



**A Report to the  
Audit Committee**

**Mayor**  
John Cooper

**Nashville Fire Department  
Director Chief**  
William Swann

**Fire Marshal**  
Al Thomas

**Audit Committee Members**  
Kevin Crumbo  
Thom Druffel  
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Jim Shulman  
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Metropolitan  
Nashville  
Office of  
Internal Audit

# Audit of the Metropolitan Nashville Fire Marshal's Office

September 6, 2019  
*(Revised November 19, 2019)*

# Audit of the Metropolitan Nashville Fire Marshal's Office

## EXECUTIVE SUMMARY

September 6, 2019  
(Revised November 19, 2019)



### Why We Did This Audit

The Metropolitan Nashville Fire Department's Director Chief requested the audit.

### What We Recommend

- Update policies and procedures to ensure consistent performance, documentation, and manager review of inspections.
- Work with other departments to create a complete database of inspectable properties and analyze the population to prioritize inspections.
- Provide inspectors with proper training on information systems to ensure efficient documentation and research for inspections.
- Continue working with ImageTrend to ensure all necessary checklists and standards are included in the application.

## BACKGROUND

The Metropolitan Nashville Fire Marshal's Office, as a unit of the Metropolitan Nashville Fire Department, was established by Metropolitan Nashville Charter § 8.305. The Charter led to the adoption of Metropolitan Nashville Code of Laws Chapter 2.28.120, which defines the authority, duties, and powers of the Fire Marshal. The mission of the Fire Marshal's Office is to protect the Metropolitan Government of Nashville and Davidson County community from the perils of fire, explosions, and other hazardous conditions. The mission is accomplished by conducting all fire and life safety inspections for buildings and other occupancies within the Metropolitan Nashville Government jurisdiction, excluding the City of Goodlettsville.

## OBJECTIVES AND SCOPE

The objectives of this audit were to determine if the Fire Marshal's Office:

- Maintained adequate and reliable documentation of its inspections and life safety reviews according to:
  - Metropolitan Nashville Government Codes of Law,
  - Industry standards adopted by the Metropolitan Nashville Codes of Law,
  - Metropolitan Nashville Board of Fire and Building Code Appeals' Rules and Regulations,
  - Fire Marshal's Office internal policies.
- Followed Metropolitan Nashville Government information technology and fiscal policies.

The scope of the audit was all inspections and plan reviews performed between April 1, 2016, and March 31, 2019. Financial data was reviewed for fiscal years 2019, 2018, and 2017.

## WHAT WE FOUND

The Fire Marshal's Office has dedicated personnel that are passionate about their work and perform their tasks given the right resources. Inspections are scheduled, performed, and documented and retained in ImageTrend record keeping system. However, the following areas for improvement were identified:

- Lack of standard operating procedures leading to inconsistent performance, documentation, and reporting.
- Incomplete database of all inspectable occupancies.
- Lack of access to certain industry standards and tools.
- Lack of information system controls, including access, training, and non-compliance with Metropolitan Nashville Government policies.

## BACKGROUND

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The Nashville Fire Marshal's Office, as a unit of the Metropolitan Nashville Fire Department, was established by Metropolitan Nashville Charter § 8.305. The Charter led to the adoption of Metropolitan Nashville Code of Laws Chapter 2.28.120, which defines the authority, duties, and powers of the Fire Marshal.

The mission of the Fire Marshal's Office is to protect the Metropolitan Government of Nashville and Davidson County community from the perils of fire, explosions, and other hazardous conditions. The mission is accomplished by:

- Conducting all fire and life safety inspections for buildings and other occupancies within the Metropolitan Nashville Government jurisdiction, except for the City of Goodlettsville.
- Investigating fires and explosions.
- Completing pre-construction and renovation plan reviews.
- Issuing permits for certain events.
- Overseeing the annual testing of fire safety and fire protection systems in commercial and other buildings and semi-annual testing of cooking hoods by private contractors hired by property owners,
- Educating citizens on ways to prevent fires and to minimize the impact when they occur.

The Fire Marshal's Office also participates in Metropolitan Nashville Government's development process by enforcing the fire code through construction regulation and building inspections and by providing development standards. The Fire Marshal's Office is just one step in the building permits and occupancy certificates processes. Approval by the Fire Marshal's Office alone does not represent approval of all departments.

This audit is limited to the review of controls and record keeping of fire inspections and life safety reviews performed and also permits issued by the Fire Marshal's Office.

## GOVERNANCE

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The Fire Marshal's Office is governed by the *Metropolitan Nashville Code of Laws Chapter 10.64 – Fire Prevention Code*, which also adopted the 2012 edition of the *International Fire Code* published by the International Code Council and *NFPA 101 – Life Safety Code* published by National Fire Protection Association industry standards by reference.

