Internal Control Review – Facilities Engineering and Project Management
Project # 2013-55D
April 5, 2013

Reviewed by: 
Ricardo Romo
President
EXECUTIVE SUMMARY - Internal Control Review of Facilities Engineering and Project Management

We performed a limited scope audit of Engineering and Project Management’s (EPM) current and proposed processes of institutional managed construction procurements from $5,000 to $25,000.

The scope of this review did not include:
- Institutionally managed construction projects under $5,000,
- Institutionally managed construction projects over $25,000,
- Use of Job Order Contractors for institutionally managed projects of any size, or

During the investigation of the alleged fraudulent activities, the following key internal control deficiencies were discovered.

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<tr>
<th>CONDITION</th>
<th>CAUSE</th>
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<tr>
<td>Contractors were paid for jobs before work was completed.</td>
<td>Limited or no monitoring by anyone other than the Project Coordinator to ensure jobs were completed.</td>
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<td>Bids were solely awarded by the Project Coordinator.</td>
<td>No controls existed to ensure bids were requested from contractors at arm’s length from the Project Coordinator.</td>
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<td>The scope of work for construction projects was vaguely written with non-specific language.</td>
<td>Standards had not been established by EPM management for what constitutes an acceptable project scope making it difficult to monitor project costs, work progress, and job completion.</td>
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<td>Cost Estimates prepared by Project Coordinator were inflated.</td>
<td>EPM Management did not review cost estimates and bids for clarity or reasonableness allowing for inflated bids.</td>
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<td>Non-existent “shell” companies with similar addresses competed for bids with legitimate bidders.</td>
<td>No established vetting of companies desiring to do business with UTSA.</td>
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<td>Larger projects (exceeding $25,000) were split into multiple smaller bids in order to stay under the $25,000 threshold since projects under $25,000 only require the informal bidding process.</td>
<td>Once the cost estimate for the total project was approved, EPM and Purchasing did not have procedures in place to track/monitor the multiple jobs that were awarded to complete a larger project.</td>
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The internal control deficiencies created an environment in which the alleged fraudulent activities could occur. We have provided EPM with suggested recommendations to assist in their effort to review and enhance processes for construction projects to ensure appropriate management oversight and segregation of duties exist, and to ensure clarity of processes, roles, and responsibilities.
The Office of Institutional Compliance conducted an investigation of alleged fraudulent activity that occurred within Facilities Engineering and Project Management. According to UTS 118 “Statement of Operating Policy Pertaining to Dishonest or Fraudulent Activities”, the Office of Auditing and Consulting Services must review each investigation to determine if additional work needs to be performed in order to provide the Audit Committee and management with a basis for taking any corrective action necessary.

Currently, the Institutional Project Management group of the Engineering and Project Management Department consists of 7 Project Coordinators, 3 Senior Project Managers, the Assistant Director of Institutional Projects, the Facilities Project Specialist, and the Assistant Vice President for Facilities – Engineering and Project Management. The Project Coordinators and Senior Project Managers are currently managing 163 projects. The oversight responsibilities and expectations for each of these roles are explained in this report.

Facilities Engineering and Project Management (EPM) has begun revising processes for procurement of construction bids from over $5,000 to $25,000 to mitigate the key control deficiencies of inadequate segregation of duties and lack of management oversight. Additionally, EPM has begun drafting roles and responsibilities for EPM staff for the procurement of construction bids from over $5,000 to $25,000.

This audit report includes a summary of the three primary phases of construction projects ranging from over $5,000 to $25,000:

- Phase 1: Customer Work Request to Cost Estimate
- Phase 2: Purchasing Process
- Phase 3: Project Execution and Closeout Process

The lack of management oversight and the lack of segregation of duties that occurred are described in each phase. Additionally, related recommendations are also described in each phase.
A trend in the recommendations listed in this report is the need for monitoring by EPM management of various processes. 100% monitoring of every process is not feasible and is not effective or efficient. Instead EPM management should discuss the risks or vulnerabilities within each process and determine the factors that warrant more oversight.

Management should be mindful of the scope limitations of this review and should consider conducting additional reviews to determine if other internal controls are needed to reduce fraud risk.

### Internal Control Review Results

**PHASE 1: CUSTOMER WORK PLAN AND COST ESTIMATE**

When a department has a work request, an Engineering and Project Management (EPM) Project Coordinator works with the customer to create a Work Plan, which is a document of the scope of the work to be performed. After the customer agrees that the project scope in the Work Plan is accurate, a Project Coordinator creates a Cost Estimate. The Project Coordinator creates the Cost Estimate based on their knowledge of similar work done in the past. Next, the Cost Estimate is sent to the department and the department acknowledges the project cost and provides a funding source.

