting for donor wall and additional data outlets	11/16/2006	8,189
33	Provide electrical service to exhaust fans and revise lighting	11/16/2006	6,362
34	Delete allowance No. 2 from contract add data ports	11/16/2006	(83,129)
35	Louver in Boiler Room door and high wall louver in Boiler Room	2/15/2007	4,873
36	Revision to exterior sign, fire rated floor finish, panic exit devices	2/15/2007	15,687
37	Installation of duct riser supports	2/15/2007	5,681
38	Delete references and piping below grade notes	2/15/2007	64,895
39	Flat panel display screen installation	2/15/2007	48,018
40	Additional HVAC equipment and modifications and electrical equipment	2/15/2007	137,827
41	Relocate electrical outlet and paper towel dispensers	under negotiation	1,234
Total			\$ 284,334

The CSUEB Management Plan for Delegation of Authority is outdated, and CSUEB did not have any other formal change order approval reference documentation indicating specific dollar amounts individuals were permitted to authorize.

KPMG based its evaluation of change order signature authority on the CPDC signature authorization levels included in the Construction Management Reference Manual, section 22. This reference requires the Construction Administrator's signature for all change orders indicating compliance with policies and procedures in processing the change order; signature from the Executive Dean for change orders up to \$100,000 and signature from the Vice President of Administration for change orders exceeding \$100,000.

Signatures from the Construction Administrator were present on all executed change orders. KPMG found no evidence of signature from the Executive Dean or the Vice President of Administration on any of the change orders.

Additionally, KPMG found two change orders without the accounting officer's signature, and one minor early change order which had no signatures.

Observation:

Signature authority is not clearly established, documented, or consistently followed at CSUEB.

Risk:

Lack of formal authorization by appropriate individuals on change proposals or change orders may cause unnecessary cost and risk exposure to CSUEB.

Recommendation:

3. CSUEB should review SUAM and establish a clear signature authority. In addition, CSUEB should review and update its Management Plan for Delegation of Authority.

(Ownership: CSUEB)

Campus Response:

3. We concur. CSUEB has developed a project signature form to define roles and signature levels to be included in the Delegation of Authority. CSUEB will submit an updated Delegation of Authority to the Chancellor's Office no later than September 15, 2007.

KPMG selectively sampled ten fully executed change order line items to assess the supporting documentation and perform testing related to the markup calculation.

In many instances a “Record of Negotiation” memo was written by the hired construction manager and included with the change order. These records contained detailed background, discussion, and recommendation sections explaining the change order negotiations in detail.

However, in addition to explaining the reason a change occurred, support must still be provided for the costs contained in the change order. Without a breakout of the costs for each subcontractor and the general contractor, it is not possible to determine if the amount charged was in compliance with contract general conditions.

Observation:

Not all charges in change orders are substantiated by sufficient backup such that a third party can understand it.

Risk:

CSUEB may be at risk of overpayment if detailed supporting cost information is not carefully evaluated, justified, and documented.

Recommendation:

4. On future Projects, CSUEB should include supporting documentation sufficient enough for a third party without detailed project knowledge to determine the cost basis agreed to in the change order.

(Ownership: CSUEB)

Campus Response:

4. We concur. CSUEB sponsored a focused training session for university staff and contractors engaged in construction management in May 2007. This training reviewed SUAM and Construction Management Manual change order procedures. CSUEB will work to include documentation to meet this level of background.

Completion date: August 31, 2007

Seven of the ten change orders tested for proper markup calculation were for additive changes. Within the additive changes, KPMG found one instance of markup calculated on markup, and one instance where the wrong percentage was used to calculate markup. KPMG determined these two errors to be insignificant in value.

The Contract General Conditions, Section 6 discusses the change order process. In this process the contractor has 15 days from the time a cost request bulletin is prepared to issue a change order request or the Trustees can demand work begin by issuing written notice to the contractor. Once the written notice is issued the contractor has 15 days to accept the cost estimate prepared by the trustees or show proof of an error. A reasonable amount of time for execution of a change order after work has been initiated or after a cost has been agreed to is not specifically defined by the contract general conditions.

