

City of St. Petersburg
Budget, Finance, and Taxation Committee
October 28, 2021 – 8:30 AM
City Hall, Room 100

Members: Committee Chair Ed Montanari, Committee Vice-Chair Gina Driscoll, Council Member Darden Rice, and Council Member Robert Blackmon

Alternate: Council Member Brandi Gabbard

Support Staff: Jayne Ohlman - City Council Legislative Aide

1) Call to Order

2) Approval of Agenda

3) Approval of October 14, 2021 Minutes

4) New Business – October 28, 2021

- a) SPTO Management Evaluation – Initial Recommendations and Draft Report – **Harry Lorick & Jeff Thurman (L.A. Consulting)**

Attachments

- 1) Executive Summary & Final Draft Report
- 2) Presentation

- b) Continued Discussion of FY22 Management Evaluation – **Tom Greene**

5) Upcoming Meeting Dates & Tentative Agenda Items

November 9, 2021

- a) FY 2021 Budget Clean-Up – **Liz Makofske**
- b) 4th Quarterly Financial Reports – **Anne Fritz & Liz Makofske**

December 9, 2021

- a) 2022 Health Insurance Renewal and Status Update on Current Year Health Plan – **Chris Guella & Vicki Grant**
- b) Annual Report Regarding Apprentices & Disadvantaged Workers Participating in Major Construction Projects – **Stephanie Swinson**

General Attachments:

Minutes of the October 14, 2021 BF&T Committee Meeting
Pending and Continuing Referral List
Weeki Wachee Project List
Agenda Item Support Material

City of St. Petersburg
Budget, Finance and Taxation Committee
October 14, 2021 Meeting Minutes
City Hall, Room 100

Present: Committee Chair Ed Montanari, Committee Vice-Chair Gina Driscoll, Council Member Darden Rice, and Council Member Brandi Gabbard (Alternate)

Absent: Council Member Robert Blackmon

Also Present: Council Member Deborah Figgs-Sanders, Assistant City Administrator Tom Greene, Chief Assistant City Attorney Jeannine Williams, City Auditor Boriانا Pollard, Grants Officer Shrimatee Ojah Maharaj, Business Development Manager Jessica Eilerman, Procurement Director Fredrick Ross, Contracts Compliance Manager Stephanie Swinson, and Economic Development Analyst Eric Lavina.

Support Staff: Jayne Ohlman - City Council Legislative Aide

1. **Call to Order** – 11:00 AM
2. **Approval of Agenda** – CM Driscoll motioned for approval. All voted in favor.
3. **Approval of September 16, 2021 Minutes** – CM Driscoll motioned for approval. All voted in favor.
4. **New Business – October 14, 2021**

2022 Management Evaluation – *Boriانا Pollard, City Auditor*

City Auditor Boriانا Pollard began by reminding the committee of its obligation under City Council Resolution 2012-271 to discuss potential management evaluations at the first BF&T Committee meeting of each fiscal year. Ms. Pollard noted that she provided a copy of the resolution and a list of the previous management evaluations in the backup material.

Council Member Gabbard suggested the committee revisit the discussion of a potential management evaluation for the Marketing Department, which was deliberated during Fiscal Year 2020 but was ultimately set aside in favor of the Stormwater, Pavement, and Traffic Operations Department.¹

Vice-Chair Driscoll agreed with CM Gabbard that a renewed discussion of the Marketing Department was worthwhile and suggested that the committee consider Construction Services and Permitting as a potential candidate for evaluation. CM Driscoll explained that there is likely room for systems improvements and overall efficiency based on regular feedback.

Council Member Rice stated that she is not keen to focus on smaller departments, such as the Marketing Department, for management evaluations. Instead, CM Rice explained that management evaluations should be reserved for larger departments, where a thorough study of processes and systems will yield a greater return on investment. CM Rice agreed that exploring Construction Services and Permitting for a potential management evaluation is worthwhile. CM Rice offered the Procurement Department and the Fleet Management Department as two additional options. CM Rice emphasized that management evaluations are not meant as reprimands for any department but instead provide valuable tools for any large department, especially those foundational to City business.

