



Date: February 7, 2024

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From: Lauren Sundararajan, CFE, Internal Audit Manager *LS*

Copies to: Internal Audit Committee
William Weber, Assistant City Manager
John S. Brazina, P.E., Director of Transportation and Engineering

Subject: **Sidewalk Safety Program Audit**

Attached is the Sidewalk Safety Program audit report. The primary objectives of this performance audit were to assess the effectiveness and efficiency of the program's performance, ensure an adequate internal control structure is in place, and determine adherence to applicable regulatory and legislative requirements. This audit was conducted in accordance with the current audit agenda.

We would like to thank the management and staff of the Department of Transportation and Engineering for their assistance and cooperation during this audit.

If you need any further information, please contact me.

Attachment

Sidewalk Safety Program Audit

February 2024



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Executive Summary

Internal Audit (IA) conducted a performance audit of the Sidewalk Safety Program (SSP) within the Department of Transportation and Engineering (DOT). The primary objectives of this audit were to assess the effectiveness and efficiency of the program's performance, ensure an adequate internal control structure is in place, and determine adherence to applicable regulatory and legislative requirements.

The audit revealed several opportunities for strengthening internal controls over the sidewalk repair process. For instance, IA determined that many of SSP's policies and procedures documents are out of date. To maximize program efficiency and management consistency, these documents should be updated. In a similar vein, SSP has not developed documentation containing sidewalk repair guidelines from the Americans with Disabilities Act (ADA), which is essential in keeping City sidewalks hazard-free; therefore, documentation containing specific ADA guidelines for sidewalk repair should be developed.

IA found that the process for sidewalk inspections is not streamlined. Inspectors are responsible for carrying paper files despite having City-issued computers, traveling long distances between assignment locations, and using several different computer programs daily. As such, digitizing paperwork and centralizing information into one software program, as well as grouping inspectors' assignments by geographical location, would create a more efficient process and reduce strain on inspectors. Additionally, no performance metrics currently exist for inspectors; instituting quotas and improving data management would help SSP monitor the quality of inspectors' work.

IA also determined that communication between SSP and other departments could be improved. Communication between SSP, Urban Forestry, and the Department of Public Services (DPS) is not tracked, which impacts sidewalk contractors and inspectors' ability to complete sidewalk repairs and inspections. Thus, monitoring interdepartmental communication is essential for an efficient operation.

To strengthen the internal controls over SSP, the following recommendations should be incorporated: update policies and procedures, develop ADA documentation, digitize and centralize inspector workpapers, improve data management, institute performance metrics for inspectors, and monitor interdepartmental communication. Implementing these recommendations will ensure management that the proper internal controls have been established in the sidewalk repair process to increase efficiency.

I. Introduction

Background

Sidewalks are one of the City's greatest assets and important to its infrastructure. They play a vital role in neighborhoods and serve as a conduit for pedestrian movement and access. Thus, it is vital that sidewalks are safe, accessible, and well-maintained.

Property owners and the City of Cincinnati (City) share a joint responsibility for maintaining the sidewalks. Sidewalks are part of the public right-of-way (ROW), and property owners are asked to maintain the space in good condition and free from nuisance.¹ However, the City is responsible for repairing sidewalks at corners, curb ramps, and bus stops.

SSP is responsible for assessing the risk level of sidewalk damage, working with contractors to repair damaged walks, and contacting property owners about repairs. SSP relies on constituents to report sidewalks in need of repairs.² When the repair information is received, it is recorded into the Citizen Service Request (CSR) system with details about the extent of the damage, location, and neighborhood. The CSR is first processed by DPS to determine if a temporary repair is necessary. After DPS has assessed the condition, SSP is responsible for inspecting the sidewalk and determining a resolution.³

When the sidewalk is adjacent to a privately owned property, the property owner is responsible for making and paying for repairs to the sidewalk.⁴ Depending on whether the sidewalk is passable, SSP classifies it as condemnable or severely condemned, then sends a notification letter to the property owner. If the property owner does not complete the work by the SSP's established deadline, the City will complete the work instead via contractors, and the property owner will be billed, or the balance is assessed to their property taxes.^{5,6}

SSP prepares resolutions of necessity and ordinances for City Council to review. SSP develops two types of resolutions: emergency repair and neighborhood program. Emergency repair resolutions include locations where repairs are complete or notifications are already sent out, and neighborhood program resolutions are passed before notices to repair are sent out. Ordinances, on the other hand, are passed to authorize assessments of locations where homeowners' balances have not been paid in full.

¹ Ohio Revised Code (ORC) Chapter 729 and Cincinnati Municipal Code (CMC) 721-147.

² Damaged sidewalks are reported through the City's app, www.311cincy.com, by phone, or by email.

³ SSP inspectors evaluate the sidewalk in accordance with condemnation guidelines approved by City Council. These guidelines were developed in accordance with the American Disabilities Act (ADA), legal precedents for liability, condemning criteria from other cities, and community standards.

⁴ <https://www.cincinnati-oh.gov/dote/street-sidewalk-rehab/sidewalk-safety-program/responsibilities-maintenance/>

⁵ <https://www.cincinnati-oh.gov/dote/street-sidewalk-rehab/sidewalk-safety-program/rehabilitation-payment-options/>

⁶ If the homeowner is not in agreement with the inspector's findings after receiving the Notice to Repair letter, an appeal can be made to the Board of Appeals through the SSP.

Audit Selection

IA conducted this audit in accordance with the Audit Work Plan.

Audit Objectives

The primary objectives of this audit were to assess the effectiveness and efficiency of the program's performance, ensure an adequate internal control structure is in place, and determine adherence to applicable regulatory and legislative requirements.

Audit Scope and Methodology

In order to achieve the audit objectives, IA interviewed appropriate staff, observed the sidewalk repair process, and obtained key program data. The data collected was from fiscal years (FY) 2019 through 2023.

Statement of Auditing Standards

As required by the Cincinnati Administrative Code Article II §15, this audit was conducted in accordance with the Generally Accepted Government Auditing Standards (GAGAS), except for standard 5.60 pertaining to external peer review requirements. This exception did not have a material effect on the audit.

IA continues to conduct internal quality reviews to assure conformance with applicable GAGAS. IA performed the fieldwork between October of 2023 and January of 2024.

Commendations

IA commends the staff of the Department of Transportation and Engineering for their cooperation throughout the audit.

II. Audit Findings and Recommendations

The procedural guide does not reflect current SSP operations.

In order for a program to run efficiently and effectively, policy and procedure documents delineating job functions, program goals, and action plans must be created and updated regularly. Thus, IA requested the program's policies and procedures and was provided with several documents, including but not limited to program guidelines, employee position descriptions, a 55-step process guide, and a "cheat sheet" for communicating with citizens.

IA found that many of these documents are outdated, as some of the positions listed no longer exist and SSP no longer runs neighborhood-wide sidewalk programs; for example, the 55-step process guide contains outdated position titles and terminology.⁷ Thus, it is essential that procedural documents are consolidated and updated to maintain management consistency and program efficiency, as searching through a multitude of documents to determine SSP's guidelines and roles is inefficient. Documenting changes to SSP's policies and procedures is crucial in communicating these controls to third-party reviewers and employees alike.

Recommendation 1: Update and consolidate all documents on file to help achieve the SSP's objectives and reflect current SSP operations.

Department Response: Agree. The department's SSP staff will compile, review, and update our existing documents and procedures. SSP will consolidate into the creation of a Program Manual to be completed by July 1, 2025.

The SSP has not developed adequate documentation to ensure ADA compliance for sidewalks.

Citizens with disabilities rely on the federal Americans with Disabilities Act (ADA) guidelines to keep sidewalks hazard-free and passable by wheelchair, stroller, or crutches. Thus, it is imperative that SSP creates and updates documents on ADA standards to ensure that contractors pour sidewalks according to ADA specifications. However, SSP could not provide IA with program documents containing information on the ADA compliance of sidewalks.

Currently, SSP is using ADA standards for building inspectors, which state that clearance width must be 36 inches, but no specific documentation exists for sidewalks. IA found that this is inconsistent with the U.S. Access Board's recently published general requirement for a minimum clearance width of 48 inches, which is the minimum width the Access Board has deemed accessible for persons with disabilities.⁸ As such, SSP's documentation should be updated to reflect all ADA requirements so that inspectors are aware of appropriate ADA procedure when inspecting repairs.

Recommendation 2: Develop a document for sidewalk inspectors containing specific guidelines for sidewalk repair based on current ADA requirements.

⁷ In the 55-step program guide, the positions that are now called "Civil Engineering Technician" and "Senior Engineering Technician" are referred to as "Sidewalk Clerk" and "Sidewalk Manager." Similarly, SIDSAM, the data management software, is referred to as "the Automated System", and the name of the program is listed as "Sidewalk Improvement Program" instead of "Sidewalk Safety Program."

⁸ <https://www.federalregister.gov/documents/2023/08/08/2023-16149/accessibility-guidelines-for-pedestrian-facilities-in-the-public-right-of-way>, R303.4

Department Response: Agree. Continue to meet ADA compliant city standard curb ramps, sidewalk cross slope, sidewalk width and elevation. SSP management staff will generate an ADA checklist document that sidewalk inspectors can use to guide sidewalk repairs to be completed by December 31, 2024.

The process for sidewalk inspections is not streamlined.

IA shadowed SSP's sidewalk inspectors on the City's East and West sides and observed inefficiencies in the daily assignment process. For instance, IA observed an inspector being assigned several locations in Evanston, but in between those assignments, the inspector was instructed to monitor a sidewalk pour in Bond Hill. Thus, SSP may use their resources more efficiently if daily assignments are grouped by geographical proximity to one another, instead of having inspectors drive back and forth between assignment locations.

IA found that sidewalk inspectors are responsible for carrying around point-out sheets, permits, Master Copies, and other files despite having a City-issued computer, and must turn in their workpapers manually. Thus, going paperless would help increase efficiency if inspectors are able to turn in their work online.

Additionally, because inspectors use several different computer programs daily, as well as paper printouts, the process for addressing assignments in a timely way is ineffective. The large number of software programs introduced to the SSP over the years, as opposed to one centralized program, further complicates the process.

Recommendation 3: Group inspectors' daily assignments by geographical proximity. Additionally, determine whether it is possible to digitize all paperwork and centralize all information into one software program.

Department Response: Agree. The department already assigns inspectors by geographic areas. Each inspector works in those areas for both CSR's and for SSP Contractor initiated work. However, the nature of private contractor's permit inspection means we are required to be on site on an on-call basis, which will pull an inspector from other work.

SSP staff will work with internal DOTE IT staff and OPDA to determine the feasibility of centralizing existing various software utilized by December 31, 2024.

Performance metrics for inspectors are not readily available or analyzed to identify trends.

Performance metrics are essential to the efficient operation of a program, as they ensure that employees are meeting program goals to the best of their abilities. Currently, supervisors in SSP delegate responsibilities to inspectors, but do not set goals or quotas for them to meet. Additionally, SSP does not record evaluations of employees' work separately from their performance reviews, which may lead to inspectors not being held accountable for their internal control responsibilities. Thus, evaluations of sidewalk inspectors' work should be quantified, recorded, and tracked separately from an employee's performance review.

Similarly, when SSP provided IA with sidewalk repair data from FY 2019 to 2023, the column meant to record which inspectors addressed the CSRs was left mostly blank. This prevents

third-party reviewers from analyzing inspector productivity and responsibility for each site, which is essential to ensure that SSP is meeting its program goals.

Recommendation 4: Institute quotas and improve data management to monitor the quality and quantity of inspectors' work more accurately.

Department Response: Agree. The SSP Inspection Supervisor will create goals for inspection to institute deadlines for completion of the CSR inspection work and the completion of permit close out within 3 business days after final restoration. Inspection staff will check in daily with their supervisor for call-in assignments in addition to known daily work assignments. SSP will institute an Inspector Daily Report (IDR) policy within Q1 of CY24.

SSP does not have an extension policy for property owners who have not completed sidewalk work.

SSP gives property owners a 90-day time limit to repair sidewalks before the work is done by the City. However, IA found that after the 90 days have elapsed, SSP frequently allows property owners to extend repair deadlines if they have not completed the sidewalk work. As such, sidewalk repairs may be prolonged or not completed in a reasonable amount of time, which may pose a safety risk to citizens. Thus, a program-wide extension policy is essential to ensure that SSP develops a reasonable timeframe for homeowner-completed sidewalk repair.

Recommendation 5: Develop an extension policy for sidewalk work completed by property owners.

Department Response: Agree. SSP will implement an extension policy within Q1 of CY24 and will include that as part of our program manual.

Extension information is not stored in exportable data columns.

IA attempted to extract data from SIDSAM, SSP's repair data management software, to determine which property owners have been given extensions to complete sidewalk work. However, extension information in SIDSAM is unavailable for analysis or exporting because no field exists in SIDSAM to capture this information. The status of the sidewalk work is changed to "Extension/Hold" in SIDSAM, but SSP does not keep track of property owners who are given extensions. As such, it is virtually impossible for a third-party reviewer to extract key data on extension information without manually toggling between multiple datasets and documents.

Recommendation 6: Work with IT to determine whether it is possible to design a field in SIDSAM for extension dates.

Department Response: Agree. SSP has confirmed with IT that the existing application database allows for extension dates to be captured. SSP will implement extension dates within the Q1 of CY24.

A large proportion of citizen service requests (CSRs) for sidewalk repair remain open for extended periods of time.



Figure 1: Sidewalk in Evanston, listed in the open CSR system as impassable.

IA was granted access to a dataset containing all incomplete sidewalk repair-related CSRs. As of December 2023, 319 CSRs were open, 53 (17%) of which were received in 2022. Of those 53, 12 CSRs (22.6%) were a year or more out of date from their planned completion date. IA found that this delay is partially due to the SSP's tree-related emergency work: tree issues often leave sidewalks removed for several weeks, as the City employs one contractor to grind tree stumps, and sidewalk work cannot be done until the tree work is completed. Thus, inspections of tree work and other emergency work take priority over addressing CSRs, and many customer service requests go unaddressed for extended periods of time (See Figure 1).

As such, sidewalks are not being repaired in a timely fashion and may pose tripping risks to pedestrians.

Recommendation 7: SSP should develop an action plan to address open CSRs.

Department Response: Agree. SSP management staff will develop an action plan by the end of the Q2 of CY24 to address the current open CSRs. This may include increasing the number of assigned staff and the number of dedicated staff hours focused on closing out the backlog of CSRs. Action plans will be reevaluated on an annual basis.

CSRs are being closed by both SSP staff and SSP management.

During the course of the audit, IA determined that one employee in SSP is performing sidewalk inspector duties, but also closing out their own CSRs in-office, whereas other sidewalk inspectors rely on their supervisor to close out CSRs. This lack of separation of duties can prevent unintentional errors from being detected and corrected, and thus it is essential that SSP are closed out by SSP management.

Recommendation 8: Management should review and close out all CSRs inspected by SSP staff, rather than having employees close out their own CSRs.

Department Response: Agree. SSP staff will establish internal procedures within Q1 of CY24 which will provide for greater checks and balances. Procedures will ensure a separation of duties associated with CSR closeout and inspection.

SSP no longer performs preventative maintenance on City sidewalks.

