

ENGINEERING PERMIT PROCESS ASSESSMENT

Exit Conference Date: December 12, 2025

Release Date: February 27, 2026

Report No. 26-01

City of Orlando Office of Audit Services and Management Support

George J. McGowan, CPA
Director

Co-source Partner
CRI Advisors



MEMORANDUM OF TRANSMITTAL



To: Corey Knight, Public Works Director

From: George J. McGowan, CPA
Director, Office of Audit Services and Management Support

Dates: Exit Conference: December 12, 2025
Release: February 27, 2026

Subject: Engineering Permit Process Assessment (Report No. 26-01)

The Office of Audit Services and Management Support, with major assistance from our co-source partner CRI Advisors, conducted a review of the Engineering Permit Process. Our primary objective was to assess the Engineering Division's role in the permit review process and to develop and provide recommendations for improvement and best practices considerations based on benchmarking of other Florida cities and counties permitting review practices.

We identified several challenges impacting on the efficiency and timeliness of processing Engineering Permits. The current process lacks prioritization by permit complexity and so highly skilled Engineering Division resources are not allocated optimally. Instances of manual data entry and non-standardized review tools create additional workload and delays in the process. We believe that these issues can be rectified through improved staffing strategies, tiered review processes, enhanced technology, standardized tools, and applicant support.

This work does not rise to the level of an audit and is considered an advisory consulting engagement. All information included in this report is offered for consideration by City management and has been reviewed by the involved Engineering Division and Public Works staff. This staff has offered responses to the observations and any associated recommendations.

We appreciate the cooperation and courtesies extended by the staff of the Public Works Department and the other departments consulted during this review.

GJM

c:

The Honorable Buddy Dyer, Mayor
Jody Litchford, Deputy City Attorney
F.J. Flynn, Chief Administrative Officer
Brooke M. Rimmer-Bonnett, Deputy Chief Administrative Officer
Lillian Scott-Payne, Economic Development Director
Natthaphon Prapinpongsonone, City Engineer
Marjorie Briones, Public Works Optimization & Systems Division Manager



City of Orlando

Engineering Permit Process Assessment

December 12, 2025



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December 12, 2025

Mr. George McGowan
Director, Office of Audit Services and Management Support
400 South Orange Avenue
Orlando, FL 32801

Dear Mr. McGowan:

Pursuant to our engagement letter dated January 21, 2025, we hereby submit our recommendations for improvement of the Engineering Permitting function.

Our report is organized as follows:

Table with 2 columns: Section Name, Description. Rows include Executive Summary, Background, Benchmarking, Objectives and Approach, and Observations Matrix.

We would like to thank all those involved in assisting us in connection with our assessment of the Engineering Permitting function.

Respectfully Submitted,

CRI Advisors, LLC



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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Overview

Permitting is a critical function for municipalities; an effective permitting process supports public safety, protects infrastructure, and promotes sustainable growth and environmental conservation. Permitting plays a vital role in economic development by enabling construction and investment to proceed in a timely manner. When the process is efficient and predictable, it fosters confidence and encourages investment in the City. Conversely, delays or inefficiencies in permitting can increase project costs, discourage development, and negatively impact the City's residents.

The permitting function is administered by Permitting Services Division which is organized under the Economic Development. Although Permitting Services is functional owner of the process there is significant collaboration with other groups to provide a thorough and comprehensive review addressing technical, public safety, and environmental priorities and requirements.

Effective Engineering review is essential to ensure that proposed projects meet technical and infrastructure standards necessary for public safety and environmental protection. At the City, Engineering Division Reviewers evaluate critical elements such as stormwater management, roadway design, utility connections, grading, and compliance with the City's Engineering Standards Manual (ESM). These reviews help prevent flooding, structural failures, and other hazards that could result from inadequate design or construction practices.

Engineering expertise also ensures that development aligns with long-term infrastructure plans and regulatory requirements, reducing future maintenance costs and safeguarding public resources.

Objective

Our primary objective was to assess the Engineering Division's role in the permit review process and to develop and provide recommendations for improvement and best practices considerations based on benchmarking of other Florida cities and counties permitting review practices.

Observations

We identified several challenges impacting efficiency and timeliness. Engineering Division delayed permit review. The current process lacks prioritization by permit complexity and so highly-skilled Engineering Division resources are not allocated optimally. Manual data entry and non-standardized review tools create additional workload and delays in the process. Addressing these issues through improved staffing strategies, tiered review processes, enhanced technology, standardized tools, and applicant support will create efficiency, reduce costs, and improve resident satisfaction.

Refer to the Observations Matrix for a fuller exploration of each observation and corresponding recommendation.