¹ July 30, 2020 BF&T Committee Meeting.

Chair Montanari echoed CM Rice's points and stated that he also had the Procurement Department noted as an option for a management evaluation. CM Montanari noted that because the Procurement Department had the same leadership for almost 26 years, now might be the best time to address any antiquated systems and identify areas for improvement for the benefit of the new Director, Fredrick Ross. CM Montanari noted that the Procurement Department's responsibilities continue to increase, pointing to the recent disparity study regarding women and minority-owned business enterprises. If implemented, the program will likely require increased compliance and monitoring efforts from the Procurement Department, even if the Greenhouse manages it. CM Montanari offered the Finance Department as a second option and suggested that the department's technological and operational procedures might warrant further review.

CM Driscoll cautioned that selecting the Procurement Department while the new director, Mr. Ross, continues to familiarize himself might be counterproductive. Again, CM Driscoll highlighted the pace and growth of City development and reiterated her preference for a management evaluation of Construction Services and Permitting.

CM Gabbard voiced support for exploring a management evaluation of Construction Services and Permitting and clarified that those two divisions are part of the much larger Planning and Development Services Department, which has an operating budget of about \$12.1 million. CM Gabbard pointed to previous management evaluations and explained that the City had changed dramatically since these divisions were reviewed in 2000. CM Gabbard also added that she sees potential benefits with a management evaluation of the whole Planning and Development Services Department, with an emphasis on Construction Services and Permitting. CM Gabbard asked Ms. Pollard how much is allocated for a management evaluation. Ms. Pollard responded that there is a \$75,000 allocation and noted that the last two evaluations, both of large City departments, went over budget.

CM Rice agreed that both Procurement and Planning and Development Services warranted thorough evaluations and explained that the choice is a matter of timing. CM Rice restated her preference to explore a management evaluation of the Procurement Department as the most immediate priority and hold the Planning and Development Services Department, specifically Construction Services and Permitting, as the top priority for next year's discussion.

Council Member Figgs-Sanders stated that the Procurement Department was her preference for a management evaluation. Specifically, CM Figgs-Sanders pointed to the disparity study and the increased workload and operational improvements necessary to implement an effective program. CM Figgs-Sanders also pointed to the delays in the Procurement Department and suggested that a management evaluation would effectively address these inefficiencies. Finally, CM Figgs-Sanders emphasized that a management evaluation would positively affect the entities interacting with the Procurement Department, from City departments to small businesses.

CM Montanari requested that Mr. Ross offer one-on-one meetings with each Council Member and return to the October 28 BF&T committee meeting for a continued discussion on a potential management evaluation of the Procurement Department. CM Figgs-Sanders added that it would be helpful if Mr. Ross came prepared with areas he has identified for improvement, rather than the City Council dictating what changes they think are necessary.

Assistant City Administrator Tom Greene cautioned against tying the potential management evaluation to the implementation of the disparity study, as this approach could convolute the overarching goals of both items. However, Mr. Greene acknowledged that the timing of a management evaluation could prove beneficial and noted that he and Mr. Ross could explore the timing in greater detail during one-on-one meetings with Council Members.

Quarterly Grants Report (Q3 & Q4) – Shrimatee Ojah-Maharaj, Grants Officer

Grants Officer Shrimatee Ojah-Maharaj provided the committee with a summary of the major grants received in the third and fourth quarters of Fiscal Year 2021. Ms. Ojah-Maharaj stated that the City was awarded eight grants totaling \$9,060,212 for the third quarter and seven grants totaling \$3,843,165 for the fourth quarter.² Ms. Ojah-Maharaj provided examples of the major grants received in the third and fourth quarters and noted that in FY 2021, the City received 29 grants for a total of \$25,363,261.³ Ms. Ojah-Maharaj noted that of the 34 grants that the City applied for during FY 2021, eight were received, two were not received, and the status of the remaining 24 is unknown. Ms. Ojah-Maharaj concluded with an overview of recent grant-related activities, including staff training, preparation for upcoming grants, and resident outreach.

