THE UNIVERSITY OF ARIZONA

Arizona Cancer Center – Phoenix Construction Contract

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Summary

Our audit of the Arizona Cancer Center - Phoenix (AZCC) construction contract was included in our approved Fiscal Year (FY) 2018 Audit Plan. The University of Arizona (UA) contracted for construction of AZCC with a construction phase Guaranteed Maximum Price (GMP) of $74 million. This construction project contributed to UA's commitment to better serve critical academic and research programs in support of an increasing number of students in health education.

Construction projects have been identified as strategic, high-risk areas for the universities. Charges to the project may not comply with the negotiated contract, resulting in overcharges and cost overruns. Construction administration and project monitoring for the UA is provided by Planning, Design & Construction (PD&C). Since 2009, we have completed 14 audits of construction contracts administered by PD&C.

Background: The 230,000-square-foot, six-story AZCC building was constructed to establish, manage, and operate a National Cancer Institute-designated cancer center at the Phoenix Biomedical Campus. The cancer center was built to focus on delivering the highest standard of cancer care with the most modern technologies. This building houses the highest quality outpatient cancer care and research with an evidence-based, multi-disciplinary, patient-centered model that enables AZCC, in conjunction with St. Joseph's Hospital & Medical Center/Dignity Health, to provide comprehensive cancer care to the Phoenix area.[1]

PD&C is pursuing a United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Silver Certification, indicating that the building was designed to have lower operating costs, reduce waste, conserve energy and water, and to create healthy and productive work environments.

The contract was awarded to Hensel Phelps Construction Company (HPCC) utilizing the Design-Build (D-B) project delivery method.[2] The D-B contractor was selected through the capital project selection committee process prescribed by the ABOR Procurement Code. Sixteen responses to the project Request for Qualifications (RFQ)

[1] Arizona Board of Regents, Business and Finance Committee Meeting Minutes, December 2012

[2] Due to high levels of collaboration between the design and construction teams, the D-B project delivery method frequently results in fewer change orders. During our audit planning process, we learned there were no change orders for this project.

were received, and five of the responding teams were short-listed for interviews. The contract with HPCC included pre-construction design phase services as well as construction phase management, including coordinating all subcontracted work.

At its December 2012 meeting, the Arizona Board of Regents (ABOR) granted Project Approval for the AZCC – Phoenix project at $100 million. The $100 million project was funded with gift funds of $34 million and $73.2 million in System Revenue Bonds to fund the remaining $66 million and capitalized interest of $7.2 million.

Notices to Proceed were issued January 7, 2013, for initial mobilization, April 11, 2013, for underground utility work, and June 13, 2013, for the remaining construction work. The contract and subsequent amendments called for substantial completion by May 29, 2015. PD&C was satisfied with the quality of the work and issued a *Certificate of Substantial Completion* on May 29, 2015.

The AZCC project had an initial construction phase GMP of $208,320 plus two amendments totaling $73,340,969, bringing the total construction phase final GMP to $73,549,289. See the chart below for details:

GMP Description	Amount
Initial Pre-Construction/Design Phase Fee	$680,545
Amendments 1 through *20* Increases	11,061,519
Final Pre-Construction/Design Phase Fee	**$11,742,064**
Initial Construction Phase GMP	$208,320
Partial Construction Phase GMP (*Amendment 19*)	453,686
Final Construction Phase GMP *(Amendment 20)*	72,887,283
Final Construction Phase GMP	**$73,549,289**
Total Pre-Construction and Construction GMP	**$85,291,353**

Audit Objectives: To determine whether financial transactions relating to construction activity complied with the terms of the contract, including whether:

- contractor billings were adequately supported by actual costs, and overhead, profit, and fees were applied as specified by the construction contract;
- General Conditions and General Requirements (GC&GR) expenses, to include direct labor costs, were charged to the project in accordance with contract provisions;
- a quality assurance and quality control plan (QA/QC) was in place for the contract and to follow up on any issues identified during implementation of the QA/QC plan;

- bond and insurance coverage during construction was in compliance with the terms of the contract;
- the D-B contractor provided the contracted scope of work, to include whether project alternates were accepted via contract incorporation or change order, allowances were adjusted to actual, and contingency funds were managed in accordance with contract requirements;
- subcontracts were competitively bid, subcontractor lien waivers were on file, subcontractors maintained required insurance and bonds and were properly licensed;
- project close out documents were complete; and
- opportunities for process improvements exist.