BACKGROUND

BACKGROUND

Overview

The Permitting Services Division (Permitting) administers the process for permit application submission and review, collection of fees, issuance, and related inspections. Effective administration of the permit function is interdisciplinary and requires review and input from the several functional areas:

- Economic Development – Business Development Division, Code Enforcement Division, City Planning Division
- Transportation
- Public Works – Engineering Division, Water Reclamation Division
- Public Safety – Fire Department
- Information Technology

City Ordinance section 65.600 requires Engineering permits for a variety of construction and repairs including driveways, sidewalks, roadways, parking lots, grading, swimming pools. Per City Ordinance, Engineering permits are obtained from the City Engineer.

Per City Ordinance section 65.601 – 65.605 the fee paid on (commercial and residential) Engineering permits shall be established by City Council Resolution the most recent of which became effective on April 20, 2023.

The Engineering Division primarily reviews the following types of permits:

Permit Type	Scope
Engineering (ENG)	Site plan design and stormwater management
Right of Way (ROW)	Utilization and restoration of the public right of way
Flood Plain (FLO)	Safety and environmental management

The City uses two primary applications for permit review and issuance:

- INFOR – create and issue permits
- ProjectDox – store plan documents, route plans to Reviewers, record comments on permit applications

The permit review and issuance process is initiated by an applicant submitting a permit application, uploading project plans, and submitting a deposit fee. Permit Technicians perform an intake review for the completeness and manually route permit applications to functional groups for review in INFOR. Engineering Permit Reviewers evaluate applications for completeness, accuracy and compliance with the City’s ESM which follows Florida Building Code. If there are any deficiencies or comments, these are recorded in ProjectDox and the permit application is not approved. After all Permit Reviewers complete their assessment, the permit application status is communicated to the applicant with any comments to be resolved. The applicant can make revisions and upload additional support for their permit application via ProjectDox which initiates a new review cycle for any Permit Reviewers with open comments. Once all comments have been satisfied the permit application can be approved and permits issued. Refer to Exhibit A for permit application and issuance process diagrams.

Staffing

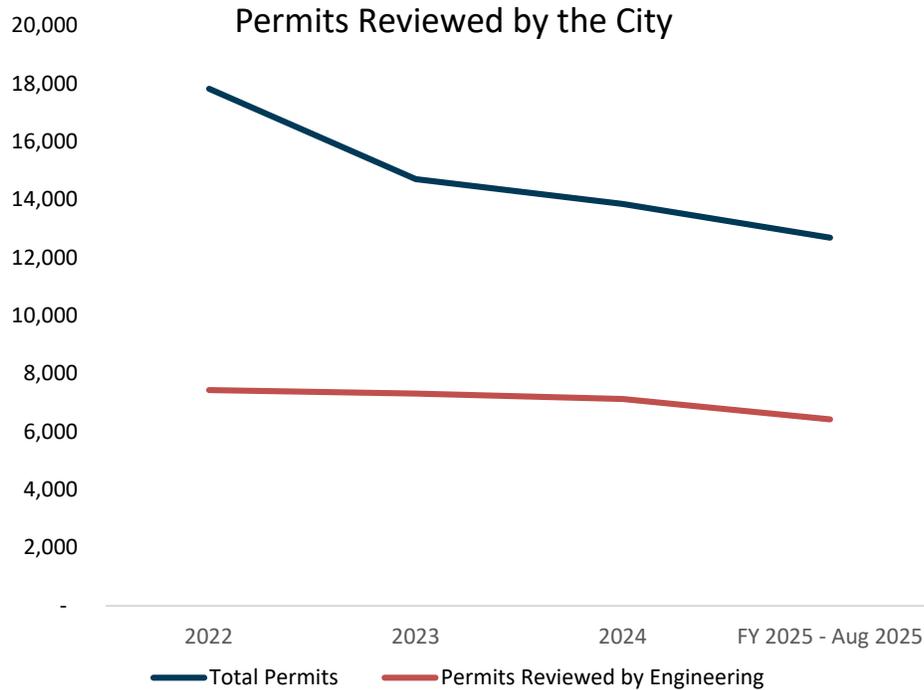
The City Engineer supervises the Engineering Division. The Engineering Division is organized under the Public Works Department. The Permitting Services Division is organized under the Economic Development Department. Both departments report to the Chief Administrative Officer.