In the past, SSP performed preventative maintenance on City sidewalks as well as emergency repairs. However, in recent years, SSP has abandoned preventative maintenance programs that

target large-scale repair projects in favor of small-scale neighborhood projects. Due to this, SSP's process is almost entirely complaint-driven and does not identify sidewalks that could pose hazardous conditions in the future unless a citizen submits a service request. As such, reinstating large-scale neighborhood programs would serve as a proactive approach to sidewalk safety rather than solely reacting to individual complaints.

Recommendation 9: Develop a methodology to ensure all City sidewalks are routinely inspected.

Department Response: Agree. Unfortunately, SSP does not have the staffing capacity to routinely inspect all 1,800 miles of city sidewalks. However, SSP will work with a third-party consultant within FY26 to evaluate the feasibility of performing such an inspection to get a baseline of the overall asset conditions. Additional capital funding would be required for any such outsourcing.

SSP's communication with other departments could be improved.

SSP frequently works in tandem with DPS, which is responsible for placing temporary asphalt on emergency repairs, and Urban Forestry, which is responsible for removing tree roots under damaged sidewalk blocks. IA found that communication between DPS and SSP could improve, especially during preliminary inspections: the timespan between DPS's original inspection of the site and DOTE's inspection can range from a few days to a few months, and CSRs are occasionally mislabeled, which can cause confusion when DPS processes the request. Further, DPS and SSP communicate via email; however, these emails are not stored or tracked. As such, CSRs may stay open for months at a time.

The same is true for Urban Forestry's communication with SSP. Urban Forestry oversees the long-term care of the City's urban tree canopy and tree maintenance within the public right-of-way.⁹ If a street tree's root system causes sidewalk damage, a City contractor must remove the sidewalk and any roots that measure under 4 inches in diameter. If the roots are larger than 4 inches, the contractor must contact Urban Forestry, who will either give the contractor instructions for root removal, or determine the tree to be a hazard and remove it altogether.



Figure 2: Sidewalk removed in Covedale, with a street tree marked for removal.

When an Urban Forestry contractor prepares to take out a sidewalk due to root damage (see Figure 2 above), a courtesy email is sent to Urban Forestry to inform them that a forester will be contacted before the contractor begins repair work. However, this contact between the contractor and Urban Forestry is not monitored, and neither is communication between Urban Forestry and SSP. It is essential to monitor these communications, as SSP's contractors cannot

⁹ <https://www.cincinnati-oh.gov/cincyparks/natural-resources/urban-forestrystreet-trees/>

complete sidewalk repairs if they are unaware of whether Urban Forestry has removed tree roots.

Recommendation 10: Monitor and track all communication between SSP and other departments, as well as other departments' communication with SSP contractors.

Department Response: Agree. SSP management staff will coordinate with DPS to ensure their original inspection includes detailed information associated with the request. This will allow SSP to appropriately access the sidewalk condition in a timely manner. DOTE has and will continue to work with the CSR team to minimize mislabeling of CSR's.

SSP inspectors will add any communication with other departments to a daily report.

SSP will establish a new email distribution list accessible to all team members for communication between individual departments.

SSP will work with Urban Forestry to improve communications which will minimize coordination conflicts, improve implementation logistics and reduce time until sidewalk completion. These items in Recommendation 10 will be accomplished by December 31, 2024.

III. Conclusion

The Sidewalk Safety Program is responsible for a variety of maintenance services to ensure sidewalks are passable and free of hazards. The audit revealed several opportunities for improvement over the sidewalk repair process.

To strengthen the internal controls over SSP, the following recommendations should be incorporated: update policies and procedures, develop ADA documentation, digitize and centralize inspector workpapers, improve data management, institute performance metrics for inspectors, and monitor interdepartmental communication. Implementing these recommendations will ensure management that the proper internal controls have been established in the sidewalk repair process to increase efficiency.

IV. Department of Transportation and Engineering Response

Recommendation 1: Update and consolidate all documents on file to help achieve the SSP's objectives and reflect current SSP operations.

Department Response: Agree. The department's SSP staff will compile, review, and update our existing documents and procedures. SSP will consolidate into the creation of a Program Manual to be completed by July 1, 2025.

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