

Mayor Jim Newberry

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT

Office of Internal Audit

INTERNAL AUDIT REPORT

DATE: October 8, 2008

TO: Jim Newberry, Mayor

CC: Joe Kelly, Senior Advisor for Management

Mike Webb, Commissioner of Public Works & Development Kyna Koch, Commissioner of Finance & Administration

Rama Dhuwaraha, Chief Information Officer

Urban County Council Members Internal Audit Board Members

FROM: Bruce Sahli, Director of Internal Audit

RE: Division of Engineering Project Management

Background

The Division of Engineering provides vital services in LFUCG's effort to meet the public works infrastructure needs of Fayette County through the design, review, construction, and inspection of storm water, wastewater, and roadway facilities. The Division of Engineering is responsible for project design, right of way acquisition, and coordination activities to facilitate utility relocations and construction. Some of these are capital projects taking one or more years to complete at costs of \$1,000,000 or more, as well as many smaller projects. As such, these projects require extensive planning, project control, project monitoring, and effective communication of issues and responsibilities. The Division of Engineering may also have significant responsibilities regarding some public construction projects associated with the Environmental Protection Agency Consent Decree.

Division of Engineering capital projects often require a coordinated effort between several LFUCG Divisions. Such capital projects often originate in the Transportation Planning section of the Division of Planning, while Federal and State funding for these projects may be secured through the Division of Community Development, which would also oversee the conditions of such a grant and the expenditures thereof. The Division of Purchasing bids out the construction contracts and secures professional services via Requests for Proposal, and the Division of Engineering is responsible for managing actual project construction. The Division of Accounting processes project invoices for

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payment, and the Council Clerk's Office is responsible for maintaining original executed contracts related to those projects. Project data and information exists in various forms in the files and databases within those Divisions and the Council Clerk's Office.

It should be noted that agencies outside of LFUCG, notably the Kentucky Transportation Cabinet and the Federal Highway Administration, also may exert significant influence over project timelines and activities. However, it is outside the scope of this audit to evaluate this aspect of capital project management.

This audit was conducted to review the process for project planning, monitoring, documentation, cost management (including change orders), and project time management. The primary focus was on capital project management processes within the Division of Engineering. The audit expanded into a limited review of those processes in other Divisions as capital projects also include the Divisions of Planning, Purchasing, Community Development, and Accounting, as well as the Council Clerk's Office.

Scope and Objectives

The general control objectives for the audit were to provide reasonable assurance that:

- Project information was sufficient to allow for efficient and effective project management
- Projects were properly managed to ensure timely completion
- Project costs were clearly identified in the PeopleSoft System and could be tracked for reporting and cost allocation purposes
- Change orders were properly documented and their necessity clearly defined
- Change order costs were effectively managed

The scope of our audit included projects in existence during the period January 1, 1998 through January 31, 2008.

Statement of Auditing Standards

We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to afford a reasonable basis for our judgments and conclusions regarding the organization, program, activity or function under audit. An audit also includes assessments of applicable internal controls and compliance with requirements of laws and regulations when necessary to satisfy the audit objectives. We believe that our audit provides a reasonable basis for our conclusions.

Audit Opinion

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In our opinion, the controls and procedures did not provide reasonable assurance that the general control objectives were being met. Opportunities to enhance controls are included in the Summary of Audit Findings.

<u>Auditor's Note on Responses:</u> The management response from the Commissioner of Public Works & Development was provided by former Commissioner Don Kelly, who was responsible for the Division of Engineering at the time field work was completed.

SUMMARY OF AUDIT FINDINGS

1. Centralized Capital Project Database Needed

During the capital projects life cycle, significant participation and work contribution is often required from several LFUCG Divisions. While individual Divisions may be executing their project management duties with due professional care, capital project activity occurring in those various Divisions is not consolidated into one central office or database. These disconnects, and the lack of clearly defined project accountability, result in inefficient and ineffective capital project management practices. In addition, contract numbers for projects are not entered into PeopleSoft, creating another potential data disconnect when attempting to identify all the costs associated with a given project.

Taken as a whole, we found capital projects information to be significantly disconnected, and noted it did not lend itself to overall project organization or evaluation. We experienced significant difficulty when we attempted to evaluate overall project status and cost tracking. These difficulties may also hinder senior management's ability to effectively monitor capital project status, delays, or cost and change order activity when the overall progress of the project is under evaluation.

We recommend that a centralized capital project database be established with the full capability to capture all capital project financial information, change order activity, track payments made to vendors, and monitor the budget status of projects. Anticipated completion dates, major project delays, and actual versus projected project costs should be entered into this database. Reasons for adjustments to the completion date timeline should be carefully documented and evaluated by management. If capital projects experience delays attributable to a specific Division, this should also be fully documented with sufficient explanation as to the cause of the delay, action plans being implemented to alleviate the delay, and the expected timeline. We recommend this database also include features to identify possible trends of intentional low bidding, establish a history of change order activity among Divisions, contractors and types of projects. The database should also provide a history of contractor performance standards that can be used to evaluate future contractor selection. Once a project is completed, a summary evaluation of the effectiveness of project management, including an overall evaluation of change order activity, should be included in the database's project documentation.

We also recommend Information Technology management seek to incorporate these recommendations into the PeopleSoft Project Costing Module (grants management) scheduled for implementation in FY 2009 to the extent it has the flexibility to do so. Database flexibility to meet

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the overall needs of all the project database users should be considered a significant priority. If necessary to complete the recommended project documentation, a second project database with the capacity to interface with the Project Costing Module should be developed. A database administrator/gatekeeper should be responsible for ensuring the database contains accurate, up-to-date information with appropriate security and access controls. Project information contained in this database should be summarized and monthly reports should be provided to senior management and the Council to improve the communication, monitoring, and transparency of capital projects.

Commissioner of Finance & Administration Management Response: I agree with the recommendations but would argue it is not the role of Information Technology management to seek to incorporate specific data elements into PeopleSoft. The importance and need for specific data elements are first a business decision. It is then the role of Information Technology to advise if those elements can be incorporated technically. As the Executive Sponsor of the implementation of the PeopleSoft Projects, Grants and Contracts module I will ask for a review of the data elements available in the delivered product, then work with the Commissioner of Public Works and Division of Engineering personnel to determine how much of our need can be met. Because the implementation is on a very tight timeframe, I submit we need to get the delivered product into production and deal with additional data elements and interfaces at a later date.

<u>Commissioner of Public Works & Development Management Response:</u> I agree with the finding, which expresses many, if not most, of the concerns I have experienced trying to monitor the capital projects program. It also reinforces and justifies the need for the establishment of a Capital Projects Management Division. I strongly support the recommendation that Information Technology management seek to incorporate the audit recommendations into the PeopleSoft Project Costing Module to the extent it has the flexibility to accommodate them.

2. Capital Project Management Process Needs Improvement

There is insufficient project coordination and communication between Divisions involved in a given capital project, with no clear assignment of overall project management responsibility. Each Division maintains its own system for identifying and tracking capital projects in order to fulfill their portion of project management responsibilities, but no systematic process is in place to monitor overall efficiency and effectiveness. There is no one Division with overall responsibility for capital project management, nor is any one Division assigned the authority to consolidate overall organizational resources into an effective capital project management process.

We recommend that overall authority and responsibility for capital project coordination and management be assigned to a specific Division or group in order to increase project accountability and improve the effectiveness of capital project management.

<u>Commissioner of Finance & Administration Management Response:</u> I concur with the recommendation. The Mayor's Recommended Budget for 2008-09 proposed the establishment of a Division of Capital Projects that would be a first step toward addressing the findings. The Council declined to approve the Mayor's Recommendation. Absent that organizational unit, I question the ability of the administration to improve the current situation.

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<u>Commissioner of Public Works & Development Management Response:</u> I agree with the finding. The recommendation is on point and further establishes the justification for the development of the Capital Projects Management Division.

Senior Advisor for Management Response: I concur with the recommendation. The Mayor's 2008-09 budget included a proposal to put in place a single point of capital project management and accountability as described in this audit's recommendation #2. The recommendation was rejected by the Council. In lieu of approval by Council we are working with the responsible departments to streamline processes, improve communications and minimize confusion as to who is responsible for what. While effort is helpful it will not yield the kind of results suggested by this audit's recommendation. It is our intent to again include this recommendation in the Mayor's 2009-10 budget proposal referencing this audit recommendation as evidence of the need for this process change.

3. Unique Project Numbering Convention Needed

We could not obtain reasonable assurance that the Council Clerk's Office had a complete population of contracts and related change orders. The Council Clerk's Office is responsible for housing original executed contracts and related change orders approved by Council and executed by the Mayor, and copies of those original documents should be contained in the Clerk's Index. We judgmentally selected 25 active capital projects listed on a Division of Engineering database and attempted to locate their executed contracts and any related change orders in the Clerk's Index. We were unable to match seven of those projects (28%) to executed contracts due to inconsistent project naming conventions between Engineering and the Council Clerk's Office.

We recommend a universal project numbering convention be established for all capital projects in order to assign a unique identifier to each project. This identifier should allow for the tracking of capital projects throughout the life cycle of that project regardless of input sources (i.e., the various Divisions). The Clerk's Index should include this unique identifier on all contracts and change orders to improve the process of matching them to source documents and databases. This project number should be assigned to all related contracts, change orders, and financial transactions so that activity may be matched to its specific project regardless of the type of document or transaction.

<u>Commissioner of Finance & Administration Management Response:</u> I concur with the recommendation. A unique identifier will be assigned to each project with the implementation of PeopleSoft Projects, Grants and Contracts.

4. Change Order Tracking Needed

Change Orders and their related costs are not effectively tracked. The June 2005 Construction Contract Change Order Procedures Audit recommended the Division of Purchasing develop an efficient means of tracking change orders and their related costs, but such a tracking mechanism has not been implemented. We also noted that the Division of Engineering had ceased tracking change

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order activity in their internal databases in July 2006. Management from both Divisions indicated it had been their expectation that the PeopleSoft implementation would provide that control feature, but as of the date of this report that control feature still does not exist.

The absence of effective change order tracking, coupled with the disjointed databases and lack of unique project naming conventions addressed in the other findings, made the change order evaluation portion of our audit very problematic. In our opinion, these same issues would also hinder management's ability to effectively manage change orders.

We recommend Information Technology management confer with the Divisions of Engineering and Purchasing and evaluate the PeopleSoft Project Costing Module (grants management) scheduled for implementation in FY 2009 to determine if it can provide detailed tracking of change orders by contract. Recommended tracking information included in the database should match that currently provided on the Blue Sheet forms, i.e., reason(s) for the change order, who requested and who approved, the costs involved, the percent of cost change, the cumulative change order amount and percentage, and the next lowest bidder. If this information cannot be contained in the PeopleSoft Project Costing Module, it is recommended a separate centralized database for tracking change order activity be developed.

<u>Commissioner of Finance & Administration Management Response:</u> I concur with the recommendation but would again argue it is not the role of Information Technology to pursue software business changes. As the Projects, Grants and Contracts module is implemented we will address issue of tracking of change orders.

<u>Commissioner of Public Works & Development Management Response:</u> I agree with the finding and recommendation. In my opinion, the prolonged transition into the PeopleSoft System created some systemic problems, solely as a result of benign neglect, that contributed to tracking and management problems that would not have occurred if the PeopleSoft implementation had work as originally planned.

5. Division of Purchasing Review of Certain Change Orders Needed

The current change order approval process does not require a review of change order activity by the Division of Purchasing. As a result, change orders to purchase additional contractor services and/or materials are submitted to Council for approval without being submitted to standard Division of Purchasing review. The Division of Purchasing is responsible for all procurement functions. This finding was also reported in the June 2005 Construction Contract Change Order Procedures Audit.

For change orders resulting in project cost increases, we recommend that Blue Sheet Procedures be amended to include Division of Purchasing review and approval prior to their being submitted to Council. Division of Purchasing Procedures should also be amended to reflect this process change.

<u>Commissioner of Finance & Administration Management Response:</u> I concur with the recommendation and will seek an immediate resolution. However, the resolution may not include the

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review of Blue Sheets in that we are seeking to streamline that process. We will however, ensure a role of review for the Division of Purchasing.