BACKGROUND - CONTINUED

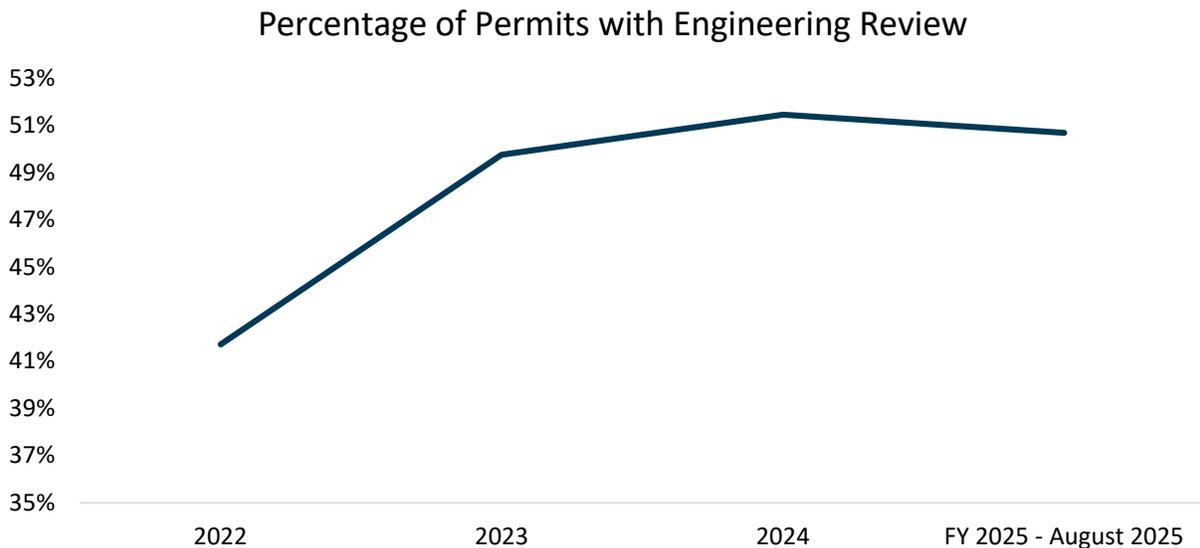
Selected Statistics

Based on Economic Development data. Not audited.

During Fiscal Year 2025 the City received 12,690 permit applications which represents a 29% decrease since FY 2022. Per inquiry of Engineering Division and Economic Development staff, the City is experiencing less small project development and more large project development which generates fewer but more complex permits and plans to be reviewed.

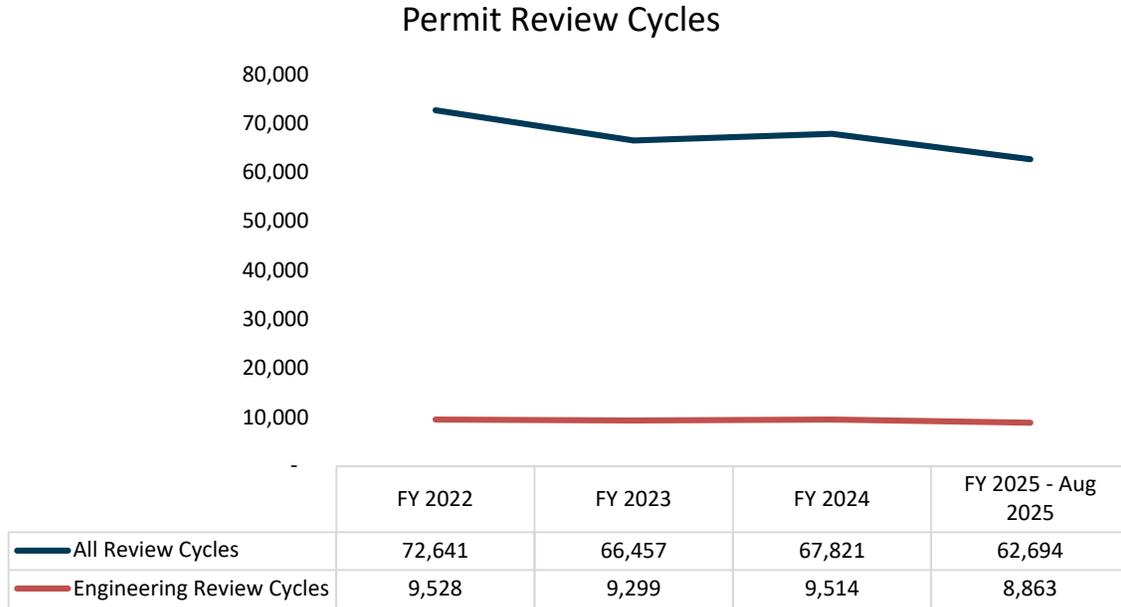


During FY 2025 the Engineering Division reviewed 51% of permits submitted to the City. Since 2022 the Engineering Division has been reviewing an increasing proportion of permits.

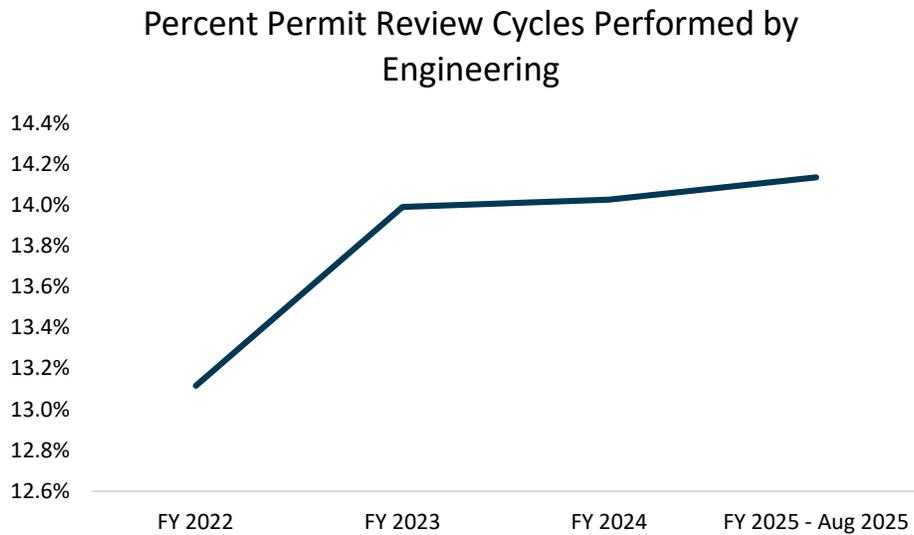


BACKGROUND - CONTINUED

During FY 2025 Engineering Permit Reviewers performed 8,863 review cycles for the permits assigned to them which accounted for 14.1% of total reviews.

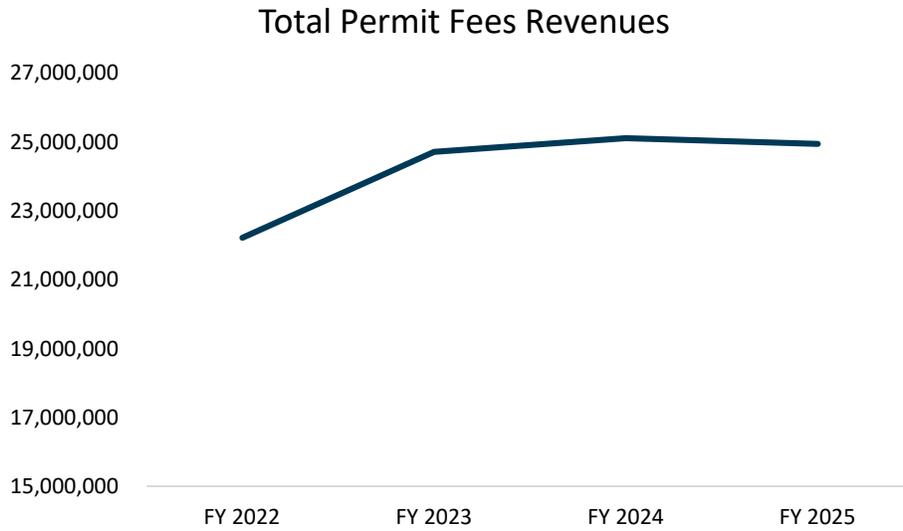


Engineering Permit Reviewers account for an increasing proportion of review cycles completed for permits and are typically more complex and technical, often requiring multiple review cycles before approval.