**PROCESS WEAKNESSES**

When the alleged frauds occurred, the Project Coordinator performed most of the project scope and cost estimate tasks without segregation of duties or management oversight. No oversight allowed for inflated Cost Estimates to be created which allowed for inflated bids to be obtained later in the process. Additionally, the lack of oversight for the project scope descriptions creates a process weakness in which it becomes difficult to monitor project costs (including reasonableness), work progress, and job completion.

**PROCESS ENHANCEMENTS**

Since the alleged frauds occurred, EPM has begun to develop standards outlining the level of detail necessary for the project scope that is included in the Work Plan and the Cost Estimate.

Additional oversight of the Cost Estimate created by the Project Coordinator is warranted. At a minimum, the Cost Estimate should be reviewed for reasonableness of cost based on the
scope. The clarity of the scope should also be reviewed.

However, 100% review by EPM Management of all Cost Estimates created by Project Coordinator or Senior Project Coordinators is neither effective nor efficient. The decision on the level and depth of oversight should be based on an analysis of which projects have greater potential for mismanagement.

It is recommended that any review include samples of cost estimates and project scopes created by all Project Coordinators to ensure thorough oversight/monitoring.

Additionally, management should develop trend analysis tools for monitoring cost estimates and project scope descriptions. For example, the comparison of cost estimates for similar projects for reasonableness could assist management in providing oversight.

<table>
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<tr>
<th>Recommendation 1:</th>
<th>Develop, document, and train EPM management and staff on procedures for creating cost estimates and on project scope description standards.</th>
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<tbody>
<tr>
<td>Management’s Response:</td>
<td>EPM management has developed procedures for creating cost estimates and verifying project scope, and has developed a plan to train management and staff. Since project scopes vary greatly, EPM management has developed other procedures to review project scope instead of creating project scope description standards.</td>
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<tr>
<td>Responsible Person:</td>
<td>Assistant Vice President for Facilities – Engineering and Project Management</td>
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<tr>
<td>Implementation Date:</td>
<td>Completed May 16, 2013</td>
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<tr>
<th>Recommendation 2:</th>
<th>Clarify EPM Management responsibility for oversight of project scope descriptions and cost estimates. Additionally, develop trend analysis/monitoring tools for EPM management to utilize in the oversight of project scope descriptions and cost estimate reviews.</th>
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<tr>
<td>Management’s Response:</td>
<td>EPM Management has developed a process to improve oversight of scope descriptions and cost estimates.</td>
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</table>
EPM Management plans to develop trend analysis/monitoring tools to utilize in the oversight of project scope descriptions and cost estimate reviews. Compliance with this recommendation is dependent upon being able to develop the appropriate query in PeopleSoft. A completion date of November 2014 is required to ensure that PeopleSoft is fully implemented, and to develop the query.

**Responsible Person:** Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:** November 30, 2014

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**PHASE 2: PURCHASING PROCESS**

For procurement in the $5,000 to $25,000 range, one procurement method UTSA uses is informal bidding. Informal bidding allows the department purchasing representative to create a bid to acquire pricing from no less than three vendors (two must be HUB designated). For procurements greater than $25,000, a formal bid is required. Formal bidding requires a buyer in the Purchasing Department to create a bid to be solicited with a firm bid closing/opening date. Formal bids are posted electronically for public view to the Electronic State Business Daily (ESBD).

When the alleged frauds occurred, the Engineering and Project Management (EPM) Project Coordinator sent the Request for Estimate to contractors to bid on the project. The Project Coordinator was expected to award the work to the lowest bidder. When the Project Coordinator decided on the contractor, the process to create a Purchase Order began in EPM. Finally, the Purchasing Department approved and issued the Purchase Order to the contractor selected by the Project Coordinator.

No management oversight or segregation of duties existed within the bid awarding process. Evidence from the Institutional Compliance investigation that supports this includes:

- The Project Coordinator was able to create fictitious bids from what appear to be legitimate companies. (Note: It is unclear whether these companies were aware of the bid
submissions).

- No oversight was found to ensure the bid scope matched the project scope and/or contained measurable details to substantiate the proposed costs.

- No review or inquiries were made regarding contractors located at the same address or next door to one another.

Once the cost estimate for the total project was approved, EPM was tracking that multiple jobs were awarded to complete the project in a database but was not monitoring the multiple jobs for compliance with procurement processes. In at least a couple of instances, the majority of the work was awarded to one main contractor through the formal bidding process. However, the Project Coordinator had the ability to informally bid smaller jobs that were within the scope of the overall project to other contractors. The Project Coordinator was able to informally bid the smaller jobs without EPM management oversight. Additionally, Purchasing does not have procedures to identify the smaller informally bid projects were part of the larger project that did require a formal bid.