A nine-member Board of Fire and Building Code Appeals is appointed by the mayor and confirmed by the Metropolitan Nashville Council. The Board is charged with hearing appeals of construction projects rejected by the Director of Codes or the Fire Marshal, holding public hearings prior to the adoption of new construction materials, procedures, or methods of construction, and granting variance or modifying the decisions of Department of Codes and Building Safety or Metropolitan Nashville Fire Department directors.

The Fire Marshal's Office employs 25 personnel, including the Fire Marshal, 2 deputy fire marshals, 4 assistant fire marshals, and 18 fire inspectors. The Fire Marshal heads the office and reports to the Metropolitan Nashville Fire Department's Director Chief.

## INSPECTIONS AND LIFE SAFETY REVIEWS

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The Fire Marshal's Office performs preventive fire inspections and life safety reviews of new building constructions, building renovations, and existing commercial and other occupancy classifications in accordance with *International Fire Code* published by the International Code Council and *NFPA 101 – Life Safety Code* published by National Fire Protection Association. Occupancy refers to the use, or intended use, of a building, or portion of a building, for the shelter or support of persons, animals or property. Life safety systems include fire alarm and monitoring systems, sprinklers and standpipes (suppression), emergency lighting, emergency voice communications, elevator control, and basic building design related to fire ratings, fire extinguishers, exits, and egress routes.

The Fire Marshal's Office inspects 14 types of occupancies ranging from educational and daycare facilities to residential and storage locations. The required frequency of these inspections varies from annually to as needed. For more information on the inspection types and their frequencies, see **Appendix C**.

According to industry standards, fire inspectors must possess excellent communication skills and extensive knowledge about various types of occupancies and their contents, industrial operations, and fire protection provisions of building and fire codes. The breadth of knowledge needed as a fire inspector is determined by the types of facilities that will be inspected, the materials contained in them, and the operations they house. A fire inspector must also be familiar with construction practices, nationally recognized fire safety standards, and agencies that can be consulted for advice, solutions to problems, or corrections for specific hazards. The amount of time it takes to conduct an inspection or plan review depends on the occupancy type as well as the knowledge and experience of the inspector.

The Fire Marshal's Office does not have review oversight of inspection and fire code plans on federal and state office buildings, leased office space in Metropolitan Nashville Government owned buildings, or private buildings within Metropolitan Nashville Government due to respective sovereignties. However, Fire Marshal's Office inspectors will inspect State of Tennessee owned buildings along with State of Tennessee inspectors, if warranted.

The Metropolitan Nashville Code of Laws and the adopted industry standards require that a written inspection report be prepared for each inspection. The amount of detail required in a report depends on the character and purpose of the inspection, but each report should give the reader an understanding of the conditions found and the available corrective actions. When life safety violations are observed, inspectors should research and document the relevant code and standards to ensure accurate references, and inspectors should fully explain to the property owner the reasoning behind the code requirements.

The Fire Marshal's Office uses ImageTrend, a web-based application, as the record keeping system for inspections and related reports. Inspectors have the ability to access property and code information from their tablets during inspections and generally will return to the office to prepare and submit reports to outside parties. The Suppression (firefighters) and Emergency Medical units also have the ability to access fire code and life safety inspections information from ImageTrend.

