Performance Audit: Department of Public Works Regulation of Utility Street Cuts

April 2011

City Auditor's Office
City of Atlanta

File #10.07



CITY OF ATLANTA

City Auditor's Office Leslie Ward, City Auditor 404.330.6452

Why We Did This Audit

We undertook this audit because public and private utility companies frequently cut into public streets and sidewalks to install, maintain, and repair utility-related infrastructure. Excavation on city streets reduces the useful life of pavement and failed cuts create hazards. The Department of Public Works is responsible for enforcing city code requirements regulating use of the public right-of-way.

We focused our audit on enforcement of regulations related to excavation in the public right-of-way.

What We Recommended

In order to enforce city code requirements regulating use of the public right-of-way, the Commissioner of Public Works should:

- consolidate the permitting function to coordinate regulatory activities
- develop detailed policies and procedures that explain the permitting, inspection, and recordkeeping requirements for excavation
- re-prioritize inspectors' workloads to ensure that they are able to complete all required inspections
- ensure that repaving is coordinated with street cut work
- enforce insurance and bonding requirements
- ensure all utility street cuts made by the Department of Watershed Management are permitted and inspected as required by city code

For more information regarding this report, please contact Stephanie Jackson at 404.330.6678 or sjackson@atlantaga.gov

Performance Audit:

Department of Public Works Regulation of Utility Street Cuts

What We Found

While the city's right-of-way ordinance establishes requirements consistent with industry practices for regulating utility street cuts, the Department of Public Works lacks effective enforcement to ensure that the streets are adequately restored when construction is completed. The department's written procedures for permitting and inspecting utility street cuts are incomplete, and employees do not keep hardcopy or electronic records to show that inspectors are conducting all required inspections before warranties for the work expire. Further, the department is not ensuring that franchised utilities comply with bond and insurance requirements. As a result, the city may be responsible for repairs or damages if cuts fail. The city paid \$218,000 in damages during fiscal year 2010 related to right-of-way activity.

Program records are inadequate to track utility street cuts in the right-of-way. Employees were unable to identify owners of utility street cuts or provide copies of permits for any of the 26 utility street cuts we randomly sampled. The department does not consistently track metal plates in the right-of-way. Employees identified the owner of metal plates at one of four sites that we asked about, and provided a copy of the permit application, but were unable to locate the approved permit or any information about seven metal plates at the other three sites. Two sections within the department issue permits for utility street cuts, making tracking and recordkeeping difficult, particularly without written policies and procedures for recordkeeping.

Public works has not ensured that the Department of Watershed Management's utility street cut work is permitted or inspected according to the city's right-of-way ordinance. Public works personnel said they do not have enough staff to conduct all required site inspections of permitted work. Since employees do not compile data on the number of permits issued for utility cuts, and the department has prioritized response to requests for service over inspections of permitted utility work, the department cannot accurately assess its staffing needs.

Management Responses to Audit Recommendations

Summary of the Departmen	t of Public Works' Management Responses		
Recommendation #1:	The Commissioner of Public Works should consolidate the permitting function to h coordinate permitting activity.	elp	
Response & Proposed Action:	Public Works has begun working with internal staff and Watershed Management to consolidate permitting and has requested funds in the FY12 budget to create an online permitting system for all permits.		
Timeframe:	Three months for consolidation (07/11); nine months for online permitting (01/12)		
Recommendation #2:	The Commissioner of Public Works should develop detailed policies and procedur explain the permitting, inspection and recordkeeping requirements for excavation i public right-of-way. The procedures should:		
	clarify employees' responsibilities for processing permits		
	clarify permit requirements to ensure that street cut activity is permitted		
	 provide standard guidelines for conducting preliminary, interim, post-closure a warranty inspections 	and	
	 describe a process for complete and easily accessible recordkeeping, includir copies of permit applications, permits, inspection results, and the location of n plates 	netal	
Response & Proposed Action:	While some SOP's checklists for preliminary and post closure inspections were provided (albeit piecemeal and brief), additional interim and warranty checklists will be developed. All SOP's and checklists will be synthesized into a comprehensive document with detailed policies and procedures that explain the permitting, inspection and recordkeeping requirements for excavation in the right-of-way to include all recommended components.	gree	
Timeframe:	3-4 weeks (05/11)		
Recommendation #3:	The Commissioner of Public Works should re-prioritize the inspectors' workloads to that they are able to complete all required inspections.	o ensure	
Response & Proposed Action:	As of October 2010, only the inspection supervisors will handle service requests. The seven inspectors will only focus on inspections.	ree	
Timeframe:	Immediately		
Recommendation #4:	The Commissioner of Public Works should ensure that repaving activity is coordinated to the control of the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure that repaving activity is coordinated to the Commissioner of Public Works should ensure the Commissioner	ated with	
Response & Proposed Action:	Coordinate major projects by overlaying proposed LARP resurfacing projects and the utilities companies' projects using GIS mapping. Cannot coordinate right-of-way maintenance repairs. Restoration guidelines will depend on the age of the street's last resurfacing.	jree	
Timeframe:	Immediately		
Recommendation #5:	The Commissioner of Public Works should use all available options, including requinsurance and bonding, to enforce the right-of-way ordinance.	uiring	
Response & Proposed Action:	Coordinate with franchised utilities to obtain insurance and bonding and create a system to track and enforce requirements. Ag	jree	
Timeframe:	Six months (10/11)		
Recommendation #6:	The Commissioner of Public Works should ensure all utility street cuts made by the Department of Watershed Management are permitted and inspected as required becode.		
Response & Proposed Action:	Create a process for permitting all of Watershed's work. Watershed's permitted work will be inspected.	ree	
Timeframe:	Six months (10/11)		



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Ex-Officio: Mayor Kasim Reed

April 18, 2011

Honorable Mayor and Members of the City Council:

The Department of Public Works is responsible for enforcing city code requirements regulating excavation in the city's public right-of-way. Utility companies often cut into the streets to install, maintain and repair utility-related infrastructure; this excavation creates hazards for motorists and pedestrians, and reduces the useful life of the pavement. If cuts made to the street fail, the city may be responsible for repairs. For example, the city paid \$218,000 in damages in fiscal year 2010 related to right-of-way activity.