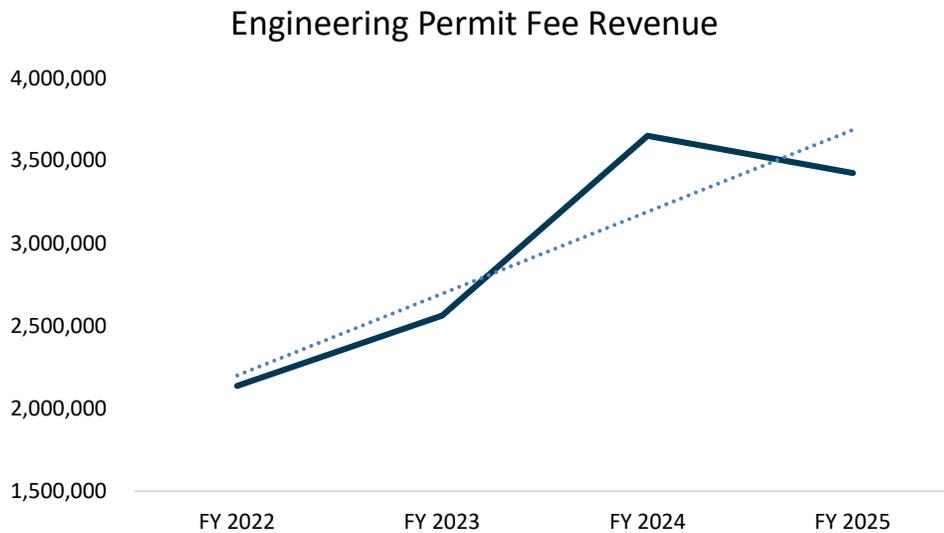


BACKGROUND - CONTINUED

FY 2025 permit revenue totaled \$24.9 million, which represents a 12% increase since FY 2022.



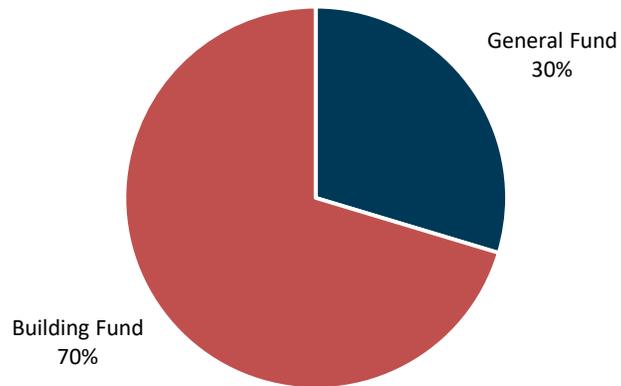
FY 2025 Engineering permit fees totalled \$3.4 million which represents a 60% increase since FY 2022.



BACKGROUND - CONTINUED

Engineering permit revenues are primarily allocated to the General Fund. Building and other trade permit revenues are primarily allocated to the Building Code Fund. During FY 2025 70% of permit fees were allocated to the Building Code Fund.

FY 2025 Permit Revenue by Fund



BENCHMARKING

BENCHMARKING

We reviewed public data and/or conducted interviews to obtain an understanding of practices among peers and innovative approaches that have been implemented as of November 2025 and to identify potential best practices for the City to consideration for its permitting function.

We gathered benchmarking data from the following municipalities:

- City of Jacksonville
- City of Miami
- City of St. Petersburg
- City of Tampa
- Miami Dade County
- Orange County
- Osceola County
- Seminole County

We identified the following best practices and innovative approaches:

- **Website Organization**
Permitting website organization and user-friendliness varied significantly between municipalities. City of Miami permitting website was very effective with a good combination of usable information, concise presentation, and FAQs and tutorials to help applicants submit complete and accurate permit applications, plans, and support.
- **Direct Data Entry by Applicants**
Municipalities utilize systems that accept permit applications through web forms and direct data entry by applicants. The City of Miami and the City of Jacksonville provide a good model for effective utilization of client self-service.
- **Integration of the Permitting and Engineering functions**
Municipalities had employees with Engineering expertise in the Permitting function. The City of Tampa has civil engineers employed by the Permitting function to provide Engineering review that is integrated with other aspects of Permitting. The City of St. Petersburg uses a hybrid model doing most site plan and right of way permit reviews within Permitting and referring out only the most complex permits and plans to Engineering.
- **Review Cycle Fees**
Fees for excessive review cycles (repeated re-submissions) were common to incentivize complete and accurate submissions. The fee amounts varied from \$50 to 20% of the original permit fees per additional review cycle.
- **Expedited Processing Fees**
City of Jacksonville, City of Tampa, and City of Miami offer expedited permit review and approval for an additional fee ranging from \$300 to double the original permit fee. Differentiated pricing lets the City allocate resources to more urgent projects and generate revenue to support the Permitting function.
- **Training for Permit Techs**
City of Tampa reported good experience with additional training for permit intake technicians to develop their expertise and improve the quality of their initial review of permit applications and plans. Permit intake technicians complete International Code Council (ICC) permit technician certification programs.

OBJECTIVES AND APPROACH

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Objective

Our primary objective was to assess the Engineering Division's role in the permit review process and to develop and provide recommendations for improvement and best practices considerations based on benchmarking of other Florida cities and counties permitting review practices.

Approach

Our approach consisted of three phases:

Phase One – Assessment and Understanding

We held entrance conferences with the Engineering and Permitting Services Divisions key personnel involved with Engineering permits to discuss the engagement scope and objectives, obtain preliminary data, and establish working arrangements. We reviewed Florida Statutes, City ordinances, policies, and other relevant resources.