Discussions have occurred between EPM and Purchasing on which department the bid award process should occur in and how the bid should be awarded (lowest cost or best value). EPM and Purchasing are in agreement that the bid award process will occur in Purchasing, and that the bid always be awarded to the lowest bidder. EPM Project Coordinators will develop scope with EPM management oversight, and Purchasing will ensure that the low bidder does not take exception to the scope.

100% review by EPM Management of all project bids and awards and related Purchase Orders are neither effective nor efficient. The decision on the level and depth of oversight should be based on an analysis of which bids, awards, and Purchase Orders have greater potential for mismanagement.

However, it is recommended that any review include bids and Purchase Orders created by all Project Coordinators to ensure thorough oversight/monitoring.

Additionally, management should develop trend analysis tools
for monitoring bidding process standards. Examples include:

- Comparing the number of contracts awarded to the same contractor by the same Project Coordinator, and
- The percentage of contracts awarded right under $25,000 by each Project Coordinator.

Furthermore, management should explore other process enhancements to mitigate / deter fraud. For example, notification to the non-winning bidders may decrease the submission of fictitious bids.

**Recommendation 3:**

Develop, document, and train EPM management and staff and Purchasing staff on bidding process standards including but not limited to:

- Verifying the project scope is detailed, measurable, and matches throughout the process from the cost estimate, to the bid (purchase order) scope, to the scope included in the contractor’s proposal.
- Reviewing contractor addresses in the review of bids received.

**Management’s Response:**

Purchasing personnel are trained and certified on all necessary aspects of the bidding process. Such training includes required continuing education courses.

EPM staff training described previously includes training on the bidding process standards and essential elements of project cost and scope.

Bidding process standards, and the training related to bidding process standards, do not include the review of contractor addresses. Purchasing and EPM Management does not agree that a review of addresses should be included in the review of bids received, as Management believes this will not effectively contribute to improving the bid review process.

**Responsible Person:**

Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:**

Completed May 16, 2013
### Recommendation 4:
Clarify EPM Management responsibility for oversight and segregation of duties exist in the bid awarding process. Additionally, develop trend analysis/monitoring tools for EPM management to utilize in the oversight of bidding process standards.

**Management’s Response:**
EPM and Purchasing have agreed on appropriate segregation of duties in the bid awarding process. Also, a monthly meeting between EPM and Purchasing has been established as a monitoring tool.

**Responsible Person:**
Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:**
Completed May 16, 2013

### Recommendation 5:
Develop a method to monitor the total project cost to ensure the formal bidding process occurs when required and that bid splitting does not occur.

**Management’s Response:**
EPM Management has developed a method to monitor total project cost.

**Responsible Person:**
Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:**
Completed May 16, 2013

### Recommendation 6:
Determine if EPM and/or Purchasing should develop a process to selectively notify contractors who bid on a project but were not selected.

**Management’s Response:**
Management has determined that the cost of such notifications would far outweigh the benefit, if there would be any benefit at all, of such notifications.

**Responsible Person:**
Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:**
No Action Planned
PHASE 3: PROJECT EXECUTION AND CLOSEOUT PROCESS

The contractor creates an invoice for payment when the project is complete. The invoice should go to Disbursements but oftentimes goes to the Engineering and Project Management (EPM) Project Coordinator. As the project is in the final stages of completion, the Project Coordinator coordinates various inspections and then approves the invoice. The Project Coordinator gives the approved invoice to Facilities Business Operations to create the receiving report to send to Disbursements for payment. Disbursements performs a three way match between the Purchase Order, Invoice, and Receiving Report and processes payment.

When the alleged frauds occurred, the Project Coordinator performed most of the project close out tasks without segregation of duties or management oversight.

- There was limited or no monitoring by anyone other than the Project Coordinator to make sure jobs were completed in accordance with the agreed upon project scope.
- The Project Coordinator is solely responsible for coordinating final inspections before the final close out.
- Facilities Business Operations has no assurance the project is complete other than the Project Coordinator stating the project is complete.

For one of the alleged frauds that occurred, the Project Coordinator was able to award a bid to a contractor he had a relationship with and on the same day the Project Coordinator was able to submit a self-approved invoice to be paid, stating that the project was complete.

PROCESS WEAKNESSES

Since the alleged frauds have occurred, EPM has agreed to add management oversight and segregation of duties to the Project Execution and Close Out Process. One key change made is that all invoices approved by the EPM Project Coordinator are submitted to their Senior Project Manager before submitting the approved invoice to Facilities Business Operations to create the receiving report. Additionally, the Senior Project Managers are being trained to randomly inspect work associated with the invoices they receive.