The sampled changes based on field instructions where the time to execute a corresponding change order averaged 127 days from the date the field instruction was issued. All other change orders sampled averaged 195 days from the earliest date of documented change order price discussions to the date of the actual change order execution. Although in the latter cases it is not immediately known how long before the execution of the change order the contractor actually performed the work, it still appears change orders take longer than a reasonable amount of time to execute.

Observation:

CSUEB takes longer than would be expected to execute a change order once a field instruction has been issued, and the contractor has begun work.

Risk:

When CSUEB is not prompt in executing change orders for work that has started, the contractors must float the cost until the change is approved and invoicing for services performed can occur. This practice may create poor relations with contractors who may not bid on future CSU projects or elect to increase price.

Recommendation:

5. On future Projects, CSUEB should attempt to be more prompt in executing change orders once contractor work has commenced.

(Ownership: CSUEB)

Campus Response:

5. We concur. CSUEB will develop change order procedures to include time frames for completion.

Completion date: September 30, 2007

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. This language has been changed in a later version of the CSU standard agreement to define 'standard of care'.

KPMG was provided with a change order log reflecting the source of each change order. Based on the information available, the errors and omissions are calculated to be 1.3% of the original contract amount which is less than CSU's 3% acceptable level of 'standard of care'. The total dollar amount of errors and omissions is \$253,246, as summarized below:

Class	Type of Change	Amount	% of Total CO	% of Original Contract
4.1	Error in or omission from the contract documents	\$ 253,246	89.1%	1.3%
4.2	Unforeseeable job site condition	37,102	13.0%	0.2%
4.3	Change in the requirements of a regulatory agency	22,489	7.9%	0.1%
4.4	Change originated by the University	(126,909)	-44.6%	-0.7%
4.5	Changes in specified work due to the unavailability of specified materials	10,577	3.7%	0.1%
4.6	Other	87,830	30.9%	0.5%
Total Change Orders		\$ 284,334	100.0%	1.5%
Original Contract Amount		\$ 18,870,000		
Total		\$ 19,154,334		

CONSTRUCTION MANAGEMENT SERVICES

Consolidated CM (“CCM”) entered into a service agreement with CSUEB on March 6, 2003 to provide limited construction inspection and management services for several campus construction projects including the Project. The contract consists of the base agreement and 13 amendments. Amendments 1, 3, 4, 5, 8, 9 and 13 pertain to other construction projects unrelated to the Project. The following table summarizes the contractual obligations between CSUEB and CCM on the Project:

Contract	Date	Amount related to VBT Project
Base contract	3/6/2003	\$ 15,000
Amendment 1 - Other projects	7/3/2003	-
Amendment 2 - Additional CM Services (2/03 - 9/04)	6/17/2003	50,000
Amendment 3 - Other projects	8/28/2003	-
Amendment 4 - Other projects	1/8/2004	-
Amendment 5 - Other projects	7/7/2005	-
Amendment 6 - Augment budget	12/11/2004	31,317
Amendment 7 - Additional CM Services (1/05 - 6/05)	4/8/2005	191,584
Amendment 8 - Other projects	5/27/2005	-
Amendment 9 - Other projects	7/7/2005	-
Amendment 10 - Additional CM Services (8/05 - 8/06)	9/15/2005	385,585
Amendment 11 - Augment budget	5/30/2006	220,000
Amendment 12 - Augment budget	10/6/2006	175,000
Amendment 13 - Other projects	11/18/2006	-
Total amount of services related to the Project		\$ 1,068,486

Amendment No.7, executed April 8, 2005, allows for a 10% markup on expenses, unintended by CSUEB, and contains retroactive rate increases effective January 1, 2005. The actual hours worked for January and February were known at date of this Amendment, yet the hours stated were more than the actual hours invoiced. This resulted in a \$1,985 contract increase above what was apparently required. Although this amount is not material, it is a result of unfavorable and unintended contract terms, potentially indicative of an ineffective invoice approval process.

In addition, Amendment No. 10 of the contract documents contains an estimate for the Project with no proposed costs for inspector services included with the scope, yet over \$64,386 was invoiced and paid for inspector services on this amendment.

Observation:

CSUEB inadvertently agreed to unfavorable and unintended contract terms and paid for services not expressly included with the scope of work.

Risk:

CSUEB is at risk of paying excessively for services when unfavorable contractual terms and conditions are agreed to and invoices for work not expressly stated in the contract documents are approved and paid.

Recommendation:

6. (a) In the future, better care should be taken to analyze proposed cost estimates to ensure correct information is taken into account and no inappropriate contract terms are being agreed to.

(b) In addition, CSUEB should investigate the controls in place to prevent work from being performed that is out of the scope of the contract, and controls surrounding payment for work performed out of the scope of the contract.

(Ownership: CSUEB)

Campus Response:

6. We concur. CSUEB will strive to analyze proposals for conformance to initial terms and conditions.

Completion date: August 31, 2007

MAJOR EQUIPMENT/MATERIALS REVIEW

KPMG selected and reviewed a sample of materials and equipment based on construction cost and accessibility to the installed items. As this Project was a functional facility at the time of KPMG's fieldwork, consideration was given to equipment and materials located in occupied areas in order not to interrupt any student or faculty activities.

CSUEB allowed full and complete access to drawings, specifications, samples and submittals, which were organized, easy to locate and contained sufficient information. 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
11132	AV3.11	NEC	LT265	Overhead LCD/DLP projector
15732	E6.02 M0.02	Temtrol WF-DHE24	480V, 3P, 3W	Air Handling Unit
15690	M0.02	McQuay	201.2 tons	Chiller (CH-1)
16232	E6.02	GE Zenith Controls Entelli-Switch 250	400A Main Bus 277/480V, 3P 400	Automatic Transfer Switch
15700	M0.02	Bell & Gossett	580 lbs, B&G D-40V	Expansion Tanks (ET-2)
none	A5.4	Wall Technology	FR701 Style 2100	Acoustic Tile
none	A9.10	Custom	Custom	Theatre Seating
02741	A1.1	n/a	n/a	AC Paving for Pedestrians
02742	A7.3 A7.4	Design-Build	Design-Build	Stairs

Recommendation:

None

CLOSE-OUT PROCESS

The Project was just beginning the close-out process at the end of KPMG's fieldwork. As such, the close-out checklist had not been started, but CSUEB was in the process of collecting operation and maintenance manuals and work was being performed on the 25 page punch list. A Conditional Certificate of Occupancy was issued on January 3, 2007 allowing unrestricted use with the exception of room 125. This Conditional Certificate of Occupancy expired on March 11, 2007.

KPMG reviewed the Conditional Certificate of Occupancy, punch list, operation and maintenance manuals, which were filed in an orderly fashion and retained properly at CSUEB.

Change orders were still in the process of being executed at the time of KPMG's fieldwork. CSUEB has expressed concern at the slow pace of the completion of the Project by Flintco and attributes much of the slowdown and difficulty in reaching close-out to the removal of Flintco's main superintendent.

There are currently no contractual provisions specifying key personnel to remain on the project for the duration of construction and through close-out or a requirement for prior authorization by CSU for any substitutions in or removal of personnel.

Observation:

Close-out is progressing slowly, partially due to a change in superintendent by Flintco.

Risk:

When key personnel are changed during a construction project, information and momentum are invariably lost. This can impact the quality and progress of a project.

Recommendation:

7. CSU should consider modifying the Contract General Conditions Section 4.17 to require written owner approval prior to contractor re-assignment of key personnel on CSU projects.

(Ownership: CPDC)

Management Response:

7. We agree, and have already made the change to the Contract General Conditions via the Supplementary General Conditions, and posted it to our website.

LIQUIDATED DAMAGES

The Project was contracted to be completed by September 16, 2006. CSUEB received a Conditional Certificate of Occupancy on January 3, 2007. The Notice of Completion was not issued as of the last day of KPMG's fieldwork. The contract specified liquidated damages in the amount of \$3,000 for every day the Project lasted beyond the contractual finish date. At the time of occupancy, the liquidated damages were contractually reduced to \$1,500 per day. The schedule below summarizes the liquidated damages calculated based on the contracted number of days, and as of March 1, 2007:

Document / Description		LD Amount
Notice to Proceed		
Contracted Begin Date	3/15/2005	
Total Calendar days per contract	550	
Contracted Completion Date	9/16/2006	
Conditional Certificate of Occupancy (CCO)	1/3/2007	
Days from Contracted		
Completion date until CCO	109	
Liquidated Damages (LD) daily rate	\$ 3,000	
LD prior to CCO	\$ 327,000	\$ 327,000
CCO until 3-1-07		
(ultimately to be Days from CCO to NOC)	57	
Half of LD rate	\$ 1,500	
LD from CCO until Notice of Completion	\$ 85,500	\$ 85,500
Total Liquidated Damages (as of 3/1/07)		\$ 412,500

Due to the delay in completion of the Project, liquidated damages are being considered by CSUEB.