Phase Two – As-Is Analysis/Documentation

We gained understanding and documented the City's permit issuance process. We conducted interviews with management and staff and documented their respective roles in the processes. Interviews included staff from:

- Engineering Division
- Permitting Services Division
- Water Reclamation Division

We also reviewed and analyzed Engineering Division Permit Reviewer timekeeping records to obtain an understanding of staff workloads. We updated our understanding of the processes and relevant controls.

We also conducted interviews and reviewed publicly available permit function data for other Florida municipalities to obtain an understanding of practices among peers and innovative approaches that have been implemented to benchmark City practices. We utilized this data in our analysis and development of recommendations.

Phase Three – Reporting and Recommendations

At the conclusion of our procedures, we documented our understanding of the Engineering Permit process and summarized our observations related to this function. We conducted an exit conference with management and have incorporated management's responses into our report. We provided copies of our report to the Audit Services and Management Support Director.

OBSERVATIONS MATRIX

1. Reviewer Vacancies Impact Permit Review Timeliness and Revenue Alignment

Observation

Civil engineers are in high demand across both public and private sectors. Engineering Division Management reported that vacancies are a recurring issue, and when positions remain unfilled, the Division cannot consistently meet the City’s permit review deadlines. During fieldwork, we interviewed Engineering Division Permit Reviewers. They stated that overtime is minimal, and late reviews are rare when the Division is fully staffed. However, in September 2025, the Division had two vacant Permit Reviewer positions, and 75 permits were overdue for review completion.

Engineering Permit Reviewers play a critical role in the permitting process, generating revenue and supporting economic activity in the City:

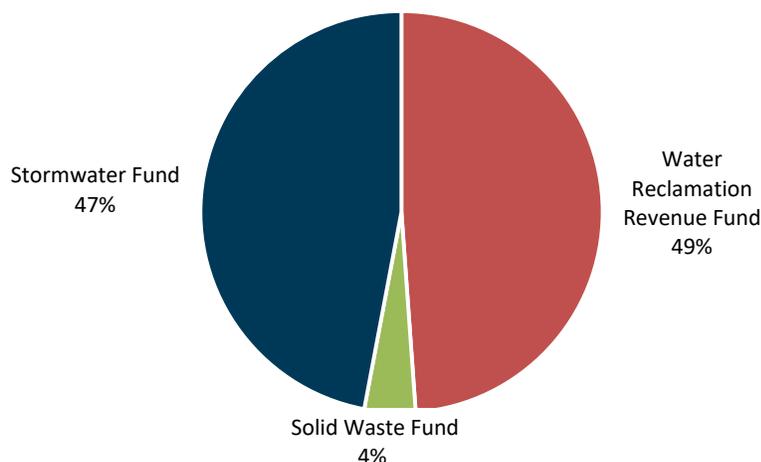
- In FY 2025, the Engineering Division reviewed 51% of all permits submitted to the City and Engineering permits can be more complex, technical, and require more time and effort to effectively review.
- In FY 2025, engineering permit revenue totaled \$3.4 million—a 60% increase since FY 2022.

Engineering Permit Reviewers are organized under Service Employee International Union (SEIU) and their compensation is collectively bargained. We analyzed total compensation for Public Works Department Permit Reviewers and considered the proportion of time and effort each position dedicates to permit review:

Fiscal Year	Total Compensation	Compensation Related to Permit Review
2024	\$1,416,013	\$1,048,403
2025	\$1,635,009	\$1,215,148

These positions were funded by Water Reclamation, Solid Waste, and Stormwater funds.

FY 2025 Funding Sources Public Works Permit Reviewers



1. Reviewer Vacancies Impact Permit Review Timeliness and Revenue Alignment

Observation (continued)

The Building Code Fund, which receives most permit revenue, does not fund any Public Works Permit Reviewers. As a result, revenues generated by the permitting process do not align with the underlying expenses.

Recurring vacancies in Engineering Division Permit Reviewer positions increase the risk of delayed permit processing, which can negatively impact City revenue, economic development, and resident satisfaction. Additionally, the current funding structure does not align permit-related revenues with associated personnel costs.