Scope: Our audit of the AZCC project included all construction phase expenses paid to the D-B contractor from the start of the early construction phase in February 2013 through the most recent payment application processed in February 2016. A final pay application will be processed after project close out and final reconciliation.

We relied on PD&C's expertise for the construction technical aspects and, therefore, our scope of work did not include any on-site inspections to assess construction methods, materials, or compliance with design specifications. We also did not include any costs associated with the project that were not part of the D-B construction phase contract, including architectural fees or PD&C internal costs.

Methodology: Our audit objectives were accomplished using the current Arizona University System Standard Construction Audit program which includes:

- reviewing the RFQ and D-B contractor selection process to ensure compliance with ABOR policies;
- preparing a control schedule of the initial, partial, and final GMP amounts and all construction phase payment applications to ensure payments to the D-B contractor did not exceed the approved total GMP;
- reconciling payments made to the contractor against a control schedule of contractor applications for payment;
- reviewing a sample of 4 of 36 randomly and judgmentally selected construction phase payment applications that represented approximately 20% of the total $74M construction phase costs and comparing GC&GR expenses to supporting documentation;
- reconciling the job cost ledger against subcontractor invoices and HPCC pay applications;
- reviewing the QA/QC plan for comprehensiveness and whether any significant issues were identified;

- verifying all bond and insurance requirements were maintained during the project;
- reviewing D-B contractor contingency fund expenditures to ensure that all uses of the contingency fund were made in accordance with the contract;
- determining if allowances were adjusted to actual costs via change order;
- ensuring the subcontractor bidding process was performed in compliance with contract terms;
- reviewing subcontracts for subcontractors whose final contract amounts were greater than $2 million to ensure the contract terms were consistent and in compliance with the D-B contract;
- examining project close-out documents for completeness; and
- discussing the project with representatives from PD&C, HPCC, and UA Office of General Counsel to obtain additional information and clarification.

Conclusions: Based on our audit work, we found that the financial transactions relating to construction activity generally complied with the terms of the contract. The D-B contractor provided the contracted scope of work, and bond and insurance coverage during construction was in place and maintained, as required. Additionally, contingency funds were adequately managed, and the contractor established and implemented a comprehensive QA/QC plan. Further, the subcontractor selection process and subcontractor documents were in compliance with the contract, and project close-out documents completed to date were in order.[3] We also found that allowances were not adjusted to actual costs in accordance with contract requirements. This issue is described in detail later in the report.

Schedule of Value (SoV) line items were mostly supported; however, not all GC&GR costs could be validated because supporting documentation was not available. We were advised that PD&C administered the project and GC&GR costs as a fixed price contract despite an effort to substantiate a majority of project expenses. The AZCC D-B contract states that Payment Applications should be submitted with "…such evidence as required by owner to demonstrate actual costs incurred on account of Cost of the Work during such month and the percentage of completion of each category of Work." Later versions of the D-B contract were revised to specifically state that GC&GR costs "shall be reimbursed as a category of Work within the Schedule of Values based on actual cost."

[3] The contractor evaluation and final payment were not completed since the project was not yet finalized.

According to the Institute of Internal Auditors International Professional Practices Framework, an organization is expected to establish and maintain effective risk management and control processes. These control processes are expected to ensure, among other things, that:

- the organization's strategic objectives are achieved;
- financial and operational information is reliable and possesses integrity;
- operations are performed efficiently and achieve established objectives;
- assets are safeguarded; and
- actions and decisions of the organization are in compliance with laws, regulations, and contracts.

Our assessment of these control objectives as they relate to the AZCC construction contract is on the following page.