PROCESS ENHANCEMENTS
100% review by EPM Management of the execution and close out of all projects is neither effective nor efficient. The decision on the level and depth of oversight should be based on an analysis of which projects have greater potential for inappropriate handling. EPM Management should also develop trend analysis tools for monitoring execution and close out of all projects.

**Recommendation 7:** Develop, document, and train EPM management and staff on procedures for project execution and close out standards, including but not limited to:

- Verification that the project was completed in accordance with the project scope.
- Ensure the contractor sends the final invoice to Disbursements as stated on the Purchase Order.

**Management’s Response:** EPM Management has completed the development and documentation of training relating to project execution and closeout, and will provide training to all project management staff at least annually.

**Responsible Person:** Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:** Completed May 16, 2013

**Recommendation 8:** Clarify EPM Management responsibility for oversight and segregation of duties exists in the project execution and close out process. Additionally, develop trend analysis/monitoring tools for EPM Management to utilize in the project execution and close out process.

**Management’s Response:** EPM Management has established clear responsibility and segregation of duties for the project execution and close out process.

**Responsible Person:** Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:** Completed May 16, 2013
AUDITING & CONSULTING SERVICES Project 2013-55D  
Internal Control Review – Facilities Engineering and Project Management

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<thead>
<tr>
<th>OVERALL PROCESSES</th>
<th>Overarching improvements should also occur.</th>
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<tr>
<td>CONFLICTS OF INTEREST</td>
<td>Even though conflict of interest disclosure statements are completed by various Engineering and Project Management (EPM) staff, inappropriate relationships with contractors still occurred. EPM should train and monitor staff on importance and necessity to not have improper relationships with contractors.</td>
</tr>
<tr>
<td>LEGITIMATE VENDORS</td>
<td>There is no process established to determine the legitimacy of the vendor. To create a purchase order or payment voucher, a taxpayer identification number is needed to complete these transactions within our accounting system; therefore, a W-9 form is collected from the vendor. However, the W-9 does not provide any assurance that a company is legitimate.</td>
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<tr>
<td>EXPAND PROCESS REVIEW</td>
<td>Finally, Business Affairs and The Office of Facilities should considering expanding the processes for procurements not in the $5,000 to $25,000 range.</td>
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</table>

**Recommendation 9:** Train and monitor all EPM management and staff on the importance and necessity to not have improper relationships with contractors and to disclose relationships that may appear to be a potential conflict of interest.

**Management’s Response:** EPM Management has developed “Fraud Awareness” and “Conflict of Interest” training and has formalized guidance to project management staff.

**Responsible Person:** Assistant Vice President for Facilities – Engineering and Project Management

**Implementation Date:** Completed July 24, 2013
<table>
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<tr>
<th><strong>Recommendation 10:</strong></th>
<th>Business Affairs should determine the due diligence required by EPM, Purchasing, or other Business Affairs departments to assess vendor legitimacy.</th>
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<tbody>
<tr>
<td><strong>Management’s Response:</strong></td>
<td>Business Affairs has determined that it is not reasonably possible to assess whether vendors are legitimate construction contractors because they are not required to be licensed by the State of Texas, and there are no known methods to assure, with reasonable certainty, the legitimacy of vendors.</td>
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<tr>
<td><strong>Responsible Person:</strong></td>
<td>Assistant Vice President for Facilities – Engineering and Project Management</td>
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<td><strong>Implementation Date:</strong></td>
<td>No Action Planned</td>
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| **Recommendation 11:** | Consider applying the same spirit of the recommendations given for institutionally managed construction procurements between $5,000 to $25,000:  
- Institutionally managed construction projects under $5,000,  
- Institutionally managed construction projects over $25,000 |
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<tr>
<td><strong>Management’s Response:</strong></td>
<td>The changes EPM has implemented and is developing will apply the same spirit of these recommendations to other projects that are outside the purview of this review.</td>
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<tr>
<td><strong>Responsible Person:</strong></td>
<td>Assistant Vice President for Facilities – Engineering and Project Management</td>
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<tr>
<td><strong>Implementation Date:</strong></td>
<td>Completed May 16, 2013</td>
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CONCLUSION

Based on our review, key internal control deficiencies within Engineering and Project Management created an environment in which the alleged fraudulent activities could occur. Engineering and Project Management should continue to review and enhance processes for construction projects to ensure appropriate management oversight and segregation of duties exist, and to ensure clarity of processes, roles, and responsibilities.

J. Richard Dawson
Executive Director, Audit,
Compliance and Risk Services

Paul Tyler
Director,
Auditing and Consulting Services

Laura Buchhorn
Audit Manager

This engagement was conducted in accordance with The Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing.