

**Performance Audit 22-04:  
Building Permit and Inspections**

**July 2023**

**City Auditor**

Stan Sewell, CPA, CGFM, CFE

**Senior Auditor**

Pamela Swinney, CPA





# OFFICE OF INTERNAL AUDIT

## Stan Sewell, City Auditor

July 20, 2023

To: Mayor Kelly  
City Council Members

Subject: Building Permit and Inspections (Report #22-04)

Dear Mayor Kelly and City Council Members:

The attached report contains the results of our audit of the Land Development Office's (LDO) Building Permit and Inspection process. Our audit found LDO inspectors are qualified and certified as required by Tennessee State regulations. Overall, permit fees were accurately collected with the exception of building permits with project cost exceeding five hundred thousand dollars. We found re-inspection fees were not collected as required by City Code. We also found 86% of inspections were performed within one day of request. However, we found 33% of the permits reviewed did not receive all required inspections.

In order to address the noted areas for improvement, we recommend LDO implement procedures to identify permit holders that fail to request inspections. We recommend improvements to the inspection policies and procedures to ensure re-inspection fees are collected in accordance with City Code. We also recommend LDO implement review procedures to ensure permit fees are accurate and inspections are properly documented and maintained in the OPENGOV system.

We thank the management and staff of the LDO and the Finance Department for their cooperation and assistance during this audit.

Sincerely,

Stan Sewell, CPA, CGFM, CFE  
City Auditor

Attachment

cc: Audit Committee Members  
Jermaine Freeman, Chief of Staff  
Ryan Ewalt, Chief Operating Officer  
Vickie Haley, Chief Financial Officer  
Julia Bursch, Deputy Chief Operating Officer  
Ross Pitcairn, Public Works Administrator  
Dallas Rucker, Land Development Office Director  
Jim Arnette, Tennessee Local Government Audit [jim.arnette@cot.tn.gov](mailto:jim.arnette@cot.tn.gov)

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## AUDIT PURPOSE

This audit was conducted in accordance with the Office of Internal Audit's 2022 Audit Agenda. The objectives of this audit were to determine if the Land Development Office (LDO):

- Inspects construction work subject to permit requirements;
- Collects construction permit fees in accordance with City Code; and,
- Inspectors maintain certifications as required by State regulations.

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## BACKGROUND

LDO, a division of the Public Works Department, administers and enforces the Tennessee State Building Codes and the City of Chattanooga's zoning ordinances. To ensure the protection of the general public's health and safety, State law mandates the inspection of all building construction for the purpose of enforcing the applicable codes.

The LDO's responsibilities include:

- Reviewing applications for building, electrical, mechanical, plumbing, and gas permits
- Reviewing plans
- Collecting permit fees
- Conducting inspections of building projects
- Issuing certificates of occupancy and certificates of completion
- Maintaining records of permits issued and inspections performed

### Permit Issuance and Inspection Process

LDO uses a cloud-based management software, OPENGOV, to manage the permitting, plans review and inspection process. Intake surveys are used to guide applicants through the customer service portal where they can submit, view and pay fees online. Once an application is submitted, OPENGOV routes the application to the appropriate areas for review and approval.

Each permit application flows electronically from intake through department reviews, automatically assigning steps to the next available employee. When it’s time for an inspection, the applicant uses the online portal to make requests and the system assigns the inspection request to the appropriate inspector.

When inspectors schedule inspections, the system automatically provides a daily route to maximize efficiency. Through the use of an iPad, the inspectors record real-time results of the inspection and have the capability of uploading photos and providing immediate feedback to the applicant.

### Statistical Information

#### Exhibit 1: Revenues for Permits Issued

Revenues	FY21	FY22	FY23*
Building Permits	1,999,498	2,763,254	3,136,833
Electrical Permits	417,931	532,088	504,032
Plumbing Permits	256,390	327,622	298,325
Mechanical Permits	267,525	318,496	305,011
Gas Permits	46,575	50,235	44,501
Permit Issuance Fees	68,930	83,490	64,840
Re-inspection Fees	0	200	2,900
Certificate of Occupancy Fees	38,746	41,042	27,175
<b>Total Revenues</b>	<b>3,095,595</b>	<b>4,116,426</b>	<b>4,383,616</b>
Permits Issued per OpenGov	9,053	10,275	8,758

\*As of June 13, 2023

Source: Oracle Financial

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## FINDINGS AND RECOMMENDATIONS

### Improvements needed to ensure required inspections are performed.

The LDO’s inspection process does not ensure all required inspections are performed. Our review found permits expiring prior to the final inspection, permits that did not receive all necessary inspections, and permits that did not receive any inspections.

We selected a statistical sample of permits issued during the audit scope. The sample included 73 construction type permits. We reviewed the permit records to verify inspections were performed, documented and passed prior to the permit’s expiration date. As depicted in Exhibit 2, twenty-one percent of the 73 permits expired prior to passing all required inspections.

## Exhibit 2: Permits Expired Prior to Required Inspections

Type of Permit	Sample Size	Number Expired	Percent Expired
Building	26	7	27%
Electrical	25	6	24%
Plumbing	11	1	9%
Mechanical	9	1	11%
Gas	2	0	0%
	73	15	21%

### Noncompliance with City Code related to building permits

Overall, seven of the twenty-six building permits reviewed expired prior to the completion of the final inspection. City Code states work authorized by the building permit shall be completed within the timeframe set forth.<sup>1</sup> City Code allows for extensions of time. If requested in writing and approved, the contractor must pay a fee equal to one percent of the contract value. If the permit becomes void, the Owner must reapply for and pay for a new building permit before completing work on the project.<sup>2</sup>

Based on our sample, the LDO has not always enforced the City Code which requires permit owner's to pay additional fees if their projects are not completed within the required timeframe. According to staff, extension fees were waived because contractors were still struggling to obtain construction materials. The lack of supplies caused delays in construction.

#### Recommendation 1:

We recommend LDO enforce the City Code and require permit owners to extend or re-apply for building permits when work is not completed by the permit expiration date.

***Auditee Response:** We concur with the audit finding and recommendation.*

***Estimated Implementation Date:** January 25, 2024*

***Priority Level:** 1*

#### Recommendation 2:

We recommend LDO implement procedures to ensure all required inspections are performed prior to the expiration date of permits.

<sup>1</sup> City Code Chapter 10 Sec. 10-3, 105.5.1 – 105.5.4

<sup>2</sup> City Code Chapter 10 Sec. 10-3, 105.5 – 105.8

**Auditee Response:** We concur with the audit finding and recommendation.

**Estimated Implementation Date:** January 25, 2024

**Priority Level:** 2

**Recommendation 3:**

We recommend LDO obtain City Council approval prior to waiving permit fees.

**Auditee Response:** We concur with the audit finding and recommendation.

**Estimated Implementation Date:** January 25, 2024

**Priority Level:** 1

**Reliance on applicants to request inspections**

Reliance on applicants to request inspections does not effectively ensure inspections are performed. As part of our review, we reviewed each permit record to verify all required<sup>3</sup> inspections were performed and documented in the permit record. Overall, the required inspections were performed when the permit applicant requested inspections. However, we found 33% of the 73 permits in our sample did not receive the necessary inspections. Exhibit 3 provides the exceptions identified in the sample by permit type.

Exhibit 3: Inspection Exceptions by Permit Type

	Building	Electrical	Mechanical	Plumbing	Total
No inspections were performed	3	1			4
No final inspection was performed	3	3			6
Final inspection performed after permit expiration	1	2	1	1	5
Failed inspections were not updated in record	6	1	2		9
<b>Total Exceptions by Permit Type</b>	<b>13</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>24</b>

Source: Compiled by Auditor

The exceptions include permits expiring prior to final inspection; permits with no inspections performed; permits with no final inspection

<sup>3</sup> Required inspections as defined in Section 110.3 of the 2012 International Building Code; Section 107.2 of the 2012 International Plumbing Code; and, Section 107.2 of the 2012 International Mechanical Code.



performed; and permits with failed/partial pass inspections that were not updated in the inspection record.

We performed further analysis on the contractors in the sample that received no inspections or no final inspection. Our review found the contractors typically did not request inspections. The current inspection process relies solely on the permit owner to request inspections through the online portal. Currently, LDO has no procedure in place to ensure construction projects receive inspections if the contractor/owner fails to make inspection requests.

#### **Recommendation 4:**

We recommend LDO implement a procedure to identify permit owners that fail to request inspections.

*Auditee Response: We concur with the audit finding and recommendation.*

*Estimated Implementation Date: January 25, 2024*

*Priority Level: 2*

#### **Recommendation 5:**

We recommend LDO develop and implement a policy that prohibits permit owners, whom fail to request inspections, from obtaining additional permits.

*Auditee Response: We concur with the audit finding and recommendation.*

*Estimated Implementation Date: January 25, 2024*

*Priority Level: 2*

**Simplify re-inspection fees in City Code.**

City Code sections 10-4 and 14-18 are not consistent with regard to re-inspection fees. Additionally, it is unclear if a re-inspection fee should apply at each phase of a building permit inspection (slab, framing, insulation, etc). See Exhibit 4.

**Exhibit 4: Re-inspection fees per City Codes**

Type of Permit	City Code	Description
Building	Chapter 10 - Buildings, Section 10-4 Correction of defects	One inspection after notice of correction at no charge. Each additional inspection required will be charged \$50.
	Chapter 10 - Buildings, Section 10-4, Sec. 109.2.4 Other Fees	Fee for re-inspections (building, plumbing, gas, mechanical, electrical, fire and signs) is \$50.
Electrical	Chapter 14 - Electricity, Sec. 14-18 Correction of defects, reinspections	One re-inspection after the notice of correction at no charge.
		Re-inspection fee of \$25 for the first additional inspection and \$50 for each additional inspection after the two re-inspections.
Gas	Chapter 19 - Gas, Section 19-36 Fees	No reference to Re-inspection fee. See Building Permit Section 109.2.4
Plumbing	Chapter 27 - Plumbing, Section 106.6.2 Fee Schedule	Re-inspection fee of \$50 shall be paid by the installer
Mechanical	Chapter 22.5 Mechanical, Section 106.6.2 Fee Schedule	Re-inspection fee of \$50

We reviewed City Code’s related to re-inspection fees and City policies. We also reviewed all re-inspections performed to determine if the inspectors collected re-inspection fees in accordance with City Code and LDO’s Policy Regarding Building Inspections.

The policies to collect re-inspection fees are not clearly defined and allow for deviations from City Code. The LDO Inspection policy states “Make sure that the builder knows that reinspection fees are a possibility prior to charging a reinspection fee.” The policies do not outline the various rates such as \$25 for 2nd re-inspection of electrical or \$50 for a mechanical re-inspection.

The inspectors interviewed thought they have the discretion to charge (or not charge) the re-inspection fees. As shown in Exhibit 1, no re-inspection fees were collected in fiscal year 2021 and only \$200 was collected during fiscal year 2022. However, our sample found 51% of the permits required re-inspections with 26% of the permits requiring multiple re-inspections.

**Recommendation 6:**

We recommend LDO, with the assistance of the City Attorney, evaluate and update the language regarding re-inspection fees in City Code.

*Auditee Response: We concur with the audit finding and recommendation.*

**Estimated Implementation Date: January 25, 2024**

**Priority Level: 3**

**Recommendation 7:**

We recommend LDO develop and implement a definitive policy related to the collection of re-inspection fees that reflects the requirements of City Code.

*Auditee Response: We concur with the audit finding and recommendation.*

*Estimated Implementation Date: January 25, 2024*

*Priority Level: 2*

**Recommendation 8:**

We recommend LDO collect re-inspection fees in accordance with City Code.

*Auditee Response: We concur with the audit finding and recommendation.*

*Estimated Implementation Date: January 25, 2024*

*Priority Level: 1*

**Management review and updated policies are needed.**

Our review found re-inspections were not performed or documented in 34% of the failed/partial pass inspections. We also noted inspectors did not notate in the inspection record the reason for non-compliance in 10% of the failed/partial pass inspections.

LDO's inspection policies provide inspectors with guidance related to inspection tags that are placed on-site. Since inspectors do not maintain copies of the inspection tags, the information documented in OPENGOV serves as the City's record of inspection. Due to the continuous understaffing of inspectors, staff indicated management has not prioritized reviewing permit and inspection records.

LDO manages building permits and inspection records in the OPENGOV system. Complete inspection records should be retained for 5 years after the issuance of certificate of occupancy or final inspection in accordance with City policies and MTAS records retention schedules. Complete records are needed to document municipal actions concerning violations and for litigation purposes.

**Recommendation 9:**

We recommend LDO update its Inspection Policy to include procedures related to documenting inspection and re-inspection results, including

detailed reasons for fail or partial pass, in the OPENGOV inspection record.