Observation:

CSUEB did not have beneficial occupancy of the Project until three months after the scheduled completion and the contractor was slow to complete the Project.

Risk:

CSUEB is incurring additional costs associated with use of resources to keep the Project moving forward.

Recommendation:

8. CSUEB should consider pursuing liquidated damages in addition to holding retention until the Project is complete and the Notice of Completion has been issued.

(Ownership: CSUEB)

Campus Response:

8. We concur. CSUEB completed an analysis of the project and negotiated a final settlement agreement with the contractor to protect the Trustees' best interests.

Completion date: August 31, 2007

ACCOUNTING

CSUEB's Office of Accounting and Fiscal Services compiled data requested by KPMG and presented it in an Excel workbook. The data provided spreadsheets containing contractual obligations, encumbrances, amounts paid by funding source, budget comparisons, and reconciliation to the 2-7 along with other information.

The Project spanned three fiscal years, funding was obtained from multiple sources, and multiple accounts were used to track the various transaction data. Since the PeopleSoft accounting system at CSU does not have a comprehensive method for tracking project costs, CSUEB's Office of Accounting and Fiscal Services maintained a separate spreadsheet system to track the data. KPMG's testing of the spreadsheet and underlying documentation did not reveal any discrepancies.

Implementation of this type of 'shadow' accounting is a common practice among CSU campuses and can be an effective tool as long as it is reflective of the actual transactions posted into the main accounting system and reconciled on a regular basis. However, such wide use of shadow systems across the CSU system and the ease with which errors can occur in such systems indicates CSU should address the need to obtain project information across funding sources and fiscal years to create a project cost report from the accounting system without the need for a separate campus shadow system. This may promote efficiency and provide reliable data in a timely manner and provide consistency across all campuses.

Observation:

Each campus has their own method of tracking project costs. These methods vary widely, and are limited in their usefulness to provide project costs in a timely basis that encompasses multiple funding sources, and crosses fiscal years.

Risk:

Without a comprehensive and uniform method of tracking construction costs, campuses lose efficiency due to the need to create a system for capturing the data. Each campus is at a greater risk due to the higher likelihood of error occurring by using a manually maintained shadow system.

Recommendation:

9. The CSU system should design and implement a comprehensive and uniform method of tracking construction project costs to be used by all campuses for all construction projects.

(Ownership: CPDC)

Management Response:

9. While the use of shadow systems is not the most efficient method to track project costs, it can be an effective tool that can provide a method for campus facilities and Chancellor's Office personnel to readily track and access information such as project budgets, expenditures, encumbrances, pending costs/change orders, etc.

The CSU acquired the Project Costing module in its initial procurement of the PeopleSoft Financials suite, but it has not been implemented on any campus as yet. A team consisting of CPDC, CMS and campus representatives will be established to evaluate the Oracle/PeopleSoft Enterprise Project Costing module and/or any other software systems being used by the campuses, to determine if its/their functionality is in line with the CSU business processes for tracking design and construction project costs.

As part of the evaluation, the team will also consider the use of shadow systems and what steps or procedures can be implemented to ensure the shadow system tracking is reconciled against the campus financial reporting system, e.g. CMS, in place of a uniform software module to be used by all campuses. While this may not be the optimal solution, it may be the most cost effective solution and address the concern that shadow systems do not capture the same data as being collected and reported in the campus financial reporting system.