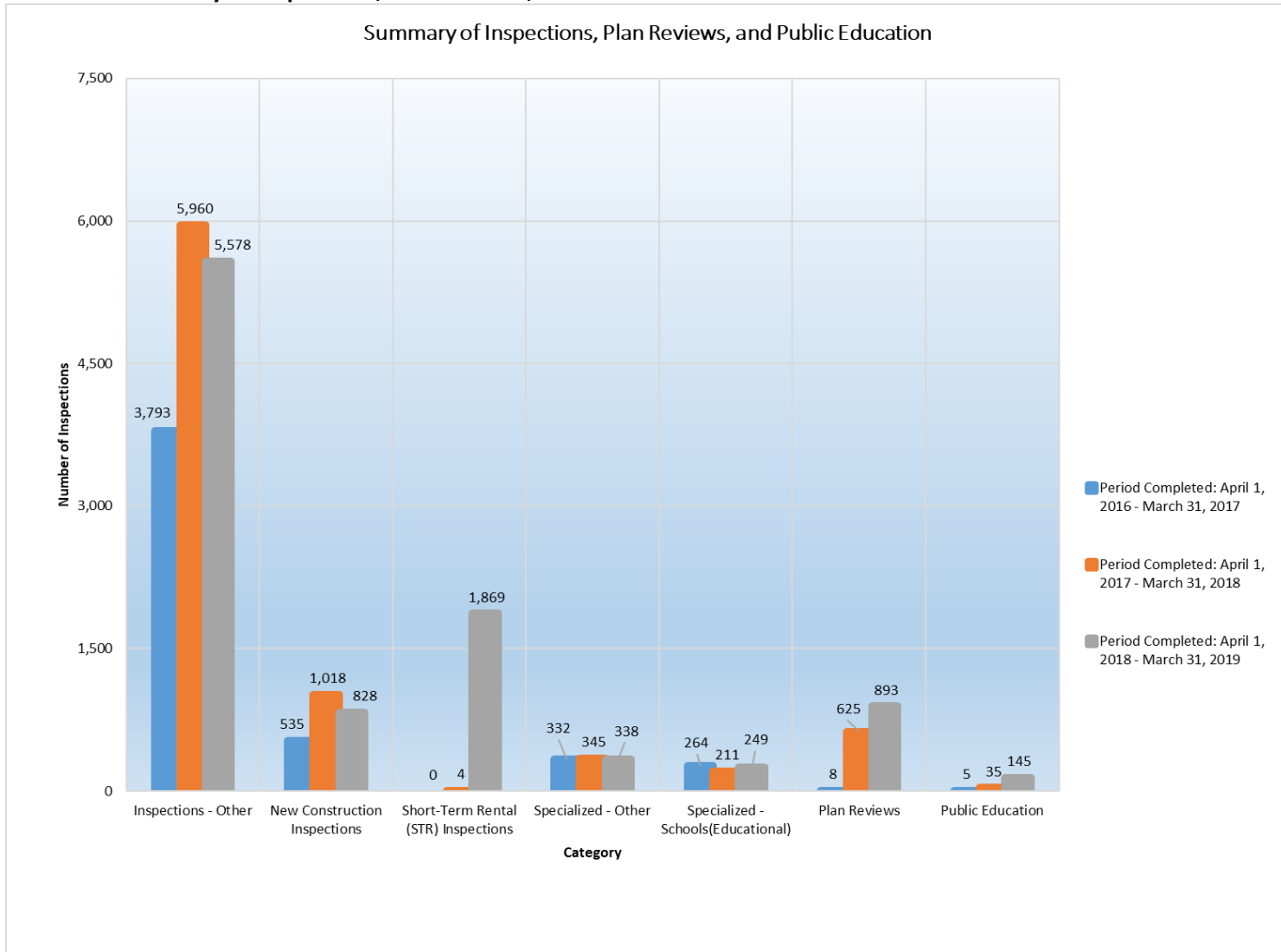
In February 2019, the Fire Marshal's Office implemented the ePermit system. Property owners or their authorized agents can now apply for fire code operational permits online via the ePermits portal. All permit information and documentation are completed and maintained in the CityWorks application system. Staff scheduling is completed using Kronos Workforce TeleStaff.

## OBJECTIVES AND SCOPE

The audit was requested by the Metropolitan Nashville Fire Department’s Director Chief, and the objective was to determine if the Fire Marshal’s Office maintained adequate and reliable documentation of its inspections and life safety reviews according to regulations and standards adopted by the Metropolitan Nashville Code of Laws. The Director Chief’s goal, among other things, is to ensure that Emergency and Suppression units have access to preventive information from the Fire Marshal’s Office that is not only timely but reliable.

The audit reviewed and evaluated fire and life safety inspections, plan reviews, and other activities performed by the Fire Marshal’s Office from April 1, 2016, through March 31, 2019. The Fire Marshal’s Office performed a total of 23,035 inspections or re-inspections, plan reviews, and public education sessions during the period. Exhibit A below shows a summary of inspections and life safety plan reviews completed during the audit period.

**Exhibit A – Summary of Inspections, Plans Review, and Public Education Performed**



Within the Fire and Life Safety Inspections category, short-term rental inspections increased from none at the beginning of the period to almost 1,900 as of March 31, 2019. The increased demand for short term rental inspections and new construction inspections attributed to an overall increase in the Fire and Life Safety Inspections category of 91 percent over the audit period.

The Fire Marshal’s Office also issues fire code operational permits and performs the related inspections for certain events. These events include, but are not limited to, the manufacture, storage, handling, sale or use of any quantity of explosive materials, storage and use of LP-gas in mobile food trucks, or the kindling or maintaining of an open fire. Total permit fee revenues during the three most recent fiscal years are summarized in Exhibit B.

**Exhibit B: Summary of Revenues from Permit Fees**

Permit Type	Fiscal Year Ended		
	June 30, 2019	June 30, 2018	June 30, 2017
Fire Protection	\$58,884	\$50,022	\$52,875
Fire Watch *	-	83,625	56,600
Totals	\$58,884	\$133,647	\$109,475

\* Fire Watch discontinued as of 7/1/2018.

Source: Metropolitan Nashville Government’s EnterpriseOne Financial System

**OBJECTIVE QUESTIONS AND CONCLUSIONS**

*Did the Fire Marshal’s Office have controls in place to perform inspections and life safety reviews while maintaining related records in accordance with applicable Metropolitan Nashville Government legislation, internal policies, and industry standards?*

**Generally, yes.** The Fire Marshal’s Office has dedicated personnel that are passionate about their work and capable of performing their tasks given the right resources. Inspections and plan reviews are scheduled and performed, and the results are documented and retained in the ImageTrend record keeping system. Furthermore, the new on-line permitting system, ePermit, has eliminated control issues noted in reviewing permit information in the prior system. There is a library with various industry publications for use by personnel, and there is an active public education program. However, there were areas identified during the audit that management can improve upon.

For life safety reviews and inspections, standard operating procedures were not in place, and many policies were outdated. No evidence of supervisor review of work performed was recorded. Follow-up inspections were not performed for all failed inspections. A complete database of inspectable properties was not maintained, and the documentation for third-party contractor work was lacking. (See Observation A.)

Control weaknesses were also noted within information systems utilized by the Fire Marshal’s Office. Segregation of duties within ImageTrend was inadequate. ImageTrend did not contain industry checklists and all industry standards for inspectors to use. ImageTrend does not maintain an audit trail to ensure changes are tracked. Inspectors were not fully trained on ImageTrend and did not fully utilize its capabilities. Lastly, the Fire Marshal’s Office did not request and review the annual System and Organization Controls (SOC) report for their third-party software. (See Observation B.)

## AUDIT OBSERVATIONS

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Internal control helps ensure entities achieve important objectives to sustain and improve performance. The Committee of Sponsoring Organizations of the Treadway Commission (COSO), Internal Control – Integrated Framework, enables organizations to effectively and efficiently develop systems of internal control that adapt to changing business and operating environments, mitigate risks to acceptable levels, and support sound decision-making and governance of the organization. See **Appendix B** for a description of the observation *Assessed Risk Rating*.

### ***Observation A – Inspections and Life Safety Reviews Weaknesses***

#### Lack of standard operating procedures and outdated policies

Individual inspectors have their own understanding of how to document an inspection for a similar occupancy type. For example, some inspectors follow office policies requiring an inspection report to be prepared and sent to property owners or their appointed agents only when there are violations. Other inspectors follow codes or industry standards of preparing and sending inspection reports for all inspections. A test of 40 completed inspections, including 25 passed and 15 failed, showed that no inspection reports were prepared for 13 (52 percent) of the 25 that passed. Additionally, no violation notices were prepared and sent to 7 (47 percent) property owners or managers of the 15 failed inspections. Also, out of 16 internal policies reviewed, 11 were dated prior to 2010. The lack of standard operating procedures leads to inconsistent interpretation and application of the code, industry standards, and policies. Policies that are not current may not communicate relevant information to staff, especially those related to the adopted industry standards that are regularly updated.

#### Failure to perform follow-up inspections

Of the 15 failed inspections noted above, follow-up inspections did not occur for 10 facilities. An additional 15 failed school inspections were sampled, and no follow-up or re-inspection occurred for any of the 15 schools. One inspector is assigned to annually perform inspections and re-inspections for about 241 public and private schools within the jurisdiction, and the inspector attributes the lack of time as the reason for not performing follow-up inspections at any schools.

In February 2019, the Fire Marshal began having monthly meetings with the Metropolitan Nashville Public Schools' Facility Planning and Construction Department. These meetings include discussing results and planned follow-up of Metropolitan Nashville Public School inspections. However, these meetings do not take the place of follow-up inspections, only address Metropolitan Nashville Public Schools, and do not alleviate the single school inspector's workload. After the scope period of the audit, additional steps were being taken by the Fire Marshal's Office to repurpose current and new staff to assist with school inspections and re-inspections.

Without follow-up inspections, documented violations may not be corrected resulting in associated danger to life and property. Inspection documentation in ImageTrend may not capture corrected violations, and inaccurate information may be shared with emergency medical and suppression units.

#### Lack of supervisor review on inspections and plan reviews performed

A review of 17 inspection reports showed no evidence of supervisor review on any of the selections. Supervisors attributed this to the lack of time as a result of other competing responsibilities. With the lack of review, management is unable to determine if inspections or re-inspections and plans review are being completed according to the related code or industry standards.

### Incomplete list of inspectable occupancies

The Fire Marshal's Office maintained an incomplete list of inspectable occupancies. Out of 25 completed inspections, 10 (40 percent) were not included on the list of inspectable occupancies provided by management. There is no coordination with other departments to capture data for permits or occupancy certificates issued. This creates the risk that uninspected occupancies may exist. The lack of total inspectable occupancies leads to incomplete assessment and prioritization of high-risk occupancies for inspection, as well as inhibits planning and defining operational goals.

### No records of annual testing results from private fire safety companies

The Fire Marshal's Office does not maintain records of annual life safety testing performed by private fire safety companies. As the office that oversees the code requirement, the Fire Marshal's Office relies on third parties to perform annual testing of fire safety and fire prevention systems and equipment in commercial and other buildings. Additionally, third parties are hired by property owners to perform semi-annual testing of cooking hoods. The Fire Marshal's Office is required to maintain testing records outlining any deficiencies found in existing equipment. Without documented test results, the Fire Marshal's Office is unable to determine if re-testing is required, which could leave the safety of occupants at risk.

#### *Criteria:*

- COSO, Control Activities—Principle 7—The organization identifies risks to the achievement of its objectives across the entity and analyzes risks as a basis for determining how the risks should be managed.
- COSO, Control Activities—Principle 12—The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.
- Metropolitan Nashville Codes of Law § 2.28.120 – *Fire Marshal*
- Metropolitan Nashville Codes of Law § 10.64 – *Fire Prevention Code*
- Metropolitan Board of Fire and Building Codes – *Rules and Regulations*

#### *Assessed Risk Rating:*

**High**

#### *Recommendations for management of the Metropolitan Nashville Fire Marshal Office:*

1. Develop and disseminate standard operating procedures among all levels of staff and management.
2. Ensure policies are regularly reviewed, consistently followed, and the dates of revision or review are noted to ensure alignment with version changes in codes and industry standards.
3. Policies and standard operating procedures should emphasize follow-up inspections and supervisor review of sampled inspections, especially those related to high risk occupancies, to ensure that the reports include relevant and adequate inspection information.
4. Establish a complete list of inspectable occupancies by obtaining and comparing occupancy data from other departments and update the list periodically.
5. Establish a process for gathering and reviewing reports of third-party prevention testing performed. This will enable the Fire Marshal's to schedule follow-up inspections.



## ***Observation B – Information Systems Administration Weaknesses***

### Improper user access to information systems

The information systems functions are not completely segregated from user departments. A user of the ImageTrend application also has administrative access without adequate compensating controls to mitigate the risk associated with the dual role. To mix critical IT duties with user departments increases the risk of errors or fraud.

### Lack of standard industry codes and inspection checklists

The ImageTrend application does not have all the codes published by the National Fire Protection Association, including inspection checklists that are offered by competing applications. Some of the National Fire Protection Association codes are referenced by other industry standard setters as preferred codes. Management attributed this to the inability of the vendor to reach an agreement with the National Fire Protection Association. Inspectors currently must return to the office to research codes before completing reports instead of completing this task in the field. The lack of inspection checklists limits current inspection reports to only noted violations and no information about the condition of other items that were or were not inspected which can be crucial to investigators and insurance companies.

### Missing audit trail of changes to information in ImageTrend

There is no audit trail of changes to information originally entered in ImageTrend. The vendor confirmed the current version of the system, which is still being upgraded by the Fire Marshal's Office, will capture only the user and time an inspection record is opened but not if the record is altered or what is altered. With the lack of audit trail and the segregation issue noted above, it is impossible to determine if information originally entered has been changed.

### Insufficient ImageTrend user training

Staff needs additional training in using the ImageTrend application. Some inspectors stated they were unable to use their tablets during inspections at places where there is no internet access thereby causing them to return to the office to complete and send reports to property owners. However, the IT manager stated the tablets can be used to access the application during inspections even without internet access. This misunderstanding between parties may not exist if proper training on how to use the technology was taking place. Lack of proper training inhibits the use of the application, delays completing inspections, and causes inadequate documentation.

### No request for service provider annual assessment report

The Fire Marshal's Office's IT department did not maintain a copy of annual assessment report of a third-party service provider as part of general controls over information systems. Metropolitan Nashville Government's ITS policy # ISM4 – *External Party Security* requires all vendors providing information technology and systems services to Metropolitan Nashville Government departments and agencies to adhere to security and compliance requirements at the same level required internally. Without reviewing the annual internal control assessment report, the Fire Marshal's Office is unable to determine the security of data being stored by ImageTrend.