While the city's right-of-way ordinance establishes requirements that are consistent with industry practices for regulating utility street cuts, the Department of Public Works lacks effective enforcement to ensure that construction work is inspected and the streets are adequately restored when construction is completed. Further, program records are inadequate to track construction in the right-of-way, and the department has not ensured that utilities comply with bond and insurance requirements.

Our recommendations focus primarily on consolidating the permitting function to coordinate and comply with inspection and other regulatory requirements and enforcing bond and insurance requirements to minimize the city's loss exposure.

The Audit Committee has reviewed this report and is releasing it in accordance with Article 2, Chapter 6 of the City Charter. We appreciate the courtesy and cooperation of city staff throughout the audit. The team for this project was Melissa Davis, Sterling Thomas, and Stephanie Jackson.

Leslie Ward

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City Auditor

Fred Williams

Audit Committee Chair

The Williams

Utility Street Cuts

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Introduction

We conducted this performance audit of the Department of Public Works' regulation of excavation in the city's public right-of-way, pursuant to Chapter 6 of the Atlanta City Charter, which establishes the City of Atlanta Audit Committee and the City Auditor's Office and outlines their primary duties. The Audit Committee reviewed our audit scope in June 2010.

A performance audit is an objective analysis of sufficient, appropriate evidence to assess the performance of an organization, program, activity, or function. Performance audits provide assurance or conclusions to help management and those charged with governance improve program performance and operations, reduce costs, facilitate decision-making and contribute to public accountability. Performance audits encompass a wide variety of objectives, including those related to assessing program effectiveness and results; economy and efficiency; internal controls; compliance with legal or other requirements; and objectives related to providing prospective analyses, guidance, or summary information.¹

We focused our audit on enforcement of regulations related to excavation in the public right-of-way. Excavation on city streets — termed street cuts — reduces the useful life of pavement. Street

cuts where restoration fails-termed failed street cuts create hazards in city streets.

Figure 1 shows a failed utility street cut; the pavement is sunken and cracked, and a deeper hole is forming at one edge where the upper layer of asphalt is missing.



Figure 1 Failed utility street cut located at North Avenue (November 2010)

Unlike potholes, failed utility street cuts are square or rectangular in shape.

¹Comptroller General of the United States, *Government Auditing Standards*, Washington, DC: U.S. Government Accountability Office, 2007, p. 17-18.

Background

The Department of Public Works is responsible for enforcing city code requirements regulating use of the public right-of-way. Public and private utility companies frequently cut into public streets and sidewalks to install, maintain, and repair utility-related infrastructure for water, sewer, gas, electric power, and telecommunications. These utility street cuts are subject to permit, inspection, and restoration requirements defined in city code that are intended to protect public safety and city assets.

City Code Regulates Use of the City's Right-of-Way

Chapter 138 of the Atlanta Code of Ordinances requires that "any work conducted in, on, or along any street, or public right-of-way in the city limits of Atlanta must be permitted" and assigns responsibility for enforcement to the commissioner of public works. Permits are intended to control and coordinate the use of the right-of-way to minimize disruption, route traffic, and ensure that contractors performing work follow safe practices and proper technical specifications. Only authorized contractors are allowed to engage in permitted activities in the right-of-way.

Section 138-65 specifically requires a permit for construction or excavation and establishes fees, permit processing requirements, and penalties for not obtaining a permit. The code authorizes the commissioner of public works to establish and publish a list of conditions for maintaining a permit including:

- notice to abutting residences and commercial establishments five business days prior to construction activity
- clear identification of utility owner and person performing work at all sites, vehicles, metal plates, and other obstacles
- construction plans to show length of cut, construction activity to install the equipment, size, type, and location of utilities in the right-of-way, and technical specifications for street rehabilitation
- placement of warning signs
- replacement of decorative sidewalk style and material
- coordination of excavation and paving activities
- bonds, insurance, and other financial protection for the city
- as-built plans and drawings

- identification of all subcontractors on a construction or excavation project
- traffic protection
- emergencies

The department's *Right-of-Way Policy & Standards Manual*, last updated January 2011, establishes standards for activities within the city's right-of-way, including street cuts. The department's *2000 Standard Details for Sewer Construction* provides technical specifications for restoration, including work performed on manholes, streets, cul-de-sacs, curbs, and sidewalks. The department has also developed written procedures that describe some elements of the inspections process.

All permitted work is subject to inspection. Right-of-way construction permits cost \$200 per project location. These permit fees include one hour of inspection. The city can charge an inspection fee of \$50 per hour for additional inspection time. The permits are effective for 90 days; contractors can apply for up to two 90-day extensions per permit. Contractors must apply for a new permit if work is unfinished after the extensions. The city waives permit and inspection fees for sites where the Georgia Department of Transportation has primary permitting authority.

City code requires permit holders to restore the right-of-way to its pre-construction condition within 21 days of the end of construction. Restoration includes repaving streets and sidewalks, removing all barricades, obstructions, and surplus excavation material, and restoring plantings in the appropriate season.