***Auditee Response:** We concur with the audit finding and recommendation.*

***Estimated Implementation Date:** January 25, 2024*

***Priority Level:** 3*

#### **Recommendation 10:**

We recommend LDO inspectors perform and document re-inspections for all failed or partial pass inspections prior to issuing certificate of occupancies, certificate of completions or closing permits.

***Auditee Response:** We concur with the audit finding and recommendation.*

***Estimated Implementation Date:** January 25, 2024*

***Priority Level:** 2*

#### **Recommendation 11:**

We recommend LDO management perform periodic reviews of closed permits to ensure inspection records are properly documented.

***Auditee Response:** We concur with the audit finding and recommendation.*

***Estimated Implementation Date:** January 25, 2024*

***Priority Level:** 3*

### **Permit fees were overcharged.**

The audit identified overcharges due to calculation discrepancies in the OPENGOV system for fixture fees on electrical permits and permit fees on building permits when project cost exceeded \$500,000. Because the calculations for fire and standard plan review fees are based on the building permit fee calculation, the fire and standard plan review fees were also overcharged on commercial building permits.

According to LDO staff, the electrical permit calculation error was identified and corrected in late 2022. However, the system has not been updated to correct the calculations for building permits.

City Code Chapter 10 Section 109.2 adopts the non-refundable fee schedule for all building permits. In accordance with City Code,

building projects with a cost value exceeding \$500,000 shall pay \$1,919.50 for the first \$500,000 plus \$2.25 for each additional thousand or fraction thereof.

Based on our analysis, OPENGOV is charging \$2.30 for each additional thousand. This small variance in rate resulted in an estimated overcharge during 2022 of \$23,600 and \$14,600 in permit fees and plan review fees<sup>4</sup>, respectively.

**Recommendation 12:**

We recommend LDO implement a procedure to periodically verify permit fees are charged accurately in OPENGOV.

*Auditee Response: We concur with the audit finding and recommendation.*

*Estimated Implementation Date: January 25, 2024*

*Priority Level: 2*

**Recommendation 13:**

We recommend LDO, with the assistance of the IT Department, update the permit fee system to correctly calculate the permit fee errors identified.

*Auditee Response: We concur with the audit finding and recommendation.*

*Estimated Implementation Date: January 25, 2024*

*Priority Level: 1*

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<sup>4</sup> Includes building permits issued from January 1, 2022 to December 31, 2022.

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**APPENDIX A: SCOPE, METHODOLOGY AND STANDARDS**

Based on the work performed during the preliminary survey and the assessment of risk, the audit covers the building permit and inspection process from January 1, 2021 to December 31, 2022. When appropriate, the scope was expanded to meet the audit objectives. Source documentation was obtained from Finance Department and the Land Development Office. Original records as well as copies were used as evidence and verified through physical examination.

We reviewed a random statistical sample of construction type (building, electrical, plumbing, mechanical, and gas) permits. We verified permit fees were charged correctly, inspections were performed as required and re-inspection fees were consistently collected in accordance with City Codes. To evaluate the efficiency of the process, we interviewed staff to gain an understanding of the process and reviewed policies and procedures.

The sample size and selection were statistically generated using a desired confidence level of 95 percent, expected error rate of 5 percent, and a desired precision of 5 percent. Statistical sampling was used in order to infer the conclusions of test work performed on a sample of the population from which it was drawn and to obtain estimates of sampling error involved. When appropriate, judgmental sampling was used to improve the overall efficiency of the audit.

To achieve the audit's objectives, reliance was placed on data maintained by the Land Development Office. We assessed the reliability of the data and conducted sufficient tests of the data. Based on these assessments and tests, we concluded the data was sufficiently reliable to be used in meeting the audit's objectives.

We conducted this performance audit from November 2022 to June 2023 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.

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## **APPENDIX B: PRIORITY LEVEL DEFINITIONS**

Priority 1: Critical control weakness exists that exposes the City to a high degree of risk. Noncompliance with federal, state or local law, regulation, statute, charter or ordinance will always be considered a priority 1.

Priority 2: Control weakness exists that exposes the City to a moderate degree of risk.

Priority 3: The opportunity for improved efficiency or reduced exposure to risk exists.

### **City of Chattanooga Fraud, Waste, and Abuse Hotline**

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[www.chattanooga.gov/internal-audit](http://www.chattanooga.gov/internal-audit)