



Maricopa County

Internal Audit Department

301 West Jefferson St
Suite 660
Phx, AZ 85003-2148
Phone: 602-506-1585
Fax: 602-506-8957
www.maricopa.gov

April 6, 2012

Max W. Wilson, Chairman, Board of Supervisors
Fulton Brock, Supervisor, District I
Don Stapley, Supervisor, District II
Andrew Kunasek, Supervisor, District III
Mary Rose Wilcox, Supervisor, District V

Flood Control District (FCD) Contract Audit Camelback Road Storm Drain Construction, 59th to 75th Avenues

Summary of Results—Construction Controls Could be Improved

Food Expenditures

FCD participated in monthly partnering meetings with contractors, subcontractors, and cities that incurred food expenditures paid by the construction project. These food expenditures did not meet criteria specified in the County policy, "Guideline for the Approval of Food Expenditures."

Policies and Procedures

The following areas did not have policies and procedures: (1) Payment application, reconciliation, and approval process; (2) Safety program. In addition, job descriptions for Planning/Project Management Division construction employees were outdated and incomplete.

Safety Plan

FCD did not have a procedure to request or review the contractor's safety plan.

Insurance Coverage

FCD did not submit the construction contract to Risk Management for review of insurance requirements.

Summary of Results—Good Construction Practices Observed

Weekly meeting minutes included schedules, attendees, current activities, outstanding issues, public information, and safety issues.

Project management tracked the detailed project status on a monthly basis.

Project management effectively communicated project status to the public through public meetings, a public relations firm, project signs, and newsletters.

Background

The Board of Supervisors, serving as the FCD Board of Directors, approved the construction of the Camelback Road Storm Drain, 59th to 75th Avenues, through a Low Bid Lump Sum contract with T & T Construction, Inc. (T&T). The overall budget for the project was \$10.5 million, of which \$10.0 million was paid to T&T through September 30, 2011.

Under the direction of Internal Audit, the consulting firm of Moss Adams LLP (Moss Adams) reviewed contract expenditures and project controls for the Camelback Road Storm Drain project.

Purpose of this Review

The purpose of this review was to determine if the contractor billed FCD in accordance with contract terms and conditions. Moss Adams reviewed billings and change orders submitted by the contractor from project inception (May 3, 2010) through September 30, 2011.

Detailed Report and Responses from the Flood Control District

Within the attached detailed report by Moss Adams, you will find specific information on the areas reviewed and responses to the recommendations. Moss Adams and Internal Audit reviewed this information with FCD management. If you have any questions, or wish to discuss the information presented in this report, please contact Richard Chard at (602) 506-7539.

Audit Standards

We conducted this performance audit in accordance with generally accepted government auditing standards. These standards require the following:

- An independent audit staff and audit organization
- An objective audit staff performing the work
- A competent staff, current with continuing education requirements
- A system of quality control procedures
- Sufficient and appropriate evidence based on audit objectives

Sincerely,



Ross L. Tate
County Auditor

Attachment

C: Tom Manos, County Manager
Tim Phillips, Chief Engineer/General Manager

**Flood Control District
of Maricopa County**

**Camelback Road Storm Drain
(59th to 75th Avenues)**

Construction Contract Performance Audit

March 29, 2012

Executive Summary

Engagement Scope and Objectives

The primary focus of this construction contract performance audit was to validate the performance of the controls surrounding construction project procurement and project costs, as well as management of construction contracts, costs, materials, and change orders. This report covers costs reported from Payment Application No. 1 through Payment Application No. 17, dated September 30, 2011.

Our audit included the following procedures:

- Interviewed the T&T Construction, Inc. (Contractor) Senior Project Manager, Project Controller, and other personnel to understand the accounting system and available reports
- Discussed project controls with the Maricopa County (County) Engineer and relevant personnel
- Reviewed the Contractor’s accounting reports to identify reports most useful for the audit
- Analyzed Flood Control District (FCD) construction controls to identify areas for improvement
- Reviewed payment documentation/calculation to assess adequacy of supporting documentation
- Reviewed contract terms, identified sensitive accounts for examination of unallowable costs, and listed the cost codes (categories)
- Tested and reviewed the Contractor’s costs and contract records
- Reviewed change orders
- Reviewed lien release, insurance, and bond documentation
- Reviewed safety documentation
- Performed fee testing
- Performed other miscellaneous testing procedures, as necessary

Project Overview

The Board of Directors approved the construction of the Camelback Road Storm Drain – 59th to 75th Avenues through a Low Bid Lump Sum contract (contract and/or agreement) between Flood Control District and T&T Construction, Inc. The following table provides a summary of the project costs as reflected through the most recent payment application as of September 30, 2011.

Original Schedule of Values	Total Change Orders	Revised Schedule of Values	Total Completed to Date	Percent Completed
\$9,638,602	\$880,910	\$10,519,512	\$10,000,587	95%

Summary of Observations

This construction audit identified opportunities for construction controls improvement. Below is a summary of our construction audit observations.

1. Construction Partnering Meetings – FCD participated in monthly partnering meetings that did not meet the criteria specified in the Guideline for the Approval of Food Expenditures (A1508) Policy. In addition, FCD did not have a policy pertaining to partnering meetings.

2. Construction Policies and Procedures – FCD did not have documented construction related policies and procedures for the following:

- Payment application reconciliation and approval process
- Safety program

In addition, a construction procedure that included job functions and responsibilities of employees within the Planning/Project Management Division was incomplete and outdated.

3. Contractor Safety Plan – FCD did not request the Contractor to submit a safety plan.

4. Contract Insurance Requirements – FCD did not submit the construction contract to Maricopa County Risk Management for review of insurance requirements.

The following FCD construction processes and results were consistent with good construction practices:

- Weekly meeting minutes included the schedule, attendees, current activities, outstanding issues, public information, and safety issues.
- FCD tracked detailed project status on a monthly basis.
- Project Management communicated project status to the public through public meetings, a public relations firm, project signs, and newsletters.

Observations in this report were discussed with management. Reported observations were verified.

Opportunities for Construction Controls Improvement

Reference	Observations	Comments
1	Construction Partnering Meetings	<p>Criteria: The County established a Guideline for the Approval of Food Expenditures (A1508) Policy.</p> <p>Condition: FCD participated in monthly partnering meetings for each construction project and included a partnering clause in their contract with the Contractor. A partnering budget in the amount of \$20,000 was established in the contract to cover costs associated with partnering, which included the fees of the meeting moderator and lunch. Total year-to-date costs charged for partnering on the September 2011 payment application were \$10,225.</p> <p>The lunch charges totaling \$4,492 did not meet criteria #5 specified in the County's Guideline for the Approval of Food Expenditures (A1508) where "Approval by an Elected Official, Presiding Judge, or Chief Officer is required BEFORE the food is purchased or food-related function is scheduled." In addition, FCD did not have a policy pertaining to partnering meetings.</p> <p>Effect: The lunch portion of the partnering meetings was not compliant with the County's established food expenditure policy, and the participation in partnering meetings may lead to non-compliance exposure and reputation damage.</p> <p>Cause: FCD did not adhere to the County's established food expenditure policy and did not address partnering or team-building meetings in its existing policies.</p> <p>Recommendation: FCD should comply with the County's food expenditure policy. In addition, FCD should develop and document an internal partnering policy.</p>
2	Construction Policies and Procedures	<p>Criteria: FCD had only written construction related policies and procedures for developing and processing construction change orders and contract administration.</p> <p>Condition: FCD did not have documented construction related policies and procedures for the following:</p> <ul style="list-style-type: none"> • Payment application reconciliation and approval process • Safety program <p>In addition, a construction procedure that included job functions and responsibilities of employees within the Planning/Project Management Division was incomplete and outdated.</p> <p>Effect: The absence of finalized written policies and procedures may result in inadequate controls surrounding payment application review and approval and/or ineffective management of construction employees within the division.</p> <p>Cause: FCD had not completed formalized, written policies and procedures for all functions of the Planning/Project Management Division.</p>

Reference	Observations	Comments
		<p>Recommendation: FCD should formally document policies and procedures for the following:</p> <ul style="list-style-type: none"> • Payment application reconciliation and approval process • Safety program <p>In addition, update and complete detailed job functions and responsibilities for construction employees within the Planning/Project Management Division.</p>
3	Contractor Safety Plan	<p>Criteria: Good construction practice recommends a safety plan be submitted by the Contractor and reviewed by the Owner prior to start of construction. Specifically, the U.S. Army Corps of Engineers (USACE) Section 01.A.02 recommends: “The employer shall be responsible for initiating and maintenance of a safety and health plan program that complies with the USACE safety and health requirements.” The American National Standard Institute also recommends in section 3.2.3.1 that the “project constructor shall have a project safety and health plan specific for the scope of the work to be performed,” and section 3.2.3.2 states, “the project safety and health plan shall be submitted for review by the owners’ designated safety and health representative to ensure it meets regulatory and best industry practices for safety and health.”</p> <p>Condition: FCD did not request a safety plan be submitted by the Contractor.</p> <p>Effect: Lack of a safety plan may increase the County’s liability should an accident or injury occur.</p> <p>Cause: FCD did not have a procedure in place to require or to review the Contractor’s safety plan.</p> <p>Recommendation: FCD should require a safety plan be submitted by the Contractor and reviewed by FCD prior to the start of construction. Procedures should be implemented to prevent this issue from occurring in the future. (See Observation 2.)</p>
4	Contract Insurance Requirements	<p>Criteria: Risk Management requires insurance coverage for all construction projects. Insurance coverage requirements were defined in the agreement between the Contractor and FCD.</p> <p>Condition: Insurance requirements listed in the construction contract were not reviewed by Risk Management.</p> <p>Effect: FCD may be purchasing inadequate or unnecessary insurance, and charges related to insurance may result in an overbilling to the County.</p> <p>Cause: FCD did not submit the construction contract to Risk Management for review of insurance requirements.</p> <p>Recommendation: FCD should work with Risk Management to implement a procedure to submit construction contracts for review prior to the Board of Directors’ approval.</p>

AUDIT RESPONSE
FLOOD CONTROL CONSTRUCTION
April 2, 2012

Issue #1 – Food Expenditures

FCD participated in monthly partnering meetings that incurred food expenditures paid by the construction project. These food expenditures did not meet criteria specified in the County policy. In addition, FCD did not have a policy pertaining to the purpose and conduct of partnering meetings.

Recommendation: Comply with the County's food expenditure policy. In addition, develop and document an internal partnering policy.

Response: Concur – completed. The District concurs with the recommendation to eliminate partnering meeting food expenditures and has done so. As an exception, the District may request food expenditure authorization through the County's process for initial partnering meetings on a case-by-case basis. District construction contracts will incorporate the following specification regarding partnering, subject to case-by-case considerations as necessary:

The Owner intends to encourage the foundation of a partnering relationship with the Contractor and its subcontractors. This partnering relationship will be structured to draw on the strength of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance, intended to achieve completion within budget, on schedule, and in accordance with plans and specifications.

This partnering relationship will be bilateral in makeup. Any cost associated with effectuating partnering will be covered by the Bid Item and limited by this specification. The initial partnering workshop shall be scheduled after award of the contract, and prior to the Notice to Proceed, and shall be facilitated by a third party competent in the fundamentals of partnering, and mutually acceptable to Contractor and Owner. The Contractor shall be responsible for scheduling, coordinating, and hiring the third party facilitator, and planning all of the partnering meetings in consultation with the Engineer. The Contractor shall obtain specific prior written approval of the Owner for all initial partnering workshop expenditures with the exception of facilitator and facility costs. The Owner will be responsible to notify and coordinate attendance at the partnering meetings by other agencies. To achieve the desired partnering relationships, the Contractor will need to encourage attendance by its major subcontractors on the project. Follow-up workshops may be held periodically throughout the duration of the contract as agreed to by the Contractor and Owner. Any expenditure requested for these follow-up meetings will require the specific prior written approval of the Owner.

An integral aspect of partnering is the resolution of disputes in a timely, professional, and non-adversarial manner. Alternative dispute resolution (ADR) methodologies will be encouraged in place of the more formal dispute resolution procedures. ADR will assist in promoting and maintaining an amicable working relationship to preserve the partnering

relationship. ADR in this context is intended to be a voluntary, non-binding procedure available for use by the parties to this contract to resolve any dispute that may arise during performance.

Payment for Partnering Allowance will be made on the basis of invoices of actual costs, and will be for a total amount not to exceed the amount shown in the bid schedule for the item.

Target Completion Date: Food expenditures were eliminated during the course of the audit. Incorporation of the stated partnering specification will be ongoing.

Benefits/Costs: Benefits: reduced costs; reduced potential scrutiny.

Issue #2 – Construction Policies and Procedures

The following areas did not have policies and procedures:

- Payment application and approval process
- Safety program

In addition, job descriptions for Planning/Project Management Division construction employees were outdated and incomplete.

Recommendation: Develop and document construction policies and procedures. In addition, update and complete job descriptions for construction employees within the Planning/Project Management Division.

Response: The District has updated its Construction Manager Standard Operating Procedures to reflect updated responsibilities. A payment application approval policy has been drafted and approved during the course of this audit. District response to Issue #3 applies regarding safety program policies.

Target Completion Date: Complete, with the exception of safety program policies. See Issue #3.

Benefits/Costs: Benefits – increased continuity of practices following employee turnover.

Issue #3 – Safety Plan

FCD did not have a procedure to request or review the General Contractor's safety plan.

Recommendation: Require a safety plan to be submitted by the General Contractor and reviewed by FCD prior to the start of construction.

Response: District believes further examination of this item is required by counsel and County Risk Management to evaluate liability concerns in comparison to perceived benefits. Pending a

final determination, the District will incorporate a specification in District construction contracts, requiring the contractor to provide the District with a copy of its safety plan for reference purposes only.

Target Completion Date: District staff will meet with counsel and Risk Management staff by June 30, 2012.

Benefits/Costs: Further review required for adequate assessment.

Issue #4 – Insurance Coverage

FCD did not submit the construction contract to Risk Management for review of insurance requirements.

Recommendation: Work with the Risk Management to implement a policy and procedure to submit construction contracts for review prior to the Board of Directors' approval.

Response: District will review existing guidance previously provided by Risk Management to confirm compliance with respect to insurance requirements. District will meet with counsel and Risk Management to determine appropriateness of previously-provided guidance and to evaluate need for Risk Management to review future contracts.

Target Completion Date: District staff will meet with counsel and Risk Management staff by June 30, 2012.

Benefits/Costs: Benefits – reduced potential expenses associated with requiring excessive insurance; reduced potential liability associated with requiring inadequate insurance. Costs – delayed contract processing schedule; increased potential expenses associated with increased insurance requirements; additional staff review time.

Approved By:



Department Head

4/3/12
Date



County Manager

4/5/12
Date