City code requires permit holders to provide insurance and bonding to cover construction activities in the right-of-way. Permit holders doing construction or excavation in the right of way must maintain a minimum performance bond of \$500,000 as well as liability and property damage insurance of \$3 million. Also, the permit holder must provide a cash deposit or letter of credit in the amount of either \$10,000 or \$25,000, depending on the size of the cut, in an interest bearing account and maintained for one year after the work is completed — this is the warranty period. The department can draw on the cash or letter of credit for any necessary repairs if the street isn't restored satisfactorily.

Franchised Utilities Must Comply with Right-of-Way Requirements

State law allows utility providers to enter into franchise agreements with the city in which the utility pays an annual fee — usually a percentage of gross or local revenues — for the right to use the public right-of-way. Recent changes to state law allow cable or video providers to use a local right-of-way under a state-issued franchise agreement.² State law prohibits the city from collecting permit fees from cable, video or telecom providers with franchise agreements³; however, state law also authorizes the city to enforce its right-of-way ordinance to ensure that franchised utilities comply with requirements.⁴

Although exempt from paying permit fees, franchised utilities must apply for permits, provide indemnification and insurance, meet bonding requirements, and adhere to agreed upon enforcement arrangements. In addition to obtaining permits for construction or excavation, franchised utilities can obtain a blanket permit to conduct routine and repetitive repair and maintenance work within the right-of-way. Such maintenance includes minor adjustments to existing facilities or service connections, work to restore services to customers, and checking equipment. Maintenance work conducted under the blanket permits cannot include pavement cuts or excavation of any type.

Seven franchised utilities have applied for excavation permits since 2007, including the Department of Watershed Management (see Exhibit 1).

Exhibit 1 Authorized Franchised Utilities in PWOPS

Franchised Utilities				
1.	Atlanta Gas Light (AGL)			
2.	Zayo (formerly AGL Networks)			
3.	Department of Watershed Management			
4.	Georgia Power			
5.	MCI Metro			
6.	Comcast			
7.	AT&T			

Source: Department of Public Works Online Permitting System

² O.C.G.A. § 46-5-1

³ O.C.G.A. § 36-76-6

⁴ O.C.G.A. § 32-4-92

Utility providers with franchise agreements with the city, including the Department of Watershed Management, apply for permits using PWOPS, (Public Works Online Permitting System). The department began using PWOPS in 2007. Authorized contractors other than franchised utilities submit hardcopy permit applications. PWOPS contains no data on permits for the non-franchised utilities.

The Department of Public Works manages utility street cut enforcement with 14 employees within the Office of Transportation. The majority of utility cut permits are processed and inspected by a group of 11 staff: 1 program supervisor, 3 inspection supervisors, and 7 inspectors. Another three employees process permits for contractors who do not have franchise agreements with the city.

Public Works inspectors are responsible for inspecting permitted work of franchisees and contractors, handling requests for service, inspecting parking decks (including counting the number of parking spaces), inspecting dumpster placements for obstructions in the right-of-way, and issuing tickets for vehicles that are obstructing the right-of-way. In addition, the inspection supervisors inspect potholes, perform street assessments to determine whether road maintenance is required, and inspect and prepare cost estimates for sidewalk and curb repairs.

The city collected an average of \$137,000 per year in construction and excavation permit revenue between fiscal years 2008 through 2010. Franchised utilities appear to perform the bulk of the street cut work, which accounts for the low revenue because franchised utilities are exempt from paying permit fees.

Audit Objectives

This report addresses the following objective and sub-objectives:

- Does public works have an effective framework to manage utility street cuts and enforce compliance with the city's rightof-way ordinance?
 - What are the elements of an effective enforcement program?
 - o What does the department do to satisfy those elements?

- o How does the department:
 - identify and track the number, locations, and owners of utility street cuts
 - identify and resolve failed cuts and metal plates
 - coordinate street cut activity with street resurfacing
 - enforce the warranty period for utility street cuts?

Scope and Methodology

We conducted this audit in accordance with generally accepted government auditing standards. Our analysis focused on the Department of Public Works' regulation of excavation in the city's right-of-way.

Our audit methods included:

- interviewing Department of Public Works management and staff, Department of Watershed staff, and utility company representatives to understand the inspections process and to assess how work in the right-of-way is coordinated
- researching the American Public Works Association's best practices/industry standards for elements of an enforcement program
- reviewing the Office of Transportation's standard operating procedures, construction standards, right-of-way manual, and relevant city code provisions
- reviewing inspector job descriptions and qualifications
- observing public works inspectors to understand the nature of their work
- inspecting a random sample of city street segments to identify street cuts and assess whether public works had a record to identify the owner of the cut and when it was completed
- inspecting a convenience sample of metal plates located in the right-of-way to assess whether the department could identify the owner and how long the plate had been in place
- assessing reliability of data in the Public Works Online Permitting System

- reviewing franchise agreements and interviewing staff from the departments of Law, Finance, and Public Works to understand how franchise agreements affect enforcement of the city's right-of-way ordinance
- reviewing claims and litigation data related to street cuts provided by the law department

Generally accepted government auditing 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.

Findings and Analysis

Lack of Program Structure and Ineffective Management Limit Rightof-Way Enforcement

While the city's right-of-way ordinance establishes requirements consistent with industry practices for regulating utility street cuts, the Department of Public Works lacks effective enforcement to ensure that the streets are adequately restored when construction is completed. The department's written procedures for permitting and inspecting utility street cuts are incomplete, and employees do not keep hardcopy or electronic records to show that inspectors are conducting all required inspections before warranties for the work expire. Further, the department is not ensuring that franchised utilities comply with bond and insurance requirements. As a result, the city may be responsible for repairs if cuts fail.

The department lacks data to track the number and location of utility street cuts and to identify the owners of cuts and metal plates. Employees were unable to identify owners of utility street cuts or provide copies of permits for any of the 26 utility street cuts we randomly sampled. Employees identified the owner of metal plates at one of four sites that we asked about, and provided a copy of the permit application, but were unable to locate the approved permit or any information about seven metal plates at the other three sites. Two sections within the Department of Public Works issue permits for utility street cuts, making tracking and record keeping difficult, particularly without written policies and procedures for record keeping.

Public works has not ensured that the Department of Watershed Management's utility work is permitted or inspected according to the city's right-of-way ordinance. Public works personnel said they do not have enough staff to conduct all required site inspections of permitted work. Since employees do not compile data on the number of permits issued for utility cuts, and the department has prioritized response to requests for service over inspections of permitted utility work, the department cannot accurately assess its staffing needs.

We recommend the department write procedures to cover all required inspections and establish standard record keeping for permitting and inspection documents. Management should reprioritize work so the inspectors are able to complete inspections of permitted work. The department should clarify in the procedures the responsibility for ensuring that the franchised companies satisfy the insurance and bonding requirements required by city code.

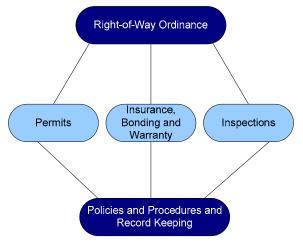
Code Requirements Are Consistent With Industry Practices for Effective Regulation

Consistent with industry practices, the city's right-of-way ordinance governs the program and requires contractors to obtain permits for construction activity. The code also requires contractors to provide insurance, bonding, and a cash deposit or letter of credit. The department is required to hold the cash deposit or letter of credit for 12 months after the completion of construction, representing the warranty period. The right-of-way manual states that construction work is subject to inspection.

Industry practices identify the following elements as integral to an effective right-of-way enforcement program:

- legislative guidelines to govern the program
- a permitting process to control access to the right-of-way
- inspections throughout the construction activity to ensure compliance with construction and restoration standards
- insurance, bonding, and a warranty period to provide financial protection to the city (see Exhibit 2).

Exhibit 2 Right-of-Way Enforcement Program Components



Source: Compiled from American Public Works Association publications

Effective regulation of the right-of-way also requires administrative processes, including policies and procedures to guide program staff to ensure code requirements are consistently enforced, and complete and current records to track construction, coordinate work, and protect the city against liability for the work performed in the right-of-way.

The American Public Works Association recommends the enforcement program require utilities to warranty their work and provide a sufficient number of trained inspectors to conduct appropriate inspections. It also suggests inspectors examine utility worksites during construction, at project completion, and after construction, depending on the warranty period, to assess the performance of the repair and to check for failures. The final inspection is often tied to the release of a performance bond.

Public Works Lacks Effective Processes to Enforce Code Requirements for Utility Street Cuts

While the American Public Works Association recommends at least four inspections per utility street cut — before construction, while construction is in progress, when restoration is complete, and before the end of the warranty period — public works focuses on preliminary inspections to review the proposed scope of work and work site to determine whether work can be done as requested. The department's procedures also require closure inspections to verify that work is complete and restoration is acceptable, but procedures require no records to document the results of the inspections and inspectors are not keeping systematic records. Without inspecting cuts during restoration, the department has no way of ensuring that the utilities are meeting technical specifications for restoration. Without inspecting cuts near the end of the warranty period, the department may have dfficulty holding contractors responsible for repairing failed cuts. Further, the Department of Public Works is not enforcing insurance and bonding requirements for franchised utilities. Insurance and bonding provide mechanisms to recover costs for damages or repair if the utility street cut fails.

Program records are inadequate to track construction in the right-of-way. Program officials were unable to identify the owner, or to provide permit, inspection, and other information for any of the 26 street cuts we identified in a random sample of city arterial street segments. The department was also unable to identify the owners of metal plates at three of the four sites that we observed.

Without adequate records to identify companies performing construction in the right-of-way, the city may be responsible for repairing failed cuts.

Although public works, other city and state transportation officials, and utility companies meet monthly to discuss planned work, we observed a utility street cut with a metal plate on a newly paved street. Staff was able to identify the related permit application, but the street was not restored to city standards after the plate was removed.

Procedures call for fewer inspections than industry standards. The department's standard operating procedures describe preliminary and closure inspections, but do not cover interim or post-closure/warranty inspections. Inspectors perform preliminary inspections to confirm the work location and determine whether other utilities are working in the area and whether the street has been recently resurfaced. The American Public Works Association recommends that inspectors conduct inspections before work begins, before restoration is done, after restoration is completed, and after the permit is closed to ensure that the cut has not failed before the warranty period ends. Program management told us that inspectors should conduct a preliminary, interim, and closeout inspection for each utility street cut, but they rarely conduct interim inspections because of limited staff and other responsibilities. The purpose of interim inspections, which includes inspections prior to and during restoration, is to ensure that the cut is repaired to city standards. Without inspecting cuts during restoration, the department has no way of ensuring that the utilities are meeting technical specifications for restoration. For example, a residential street should have a minimum of 11 ½" inches of combined layers: 6" of sub base, 4" of crushed aggregate, and 1 ½" of top coat/asphalt.