*Criteria:*

- COSO, Control Activities—Principle 11—The organization selects and develops general control activities over technology to support the achievement of objectives.
- Metropolitan Nashville Codes of Law § 2.28.120 – *Fire Marshal*
- Metropolitan Nashville Codes of Law § 10.64 – *Fire Prevention Code*
- Metropolitan Board of Fire and Building Codes – *Rules and Regulations*

*Assessed Risk Rating:*

**High** and **Medium**

*Recommendations for management of the Metropolitan Nashville Fire Marshal Office:*

1. Review information systems' access privileges to ensure proper segregation of duties. Other compensating control measures should be established should the user identified maintain administrative access privileges. **(Medium Risk)**
2. Continue to pursue the inclusion of all National Fire Protection Association codes and checklists in ImageTrend while emphasizing the efficiencies to be derived. **(Medium Risk)**
3. Establish a policy and procedural statements to address the limited availability of audit trails in ImageTrend. The policy should state that periodic reviews of report openings dated after finalization will be conducted. Procedures should state the steps to follow if report changes are necessary. **(Medium Risk)**
4. Schedule and provide the additional training necessary for users to be able to maximize the full potential of ImageTrend, especially all inspectors knowing that it is possible to access the application even without internet access. **(Medium Risk)**
5. Ensure a current annual internal control assessment report from ImageTrend and other external information systems service providers is obtained, reviewed in consultation with Metro Chief Information Security Officer, and retained in the office. **(High Risk)**

## **GOVERNMENT AUDITING STANDARDS COMPLIANCE**

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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 observations and conclusions based on our audit objectives.

## **METHODOLOGY**

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To achieve the audit objectives, auditors performed the following steps:

- Reviewed applicable Metropolitan Nashville Government Codes of law and ordinance, Metropolitan Nashville Board of Fire and Building Code Appeals' Rules and Regulations, general Metropolitan Nashville Government policies, and specific Fire Marshal's Office internal policies.
- Reviewed contracts with external service providers and researched competitors' service offerings.
- Interviewed key personnel within the Metropolitan Nashville Fire Marshal's Office and other units within the Metropolitan Nashville Fire Department.
- Reviewed reports of prior audits and reviews performed by Metropolitan Nashville Government and by other jurisdictions.
- Reviewed and analyzed relevant financial data to determine fiscal compliance.
- Evaluated internal controls currently in place.
- Observed an inspection performed at a school.
- Considered risk of fraud, waste, and abuse, and information technology risks.
- Detail-tested sampled inspections and other transactions.

## **AUDIT TEAM**

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Innocent Dargbey, CPA, CMFO - In-Charge Auditor

Lauren Riley, CPA, CIA, ACDA – Quality Assurance

Gina Pruitt, CPA, CITP, CISA, CHFP, CQA, CEMB, CGMA, CRISC, CCSFP, CHCO, Interim Metropolitan Auditor

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

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DAVID BRILEY  
MAYOR

WILL SWANN  
DIRECTOR CHIEF, FIRE

### METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY



NASHVILLE FIRE DEPARTMENT  
P.O. BOX 196332  
NASHVILLE, TN 37219-6332  
(615) 862-5421

September 3, 2019

Ms. Gina Pruitt  
Interim Metropolitan Auditor  
Office on Internal Audit  
404 James Robertson Parkway, Suite 190  
Nashville, TN 37219

RE: Audit of the Metropolitan Nashville Fire Marshal Office

Dear Ms. Gina Pruitt:

This letter acknowledges that the Nashville Fire Department has received the Audit of the Metropolitan Nashville Fire Marshal Office and has reviewed the comments and recommendations.

The Fire Marshal Office will implement the recommended improvements.

It was a pleasure working with you and your team on this project. We specifically thank, and extend our admiration to, Mr. Innocent Dargbey for his extraordinary attention to detail reflected in the audit.

Sincerely,

A handwritten signature in blue ink, appearing to read "W. Swann".

William Swann  
Director-Chief  
Nashville Fire Department

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

We believe that operational management is in a unique position to understand best their operations and may be able to identify more innovative and effective approaches, and we encourage them to do so when providing their response to our recommendations.

