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**Audit Report**

**AUSTIN UTILITY LOCATION AND  
COORDINATION COMMITTEE**

**September 22, 2009**

Office of the City Auditor  
Austin, Texas

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# City of Austin

## Office of the City Auditor



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Date: September 22, 2009  
To: Mayor and Council  
From: Taylor Dudley, Acting City Auditor  
Subject: Austin Utility Location and Coordination Committee Audit

I am pleased to present this audit report on the Austin Utility Location and Coordination Committee (AULCC). This audit was approved as part of the Office of the City Auditor (OCA) FY09 service plan. OCA selected the AULCC for audit because numerous City departments and private utilities are involved with utility excavations and street repairs. During previous audits at Austin Energy, Austin Water Utility, and the Public Works department, we identified issues related to the activities for which the AULCC has responsibilities.

Our work showed that the AULCC is achieving most, but not all of its responsibilities as stated in the City Code. However, AULCC does not have performance measures to indicate how effective it is at minimizing utility conflicts.

We have issued three recommendations which will help the AULCC determine how it will carry out its mission and how to measure its effectiveness. Management concurred with all of the recommendations.

We appreciate the cooperation and assistance we received from Transportation Department staff during this audit. Staff was very informative about the AULCC duties and provided information in a timely manner in response to our requests.

Taylor Dudley, CIA, CGAP, CFE  
Acting City Auditor



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## **BACKGROUND**

This audit was approved as part of the Office of the City Auditor (OCA) FY09 service plan. OCA selected the Austin Utility Location and Coordination Committee (AULCC) audit because of the numerous City departments and private utilities that are involved with utility excavations and street repairs. During previous audits at Austin Energy, Austin Water Utility, and the Public Works department, we identified issues related to the activities for which the AULCC has responsibilities.

Austin City Code establishes the Austin Utility Location Coordination Committee (AULCC) to help identify and minimize utility conflicts for construction projects in the City right-of-way (ROW). The intent of the AULCC is to prevent damage to existing infrastructure, allow for timely resolutions of conflicts, prevent unplanned traffic conflicts, and reduce or eliminate inconvenience to the public. In December 2008, the AULCC was transferred to the Transportation Department's Right-of-Way Management group, whose primary source of funding is the Public Works Transportation Fund. Prior to December 2008, the Right-of-Way Management division was within the Watershed Protection and Development Review Department, which was funded through the General Fund. The AULCC does not charge for its services. The AULCC consists of only one City of Austin employee designated as the AULCC Coordinator (Coordinator) and representatives from public and private entities that have authority to work in the ROW. The committee meets each week to coordinate utility and ROW issues for development projects that are in progress. The Coordinator serves as a single point of contact that helps ensure that the developers, designers, and utility representatives are participating in the utility coordination process for development projects.

According to the general permitting procedures established in the City's Land Development Code, approval from the Coordinator is required for projects that will have over 25 feet of excavation within the DAPCZ (Downtown Austin Project Coordination Zone) or over 300 feet of excavation outside of DAPCZ. These projects are usually brought to the AULCC when the project manager/project designer is going through the process of getting a General Permit. Before the permit is issued, the Coordinator must sign the application indicating that the project owner has performed due diligence to obtain the information from all utilities known or suspected of having utilities in the area of the project. In addition, the Coordinator reviews projects in the ROW that do not require his approval for significant utility impact or possible conflict with other projects when the developer requests site plan permits, excavation permits, or license agreements.

City Code § 14-11-165 provides general guidance on the AULCC's duties. The code states that:

- (A) A Utility Location and Coordination Committee is established to advise the director<sup>1</sup> concerning:
  - (1) Planning of capital improvement, utility, and street projects;
  - (2) Long range community development plans;
  - (3) Standards for utility location in the right-of-way;
  - (4) Possible improvements to permit and inspection procedures;
  - (5) Pre-construction conferences;
  - (6) Geographic information systems and other information technologies; and
  - (7) Other matters as requested by the director.
  
- (B) The Committee is composed of public and private entities that are authorized by law, franchise, or license to construct and maintain facilities in the right-of-way. The director shall chair the Committee.
  
- (C) The director shall schedule regular Committee meetings to advise the director concerning:
  - (1) identification of facilities in the right-of-way;
  - (2) resolution of conflicts in location of facilities; and
  - (3) coordination of plans for excavation in the right-of-way.

