Internal Audit Department

Recital Hall Construction

July 19, 2019
Report Number FY 19-05

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This report is intended for the information and use of the Arizona Board of Regents, NAU administration, the Arizona Office of the Auditor General, and federal awarding agencies and sub-recipients.
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Summary

Northern Arizona University (NAU / University) contracted with CORE Construction, Inc. to construct a 250 person Recital Hall with instrument rooms and renovate the existing choral rooms to improve the quality of music education at NAU while wholly serving the needs of NAU students and the northern Arizona community. Audit of the Recital Hall Construction Project is in the Annual Audit Plan for Fiscal Year 2019, as approved by the Audit Committee of the Arizona Board of Regents. This audit supports NAU’s strategic goals of Stewardship and Student Success and Access by accommodating student enrollment growth and enhancing students’ learning experiences.

Background: The project is being delivered through the Construction Manager at Risk (CMAR) method. Construction administration and project management are being provided by NAU Planning, Design & Construction.

The project includes construction of a 250 person Recital Hall connected on three sides to an existing facility between Clifford White Theater and Ardrey Auditorium to allow NAU’s School of Music students to share cultural and educational performances with the Flagstaff community on a more intimate level. The addition of this space is 21,075 GSF (gross square feet) of new construction with 5,600 GSF of renovated space adjacent to the Recital Hall. Construction included relocating the existing Instrument Rehearsal room to the second floor over the existing Choral room.

The project is complete and opened in January 2019. The project is funded with system revenue bonds and gifts. The debt service on the bonds is funded from tuition and fee revenue and will be repaid over 20 years.

The pre-construction contract agreement with the CMAR was executed in January 2017. A notice to proceed for construction services was issued in July 2017. Design professional services were provided by RSP Architects, Ltd for $1,661,355. CORE Construction’s pre-construction costs were $88,116. The guaranteed maximum price for construction, excluding pre-construction and architectural costs, is $11.75 million as of this report date.

Audit Objectives: The primary objectives of this review were to determine if:
- contract terms, including fees, are applied as specified by the construction contract;
- charges are adequately supported by actual costs incurred by the CMAR;
- the subcontractor selection process is consistent with ABOR policies; and
- proposed change orders are sufficiently documented.

Scope: The audit scope included the project construction phase from inception through December 31, 2018 (Pay Application 18). NAU Planning, Design & Construction provided a tour of the construction of the Recital Hall in August 2018. We relied on NAU Planning, Design & Construction’s expertise for the construction technical aspects and to determine whether NAU received the contracted scope of work. Accordingly, the audit scope excluded on-site inspections to assess construction methods, materials, or compliance with design specifications.
Methodology: The audit objectives were accomplished using the current Tri-University construction audit program (January 15, 2009 edition), which includes:

- Verifying the propriety of CMAR pay applications:
  - Reconciling construction payments as recorded in NAU’s financial system.
  - Verifying that pay applications are supported by the contractor’s internal financial records.
  - Performing a detailed review of transactions charged to General Conditions and other reimbursable costs to ensure they are allowable and adequately supported.
  - Verifying that charges for bonds, insurance, and sales taxes are documented and applied per the contract.
  - Verifying subcontractors were selected according to contract requirements and ABOR procurement policies.
- Validating the propriety of change orders:
  - Assessing whether proposed change orders provide sufficient information to validate price-reasonableness and, where appropriate, rates are consistent with the subcontractor contracts.
  - Confirming that overhead and fees are calculated consistently and per the contract.
  - Determining whether GMP adjustments are properly approved by NAU.
- Ensuring that usage of contingency funds and allowances are properly approved.

The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing promulgated by the Institute of Internal Auditors and accordingly, included such tests considered necessary under the circumstances.

Conclusion: Construction of the Recital Hall was adequately controlled by NAU Planning, Design & Construction. We also shared some immaterial potential cost-saving and documentation improvement ideas for management consideration. The CMAR, CORE Construction, also agreed to update their job cost detail ledger to include all applicable cost details on all future NAU construction projects that they support.

The control standards considered, related control environment assessment and any related improvement opportunities (IO) identified are summarized in the following table.

<table>
<thead>
<tr>
<th>General Control Standard</th>
<th>Control Environment/Assessment</th>
<th>IO No.</th>
<th>Page No.</th>
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<tbody>
<tr>
<td>Reliability and Integrity of Financial and Operational Information:</td>
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<tr>
<td>• Contractor billings and change orders are supported by the contractor’s job cost ledger</td>
<td>Yellow</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>• The contractor’s job cost ledger is supported by sub-ledgers that facilitate analyses and reviews, such as equipment rental charges, payroll schedules and subcontractor payment ledgers</td>
<td>Yellow</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>• Adequate documentation is provided to support charges made to General Conditions with the pay applications and General Conditions are allowable per the contract</td>
<td>Green</td>
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### General Control Standard
(The bulleted items are internal control objectives that apply to the general control standards, and will differ for each audit.)

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<td>● Allowances and contingencies are accurately tracked and properly approved</td>
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<td>● Charges for indirect costs such as fees, taxes and insurance are supported or accurately calculated</td>
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<td>● Subcontractor change order proposals are submitted with sufficient information to determine price reasonableness</td>
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#### Safeguarding of Assets:
- Payments made are supported by work completed

#### Effectiveness and Efficiency of Operations:
- The overall contract is clear, effective and efficient to administer
- Allowable costs are sufficiently defined in the contract and are efficiently processed

#### Compliance with Laws and Regulations:
- The contract and ABOR selection process for subcontracted work is followed and the subcontracts are supported by the bid awards
- Change orders are priced per the contract and properly approved

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### Legend:
- Reasonably Strong Controls In Place
- Opportunity for Improvement
- Significant Opportunity for Improvement

We appreciate the assistance provided by the staff of CORE Construction, Inc. and NAU Planning, Design & Construction during the audit.

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Audit Results: Improvement Opportunities & Solutions

1. Obtaining a current and complete job cost detail ledger to verify total charges made to the project would encourage CMAR transparency and allow for more efficient audit analysis.

Solution: Planning, Design & Construction will develop an internal process to obtain the job cost detail ledger in electronic format to periodically review for future construction projects.

Responsible Parties: Steve Vedral, Director, Planning, Design & Construction

Implementation Date: September 30, 2019

DETAILS:

Condition: While the job cost detail ledger was provided by the CMAR, it did not:

- include general conditions,
- provide details of each transaction charged to the project, and
- agree to the most recent pay application without obtaining clarification and a reconciliation from the CMAR.

Criteria: Section 2.1.14 of the CMAR contract states: “With respect to all Work performed by CMAR and its Subcontractors and consultants, CMAR, its Subcontractors and consultants, shall keep full and detailed accounts and exercise such cost controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and subject to review by Owner.” The General Contractor's job cost ledger provides a detailed account as it captures all costs associated with the construction project. The job cost ledger supports the contractor billings and change orders.

All construction costs should be verifiable to ensure the billings paid by NAU are accurate and complete.

Cause: No formal practice that includes obtaining and reviewing a job cost detail ledger has been incorporated into the review process by the NAU project management team. CORE construction used a less detailed job cost detail ledger due to limitations of their accounting software to efficiently produce the detail in one report.

Effect / Impact: Without review of all the project cost details, there is no efficient means to monitor total project costs and audit the construction costs of the project.