

**CITY OF CHARLOTTE
OFFICE OF INTERNAL AUDIT**

MEMORANDUM

To: City Manager's Office and Aviation
From: Tina Adams, City Auditor
Re: RSM Concourse A Closeout Services

August 10, 2022

Please see the attached report from RSM LLP US (RSM) – Concourse A Closeout Services.

Conclusion

RSM noted minor variances between billed and actual costs on the Concourse A Expansion and Renovation projects (total value of \$156 million).

Background

RSM's objective was to identify opportunities for improvement within the monitoring and administration processes of the Concourse A Expansion and Renovation Construction Manager at Risk (CMAR) agreements.

Results Summary

RSM identified opportunities for improvement in contract administration practices.

- Monthly pay applications did not include documentation (invoices, receipts, payroll records, etc.) supporting general conditions costs, providing no opportunity for Aviation to review or assess the costs for reasonableness or allowability.
- RSM found an immaterial amount of disallowed general conditions charges (\$10,910 for the expansion project and \$15,249 for the renovation project). Aviation is confident they did not pay for disallowed project costs. However, documentation provided with the final change (PCO-468) was incomplete and did not demonstrate that the \$88,417 difference between billed and actual costs incurred by the CMAR was returned to the City. Aviation should document the reconciliation of billed to actual general conditions costs.
- Some change orders and contingency requests were not supported by subcontractor or vendor invoices, or the support was a lump sum and not broken down into cost components. Aviation notes that detailed estimates were provided to RSM. However, some documentation was missing due to system issues that have since been resolved.

RSM Recommendations and City's Response

Detailed findings, recommendations, and management responses are addressed on pages 7 - 16 of RSM's attached report. Management has taken or planned actions to address the recommendations.

Actions Planned

Internal Audit will consider the impact of Aviation's responses on future construction projects during risk assessment and annual audit planning.



CONCOURSE A CLOSEOUT SERVICES

Construction Manager at Risk Agreement Review

August 2022

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Transmittal Letter

August 3, 2022

Tina Adams, City Auditor
City of Charlotte, North Carolina
600 East 4th Street
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Pursuant to our Statement of Work – Concourse A Closeout Services dated December 16, 2020, we hereby submit the following report related to the Concourse A Construction Manager at Risk (“CMAR”) project. Our report is organized in the following sections:

Background	This provides an overview of the Concourse A Expansion and Renovation projects and contract awards.
Objectives and Approach	The objectives of our procedures and our approach to the execution of those procedures are expanded upon in this section.
Observations and Recommendations	This section details the observations identified during our work and recommendations to management.

We would like to thank the staff and all those involved in assisting the Internal Auditors in connection with this review.

Respectfully Submitted,

RSM US LLP

Project Overview

Concourse A – Expansion

Contractor: Turner Rodgers – A Joint Venture (“CM”) Duration:

February 2016 to May 2020

Final Contract Value: \$114,304,139

Project Description: A 230,00 square foot expansion with nine new gates and new concessions and amenity areas.

We performed a reconciliation of the project accounting record to the billing, summarized below:

Description	Amount	
Accounting Record through 4/9/2020	\$ 109,322,188	
Less: Disallowed costs (Obs 2)	(10,910)	
Allowable actual cost of work	109,311,279	
Add: Fee at 3.5%	3,864,154	
Add: Insurance at 1.0%	1,093,113	
Total Allowable Billing	114,268,545	A
Project Billings through Pay Application 48 (04/09/20)	\$ 114,153,675	B
Favorable variance to billing	\$ 114,870	A-B = C

Concourse A – Renovation

Contractor: Turner Rodgers – A Joint Venture (“CM”) Duration:

May 2018 to October 2020

Final Contract Value: \$42,208,506

Project Description: Renovation of existing Concourse A space with improvements to finishes and amenities.

We performed a reconciliation of the project accounting record to the billing, summarized below:

Description	Amount	
Accounting Record through 10/31/2020	\$ 39,965,245	
Less: Disallowed costs (Obs 2)	(15,249)	
Allowable actual cost of work	39,949,995	
Add: Insurance at 1.0%	399,499.95	
Add: Fee at 3.5%	1,412,232.34	
Add: Bond at 0.8%	334,093.82	
Total Allowable Billing	42,095,822	A
Project Billings through Pay Application 25 (10/31/20)	\$ 42,208,506	B
Variance actual cost to billing	\$ (112,684)	A-B = C

Objective & Approach

Our objective was to identify observations and opportunities for improvement within the monitoring and administration processes of the Concourse A Expansion and Renovation Construction Manager at Risk (“CMAR”) agreements. The scope of our work will include the following:

- Cost proposal preparation and evaluation
- Subcontracting
- Invoicing

Approach

Our approach consisted of the following phases:

Discovery

We conducted interviews with City management and other appropriate representatives to gain an understanding of the processes and controls for procuring and administering the Concourse A projects. We reviewed the contract, cost proposals, invoices, and other information relevant to our scope of work.

Project Evaluation

RSM’s procedures included:

- Review of subcontractor procurement documentation for evidence of adherence to commercially reasonable practices, processes, and controls;
- Evaluation of the composition of unit price schedules, labor rate schedules, and other General conditions cost elements, and billing compliance with contract terms;
- Evaluation of the use and tracking of allowance line items;
- Review Subcontractor Default Insurance (“SDI”) costs billed to the project
- Reconciliation of the contractor’s accounting record to actual costs billed

Reporting

RSM held an exit conference with Internal Audit and prepared a deliverable to communicate findings, recommendations or improvement opportunities identified during our procedures.

Observation Summary

Observation 1 – Pay application and general conditions support	Expansion	Renovation
The monthly pay applications were not supported by general conditions documentation, providing no opportunity to the Aviation to review or assess the costs for reasonableness or allowability.	\$6,392,018	\$4,091,091
Observation 2 – General conditions reconciliation and disallowed costs	Expansion	Renovation
The contracts for both projects allow for general conditions to be billed in equal monthly installments and reconciled to actual cost upon project completion. However, the final reconciliation performed were incomplete, contained mathematical errors, and actual costs were not adequately supported by the contractor. Additionally, we identified potentially disallowed costs, such as sponsorship fees, bank fees, and preconstruction costs, billed to the project.	\$10,910	\$15,249
Observation 3 – Contingency requests not properly supported	Expansion	Renovation
We noted multiple instances where contingency requests were not supported by subcontractor or vendor invoices or the support was a lump sum and not broken down into cost components.	\$2,681,431	\$16,012
Observation 4 – Pay application and change order mathematical accuracy	Expansion	Renovation
We noted multiple instances where the pay applications or change order documentation contained mathematical errors.	\$1,277	\$6,814
Improvement Opportunity – Document control	Expansion	Renovation
We noted several documents were not available during the course of our review. Aviation has moved its document management process to a software platform since the Concourse A projects.	--	--

Observation 1 – Pay application and general conditions support

Observation

Through our review of the Expansion and Renovation project pay application support, we noted that the CM did not provide any supporting documents for general conditions costs incurred for each period. Although the agreements allowed the CM to bill the general conditions at lump installments each month (described in Obs. 2), the absence of this support limits Aviation project management's ability to review and assess the allowability and accuracy of the general conditions costs.

The CM provided general conditions support upon request for our detailed testing of sampled transactions. We noted the CM's labor costs were recorded in a single "batched" entry and did not break out the labor costs by individual, hours, or total cost. We obtained the detailed labor information for our sample; however, because the labor was recorded as a batched entry for each pay application, we could not assess the accuracy or contractual allowability of the labor billed for the full project.

For future projects which allow the CM to bill on an installment basis, we recommend Aviation require the CM to provide records supporting actual cost with each pay application. The support records should include at minimum a transaction summary report from the CM's accounting record for the billing period for reimbursable costs and a summary of staff labor identified by individual, hours, and rate. Documentation may also include vendor invoices and receipts to support each of the reimbursable transactions, and a payroll record for the labor costs to evidence actual hours worked per employee. With access to this information on a monthly basis, Aviation project management can assess the allowability and accuracy of the general conditions costs as they are billed. Additionally, when agreeing to fixed labor rates, we recommend the rates be audited before the cost proposal is finalized. This will provide Aviation the opportunity to evaluate the reasonableness of the rate and the labor burden components and to identify potential profit centers built into the labor rate.

Observation 1 – Pay application and general conditions support

Management Response

The Aviation Department understands this recommendation and will consider making this adjustment in future contracts. This position notwithstanding, the Aviation Department followed the contract for tracking general conditions which were reconciled at the end of the project and fully accounted for.

Observation 2 – General conditions reconciliation and disallowed costs

Observation

Through our analysis and detailed review of the project records, we noted the project documentation supporting Aviation's reconciliation of billed to actual general conditions were incomplete, contained mathematical errors, and actual costs were not adequately supported by the contractor. Additionally, we identified disallowed costs billed to the project.

A. General conditions reconciliation

The contract for both the Expansion and Renovation phases allowed the CM to bill general conditions at equal installments for the duration of the project, and that these costs were to be reconciled at the end of the project based on actual cost. Specifically, Article 7.1.5.1 of the agreement states:

§ 7.1.5.1 ... If General Conditions are paid in equal monthly installments based upon estimated General Conditions, the Application for Payment for the Final Payment shall include a full and complete accounting of actual costs for General Conditions and Owner's Final Payment to Construction Manager shall be adjusted by the amount necessary to make the total payments for General Conditions equal to actual costs incurred.

Expansion

We obtained Aviation's reconciliation of Expansion general conditions and noted the following:

- Aviation's reconciliation was completed for part of the project (through Turner pay application 19 of 49). As of pay application 19, Turner had billed 85% of total project general conditions (\$6,392,019) but had only incurred 76% of general conditions expenses. There is no evidence a reconciliation was completed through the end of the project.
- Aviation's reconciliation contained mathematical errors tying Turner's reported costs to the appropriate billing month. For example, Aviation recognized December 2016 costs in October 2016.
- RSM recalculated the billed to actual general conditions costs and identified a favorable variance of \$2,368, summarized on the following page.

Observation 2 – General conditions reconciliation and disallowed costs

Observation

Renovation

We obtained Aviation’s reconciliation of Renovation general conditions and noted the following:

- Aviation’s reconciliation contained mathematical errors tying to Turner’s reported costs.
- Aviation calculated \$86,642 in general conditions overbillings; there is no evidence that this amount was sought for recovery at the close of the project.
- RSM recalculated the billed to actual general conditions costs and identified a variance of \$88,417, summarized below.

Additionally, for both projects, we noted the contractor did not bill in equal monthly installments, and billings per month generally reflected actual cost. However, the cost support provided by the contractor for Aviation’s reconciliation did not contain sufficient detail (as noted in Obs. 1). The contractor’s general conditions was presented in a lump sum amount and did not show individual details of labor costs, the largest portion of general conditions. The absence of this support limited Aviation project management’s ability to review and assess the allowability and accuracy of the general conditions costs.

We recalculated the billed to actual costs, summarized in tables below.

Expansion	Amount
Total GC per job cost through PA 48 (4/09/20)	\$ 6,394,387
Less: GC billed through PA 48	\$ (6,392,019)
General conditions job cost to billing variance	\$ 2,368

Renovation	Amount
Total GC per job cost through PA 25 (10/31/20)	\$ 4,002,674
Less: GC billed through PA 25	\$ (4,091,091)
General conditions job cost to billing variance	\$ (88,417)

Without validation of the costs billed to the project, in conjunction with the absence of supporting documentation noted in Observation 1, Aviation project management risks overpayment of general conditions costs.

Observation 2 – General conditions reconciliation and disallowed costs

Observation

B. Disallowed project costs

Through our detailed testing of sample transactions, we identified disallowed costs and fees which did not reference the Concourse A project. These costs include:

- Sponsorship donations – disallowed costs
- Preconstruction costs – disallowed costs
- Bank fees – no reference to the project

For the **Expansion** project we identified \$10,910 and for the **Renovation** project we identified \$15,249 of disallowed costs, detailed below:

Expansion	Amount
Bank Charges	\$ 910
Fun Run Sponsorship	\$ 10,000
Total disallowed costs	\$ 10,910

Renovation	Amount
Bank Charges	\$ 1,149
Preconstruction Services	\$ 6,600
Fun Run Sponsorship	\$ 7,500
Total disallowed costs	\$ 15,249

The variances identified above represent the amount at risk of overpayment to the CM without an accurate reconciliation of general conditions costs or transparency on a monthly basis (see Obs. 1). We recommend for projects which allow the CM to bill general conditions in monthly installments rather than actual cost, Aviation perform and document a reconciliation of the billed to actual costs prior to the calculation of the final change order and acceptance of the final pay application. By performing the reconciliation at this stage, Aviation can incorporate any reconciling amounts into the final change order.

Observation 2 – General conditions reconciliation and disallowed costs

Management Response

This audit was conducted on the contractor's ledger, not the project files held by the Aviation Department. This additional information was provided and/or offered to the auditor, however the Airport's project files do not directly correlate with the monthly pay application from the contractor. These charges were reconciled at the end of the project and the Aviation Department is confident we did not pay for disallowed project costs.

Observation 3 – Contingency requests not properly supported

Observation

Through our detailed review of a judgmental sample of project documents, we noted instances where contingency requests were not supported by subcontractor or vendor invoices, or the support was a lump sum and not broken down into cost components.

Expansion

- Contingency Request 1 - \$743,351 (28%) of the \$2,681,431 request was not supported by a vendor invoice or detailed cost breakdown. For \$1,938,080 (72%) of the request, the vendor support submitted was a lump sum proposal without a detailed cost breakdown and was not substantiated with evidence of competitive bids or an independent cost estimate.

Renovation

- Contingency Request 10 - \$16,012 (5%) of the \$317,617 request was supported by a lump sum proposal without a detailed cost breakdown and was not substantiated with evidence of competitive bids or an independent cost estimate.

We recommend Aviation require the contractor to support all contingency requests with detailed support broken down to cost elements, including subcontractor invoices and general conditions costs where applicable. Additionally, for changes with high values and/or single vendor responses, we recommend Aviation require the contractor to provide competitive bids for the work

Observation 3 – Contingency requests not properly supported

Management Response

The Aviation Department has the detailed cost estimates for the two contingency requests for the Expansion project and offered that documentation to the auditor. The detailed cost estimate in question for the Renovation project could not be located, however, the Aviation Department would not proceed with a Contingency Request without a detailed cost estimate. Our E-Builder system now tracks this information, so data recovery is no longer an issue for projects.

Observation 4 – Pay application and change order mathematical accuracy

Observation

Through our detailed review of a judgmental sample of project documents, we noted instances where pay applications and change orders were not mathematically accurate.

Expansion

- 26 of 45 (57%) pay applications available for review did not reflect the beginning contract value accurately. The final pay application reflected the correct contract amount. This was due to budget transfers, which should net to zero, but included increases to the contract value, which resulted in the contract value shown in excess of the agreed-upon contract value. By inflating the initial contract value on the pay application, there is a risk contractor may bill more than the executed contract amount.
- Contingency Request 5 incorrectly recorded the subcontractors' invoices in the subtotal. With the applied fees, the total impact was a favorable variance to the City in the amount of \$1,277.

Renovation

- One (1) of 24 (4%) pay applications available for review did not reflect the accurate payment amount. The net variance did not result in an overpayment to the CM.
- One (1) change order detail calculations did not agree to the executed value and was understated by \$6,814. The change order total was determined by a cumulative closeout reconciliation by the CM.

We recommend Aviation review the pay applications and change order for accuracy and appropriate support to mitigate the risk of incorrect payment or amended contract records with the contractor.

Observation 4 – Pay application and change order mathematical accuracy

Management Response

The Aviation Department strives to have no discrepancies on our pay applications; however, an occasional miscalculation can occur, which is why the project is reconciled upon completion. The auditor states in the first example that the mistake could lead to the contractor overbilling the executed contract amount, but that would be impossible given that the City only encumbers the contract value, and the project is reconciled prior to the final pay application being processed. Like any good system, there are checks and balances in place to ensure the Airport is paying the contract value accurately.

Improvement Opportunity – Document Control

Observation

Through our detailed review of project documents, we noted several instances where project records were not available or maintained.

Expansion

- Five (5) of 49 (10%) of pay applications were either not available or were not supported by the contractor's pay application or a lien waiver.
- 45 of 50 (90%) of contingency requests were not available for review. Aviation noted these records were not retained in electronic form.
- One (1) change order was not executed by the Owner

Both Concourse A projects were initiated while Aviation was primarily utilizing paper copies of project records. Some electronic records were maintained in multiple systems (Munis and E-builder). For new projects as of 2018, Aviation has utilized E-Builder, a software designed for project management and document control. We recommend Aviation continue to utilize this program to archive all project documents for current and future projects. Additionally, we recommend Aviation require the CM to provide supporting records to evidence actual costs proposed for contingency use or change orders. This support should include invoices or proposals from subcontractors and breakdowns of general conditions costs and fee calculations from the CM.

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