*Source: 1992 Code Section 15-12-164; Ord. 031204-12; Ord. 031211-11."*

<sup>1</sup>*Note: Additional guidance in City Criteria Manuals establishes that the AULCC Coordinator serves as the director concerning these issues.*

The City's Utilities Criteria Manual (UCM) provides additional criteria for the project planning process. The UCM discusses in detail the steps that should happen during each phase of the project and the person responsible for the step. The UCM states that the utility coordination process is considered to have four phases of development which are the 1) pre-design; 2) design; 3) final design; and 4) utility adjustment phases. The project owner/manager is the one to initiate involvement in the AULCC process by submitting a request to the Coordinator to place a project on the AULCC's agenda. The owner/manager also provides the Coordinator with copies of drawings and specifications, a description of the project, and project contact information that the Coordinator gives to the other Committee members. In addition, the project owner/manager is the key party responsible for ensuring that utility conflicts are resolved.

City Code § 14-11-161 defines the right-of-way (ROW) as the total surface area, and the area above and below the surface, between property lines that is dedicated, deeded, reserved by plat or otherwise owned or controlled by the City, for use by the public for pedestrian or vehicular travel.

The coordination of ROW projects has many benefits such as:

- Improved quality of life (less traffic disruptions),
- Extended road life with fewer street cuts, and
- Reduced labor and material costs.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

### **Objective**

The objective of the audit is to determine whether the City is achieving its goal of coordinating projects that affect areas in the Right-of-Ways (ROW) (roads, sidewalks, etc.) through the activities of the Austin Utility and Location Coordination Committee (AULCC).

### **Scope**

The scope of our audit focuses on the duties and responsibilities of the Austin Utility Location and Coordination Committee from FY04 to FY08.

### **Methodology**

To accomplish the audit objectives, we performed the following steps:

- Reviewed City Code § 14-11-165 and the City's Utilities Criteria Manual Section Three, to determine the roles and responsibilities of the AULCC.
- Interviewed staff from the Transportation Department, Public Works Department, and the Contract and Land Management Department.
- Observed an AULCC weekly meeting.
- Observed a utility coordination software demonstration presented to the AULCC members.
- Analyzed capital improvement project (CIP) change orders for projects in progress from May 2007 through July 2008. (Note: change orders are coded by construction inspectors, with "Utility Conflict" one of twelve possible codes that are keyed manually into a spreadsheet. OCA did not audit the data to determine that it was correct and complete.)
- Reviewed data provided by the AULCC Coordinator to participating entities.

The main focus of our audit work for this project was to evaluate the activities of the AULCC against the responsibilities set forth in the City Code and the Utilities Criteria Manual. Evaluating the AULCC against best practices and against other cities would require substantially more work, because OCA would have to determine where the activities of other entities were comparable to the AULCC.

We conducted this performance audit in accordance with generally accepted government auditing standards. 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.

## AUDIT RESULTS

**The AULCC is achieving most, but not all of its stated responsibilities; however, it does not have performance measures to indicate how effective it is at coordinating projects or minimizing utility conflicts.**

The AULCC is working effectively with entities authorized to work in City rights-of-way (ROW) to coordinate capital improvement projects. In addition, the AULCC Coordinator (Coordinator) is working to recommend improvements in the permitting process. The AULCC is also effectively conducting pre-construction conferences as needed, and is working to incorporate information technology to improve the planning process. However, the AULCC has had limited involvement in the processes for long range community development planning and for setting standards for utility location in the ROW. In addition, AULCC practices sometimes differ from policies and procedures set forth in the Utilities Criteria Manual. Finally, the AULCC does not have performance measures to indicate how effective it is at coordinating projects or minimizing utility conflicts.

**The AULCC is working effectively with entities authorized to work in City rights-of-way to coordinate capital improvement projects (CIP).** Based on our review of management's data on change orders for City CIP projects from March 2007 to July 2008, the AULCC appears to be effectively coordinating projects in the ROW. For that period, there were 540 change orders, which increased the cost of projects by approximately \$7,445,000. Of this total, "Utility Conflict" claims accounted for about \$200,000 (2.7%) and 25 (4.6%) of the change orders. However, 23 of the 25 change orders classified as utility conflicts were associated with the Austin Clean Water Program (ACWP). The Public Works Department and the Austin Water Utility chose to follow a process other than utilizing the AULCC for ACWP projects due to federally mandated deadlines for completion. Therefore, only 2 (.37%) change orders that went through the AULCC process totaling about \$2,700 (1.35%) were related to utility conflicts. This low level of change order activity related to utility conflicts indicates the AULCC is effective in its role of minimizing utility conflicts in the ROW.