General Control Objectives	Control Environment	Audit Result	
		No.	Page
Achievement of the Organization's Strategic Objectives			
• Strategic objectives were met by providing facilities for academic and research programs to support the increasing number of students in health education.	Reasonable to Strong Controls in Place		
Reliability and Integrity of Financial and Operational Information			
• Contractor pay applications were supported by actual costs incurred by the D-B contractor.	Reasonable to Strong Controls in Place		
• GC&GR expenses were charged in accordance with contract provisions.	Reasonable to Strong Controls in Place		
Effectiveness and Efficiency of Operations			
• The contracted scope of work was provided, including acceptance of alternates via contract incorporation and/or adjustment of allowances to actual costs.	Opportunity for Improvement	1	7
• Contingency funds were managed in accordance with contract requirements.	Reasonable to Strong Controls in Place		
Safeguarding of Assets			
• A QA/QC plan was established and implemented.	Reasonable to Strong Controls in Place		
Compliance with Laws and Regulations			
• The D-B contractor selection process was in accordance with the ABOR procurement code policy.	Reasonable to Strong Controls in Place		
• Insurance and bond coverage during construction was in compliance with the terms of the contract.	Reasonable to Strong Controls in Place		
• Project close-out documents were complete.	Reasonable to Strong Controls in Place		

We appreciate the assistance of both PD&C and HPCC representatives during the audit.

/s/

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Audit Results, Recommendations, and Responses

1. Allowances were not adjusted to actual costs as required by the contract.

Condition: *Amendment 20* to the D-B contract accepted the full construction phase GMP that included three allowances totaling $250,000. One of the three allowances, totaling $150,000, was not required for the purposes indicated in the contract documents. Specifically, the $150,000 APS Switchover allowance was not used because HPCC developed an alternative plan that did not require the use of a large trailer-mounted generator to keep businesses and affected campus areas operational during the switchover. Therefore, HPCC and UA verbally agreed that the allowance funds should be redistributed to other SoV line items.

Criteria: *Amendment 10* to the contract's *Design-Build Standard Form General Conditions*, *Article 6, Paragraph 6.14.1.4*, states: "Whenever costs are more than or less than allowances, the Guaranteed Maximum Price shall be adjusted accordingly by Change Order in accordance with provisions of Article 9. The amount of the Change Order shall reflect the difference between actual costs and the allowances plus Fee on such difference in accordance with Article 9 if the Actual costs are greater than the allowances."

Cause: The HPCC and PD&C project managers advised the auditor that the allowance was not adjusted to actual by change order because the allowance funds were redistributed to other SoV line items. Because the decision to redistribute the allowance funds was not formally documented, the reason for doing so and the delay in adjusting the allowance was unknown.

Effect: The GMP could have been reduced by $150,000 if allowances had been properly adjusted. Additionally, not adjusting allowances is in violation of the contract and reduces transparency of funds management.

Recommendations:

1. PD&C should execute a change order to adjust allowances to actual costs in accordance with contract requirements. The change order should include an accounting of the $150,000 and to which contract line items the funds were distributed, as well as justification for redistributing the funds to the respective contract line items.

2. As fiduciaries of state and donated funds, PD&C should reiterate to project managers the importance of ensuring contractual requirements are followed.

Management Response: Target Implementation Date: April 2019.

At the time of GMP, Arizona Public Service (APS), the electrical service provider for the project, had not yet determined a suitable method of delivery for the electrical service to the building. As such, a $150,000 allowance was included in the GMP to accommodate the contractor's work needed to establish the final electrical connections to the building. Once the building design was finalized, APS was able to re-design the electrical service connection to greatly simplify the efforts required by the general contractor, and the bulk of the allowance was no longer needed.

At the time, the contractor was instructed to hold the remaining allowance dollars in the project in anticipation that future project change orders would be forthcoming. Ultimately - the project was completed without having to execute any change orders to the contractor.

PDC is in agreement that now that the project is completed that a change order should be executed to reconcile all project costs which would include the reconciliation of the allowance dollars along with any remaining contingency funds.

A change order will be executed within the next 6 months and forwarded to the Internal Auditor for verification that the allowance dollars have been credited back to the owner or other authorized project expenses.