We rode along with inspectors on two separate occassions during the audit, in August 2010. In each case, the inspector conducted a small number of preliminary inspections of sites requiring permit approval. In one case, we observed an inspector review a permit request for Georgia Power to repair a broken utility pole. In that instance, he assessed the damage to the pole and ensured that no other utilities were working in the area. In another case, to respond to a permit extension request, an inspector conducted a preliminary inspection by driving through a location to confirm whether work was in progress. Neither inspector conducted any other street cut inspections during our observations; the majority of the workload

over both days consisted of responding to service requests such as assessing broken sidewalks and inspecting driveway repairs that extended into the city's right-of-way.

Inspection results are not documented. The department has no standard procedures detailing how to document inspection results. The American Public Works Association suggests that jurisdictions record inspector notes and necessary follow-up actions. The inspectors we observed did not document the details of the inspections they conducted and told us that they do not use inspection checklists or any other type of standard way to record their inspection results. Inspection results are not detailed in the online permitting system, and the office keeps no systematic, hardcopy records. Individidual inspectors may keep files, including copies of permits and related correspondence, at their desks.

Public works is not ensuring that franchised utilities meet bond and insurance requirements. Public works staff is uncertain about who is responsible for managing insurance and bonding for franchise companies. We observed certificate of insurance information included with the non-franchised contractors' permit application packages but saw no evidence of performance bonds. Although franchised contractors are subject to the same requirements, we did not observe insurance and bonding information in permit submittals that we reviewed. Public works staff told us that law and risk management staff handle the bond and insurance requirements. According to city code, public works is responsible for ensuring that bond and insurance requirements are met and the city's risk manager is responsible for determining whether the bond amounts are sufficient to protect the city. We met with employees from risk management, law, and public works; all staff said that they were not responsible for managing the bonds. Insurance protects the city from liability for injury and damage related to the utility street cut. Bonding provides a mechanism to recover costs if the city needs to repair failed cuts. Failing to enforce these requirements shifts risk from the responsible utility to the city.

Program records are inadequate to track utility street cuts in the right-of-way.

Program supervisors and inspectors were unable to identify the owner or provide permit, inspection, or other information for any of 26 street cuts that we identified in a random sample of ten city arterial street segments. The utility street cuts ranged in size from 2.5 feet wide by 3 feet long to 12 feet wide by 22.5 feet long (see Figures 2 and 3). Two of the cuts, on North Avenue, appeared to be failing (see Figure 1 on page 1 and Figure 4).

Sampling Methodology

We randomly selected 10 of 75 arterial, or main, streets listed in the department's right-of-way manual. We then chose a random street segment of about a tenth of a mile each from each of the 10 main streets after charting the streets on a city map. We drove the length of each street segment, photographed each utility street cut, and recorded the location, including cross streets, and approximate size of each cut.

We asked public works staff to provide for each utility street cut the permit number, date of cut, inspection history and repair history.

We identified no metal plates in our random sample of arterial street segments. We therefore selected four sites near city hall containing a total of 22 metal plates and requested public works to provide the permit for each site.



Figure 2 Street cut on Andrew Young International Blvd. (November 2010)

Although inspectors theorized about the owners of cuts based on characteristics such as shape and location on the pavement and provided copies of two approved permit applications for work on the streets we sampled, none of their information matched the specific cuts in our sample. For example, one of the utility cuts in our sample was work in progress; we obtained a copy of the

permit from the contractor at the site. Public works staff gave us a

copy of a permit that was for a different site than the one we visited. Inspectors theorized that 16 of the 26 utility street cuts were made by the Department of Watershed Management, which they said they do not permit or inspect. Program staff told us that they were unable to provide documentation on the



Figure 3 Street cut on Old Gordon Road (November 2010)

remainder of the cuts because the cuts may have been made prior to the development of the online permitting system in 2007.



Figure 4 Failed cut on North Avenue (November 2010)

A permitting employee estimated that about 90% of failed cuts are identified through a customer complaint, either in the form of a service request, complaint made directly to a council member, or claim filed with the Department of Law. According to annual reports from law, the city paid

approximately \$218,000 in fiscal year 2010 to settle 193 claims filed against public works and watershed management related to right-of-way activity. The data also shows that both construction cuts and metal plates are in the top five causes for claims filed against watershed management over the past five fiscal years.

The department does not consistently track metal plates in the

right-of-way. Inspectors were unable to provide information for three of four sites that we asked about with a total of 22 metal plates. Inspectors identified the owner and provided a copy of the permit application for a construction site at Grant Street just north of the intersection with Martin Luther King Jr. Drive with a single plate. For the other three



Figure 5 Metal plate on recently paved Grant Street north of Martin Luther King Jr. Drive (January 2011).

sites, employees provided us with copies of permit applications that did not match the location and work description of the sites we observed. For example, we identified four metal plates on Harris Street east of the intersection with Courtland Street and requested permit applications and details for the plates. Program staff provided a permit application for work performed on Courtland Street. Employees did not provide a copy of the approved permit for any of the sites.

According to city code, plate owners are responsible for ensuring that metal plates are legibly identified at all times. The department's *Right-of-Way Policy & Standards Manual* requires plate owners to record their company name and plate identification initials with the Department of Public Works. In our sample, none of the metal plates we observed at four construction sites had identification markings that matched markings that the department has on file (see Exhibit 3).