CALIFORNIA STATE
UNIVERSITY
E A S T B A Y

Office of the Vice President, Administration
and Finance & Chief Financial Officer

CALIFORNIA STATE UNIVERSITY, EAST BAY
25800 Carlos Bee Boulevard, Hayward, CA 94542-3002
510.885.3803 • 510.885.4745 (fax) • www.csucastbay.edu

RECEIVED
UNIVERSITY AUDITOR

AUG - 7 2007

THE CALIFORNIA STATE
UNIVERSITY

August 1, 2007

Mr. Larry Mandel
University Auditor
Chancellor's Office
401 Golden Shore
Long Beach, CA 90802

**RE: Campus Responses to Recommendations: CSU, East Bay Construction
Audit—Valley Business and Technology Center**

Dear Mr. Mandel,

Enclosed is our response to the CSU, East Bay Construction Audit for the Valley Business and Technology Center. Upon acceptance of our response, we will follow up with your office in providing supporting documentation for each recommendation by the anticipated completion dates.

Please let us know if you have any questions or need additional information.

Sincerely,

Shawn Bibb
Vice President, Administration & Finance, CFO

SB/krb

Enclosure

c: Dr. Mohammad H. Qayoumi, President
Ms. Barbara Haber, AVP, Facilities Planning & Operations

CONSTRUCTION PROJECT EVALUATION
CALIFORNIA STATE UNIVERSITY, EAST BAY
VALLEY BUSINESS AND TECHNOLOGY CENTER

DESIGN COSTS

Recommendation:

1. (a) In the future, additional care should be taken to ensure contractual language, exhibits, and cost information are in agreement prior to contract execution.

(b) Additionally, early invoices using a percentage of completion method should be scrutinized for accurate basis of calculation.

(Ownership: CSUEB)

Campus Response:

1. (a) We concur. Procurement has reviewed procedures and will ensure that hourly rates provided in proposals are incorporated into the contracts in addition to current procedure of not to exceed or total cost. Review will include confirmation of consistency between rider A and Schedule B. Completion date: August 31, 2007.

(b) We concur. Construction Managers and Construction Administrator staff will ensure invoices correctly reflect contract values, validate amounts complete and previous payments before approving AE invoices for payment. Completion date: August 31, 2007.

Recommendation:

2. In the future, CSUEB should use Extra Services Authorization letters as recommended by SUAM 9210.03 to contract extra services.

(Ownership: CSUEB)

Campus Response:

2. We concur. Procurement has reviewed procedures and will ensure proper forms are used in the completion of AE change orders and extra services contracts. Completion date: August 31, 2007.

CONSTRUCTION CHANGE ORDERS

Recommendation:

3. CSUEB should review SUAM and establish a clear signature authority. In addition, CSUEB should review and update its Management Plan for Delegation of Authority.

(Ownership: CSUEB)

Campus Response:

3. We concur. The University has developed a project signature form to define roles and signature levels to be included in the Delegation of Authority. The University will submit an updated Delegation of Authority to the Chancellor's Office no later than September 15, 2007

Recommendation:

4. On future Projects, CSUEB should include supporting documentation sufficient enough for a third party without detailed project knowledge to determine the cost basis agreed to in the change order.

(Ownership: CSUEB)

Campus Response:

4. We concur. The university sponsored a focused training session for university staff and contractors engaged in construction management in May 2007. This training reviewed SUAM and Construction Management Manual change order procedures. The university will work to include documentation to meet this level of background. Completion date: August 31, 2007.

Recommendation:

5. On future Projects, CSUEB should attempt to be more prompt in executing change orders once contractor work has commenced.

(Ownership: CSUEB)

Campus Response:

5. We concur. The university will develop change order procedures to include time frames for completion. Completion date: September 30, 2007.

CONSTRUCTION MANAGEMENT SERVICES

Recommendation:

6. (a) In the future, better care should be taken to analyze proposed cost estimates to ensure correct information is taken into account and no inappropriate contract terms are being agreed to.

- (b) In addition, CSUEB should investigate the controls in place to prevent work from being performed that is out of the scope of the contract, and controls surrounding payment for work performed out of the scope of the contract.

(Ownership: CSUEB)

Campus Response:

6. We concur. The university will strive to analyze proposals for conformance to initial terms and conditions. Completion date: August 31, 2007.

LIQUIDATED DAMAGES

Recommendation:

8. CSUEB should consider pursuing liquidated damages in addition to holding retention until the Project is complete and the Notice of Completion has been issued.

(Ownership: CSUEB)

Campus Response:

8. We concur. The university completed an analysis of the project and negotiated a final settlement agreement with the contractor to protect the Trustees best interests. Completion date: August 31, 2007.