In addition, based on our observations, the AULCC meetings appear to be effectively structured to specifically address:

- identification of facilities in the right-of-way;
- resolution of conflicts in the location of facilities; and
- coordination of plans for excavation in the right-of-way.

**The AULCC Coordinator is working to recommend improvements in the permitting process.** The Coordinator has instituted a process whereby once a project has been presented to the AULCC, the project's location will be entered into the City's AMANDA system that supports the City's review, permitting, inspection, and enforcement processes. As a result, any other permits granted by the ROW Division can be checked against this data to determine whether conflicts exist.

**The AULCC Coordinator is effectively facilitating pre-construction conferences when they are warranted.** Pre-construction conferences are held after a project has received a completeness letter from the AULCC and approval from the City's permitting process. If the need arises to discuss utility coordination issues which will be addressed during construction, the Coordinator or designee will facilitate the pre-construction conference.

**The AULCC Coordinator is working to incorporate information technology to improve the planning process.** The Coordinator worked with the City's Geographical Information System (GIS) staff to create an internal GIS application to view the street segments for ROW permits that are issued. Also, the Coordinator is working to purchase and incorporate a web-based utility coordination services product for use by AULCC committee members. This product is used for the management oversight of infrastructure built and maintained by utility companies and government agencies. It is a centralized, map-driven web-based application for the coordination of construction and maintenance projects.

**The AULCC has had limited involvement in long range community development planning.** Although the AULCC responsibilities include advising on long range community plans, we saw little evidence that utility coordination was taking place for projects in the one to five year planning horizon. The AULCC has had some limited involvement in long range planning but is dependent on project owners bringing such long range plans to the AULCC. For example, the city's downtown rail corridor project was brought to the AULCC in 2005 and is still in the planning stages. However, the AULCC does not have an established process for ongoing involvement in long range planning.

Austin Energy, Austin Water Utility, and the Public Works departments have multi-year plans which could benefit from coordination. Without the strategic coordination of these projects, the City could miss opportunities to ensure the availability of land needed for utilities and ROWs or to combine various departments' projects in the same location to share costs, reduce inconvenience to citizens, and maximize project efficiency. For example, management indicated that a decision to locate a wastewater line in the same area in which a drainage project was already designed has resulted in significant costs for redesign. However, the Public Works Department is in the process of facilitating a City of Austin Asset Management Strategy which will have the involvement of several City Departments including the Coordinator. Also, the Contract and Land Management department's Project Management Office is starting a CIP coordination group in which the Coordinator will participate.

**The AULCC has had limited involvement in setting standards for utility location in the right-of-way.** The Coordinator does advise project owners when there is a utility conflict as to where utilities should be placed in the ROW. However, the AULCC has not had significant input on standards since 2005. The AULCC has given input in establishing "no build" zones reserved for underground utilities in relation to street-level

design aspects required by the Commercial Design Standards. However, further work is needed to finalize details of the standards for utility location.

The City Code states that the directors of Austin Energy and the Austin Water Utility adopt design and installation guidelines related to a customer’s utility installation and the City’s service connection. Also, state statutes regulate utility installation standards. Therefore, this issue is not entirely within the control of the AULCC, and the AULCC’s role in setting standards for utility location in the right-of-way is unclear.

**The AULCC fulfilled its duties as described in the Utility Criteria Manual (UCM), although actual practice differs from the procedures in the UCM in some instances.** For example, the UCM states that if a utility relocation is necessary, the project owner should submit a request for relocation to the Coordinator during the final design phase of the project. However, in practice the request goes directly to the utility owner from the project owners, bypassing review by the Coordinator. In addition, the UCM states that the project owner, the Coordinator, and the facility owners should develop a utility adjustment schedule when adjustments are necessary. A utility adjustment is generally the moving of utility objects to reduce or minimize conflicts with City-owned objects. An example would be moving a telephone pole to allow the placement of a new water or wastewater line. However, the Coordinator indicated that in practice project owners have worked directly with the facility owners to develop adjustment schedules and brought them to the Coordinator for review and approval. Although this deviates from the UCM procedure, it may in fact be a more effective use of the Coordinator’s time.

**The AULCC does not have performance measures to indicate how effective it is at coordinating projects or minimizing utility conflicts.** The City’s Performance Measures database has two performance measures that relate to utility coordination, which are listed below in Exhibit 1. The first measure, “Number of utility coordination requests processed,” is an output measure that summarizes the number of projects processed by the Coordinator. The other measure, “Utility coordination cycle time,” is an indication of the Coordinator’s response time to the project managers/owners in providing utility coordination services.

