

March 2018

Contract Administration and Change Order Performance Audit



City of Durham
Audit Services Department
101 City Hall Plaza
Durham, NC 27701
919-560-4213

Staff

Germaine F. Brewington, Director
Sonal Patel, Assistant Director
Claire Mufalo, Senior Auditor
Rahmud Bass, Internal Auditor
Kera Allen- Administrative Assistant

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101 City Hall Plaza, Ste 1700
Durham, NC 27707



To: Audit Services Oversight Committee
From: Germaine F. Brewington, Director
Audit Services Department
Date: March 26, 2018
Subject: Contract Administration and Change Order Performance Audit March 2018

The Audit Services Department staff completed the report for the Contract Administration and Change Order Performance Audit. The purpose of this audit was to:

- Determine if the departments have adequate controls over contract administration, including: compliance monitoring, performance monitoring, fiscal monitoring and payment monitoring;
- Determine if the departments have adequate controls over change orders;
- Determine if the departments are in compliance with the bid process as required by internal City policies.

This report presents the observations, results, and recommendations of the Contract Administration and Change Order Performance Audit. In response to this audit's recommendations, City Management concurs with the recommendations made. The detailed Management Response to the recommendations is included with the attached report.

The Department of Audit Services staff would like to acknowledge the contributions of the staff from the Departments of Water Management, Public Works and General Services in the completion of this audit.

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Audit Report Highlights

Background

In order to achieve good contract outcomes, it is imperative to have effective contract management. The Departments of General Services, Public Works and Water Management were chosen for this audit, based on a risk assessment performed by Audit staff. Contracts are approved by City Council and executed by the City Manager. Contracts must be monitored; but depending on the nature of the contract, processes for managing these contracts vary.

Purpose

The purposes of the audit were to:

1. Determine whether departments have adequate controls over contract administration, to include:
 - Compliance Monitoring
 - Performance monitoring
 - Fiscal monitoring
 - Payment monitoring
2. Determine if departments have adequate controls over change orders
3. Determine if the departments are in compliance with the bid process as required by internal City policies.

Why this audit was performed

This audit is relevant because the City is engaged in contracts worth multi-millions of dollars. Proper oversight of these contracts can help ensure that contractors are performing services per the specifications of the contract. If City staff do not hold contractors accountable, the risk of financial loss is great.

Highlights

Audit Services staff verified adequate controls over contract management, to include compliance monitoring, performance monitoring, and payment monitoring. The project managers were able to maintain adequate documentation to support monitoring efforts. Also, proper management oversight did exist over the contract administration process. In addition to contract management, the Departments of General Services, Public Works and Water Management also had adequate controls over the processing and approving of change orders. Contingency funds spending on construction, construction manager at risk and professional services contracts were tracked on a report. The report is a great tool used to manage contingencies. Audit Services staff did determine opportunities for enhancement; which resulted in three recommendations. These recommendations in brief were: 1) City management should provide guidance on the level of verification needed to comply with general contract requirements; 2) The Department of Water Management should examine the inherent risks associated with using a single spreadsheet in a multi-user environment; and 3) City management should ensure protocols are in place to make sure contract work does not begin prior to all required approvals are obtained.

Audit Services Department

Internal Audit

The Audit Services Department serves a three-fold role at the City of Durham. Our number one goal is to provide independent, objective assurance that City processes are working effectively. Secondly, we serve as internal fraud examiners when fraud, waste, or abuse is alleged against a City employee or department. Finally, in order to constantly foster high ethical standards, we provide in-depth ethical training to all City employees on a rolling basis. To learn more, visit our CODI site or our page on the [City of Durham's website](#).

Audit Services Oversight Committee

In order to maintain its organizational independence, the Audit Services Department reports to the Audit Services Oversight Committee (ASOC) a minimum of four times a year. The ASOC approves all proposed audit plans and completed audits prepared by Audit Services staff.

The Audit Services Oversight Committee is made up of six members: two City Council Members, three resident members, and one alternate City Council Member. The current members include two certified public accountants, academicians, and persons with business experience. The City Manager is an ex-officio, non-voting member of the ASOC.

Audit Services Oversight Committee Members

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City Council Member

Non-Voting Member:

Thomas J. Bonfield
City Manager

Background

Effective contract management is important to achieving good contract outcomes. In this audit, the Departments of General Services, Public Works and Water Management were the focus for this audit. These departments were selected based on a risk assessment performed by the Audit Services staff.

At the City of Durham, the City Council and City Manager can execute contracts for all departments. Resolution #9673 delegates authority to the City Manager to make and execute contracts. After a contract is executed, each department is responsible for monitoring the contract and performing related contract administration duties. The process of managing contracts is distinct within each department depending on the nature and type of contract. The degree to which the contract is administered and monitored is left to the individual departments.

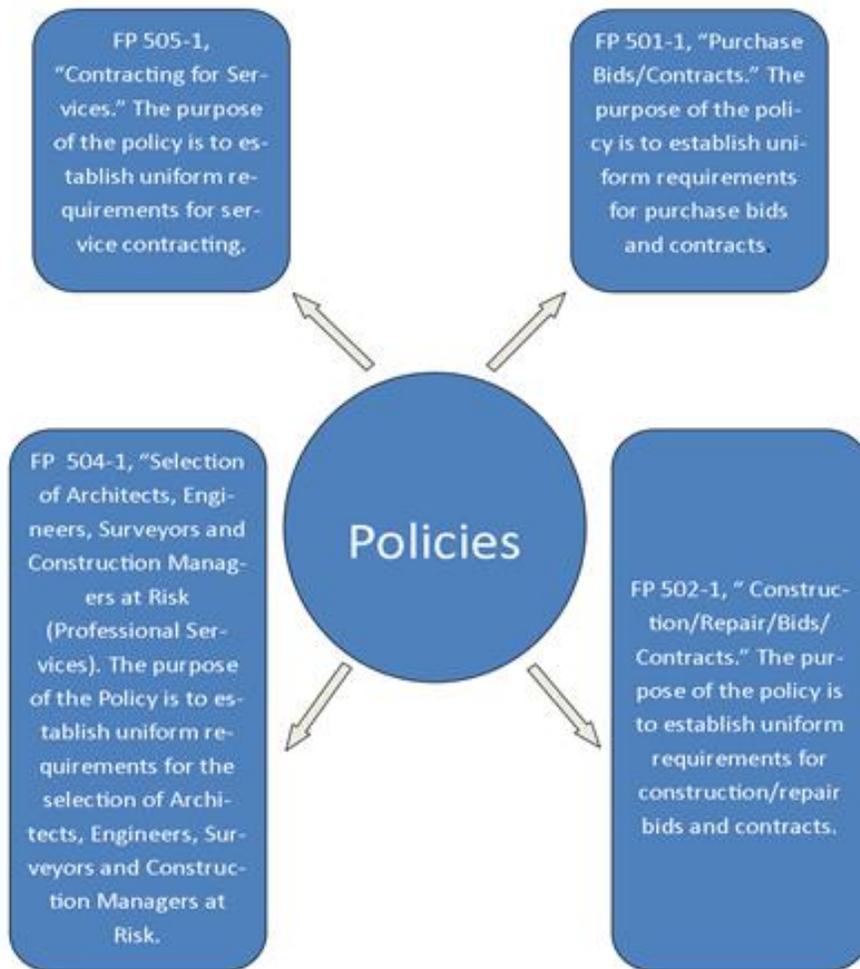
Pre- contract Period

Construction and service contracts are procured through the individual departments. Preparation during the pre-contract period is essential to effective contract monitoring. The difficulty of monitoring a contract increases without a well written contract, detailing contractor and agency responsibilities. Each department is responsible for structuring its contracts with guidance from the Finance Department's Purchasing Division and the City Attorney's Office.

In addition, there are statutory provisions controlling contracting by local governments in North Carolina, which specify the contract bidding requirements a city has to comply with before entering into a contract. The competitive bid process allows an entity to seek out the best value for any purchase or service. The type of product or service being solicited and the dollar amount determines the bidding method used. The ultimate goal of the bid process is to ensure open and free competition.

Internally, several Finance Department policies and the Purchasing and Procedures Manual establish uniform requirements for purchasing and contracting on behalf of the City of Durham. These policies are reflected in Figure 1 below.

Figure 1: Policies on uniform requirements at the City for purchasing and contracting



Contract period

Contract monitoring should occur while the contractor is actually performing the

"Contract monitoring should occur while the contractor is actually performing the service to ensure compliance with the contract terms and to ensure that the performance is satisfactory"

service to ensure compliance with the contract terms and to ensure that the performance is satisfactory. Numerous monitoring methods can be used to effectively manage contracts. These include performance measures, scheduled reports, and on-site visits. In addition, reviewing contractor

payment requests should also be a part of the monitoring performed by personnel overseeing the contracts. The components used to monitor a contract are dependent on numerous factors, especially the complexity of the contracted service, the contract amount and the risk if the work is not performed adequately. Financial consequences can result from inadequate contract monitoring.

“There is no overarching policy and guidance on effective contract monitoring.”

There is no overarching policy and guidance on effective contract monitoring. The process of managing contracts is distinct within each department depending on the nature and type of contract. The level and type of monitoring conducted by the departments is primarily at their discretion. Policies exist at the Departments of Public Works and General

Services to guide their personnel in ensuring a consistent, high-quality contract monitoring process.

During the contract period, it is also important to monitor change orders. The risk exists that change orders are unnecessary, redundant or overpriced.

“During the contract period, it is important to monitor change orders.”

Resolution #9673 provides guidance on approval authority for change orders. The process of approving change orders is unique to the individual departments.

Post contract period

The contractor’s performance should be evaluated and documented. The results of that evaluation process should be easily accessible to others involved in the contracting process. Knowledge about the past performance of a contractor can help inform the assessment of future contractor selections. Additionally there are several other project closeout procedures that need to be followed before the contract can be completed. Each department has its individual contract close out procedures.

Services Provided by Contractors

The Public Works Department procures services of contractors for new sidewalk and trail construction and design, street and thoroughfare construction, street



repaving, storm water construction and repairs, water shed studies and water and sewer system extensions. See Image 1 for work monitored by Public Works Department staff.



Public Works stormwater construction on East Main Street

Image 1: Public Works stormwater construction project

The General Services Department project management oversees the delivery of projects for a wide range of City-owned buildings and parks. They procure the services of contractors for renovations and improvements to City owned buildings and parks. See Image 2 below for work monitored by General Services Department staff.



Downtown mixed-use parking garage construction

Image 2: Project monitored by Department of General Services staff

The Department of Water Management procures services of contractors for maintaining the existing infrastructure that provides essential water and sewer services. See Image 3 for projects monitored by the Department of Water Management staff.



Gravity thickener construction at Brown & Williams Water Treatment Plant expansion and upgrades

Image 3: Project monitored by Department of Water Management staff

Objectives

The objectives of the audit were to:

- Determine if the departments (Public Works, Water Management, General Services) have adequate controls over contract administration, including: compliance monitoring, performance monitoring, fiscal monitoring and payment monitoring;
- Determine if the departments have adequate controls over change orders;
- Determine if the departments are in compliance with the bid process as required by internal City policies.

Scope, Methodology, and Compliance

Scope

The scope of the audit included examining contract management practices at the Department of General Services, Department of Water Management and Department of Public Works.

Methodology

Audit Services Department staff performed the following procedures to accomplish the objectives of the audit:

- Interviewed staff responsible for monitoring and procuring contracts;
- Inquired about controls in place to monitor contracts at the Departments of Public Works, Water Management and General Services;
- Selected a sample of contracts at the Departments of General Services (7), Water management (12), and Public Works (12);
- Reviewed executed contract documents for the contracts selected, to identify terms and conditions that the contractor was supposed to comply with;
- Documented and verified processes used by project managers to ensure contractors complied with terms and conditions of the contract;
- Reviewed the process for amending contracts and verified proper approval of contract amendments/addenda;
- Verified documentation to validate performance monitoring performed by department staff (site visits, review of reports, status updates, etc.);
- Verified internal contract monitoring through reports, performance measures, management information on contracting activities and performance;
- Inquired about the contract disputes process;
- Verified contractor performance evaluations;
- Reviewed the payment approval process;
- Selected a sample of payments and verified:
 - a. Approvals;
 - b. Supporting documentation; and
 - c. The propriety of payments per the contract requirements;

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- Reviewed reports used to ensure fiscal monitoring of contracts;
- Reviewed the process for closing out contracts and reviewed documentation to validate that the contractor provided the work in accordance with the contract;
- Reviewed the timely execution and renewal of contracts;
- Reviewed the change order approval process;
- Selected a sample of change orders and verified the:
 - a. Approvals;
 - b. Justifications; and
- Verified compliance with the bidding process requirements.

During the audit, Audit Services Department staff also maintained awareness to the potential existence of fraud.

Compliance

Audit Services staff conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that Audit Services staff plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objectives. Audit Services staff believes that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results and Findings

Objective 1 Results Summary

TO DETERMINE IF THE DEPARTMENTS HAVE ADEQUATE CONTROLS OVER CONTRACT ADMINISTRATION, INCLUDING: COMPLIANCE MONITORING, PERFORMANCE MONITORING, FISCAL MONITORING AND PAYMENT MONITORING.

Overall the Department of Public Works, Department of Water Management and Department of General Services have adequate controls over contract administration, including: compliance monitoring, performance monitoring,

fiscal monitoring and payment monitoring. A few areas for enhancement were noted. In each department, the responsibility of overseeing a contract is clearly defined. Project managers are assigned the responsibility of ensuring contract compliance and monitoring performance of the contractors. Audit Services staff reviewed the evidence to support the monitoring efforts of each project manager for a total of 31 selected contracts. For each contract selected, appropriate documentation existed to support the adequacy of management’s monitoring efforts. The project managers were in constant contact with the contractors and inspectors. Meeting minutes were maintained in addition to email correspondence between the project managers and the contractors. Photographs of the work in progress were maintained as proof of site visits performed by the project managers. In addition, there was adequate reporting and oversight from senior management. All departments had processes in place to ensure that the Assistant Director and Directors were kept abreast of on-going issues with the contracts. Audit Services staff also verified a sample of payment requests for proper approval of payments and reviewed the adequacy of the information included in the payment requests. No exceptions were noted.

“For each contract selected, appropriate documentation existed...”

Area for Enhancement 1

Audit Services staff found:

Processes were not in place to ensure a standardized approach to verify compliance with general contract requirements.

Currently a process does not exist to standardize the approach for compliance verification of general contract requirements. Guidance should be provided to project managers in terms of how to verify compliance with general contract requirements. For example, according to certain state law provisions, contractors who do business with the City are required to comply with the Iran Divestment Act (IDA) requirement. The requirement does not provide guidance

“Currently a process does not exist to standardize the approach for compliance verification of general contract requirements.”

on how or in what form the contractor should make this certification. The City elected to include boilerplate contract provision language stating — by agreeing to entering into a contract, the contractor certifies that they have complied with

this requirement. For the Iran Divestment Act (IDA) requirement, verification of compliance by City staff ranged from accepting the contractor’s signature on the contract to reviewing the Treasurer’s IDA list to ensure that the contractor was not on the list. A lack of uniformity on how contractors are allowed to comply with regulation can lead to inconsistent practices and inefficiencies.

Area for Enhancement 2

Audit Services staff found:

The Department of Water Management uses a single Excel spreadsheet to track project progress for all projects. The inherent risks of using one spreadsheet in a multi-user environment are significant.

All Project Managers need a system to facilitate the monitoring of their contracts from a performance, fiscal, and payment perspective. The Department of Water Management utilizes and maintains one Excel spreadsheet to monitor multiple contracts. All project managers track their contracts in the same spreadsheet. Contracts are separated by tab, which are color coded. The spreadsheet is designed to only allow one project manager to access it at any given time. Even though the spreadsheet itself is a great tool, the inherent risks of using one spreadsheet in a multi-user environment are significant. Multi- user spreadsheets are more vulnerable to human error and can lead to loss of data. With changes usually not being documented or tracked, it is tricky to know who changed what – and for what reason without this audit trail. Finally, clear lines of ownership are not readily obvious. Systems used to monitor contracts should have proper controls in place to ensure data integrity.

“Systems used to monitor contracts, should have proper controls in place to ensure data integrity.”

Area for Enhancement 3

Audit Services staff found:

The practice to begin work prior to contract approval does happen; even though not routine.

Audit Services staff did not find evidence that projects were started prior to contract approval for the sample selected. However, in interviews held with staff involved in the contract administration process, it was stated that there have been instances where work was started prior to contract approval. No specific projects were mentioned. According to the staff interviewed, even though not a normal practice, it happens in 3% or 4% of projects. Audit Services staff could not verify this information. In situations where work was begun prior to contract approval, the contractor was advised, per staff, that the City would not be held liable if the contract was not executed. This information was not elevated to senior management. Due to the significant risk that this practice exposes the City to, it is deemed significant and needs to be addressed even though this practice is not the norm. A contract should be signed by both parties before work commences on a project. However, work may start before a contract is signed for a wide range of reasons, including: perceived urgency or the need to meet project milestones; a contractor's desire to appear keen and efficient to a new client. Risk exists that disputes can arise out of work carried out before a contract is signed.

Objective 2 Results Summary

TO DETERMINE IF THE DEPARTMENTS HAVE ADEQUATE CONTROLS OVER CHANGE ORDERS.

Overall the Departments of General Services, Public Works and Water Management have adequate controls over the processing and approving of change orders. Audit Services staff reviewed 19 change orders associated with the 31 contracts selected and verified that the change orders were properly approved. No exceptions were noted. Audit staff also examined change orders to determine if adequate documentation existed to justify change orders. No exceptions were noted.

The City of Durham has also implemented a MUNIS based system to track contingency funds spending trends. This system tracks construction, construction manager at risk and professional services contracts that were originally authorized with contingency funds. Reports are generated biannually and are reviewed by the Deputy City Managers and City Manager. The information is also shared with City Council members as needed. This report is

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an effective tracking tool to manage contingencies. Audit Services staff reviewed the report and observed that the information captured added value for its users.

Objective 3 Results Summary

TO DETERMINE IF THE DEPARTMENTS ARE IN COMPLIANCE WITH THE BID PROCESS AS REQUIRED BY INTERNAL CITY POLICIES.

Overall, the departments are generally in compliance with the bid process as required by internal City Policies.

Audit staff verified compliance for 31 contracts (13 construction contracts and 18 professional services contracts). Applicable bid requirements were followed for all 31 contracts reviewed. No exceptions were noted.

“Applicable bid requirements were followed for all 31 contracts reviewed. No exceptions were noted.”

Conclusion

The Departments of General Services, Public Works and Water Management had adequate controls over contract management, including compliance monitoring, performance monitoring, and payment monitoring. The project managers maintained adequate documentation to support monitoring efforts. In addition, proper management oversight existed over the contract administration process. The Departments of General Services, Public Works and Water Management also had adequate controls over the processing and approving of change orders. A report was used to track contingency funds spending on construction, construction manager at risk and professional services contracts. This report is an effective tracking tool to manage contingencies. For the contracts selected, the departments were also in compliance with the bid process requirements. Opportunities for enhancements were noted as follows:

A process should be established to provide guidance to all project managers on acceptable verification methods to ensure contractor compliance with general contract requirements.

The Department of Water Management (DWM) should develop more systematic controls over the project management Excel spreadsheet, by examining the associated risks (i.e. lack of audit trail, human error, etc.) surrounding its use.

City management should establish a protocol to ensure work on contracts does not begin until appropriate approvals are obtained.

Recommendations

Recommendation 1

The City Manager’s Office should provide guidance to all department staff on the level of verification that would be considered sufficient to ensure contractor compliance with general contract requirements. A process should be developed to facilitate this communication.

Value Added: Risk Reduction, Compliance

Recommendation 2

The Department of Water Management (DWM) should develop more systematic controls over the project management Excel spreadsheet, by examining the associated risks (i.e. lack of audit trail, human error, etc.) surrounding its use. The DWM staff should research and transition to a project management software option for monitoring contracts that will mitigate these risks.

Value Added: Efficiency, Risk Reduction

Recommendation 3

The City Manager’s Office should establish a protocol to ensure work on contracts does not begin until appropriate approvals are obtained; and that any exceptions are approved at the City Manager or designee level.

Value Added: Risk Reduction

Value Added Legend



To learn more, visit our website at: durhamNC.gov/audit

Management Response



Memo to: Dr. Germaine F. Brewington, Director of Audit Services
From: W. Bowman Ferguson, Deputy City Manager
Date: March 21, 2018
Subject: Management's Response to Recommendations
Contract Administration and Change Order Performance Audit March 2018

The following is the management's response to the Contract Administration and Change Order Performance Audit March 2018.

Recommendation 1:

The City Manager's Office should provide guidance to all department staff on the level of verification that would be considered sufficient to ensure contractor compliance with general contract requirements. A process should be developed to facilitate this communication.

Management's Response:

We concur. Management is in full support of this recommendation. City staff responsible for contract management should use substantially similar procedures and verification methods to ensure compliance with general contract requirements. The City Manager's Office will consult with the City Attorney's Office to review general contract requirements, as well as reviewing existing practices in departments. Once best practice is determined, guidance will be shared with all departments setting expectations for how this verification will take place moving forward.

Recommendation 3:

The City Manager's Office should establish a protocol to ensure work on contracts does not begin until appropriate approvals are obtained; and that any exceptions are approved at the City Manager or designee level.

Management's Response:

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We concur. Management is in full support of this recommendation. The City Manager's Office will develop and provide guidance to departments confirming that work on contracts should not commence until appropriate approvals are obtained, and that any exceptions are approved from the City Manager or his/her designee.

Management Response



City of Durham
NORTH CAROLINA

Memo to: Dr. Germaine F. Brewington, Director of Audit Services
From: Donald F. Greeley, Director, Department of Water Management
Date: March 21, 2018
Subject: Management's Response to Recommendations
Contract Administration and Change Order Performance Audit March 2018

The following is the management's response to the Contract Administration and Change Order Performance Audit March 2018.

Recommendation 2:

The Department of Water Management (DWM) should develop more systematic controls over the project management Excel spreadsheet, by examining the associated risks (i.e. lack of audit trail, human error, etc.) surrounding its use. The DWM staff should research and transition to a project management software option for monitoring contracts that will mitigate these risks.

Management's Response:

We concur. Management is in full agreement with the recommendation. Staff will research and investigate existing project management software, including those used by other City departments and other municipalities. Ideally, the project management software would be one that can readily integrate with the City's financial software.

Implementation Date: To Be Determined as this will require research regarding existing program and associated costs. Estimate – December 2018.



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Distribution of Report

Kim Anglin, CPA—Chair

Resident ASOC Member

Kim@Beans2count.com

Jenna Meints, PhD—Vice-Chair

Resident ASOC Member

jmeints1@gmail.com

Steve Schewel

Mayor

Steve.Schewel@DurhamNC.gov

Jillian Johnson

Mayor Pro-Tempore

Jillian.Johnson@DurhamNC.gov

Maticia Sims, CPA, CIA, CRMA

Resident ASOC Member

Maticia.Sims@bcbsnc.com

Charlie Reece

City Council Member, Alternate

Charlie.Reece@DurhamNC.gov

Steven Hicks

Director, General Services Department

Steven.Hicks@DurhamNC.gov

Thomas J. Bonfield

City Manager

Thomas.Bonfield@DurhamNC.gov

Wanda Page, CPA, CIA

Deputy City Manager

Wanda.Page@DurhamNC.gov

Bo Ferguson

Deputy City Manager

Bo.Ferguson@DurhamNC.gov

Keith Chadwell

Deputy City Manager

Keith.Chadwell@DurhamNC.gov

Don Greeley

Director, Department of Water Management

Don.Greeley@DurhamNC.gov

Marvin Williams

Director, Public Works Department

Marvin.Williams@DurhamNC.gov

David Boyd, CPA, CFE, CGMA

Director, Finance Department

David.Boyd@DurhamNC.gov