Business and Finance
401 Golden Shore, 5th Floor
Long Beach, CA 90802-4210

www.calstate.edu


Richard P. West
Executive Vice Chancellor/CFO

562-951-4600
Fax 562-951-4970
rwest@calstate.edu

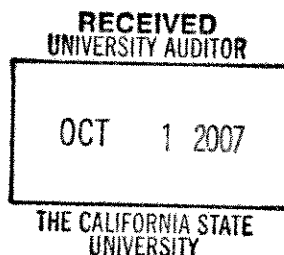
MEMORANDUM

Date: October 1, 2007

To: Larry Mandel
University Auditor

From:  Richard P. West
Executive Vice Chancellor & Chief Financial Officer

Subject: Audit Report
Valley Business and Technology Center
California State University, East Bay



I am pleased that the overall theme of this audit report continues in a positive vein and that it finds general compliance with established procedures. I have reviewed the report's findings with my Capital Planning, Design and Construction (CPDC) staff, and have attached our response to the auditors' findings and recommendations to CPDC.

RPW:ESJ:bn

Attachments

cc: Ms. Elvyra F. San Juan
Mr. Larry Piper
Mr. Thomas M. Kennedy
Mr. James R. Corsar

CSU Campuses
Bakersfield
Channel Islands
Chico
Dominguez Hills
East Bay

Fresno
Fullerton
Humboldt
Long Beach
Los Angeles
Maritime Academy

Monterey Bay
Northridge
Pomona
Sacramento
San Bernardino
San Diego

San Francisco
San José
San Luis Obispo
San Marcos
Sonoma
Stanislaus

CONSTRUCTION PROJECT EVALUATION
CALIFORNIA STATE UNIVERSITY, EAST BAY
VALLEY BUSINESS AND TECHNOLOGY CENTER

CLOSE-OUT PROCESS

Recommendation:

7. CSU should consider modifying the Contract General Conditions Section 4.17 to require written owner approval prior to contractor re-assignment of key personnel on CSU projects.

(Ownership: CPDC)

Management Response:

7. We agree, and have already made the change to the Contract General Conditions via the Supplementary General Conditions, and posted it to our web site.

ACCOUNTING

Recommendation:

9. The CSU system should design and implement a comprehensive and uniform method of tracking construction project costs to be used by all campuses for all construction projects.

(Ownership: CPDC)

Management Response:

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other software systems being used by the campuses, to determine if its/their functionality is in line with the CSU business processes for tracking design and construction project costs.

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THE CALIFORNIA STATE UNIVERSITY
OFFICE OF THE CHANCELLOR



BAKERSFIELD

October 12, 2007

CHANNEL ISLANDS

CHICO

MEMORANDUM

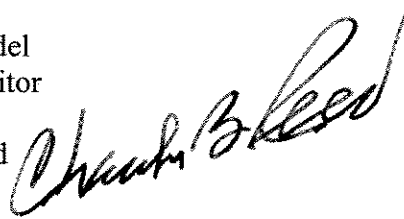
DOMINGUEZ HILLS

EAST BAY

TO: Mr. Larry Mandel
University Auditor

FRESNO

FROM: Charles B. Reed
Chancellor



FULLERTON

SUBJECT: KPMG Draft Final Report on the *Valley Business and Technology Center* Construction Project at California State University, East Bay

HUMBOLDT

LONG BEACH

In response to your memorandum of October 12, 2007, I accept the response as submitted with the draft final report on the *Valley Business and Technology Center* construction project at California State University, East Bay.

LOS ANGELES

MARITIME ACADEMY

CBR/jt

MONTEREY BAY

Enclosure

NORTHRIDGE

cc: Ms. Erika Alvord, KPMG

POMONA

Mr. Shawn Bibb, Vice President, Administration and Finance and
Chief Financial Officer, CSUEB

SACRAMENTO

Ms. Colleen Nickles, Assistant Vice Chancellor, Financial Services

SAN BERNARDINO

Dr. Mohammad Qayoumi, President, CSUEB

SAN DIEGO

Ms. Elvyra San Juan, Assistant Vice Chancellor, CPDC

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

SAN FRANCISCO

SAN JOSÉ

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS