

**Construction Project Management (e-Builder)
Follow-Up Audit
June 2013**

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Construction Project Management (e-Builder) Follow-Up Audit



Office of the City Auditor

Patrice Randle, CPA
City Auditor

Project #13-12

June 21, 2013

Executive Summary

*Five recommendations
were fully implemented*

Fully Implemented

*e-Builder Schedule
Module*

*Project cost under-runs
transferred to
miscellaneous accounts*

*Reporting of project cost
over- and under-runs to
City Council*

*Authorized projects
entered in e-Builder*

*Source Code escrow
account*

Partially Implemented

*Funding from project
cost under-runs included
in staff reports*

As part of the Fiscal Year 2013 Annual Audit Plan, the City Auditor's Office has completed a follow-up audit of the Construction Project Management (e-Builder) Audit released in October 2012. The audit was conducted in accordance with generally accepted government auditing standards, except for peer review. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. The audit objective was to determine the implementation status of prior audit recommendations.

The initial audit report included six recommendations, for which management concurred. Audit follow-up results indicate that five of the prior audit recommendations were fully implemented and one was partially implemented.

- The e-Builder Schedule Module has been fully implemented to provide detailed information regarding active projects.
- Cost under-runs from closed-out projects are transferred to miscellaneous accounts prior to being transferred to projects that are expected to exceed budget.
- The Public Works and Transportation Department presented, to the City Council, a report of cost over/under-runs from closed-out projects for the past five years.
- All projects authorized by City of Arlington voters during the 2008 Bond Election are tracked within the e-Builder software. Authorized projects that have not started are designated as "proposed".
- An escrow account has been established for the e-Builder source code as required by contract.

Since the initial audit, the Public Works & Transportation Department included project cost under-run information in a staff report for Street Bond Fund projects.

Audit Scope and Methodology

The following methodology was used in completing the audit.

- Reviewed the e-Builder Schedule Module
- Reviewed close-out reports and miscellaneous account transfers
- Viewed the May 7, 2013 City Council meeting and staff reports
- Verified the inclusion of 2008 Bond Program projects within e-Builder
- Reviewed source code escrow agreement

Status of Prior Audit Recommendations

Prior Audit Finding

The e-Builder project scheduling software component is not being utilized.

Recommendation:

Directors of those departments utilizing the e-Builder software should continue their efforts to fully implement the e-Builder Schedule Module so the City can take advantage of capital project delivery improvements made possible via implementation of e-Builder.

Management's Response:

Concur. Additional training was recently held on the Schedule Module and schedules are being developed for all active projects.

Target Date: December 31, 2012

Responsibility: Managers of all user groups within the three user departments

Implementation Status:

Fully Implemented. The e-Builder Schedule Module has been fully developed and information is available for all active projects. A new dashboard was developed for use by City Council and Department Directors. The dashboard, which shows pertinent information relating to all active projects, includes general information such as project name and number, project phase, Council District, managing department, project manager, project scope and current status. Specific dates relating to the various project phases (i.e. design, construction and warranty finish) and cost information for each active project (i.e. current budget, committed expenses and amount expended-to-date) are also included.

Prior Audit Finding

There is no consolidated audit trail when project cost under-runs are transferred to help fund other projects.

Recommendation:

Directors of those departments utilizing the e-Builder software should require that project cost under-runs be transferred directly to the established miscellaneous account before being transferred to other projects that are expected to exceed budget. Sidewalk project cost under-runs should continue to be posted directly to the account that functions as a miscellaneous sidewalk projects account.

Management's Response:

Concur. This recommendation will become standard operating procedure.

Target Date: December 31, 2012

Responsibility: Managers of all user groups within the three user departments

Implementation Status:

Fully Implemented. Departments utilizing e-Builder are currently transferring remaining funds from closed-out projects to a designated miscellaneous account. During this audit, a list of all projects from January 1, 2013 through May 21, 2013 was reviewed. For each of the projects with a cost under-run, the balance was traced to a miscellaneous account, with no exceptions noted. Also, a sample of amounts being transferred out of the miscellaneous accounts to other projects was reviewed, with no exceptions noted.

Prior Audit Finding**Project cost over- and under-runs are not routinely reported.****Recommendation:**

Departments utilizing the e-Builder software should determine whether City Council and/or executive management would consider it beneficial to receive routine reports of project cost over- and under-runs.

Management's Response:

Concur. Staff will coordinate with executive management to determine need and content of reporting.

Target Date: December 31, 2012

Responsibility: Directors of the three user departments

Implementation Status:

Fully Implemented. On May 7, 2013, the Public Works & Transportation Department discussed the Street Bond Fund and presented a Five-Year Overview Report. This report included cost over/under-runs (resulting in a surplus of over \$7 million) from closed-out projects for the past five years. The Department of Public Works and Transportation was asked, by the City Council, to provide annual project updates.

Prior Audit Finding

e-Builder is not utilized to account for all projects authorized by Arlington citizens and the City Council.

Recommendation:

Directors of those departments utilizing the e-Builder software should include, within e-Builder, all capital projects that have been authorized by Arlington voters and note such projects as “proposed” until the project is ready to be started.

Management’s Response:

Concur. Starting with the most recent bond election which is still active (2008 Bond Election), all projects referenced in the election materials for Proposition 1 - Parks and Recreation and Proposition 2 - Streets and Traffic will be included within e-Builder. This practice will continue with subsequent bond elections.

Target Date: December31, 2012

Responsibility: Parks Planning Manager

Engineering Operations Manager

Traffic Engineering Manager

Implementation Status:

Fully Implemented. The e-Builder software was reviewed and all projects within the 2008 Bond Election have been entered into the database. Projects that have not been started are designated as “proposed”.

Prior Audit Finding**Source code escrow was not established as required by the contract.****Recommendation:**

The Chief Information Officer should ensure that an escrow account is established to allow the e-Builder source code to be placed, as required by the contract.

Management's Response:

Concur. The Chief Information Officer will purchase quarterly software escrow for e-Builder software with data backup for the City of Arlington, in accordance with the terms and conditions of the "Two-Party (Master) Agreement" between e-Builder and Escrow Associates, LLC, as amended with execution of "Rider C" the Beneficiary Addition Form. The cost for this service will be \$6,000 per year plus a one-time set up fee of \$1,000. The initial invoice will be prorated to coincide with license billing for an estimated invoice of \$2,500. Payment will be due on the anniversary date of each year, with a 30-day notice required for termination.

Target Date: January 15, 2013

Responsibility: Dennis John, Chief Information Officer

Implementation Status:

Fully Implemented. On January 16, 2013, a beneficiary addition form (Rider C) was added to the two-party agreement between e-Builder and Escrow Associates, LLC. Under the two-party agreement, Escrow Associates maintains a copy of the source code that is received from e-Builder. By adding the Rider C, the City of Arlington is now in a position to obtain the e-Builder source code if e-Builder ceases to exist.

Prior Audit Finding**Project cost over- and under-runs are not routinely reported.****Recommendation:**

Departments should specifically state (within Staff Reports) when and if the recommended funding for projects being considered by the City Council is made available from cost under-runs associated with one or more other projects.

Management's Response:

Concur. Staff will coordinate and include consistent verbiage in Staff Reports pertaining to capital projects.

Target Date: December 31, 2012

Responsibility: Directors of the three user departments

Implementation Status:

Partially Implemented. In June 2013, the Public Works and Transportation Department began including details for funding made available from project costs under-runs within the Street Bond Fund. The staff report uses the term "reserves" when making reference to the project cost under-runs.