Exhibit 3 Metal Plate Sample Results

Site	Number of Metal Plates at Site	Plates Stamped with Known Identifying Marks?
Harris Street intersection with Peachtree Center Avenue	15	No
Harris Street east of Courtland Street	4	No
Piedmont Avenue south of Edgewood	2	No
Grant Street north of Martin Luther King Jr. Drive	1	No
Total	22	

Source: Compiled based on audit observations

Owners are also required to remove metal plates within five business days after the work is completed. Public works has the authority to pick up plates that are not identified or that remain in the right-of-way beyond five days; however, the department would need to inspect the work site when the work is completed in order to know how long the plate has been in place. Owners of the metal plates are liable for all injuries and damages sustained as a result of improper placement or use.

The department does not systematically track when and where metal plates are placed throughout the city. Employees told us they track metal plates using watershed management's geographic information system and periodically conduct "metal plate sweeps" throughout the city to record the location of plates. In January 2011, public works provided us with a copy of a spreadsheet listing the location of metal plates; the spreadsheet had no entries after January 2010. Watershed management tracks its metal plates separately, using the Hansen system. We compared watershed management's metal plate report to public works' spreadsheet and found the data did not match. Public works' separate report stated that watershed management had far fewer plates in the right-ofway than watershed management's report indicated. The Department of Public Works should accurately track metal plates to ensure they are properly identified and removed in accordance with the right-of-way manual.

Staff cannot retrieve permit applications from the online permitting system once the record is closed. Staff told us they do not have access to copies of approved permits once a permit is closed in the system. Public works must be able to pull permits and identify the owners of street cuts in order to hold contractors accountable for repairing failed street cuts. Public works staff said that utility companies voluntarily repair failed cuts when notified that a cut has failed, even after the warranty period has expired. The Department of Law, however, noted an instance in which public works had difficulty compelling a contractor to reimburse the city for the cost of repairing a failed cut because the department could not adequately document for the company's insurance provider that the contractor was responsible for the cut.

Despite coordination efforts, we observed cuts on a newly paved

street. We observed a street cut with a metal plate on Grant Street, which was resurfaced in 2010 (see Figure 5 on page 15). The metal plate was removed February 2011, but the street was not restored to city standards after the plate was removed (see Figure 6). Staff was able to identify the related permit application, but the street was not restored to city standards after the plate was removed. Asphalt was mounded over the edge of the cut, creating a quarterinch lip. Despite monthly coordination meetings, the department may not be effectively coordinating all construction activity.



Figure 6 Grant Street north of Martin Luther King Jr. Drive after plate removal (February 2011)

According to the department's written procedures, inspectors should review a street's history prior to approving an excavation permit, and if a street has been resurfaced within the last five years, resurfacing should be a condition of permit approval. Although not part of the department's operating procedures, staff told us contractors must repave curb-to-curb any street resurfaced within the last two years. The updated *Right-of-Way Policy & Standards Manual* clarifies that contractors are required to repave the width of the lane after making cuts on recently paved streets.

Public works personnel meet monthly with representatives of franchised utilities and other city and state staff to coordinate the schedules of the quality of life projects with the work planned by the utility companies. These meetings are consistent with best practices, which recommend coordination between contractors,

utilities, and public agencies to facilitate work in the right-of-way and minimize disruption.

Decentralized Departmental Organization Hinders Enforcement of Right-of-Way Standards

The fragmented structure of permitting and inspection responsibilities complicates tracking and record-keeping. Separate permit application processes for franchised utilities and other qualified contractors has resulted in the department keeping records in different locations and in different formats. This fragmented permitting combined with scanty written procedures and weaknesses in the online permitting system result in the department not knowing how many utility street cuts are made in the public right-of-way. Program managers have prioritized inspectors' responses to service requests over inspections of construction and excavation permit sites, which reduces effective enforcement.

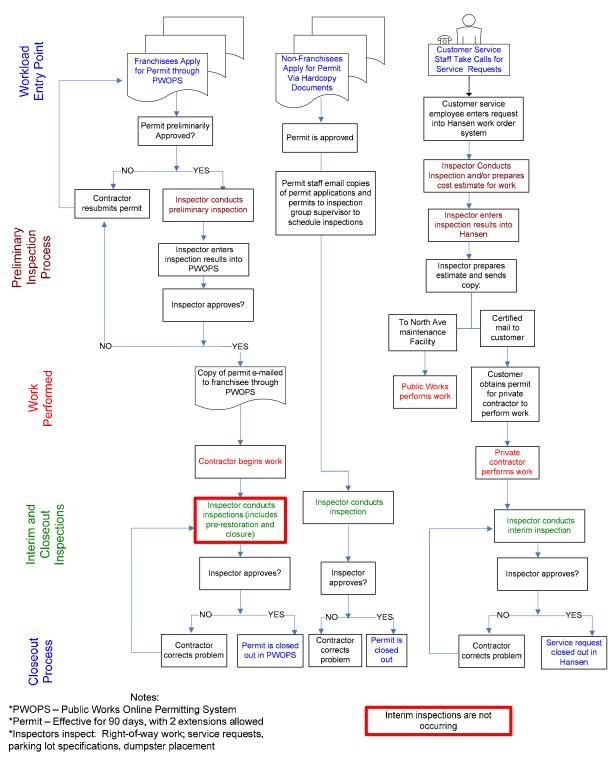
The department processes street cut permits in multiple locations, and lacks coordination. Franchised utilities apply for permits through a different process than contractors without franchise agreements with the city (see Exhibit 4). Different employees within the Office of Transportation process the permits; one group of inspectors is responsible for inspecting all permitted work sites. The program's written operating procedures do not explain how the permits are to be administered and inspections coordinated and scheduled. The program manager reviews the applications and makes inspector assignments based on requested work locations. The procedures include no requirement for a uniform record keeping system for the permit applications, approved permits, and related documents.