Risk	Recommendation	Concurrence and Action Plan	Completion Date
<i>Recommendations for management of the Metropolitan Nashville Fire Marshal's Office to:</i>			
H	<b>A.1</b> Develop and disseminate standard operating procedures among all levels of staff and management.	<b>Accept</b> – The FMO is reviewing the existing policies that were put in place many years ago by previous Fire Marshal and updating those in our Operating Procedures and Guidelines. These will be posted on our Sharepoint site and available to the department.	October 2019
H	<b>A.2</b> Ensure policies are regularly reviewed, consistently followed, and the dates of revision or review are noted to ensure alignment with version changes in codes and industry standards.	<b>Accept</b> – as stated in A.1, the OPG's will be on our Sharepoint site for review. This tracks updates and rescinds to previous versions of OPGs. Deputy and Assistant Fire Marshals will be evaluated on structured reviews of policies and will ensure those policies meet current standards.	October 2019
H	<b>A.3</b> Policies and standard operating procedures should emphasize follow-up inspections and supervisor review of sampled inspections, especially those related to high risk occupancies, to ensure that the reports include relevant and adequate inspection information.	<b>Accept</b> – this will be incorporated into the OPGs. The Fire Marshal Office has included Supervisor Review of Inspections as criteria in evaluations for Deputy Fire Marshal and Assistant Fire Marshal positions.	October 2019
H	<b>A.4</b> Establish a complete list of inspectable occupancies by obtaining and comparing occupancy data from other departments and update the list periodically.	<b>Accept</b> – The Fire Marshal's office has already requested a list of "Establishment Addresses" from CityWorks data management team, managed by Metro IT. This list will allow us to fill in gaps we have in our list of inspectable occupancies. This will be reviewed on a regular basis to ensure the list is current.	August 2019
H	<b>A.5</b> Establish a process for gathering and reviewing reports of third-party prevention testing performed. This will enable the Fire Marshals to schedule follow-up inspections.	<b>Accept</b> - This will be a priority in the next few months. It will necessitate a contract at no cost to Metro with a third-party vendor that will ensure compliance with the code for notification of annual inspection, testing and maintenance of fire protection systems. The process if initiating an RFP and subsequent contract will take six months. The benefit will be to increase compliance, without having to assign FMO staff to the task.	March 2020.

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

Risk	Recommendation	Concurrence and Action Plan	Completion Date
M	<b>B.1</b> Review information systems' access privileges to ensure proper segregation of duties. Other compensating control measures should be established should the user identified maintain administrative access privileges.	<b>Accept</b> – We have completed a review of access changes and are confident that proper controls are in place. We will continue to review permissions and access to our records management programs to ensure control measures are working.	August 2019 and ongoing
M	<b>B.2</b> Continue to pursue the inclusion of all National Fire Protection Association codes and checklists in ImageTrend while emphasizing the efficiencies to be derived.	<b>Accept</b> – We are creating the checklists necessary for each type of occupancy inspected and will incorporate these into the updated version of ImageTrend going forward. This will be for both NFPA and ICC code sets.	October 2019
M	<b>B.3</b> Establish a policy and procedural statements to address the limited availability of audit trails in ImageTrend. The policy should state that periodic reviews of report openings dated after finalization will be conducted. Procedures should state the steps to follow if report changes are necessary.	<b>Accept</b> – This will be included in the OPGs.	October 2019
M	<b>B.4</b> Schedule and provide the additional training necessary for users to be able to maximize the full potential of ImageTrend, especially all inspectors knowing that it is possible to access the application even without internet access.	<b>Accept</b> – Training for outages of internet connectivity are in the planning stages now. Training for the updated version of ImageTrend software will begin September 2019, and will include contingency training for all aspects of field reporting.	January 2020
H	<b>B.5</b> Ensure a current annual internal control assessment report from ImageTrend and other external information systems service providers is obtained, reviewed in consultation with Metro Chief Information Security Officer, and retained in the office.	<b>Accept</b> – This has been accomplished for 2019. The Fire Marshal office will continue to request the annual internal control assessment report from ImageTrend, and submit for review with the Metro Chief Information Security Officer on an annual basis.	August 2019 and Annually

## APPENDIX B – ASSESSED RISK RANKING

Observations identified during the course of the audit are assigned a risk rating, as outlined in the table below. The risk rating is based on the financial, operational, compliance or reputational impact the issue identified has on the Metropolitan Nashville Government. Items deemed “Low Risk” will be considered “Emerging Issues” in the final report and do not require a management response and corrective action plan.

Rating	Financial	Internal Controls	Compliance	Public
<b>HIGH</b>	Large financial impact >\$25,000  Remiss in responsibilities of being a custodian of the public trust	Missing, or inadequate key internal controls	Noncompliance with applicable Federal, state, and local laws, or Metro Nashville Government policies	High probability for negative public trust perception
<b>MEDIUM</b>	Moderate financial impact \$25,000 to \$10,000	Partial controls  Not adequate to identify noncompliance or misappropriation timely	Inconsistent compliance with Federal, state, and local laws, or Metro Nashville Government policies	The potential for negative public trust perception
<b>LOW/ Emerging Issues</b>	Low financial impact <\$10,000	Internal controls in place but not consistently efficient or effective  Implementing / enhancing controls could prevent future problems	Generally complies with Federal, state, and local laws, or Metro Nashville Government policies, but some minor discrepancies exist	Low probability for negative public trust perception
<b>Efficiency Opportunity</b>	An efficiency opportunity is where controls are functioning as intended; however, a modification would make the process more efficient			