Recommended Action

Public Works and Economic Development Department Management should collaborate to:

- A. Address recurring vacancies in Permit Reviewer positions, such as developing professional Engineering Permit Reviewer position classifications, implementing retention incentives, cross-training with Permitting Services, or creating a talent pipeline.
- B. Conduct a comprehensive cost-of-service analysis for permitting activities. This analysis should capture all costs incurred to provide permitting services to residents and developers.
- C. Develop a fee structure based on the cost-of-service methodology identified in the RSM Development Fees Review issued in September 2025.
- D. Review and adjust the funding model to align permit-related revenues with the actual costs of permit review activities. This may include reallocating a portion of Building Code Fund revenues to support Public Works Permit Reviewer positions.
- E. Consider adopting fee practices used by benchmarked peers, such as:
 - Expedited processing fees to prioritize urgent projects and generate revenue to support permit review activities.
 - Fees for excessive review cycles to encourage complete and accurate submissions and reduce inefficiencies.

Management Response

Concur

Responsible Party: Public Works Department and Economic Development Department

Estimated Completion Date: 12-18 months

Observations Matrix

2. Tiered Approach to Engineering Permit Reviews

Observation

The City maintains a robust engineering permit review process in which Engineering Division Permit Reviewers examine all engineering permits, regardless of scope or complexity. These Reviewers are a highly skilled but limited resource, and their time represents a significant cost to the City. Chronic vacancies within the Engineering Division further reduce review capacity, making it difficult to consistently complete permit reviews within required timeframes.

Failure to optimize the permit review process increases the risk of delayed permit approvals and impacts economic development.

Recommended Action

Public Works Department Management should work with Economic Development Department management to assess opportunities for prioritizing permits based on complexity and scope and assigning Reviewers accordingly. The City should consider adopting a tiered review approach, similar to practices observed in at the City of St. Petersburg and City of Tampa, where trained permitting staff handle simpler reviews and Engineering Division resources are allocated to more complex permits.

Management Response

Partially concur, most of the complex reviews are assigned to mid/senior-level reviewers, but the Public Works Engineering Division has difficulty filling vacancies for mid/senior-level reviewers. As a result, some of these complex permits ended up having to be assigned to junior reviewers. Although Engineering Division has robust technical review training program, it takes extensive time and training to develop junior reviewers to review the complex permits. Filling these mid/senior-level vacancies would also improve the review approach and permit assignments.

Responsible Party: Public Works Department and Economic Development Department

Estimated Completion Date: 12-18 months

Observations Matrix

3. Standardized Permit Review Tools

Observation

Engineering permit review depends on specialized professional expertise, knowledge of City processes, and understanding of each permit's scope. The City has developed procedural manuals for the overall permitting process and for using INFOR and ProjectDox. However, Engineering Permit Reviewers maintain individual spreadsheets with separate tabs for each permit or project type. Each Reviewer adds their own common comments to permit applications within their version of the spreadsheet. There is no version control, and Reviewers maintain separate notes. Reviewers then manually type these comments into ProjectDox as feedback for applicants.

The absence of standardized tools and version control reduces consistency, increases the risk of outdated or inaccurate comments, creates inefficiencies in the review process, and complicates training new staff.

Recommended Action

The Engineering Division should create a standardized version of the comment tool and update it periodically. Storing the tool on a shared drive will ensure easy access for all Reviewers and promote consistency.

Public Works Department Management should collaborate with Economic Development Department Management and Information Technology to evaluate options for integrating common comments directly into ProjectDox. This integration would reduce manual data entry, minimize errors, and improve efficiency in the permit review process.

Management Response

Partially concur, the Public Works Engineering Division already has a standardized version of the comment tool that the Division updates periodically. For simple permits, the Division has standardized common comments; however, most of the complex permits have different uniqueness, challenges, and complexities where boilerplate comments would not be appropriate since the comments must be determined on case-by-case basis. In addition, implementation of Bluebeam software can improve the review process and consistency, but there may be limitations on modifications of ProjectDOX.

Responsible Party: Public Works Department and Economic Development Department

Estimated Completion Date: 12-18 months

4. Review Cycles

Observation

Engineering Division Permit Reviewers reported that application errors, incomplete documentation, and misunderstood comments are common causes of rework and delays. We analyzed permit review cycle data from INFOR, compiled by Economic Development Department staff, and the Engineering Permit Reviewers are performing an increasing proportion of the permit review cycles for permit applications received by the City. Each additional review cycle creates extra work for City staff and postpones permit approval, which in turn delays project progress. Minimizing review cycles is critical for controlling costs and ensuring timely permit reviews.

Recommended Action

Public Works Department Management should collaborate with Economic Development Department Management to implement strategies to reduce errors in permit applications and plans, including:

- A. Provide ICC Permit Technician Certification Training for permit technicians who perform intake reviews. Benchmarking indicates that municipalities using certified technicians improved the quality and accuracy of initial application and plan reviews.
- B. Introduce fees for excessive review cycles to incentivize applicants to submit complete and accurate documentation. (Refer to Observation One.)
- C. Enhance the permitting website's user experience by improving clarity, providing training resources, and offering detailed guidance to applicants.