**EXHIBIT 1**  
**City of Austin’s Performance Measures Related to Utility Coordination**

<b>Measure</b>	<b>FY06</b>	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>
	Actual	Actual	Actual	Amended Budget	Proposed Budget
Number of utility coordination requests processed	983	485*	875	950	950
Utility coordination cycle time (in days)	20	21	20	21	21

SOURCE: City of Austin’s Performance Measure Database web-site and the FY10 Proposed Budget.  
\*The FY07 number of coordination requests is so low because a new coordinator took over and didn’t include the number of site plans that were reviewed for this calculation.

However, management has no measure related to effectiveness or results of utility coordination efforts. As a result, management may not be able to effectively focus attention and resources to ensure that utility coordination efforts are effective.

The current Coordinator suggested that AULCC's effectiveness could be measured by monitoring:

- the delay costs or change orders that are related to utility conflicts;
- the number of utilities that are "hit" (or encroached upon) during construction;
- the number of utility relocation requests that are expedited; or
- the number of requests for utility data received after a CIP bid is awarded, indicating the utility data had not been obtained in advance.

Also, a previous Coordinator stated that AULCC's effectiveness could be measured by monitoring utility conflicts subsequently identified for plans that have gotten AULCC approval and comparing that information against plans which did not go through the AULCC process for approval.

Although we reviewed change order data as part of this audit, management is not formally tracking this data as part of its performance measurement process. In addition, some of the data required for other suggested measures are not formally tracked.

## Recommendations

01. The Director of the Transportation Department should determine whether the AULCC will be involved in long range community development plans and setting standards for utility location in the ROW and direct personnel accordingly. If the AULCC will be involved in these activities, the Director should evaluate whether existing staffing for this activity is sufficient. If the AULCC will not be involved in these activities, the Director should request a change to the City Code to reflect this.

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**MANAGEMENT RESPONSE:** Concur

ATD is in process of evaluating an additional coordination software purchase and is involved in Preliminary GIS coordination meetings between COA departments.

ATD is in process of evaluating the AULCC workload and will review the workload of existing staff to determine the additional resources required to improve the long range community planning involvement.

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02. The Director of the Transportation Department should direct ROW Management staff to determine where differences exist between current AULCC practices and the policies and procedures contained in the UCM. ROW Management staff should recommend to the Director what it considers to be the most effective method for carrying out AULCC duties. The Director should then determine how best to align the AULCC practices with the policies and procedures in the UCM and either
  - a) Direct AULCC staff to change practices, or
  - b) Request changes to the UCM to reflect the most effective method.

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**MANAGEMENT RESPONSE:** Concur

ROW staff is in process of refining the ROW permitting methods and the relationships between permitting and forward planning.

Staff has submitted work requests to CTM and the AMANDA group to assist in this effort, and is currently working on revisions to the Internet based permit system- ROW Management Approval Network (ROWMAN).

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03. In order to enable the Transportation Department to monitor and make decisions related to AULCC's effectiveness in coordinating utility location issues and preventing utility conflicts during construction, the Director of the Transportation Department should ensure that performance measures are developed and implemented to assess whether the AULCC's utility coordination efforts are effective in preventing utility conflicts.

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**MANAGEMENT RESPONSE:** Concur

ROW staff, starting at the beginning of FY '10, will record utility conflicts identified prior to construction per project on a monthly basis.

In addition, ROW staff, in conjunction with Public Works Project Management staff, will record utility conflicts identified during the course of construction. Significant indicators will be recorded, such as days of delay and dollar amount of supplemental agreements executed to rectify utility conflicts. **(Changes in scope of work will not be recorded, unless a utility conflict arises from the addition or deletion of work.)**

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**Issue for Further Study.** Evidence gathered during this audit suggests that City departments may not be engaging in long-term strategic coordination and integrated planning for capital projects or maintenance projects. As a result, the City may be missing opportunities to minimize costs and street closures and ensure land availability for utilities related to large-scale projects. The Public Works Department indicated that it is in the process of developing a comprehensive asset management strategy for the City. Also, the Contract and Land Management Department's Project Management Office is starting a CIP coordination group in which the Coordinator will participate. OCA may suggest a review of the long-term planning process as a future project once the asset management strategy is in place.