Franchised utilities, including the Department of Watershed Management, apply for construction permits using the department's online permitting system. Program personnel review the permit submittals and approve or deny them electronically. Department management told us the online permitting system sends an email to the department when utilities enter new permit applications, and if approved, the system also emails the utility a copy of the permit. The program manager reviews the utility's submissions and makes inspection assignments.

Non-franchised contractors, or qualified contractors, apply for construction permits in person using hard copy permit submittals. An employee in another section of the Office of Transportation

processes these applications, and yet another employee is responsible for issuing the permit and sending it to the contractor. Employees within this permitting group keep electronic copies of the submittal packages; however, these records remain separate from those submitted through the online permitting system. These employees email copies of approved permit applications to the inspection group supervisor, who gives each inspector individual assignments based on location.

Exhibit 4 Permitting and Inspections Process



Sources: Compiled from departmental procedures, interviews, and observation

The department prioritizes inspectors' responses to service requests over inspections of permitted work sites. Public works inspectors are responsible for inspecting permitted work sites, responding to service requests, inspecting parking decks (including counting the number of parking spaces), inspecting dumpster placements for obstructions in the right-of-way, and issuing parking tickets for vehicles that are obstructing the right-of-way. Inspection supervisors also inspect potholes to determine whether the defect is a pothole or failed utility street cut and periodically assess street condition to determine whether road maintenance is required. Program management told us that the service requests originating from citizens' and other city departments' calls to the customer service center take priority over inspections of permitted work sites and inspectors therefore rarely conduct interim inspections, and closure inspections may be late. The *Right-Of-Way Manual* requires the department to conduct preliminary inspections of work sites within 15 business days of receiving a permit application. Without inspecting work during and after construction, the department cannot ensure that the street is restored to city standards.

Watershed management and public works' customer service employees enter service requests from the public into the Hansen work order system. A public works supervisor assigns each request to an inspector. The inspectors review the system daily for their assignments. These assignments exclude requested preliminary and closure inspection requests from franchised utilities made through PWOPS.



Figure 7 Oakdale Rd. north of DeKalb Ave. (November 2010)

During our 12 hours observing inspectors in the field, most of their time was spent responding to a total of nine service requests. For example, we observed inspectors conducting initial inspections of broken sidewalks in response to citizens' service requests. The inspector assessed the damage and contacted watershed management to repair the sidewalk. Watershed management was responsible for repair in these cases because the break surrounded a meter pit. We also observed inspectors checking broken or newly constructed curbs, driveways, and streets to determine the cause of the problem, measure the affected area and ensure finished work complied with technical specifications. We observed an inspector issuing a parking citation for a vehicle parked on the sidewalk. In this case, because the vehicle was a large truck, the inspector

issued a ticket that imposed a \$1,000 fine. An inspector also stopped at a construction site in-progress to review the work permit and ensure a flagman was on site for traffic control

Data in the public works online permitting system are incomplete, and inadequate for tracking the number of utility street cuts. PWOPS includes electronic attachments of permit application packages from franchised utilities, but contains no detailed inspection data such as results of inspections or compaction tests. Line items indicate when inspectors conducted preliminary and closeout inspections, but the system does not include fields for dates of interim or warranty inspections. The number of records in the system overstates the number of permits issued to franchised utilities because the system automatically assigns a number to each permit submittal, including extensions and permits that were subsequently denied. The system does not indicate the number or size of cuts permitted. This information should be included in the electronic attachments, but program staff told us they can no longer access the attachments once the close out inspections are recorded as complete. Staff does not routinely print or file hardcopies of permit documents.

Public Works Has Not Enforced Code Requirements on Watershed Management's Cuts in the Right-of-Way

The Department of Public Works does not permit all right-of-way excavation work performed by the Department of Watershed Management and its contractors, and does not inspect work watershed management performs in-house. Failure to permit and inspect all street cut construction increases the risk of damage caused by sub-standard work or repair.

Public works has not enforced permit and inspection requirements for watershed management's maintenance work. According to both watershed management and public works employees, watershed management does not apply for permits for work performed in-house (without using a contractor), except for sewer rehabilitation work conducted under the department's consent decree. The right-of-way ordinance requires a permit for any construction within the public right-of-way that includes excavation or making an opening in the street, sidewalk or right-of-way. This requirement applies to maintenance work if it involves cutting into the right-of-way. Public works inspectors do not inspect or permit watershed management's in-house work, although the right-of-way ordinance states that permitted work is subject to

inspection. The Department of Watershed Management uses its own inspectors to inspect the water-related portion of the construction; however, public works is responsible for inspecting the right-of-way restoration for those projects.

We recommend the Department of Public Works permit and inspect utility street cuts made by the Department of Watershed Management to accurately track activity in the right-of-way and enforce code requirements.

Recommendations

In order to enforce city code requirements regulating use of the public right-of-way, the Commissioner of Public Works should:

- 1. Consolidate the permitting function to help coordinate regulatory activity.
- Develop detailed policies and procedures that explain the permitting, inspection and recordkeeping requirements for excavation in the public right-of-way. The procedures should:
 - clarify employees' responsibilities for processing permits
 - clarify permit requirements to ensure that street cut activity is permitted
 - provide standard guidelines for conducting preliminary, interim, post-closure and warranty inspections
 - describe a process for complete and easily accessible recordkeeping, including copies of permit applications, permits, inspection results, and the location of metal plates
- 3. Re-prioritize inspectors' workloads to ensure that they are able to complete all required inspections.
- 4. Ensure that repaying is coordinated with street cut work.
- 5. Use all available options, including requiring insurance and bonding, to enforce the right-of-way ordinance.
- 6. Ensure all utility street cuts made by the Department of Watershed Management are permitted and inspected as required by city code.