## APPENDIX C – CLASSIFICATION OF OCCUPANCY TYPES AND FREQUENCY

Classification of Occupancy Types and the Frequency of Inspections

Occupancy Type	Occupancy Description	Fire Marshal Office Classification	Applicable Industry Code/Standard Adopted by Metro Government	Frequency of Inspections
<b>Assembly</b>	Facilities used for gathering purposes such as worship, eating and drinking, entertainment, and amusement by 50 or more people. Common assembly venues include churches, restaurants, and theaters.	Fire Code and Life Safety Inspections	International Fire Code (IFC)	As set by Fire Marshal or upon complaints
<b>Educational</b>	The educational occupancy class regards facilities used for educational purposes through the 12th grade.	Specialized Inspections	National Fire Protection Association (NFPA) 101: <i>Life Safety Code</i>	Annually
<b>Health Care/Ambulatory Health Care</b>	The health care occupancy class is intended for facilities that provide medical treatment or care, hospitals and nursing homes, and outpatient facilities.	Specialized Inspections	National Fire Protection Association (NFPA) 101: <i>Life Safety Code</i>	Annually
<b>Detention/Correctional</b>	The detention/correctional classification includes incarceration facilities such as prisons.	Fire Code and Life Safety Inspections	International Fire Code (IFC)	Annually
<b>Mercantile</b>	The mercantile classification includes venues that sell and display merchandise. Common examples include shopping centers, department stores, and supermarkets	Fire Code and Life Safety Inspections	International Fire Code (IFC)	Upon initial permit or complaints
<b>Business</b>	This classification includes buildings that conduct business transactions other than selling merchandise, for example lawyers, accountants, and doctors offices, city/town halls, and other office settings.	Fire Code and Life Safety Inspections	International Fire Code (IFC)	Upon initial permit or complaints
<b>Industrial</b>	Any building or portion of a building used for the manufacture, assembly, repair, or other processing of goods or commodities by a variety of operations.	Specialized Inspections	International Fire Code (IFC)	Upon initial permit or complaints
<b>Storage</b>	Buildings or structures used to store or shelter goods, merchandise, and products, for example, warehouses, freight terminals, aircraft hangers, and parking garages.	Fire Code and Life Safety Inspections	International Fire Code (IFC)	Upon initial permit or complaints
<b>Hotels</b>	Buildings or facilities that provide sleeping accommodation for more than 16 people, including motels and inns.	Fire Code and Life Safety Inspections	International Fire Code (IFC)	As set by Fire Marshal or complaints
<b>Lodging or Rooming Houses</b>	Buildings or facilities that provide sleeping accommodation for 16 or fewer people on either a transient or permanent basis, for example, guest houses, bed & breakfast, small inns and motels, and One and Two Family dwellings converted to short-term rentals.	Fire Code and Life Safety Inspections	International Fire Code (IFC)	As set by Fire Marshal or complaints
<b>Residential</b>	Includes Apartment buildings and other Multi-Family Dwellings (excludes Health Care, Ambulatory Health Care, Detention/Correctional)	Fire Code and Life Safety Inspections	International Fire Code (IFC)	As set by Fire Marshal *** Short Term Rentals are inspected upon permits or complaints.
<b>Residential Board and Care</b>	Provide lodging, boarding, and personal care services for 4 or more unrelated residents, for example group homes for the physically and mentally disabled and halfway houses for the rehabilitated alcoholics.	Specialized Inspections	National Fire Protection Association (NFPA) 101: <i>Life Safety Code</i>	Annually
<b>Day-Care Facilities</b>	House 12 or more clients, for less than 24 hours a day, with care provided by persons other than relatives or guardians.	Specialized Inspections	National Fire Protection Association (NFPA) 101: <i>Life Safety Code</i>	Annually
<b>Life Safety Plans Review</b>	Plan reviewers review building construction plans, including sprinkler plans where applicable in compliance with codes related to fire prevention and enforcement. Also, inspectors perform construction site inspections before an Occupancy Certificate are issued by the Metro Planning and Developmental group.	Fire/Sprinkler Plans Review	International Fire Code (IFC)/National Fire Protection Association (NFPA) 101: <i>Life Safety Code</i>	New Constructions/Re-modellings

Source: *International Fire Code (IFC 2015); National Fire Protection Association (NFPA) 101 - Life Safety Code; Fire Marshal Office Policies*