**APPENDIX A**  
**MANAGEMENT RESPONSE**

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## MEMORANDUM

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**TO:** RUSSELL NEEDLER, ASSISTANT CITY AUDITOR

**FROM:** ROBERT SPILLAR, P.E., DIRECTOR  
TRANSPORTATION DIRECTOR

**DATE:** SEPTEMBER 21<sup>ST</sup>, 2009

**RE:** RESPONSE TO AUSTIN UTILITY LOCATION &  
COORDINATION COMMITTEE (AULCC) AUDIT

Enclosed please find our responses to the subject audit. As suggested we have used the Action Plan template to comprehensively address each audit recommendation.

We trust this submittal provides you the necessary information to complete the process. If you have any questions or need additional information, please do not hesitate to contact me.

A handwritten signature in cursive script, appearing to read "Robert Spillar".

Robert Spillar, P.E., Director  
Austin Transportation Department

Approved by: Robert Goode, Assistant City Manager

Signature: A handwritten signature in cursive script, appearing to read "Robert Goode".

Date: 9/24/09

RS:gp

Attachment:



**ACTION PLAN**  
**Austin Utility Location and Coordination Committee Audit**

<b>Rec #</b>	<b>RECOMMENDATION TEXT</b>	<b>Concurrence</b>	<b>Proposed Strategies for Implementation</b>	<b>Status of Strategies</b>	<b>Responsible Person/ Phone Number</b>	<b>Proposed Implementation Date</b>
01	The Director of the Transportation Department should determine whether the AULCC will be involved in long range community development plans and setting standards for utility location in the ROW and direct personnel accordingly. If the AULCC will be involved in these activities, the Director should evaluate whether existing staffing for this activity is sufficient. If the AULCC will not be involved in these activities, the Director should request a change to the City Code to reflect this.	Concur	<p>ATD is in process of evaluating an additional coordination software purchase and is involved in Preliminary GIS coordination meetings between COA departments.</p> <p>ATD is in process of evaluating the AULCC workload and will review the workload of existing staff to determine the additional resources required to improve the long range community planning involvement</p>	Underway – Preliminary Stages of Implementation	Gregory Pepper / 512-974-7282	Begin FY 2010- Evaluate 4Q FY 2010

<b>Rec #</b>	<b>RECOMMENDATION TEXT</b>	<b>Concurrence</b>	<b>Proposed Strategies for Implementation</b>	<b>Status of Strategies</b>	<b>Responsible Person/ Phone Number</b>	<b>Proposed Implementation Date</b>
02	<p>The Director of the Transportation Department should direct ROW Management staff to determine where differences exist between current AULCC practices and the policies and procedures contained in the UCM. ROW Management staff should recommend to the Director what it considers to be most effective method for carrying out AULCC duties. The Director should then determine how best to align the AULCC practices with the policies and procedures in the UCM and either</p> <ul style="list-style-type: none"> <li>a) Direct AULCC staff to change practices, or</li> <li>b) Request changes to the UCM to reflect the most effective method.</li> </ul>	Concur	<p>ROW staff is in process of refining the ROW permitting methods and the relationships between permitting and forward planning.</p> <p>Staff has submitted work requests to CTM and the AMANDA group to assist in this effort, and is currently working on revisions to the Internet based permit system- ROW Management Approval Network (ROWMAN).</p>	Underway-In Process	Gregory Pepper / 512-974-7282	Begin FY 2010- Evaluate 4Q FY 2010

Rec #	RECOMMENDATION TEXT	Concurrence	Proposed Strategies for Implementation	Status of Strategies	Responsible Person/ Phone Number	Proposed Implementation Date
03	<p>In order to enable the Transportation Department to monitor and make decisions related to AULCC's effectiveness in coordinating utility location issues and preventing utility conflicts during construction, the Director of the Transportation Department should ensure that performance measures are developed and implemented to assess whether the AULCC's utility coordination efforts are effective in preventing utility conflicts.</p>	Concur	<p>ROW staff, starting at the beginning of FY '10, will record utility conflicts identified prior to construction per project on a monthly basis.</p> <p>In addition, ROW staff, in conjunction with Public Works Project Management staff, will record utility conflicts identified during the course of construction. Significant indicators will be recorded, such as days of delay and dollar amount of supplemental agreements executed to rectify utility conflicts. <b>(Changes in scope of work will not be recorded, unless a utility conflict arises from the addition or deletion of work)</b></p>	Planned-Preliminary Stages	Gregory Pepper / 512-974-7282	Begin FY 2010-Evaluate 4Q FY 2010

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