Appendices

Appendix A Public Works' Response to Audit Recommendations

Report #	# 10.07	Report Title	e: Department of Public Works Regulation of Utility Street Cuts	Date: 04/01/11	
Recomn	Recommendation Responses				
Rec. #1	The Commi activity.	issioner of Pu	ublic Works should consolidate the permitting function to help coordinate permitting	Agree	
	Propo	osed Action:	DPW has begun talks with Watershed Management & internally to consolidate the functions. DPW also requested money in the FY12 budget to create an on-line permitting to issue all DPW permits, including right-of-way permits.		
ı	Implementation	Timeframe:	3 months for consolidation; 9 months for on-line permitting		
ı	Respons	ible Person:	Cotena P. Alexander		
Rec. 2	The Commissioner of Public Works should develop detailed policies and procedures that explain the permitting, inspection and recordkeeping requirements for excavation in the public right-of-way. The procedures should: clarify employees' responsibilities for processing permits clarify permit requirements to ensure that street cut activity is permitted provide standard guidelines for conducting preliminary, interim, post-closure and warranty inspections describe a process for complete and easily accessible recordkeeping, including copies of permit applications, permits, inspection results, and the location of metal plates 				
brief), additional interim and warran synthesized into a comprehensive and permitting, inspection and recordkeed recommended components. Current updated SOP's to assure effective rig		osed Action:	While some SOP's checklists for preliminary and post closure inspections were provided (a brief), additional interim and warranty checklists will be developed. In addition, all SOP synthesized into a comprehensive and cohesive document with detailed policies and proceed permitting, inspection and recordkeeping requirements for excavation in the right-of-way recommended components. Current inspector and supervisor responsibilities and roles we updated SOP's to assure effective right-of-way management. Tracking of metal plates (we just a source of the control of the source of the control of the contro	's and checklists will be edures that explain the y to include all ill be aligned with the while not recorded since	
	Implementation Respons	Timeframe: ible Person:	3-4 weeks to update SOPs Venesia Horne, Right-of-Way Manager		

Rec. *3 The Commissioner of Pu complete all required in:	blic Works should re-prioritize the inspectors' workloads to ensure that they are able to spections.	Agree		
Proposed Action:	The 7 Construction Inspector, Sr., only focus on inspections. Service requests have no duties since October 2010. The 2 Construction Inspectors, Principal and Field Engin requests and create work orders.			
Implementation Timeframe:	Completed			
<u>Responsible Person:</u>	Venesia Horne			
Rec. *4 The Commissioner of Pul	olic Works should ensure that repaving activity is coordinated with street cut work.	Agree		
Proposed Action:	Proposed Action: Currently coordinate major projects by over-laying proposed LARP resurfacing projects and the Utility Company's projects using GIS mapping. Utility Companies are urged to complete their projects prior to the LARP resurfacing. Maintenance right-of-way repairs cannot be coordinated.			
	DPW has implemented resurfacing standards that mirror those of GA DOT in the Right-of-Way manual. The restoration guideline for a street will depend on the age of the street's last resurfacing.			
Implementation Timeframe:	Immediately			
Responsible Person:	Cotena P. Alexander			
Rec. *5 The Commissioner of Pul enforce the right-of-way	olic Works should use all available options, including requiring insurance and bonding, to ordinance.	Agree		
Proposed Action:	Coordinate with Franchise Utilities to obtain insurance and bonding information. Create enforce bonding requirements. Institute the letter of credit requirement for non-franchi system to track and enforce the credit requirements.			
Implementation Timeframe:	6 months			
Responsible Person:	Cotena P. Alexander/Rita Braswell			
	ablic Works should ensure all utility street cuts made by the Department of Watershed end and inspected as required by city code.	Agree		
Proposed Action:	Create a process for permitting all DWM's right-of-way work. Meetings between the two scheduled to create a process that will meet both departments' expectations. The subjected to the same process of inspection all right-of-way permits.			
Implementation Timeframe: Responsible Person:	6 months Cotena P. Alexander			

Appendix B Public Works' Comments



CITY OF ATLANTA

KASIM REED MAYOR 55 TRINITY AVENUE, S.W. SUITE 4700, CITY HALL SOUTH ATLANTA, GEORGIA 30303-3531 TEL, (404) 330-6240 FAX, (404) 658-7552 DEPARTMENT OF PUBLIC WORKS Richard Mendoza

> Dexter C. White Deputy Commissioner

MEMORANDUM

TO:

Leslie Ward, City Auditor

Internal Audit

FROM:

Richard Mendoza, Commissioner

Department of Public Works

DATE:

April 1, 2011

SUBJECT:

Responses to Performance Audit: Department of Utility Street Cuts

In response to the Department of Public Works Regulation of Utility Street Cuts Audit, we have implemented the following measures:

In reference to Page 12, Paragraph 3: "Procedures call for fewer inspections than industry standards",

 Inspections are conducted prior to the start of construction, during construction, and after construction. A checklist for additional interim inspections has been created and is currently being utilized for on-going construction inspections.

In reference to Page 13, paragraph 1: "Inspection results are not documented",

 Inspectors are required to either be present on-site during restoration or request a copy of the compaction test results. All results including on-site documents, photos and compaction tests are currently maintained with the inspector's files.

Please contact my office at (404)330-6240 if you have any questions.

Attachment

 Cotena Alexander, Department of Public Works Venesia Horne, Department of Public Works Stephanie Jackson, Internal Audit