Additionally, implementing standard comment language and providing applicants with explanatory resources will improve comment clarity and may contribute to fewer review cycles (Refer to Observation Three).

Management Response

Concur

Responsible Party: Public Works Department and Economic Development Department

Estimated Completion Date: 12-18 months

Observations Matrix

5. Timekeeping

Observation

The City lacks a timekeeping system to track employee hours by permit, making it difficult to measure the effort to review each permit. Understanding this effort is essential to quantify the employee time (and resulting cost of service) required for effective permit reviews. Engineering permit applications are typically more complex and technical, often requiring multiple, lengthy reviews before approval and issuance.

Recommended Action

Public Works Department Management should collaborate with Economic Development Department Management to create strategies for tracking time and effort by permit, supporting the City's cost-of-service model. They should evaluate timekeeping options within existing systems, including INFOR, ProjectDox, and Trimble.

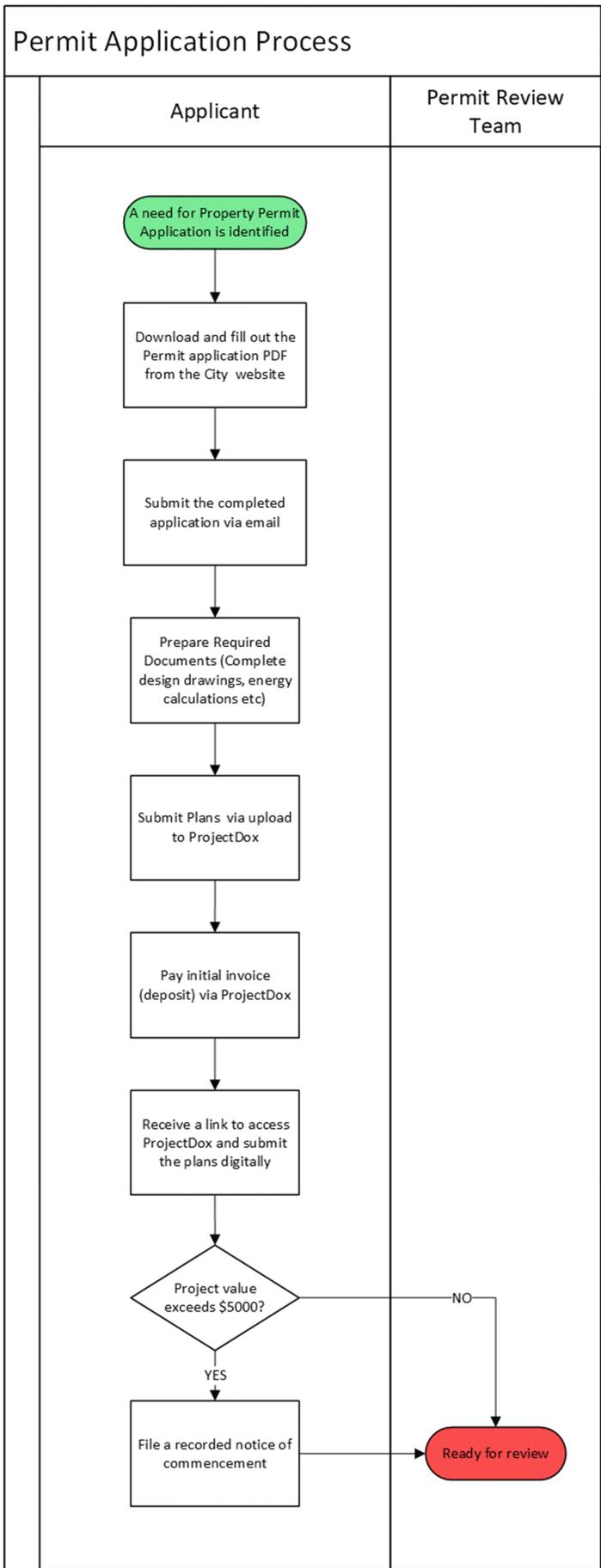
Management Response

Concur, staff currently have been tracking review time on their calendar; however, if a time tracking system can be incorporated into INFOR, ProjectDox, and/or Trimble, it would enhance efficiency of the process.

Responsible Party: Public Works Department and Economic Development Department

Estimated Completion Date: 12-18 months

EXHIBIT A - PROCESS DIAGRAMS



Permit review and issuance process