CM Gabbard asked Ms. Ojah-Maharaj to elaborate on the recent grant submittal for "Neighborhood Resilience Hubs." Ms. Ojah-Maharaj explained that the Sustainability Director would be more suited to explain the program in detail. However, in summary, the grant is for community-service facilities to support residents and coordinate resource distribution and services before, during, or after a hurricane or other natural disaster.

Small Business Enterprise (SBE) Quarterly Report: 2021 Fiscal Year-End – Jessica Eilerman, Business Development Manager

Business Development Manager, Jessica Eilerman, presented the committee with the Small Business Enterprise (SBE) program's 2021 year-end report. Ms. Eilerman began by reminding the committee of the SBE program's mission. To foster growth in the economy and allow participation in City construction projects and the procurement of goods and services while providing smaller businesses a chance to gain exposure to large-scale projects and experience while working alongside big firms.⁴

Ms. Eilerman provided the committee with SBE spending and certification data for the FY 2021 year-end. There are currently 264 certified SBEs, and the year-end total for tier-one spending is \$8.2 million, which equates to 3.8% SBE participation.⁵ Ms. Eilerman then reviewed the SBE program's month-by-month tier-one spending data and provided a year-over-year comparison to FY 2020. Next, Ms. Eilerman detailed the monthly purchase by spend categories, including engineering and architecture, construction, and goods and services. Ms. Eilerman highlighted the goods and services category as an opportunity for increased SBE participation. Ms. Eilerman continued with an overview of the year-end tier-two spending data totaling \$3.53 million, which brings the total year-end SBE spending to \$11.73 million.⁶

² During the third quarter of FY 2020, the City was awarded six grants totaling \$2,331,704, and in the fourth quarter, seven grants totaling \$6,997,462.

³ In FY 2020, the City received 32 grants totaling \$18,376,863.

⁴ Eligibility criteria for small business enterprises: 1) Independently owned, operated, and controlled 2) Not dominant in its field of operation 3) Serves a commercially useful function 4) Has been in operation for one year 5) Defined as an SBE local small business; has 50 full-time, permanent employees or less; has an annual sales volume (averaged over the previous three years) of \$5 million or less for goods and services, or \$8 million or less for Construction; and must be based in Pinellas, Hillsborough, Pasco, Manatee or Polk Counties.

⁵ Current SBE program goals are outlined in City Code § 2-231(c), and participation percentages for all contracts to which the City is a party are 14% unless increased or decreased by City Council. (Ord. No. 378-H, 8-15-2019)

⁶ Tier-one spending represents direct City to vendor contracting, and tier-two spending data shows qualified SBE participation through subcontractors.

Ms. Eilerman detailed her team's efforts to integrate SBE participation into projects that the City is involved in but is not the sole entity. Ms. Eilerman referred to this effort as "special project involvement" and noted that development agreements are the ideal vehicle for this effort.⁷ Ms. Eilerman also provided updates on general program improvements, including the outside recognition collaborative with the City of Tampa and Hillsborough County, industry-specific recruitment efforts, and LGBTQ inclusion efforts. Finally, Ms. Eilerman concluded with a Disparity Study update, highlighting the project's second phase: strategy assessment and operational planning. CM Montanari asked Ms. Eilerman to speak with him offline about the special project involvement noted in her presentation.

CM Montanari adjourned the meeting at 12:24 PM.

⁷ Projects identified for potential involvement include Tangerine Plaza, Sankofa, Jordan Park, Project Athena, and the Tropicana Field Redevelopment.

Budget, Finance, & Taxation Committee Pending & Continuing Referral List					October 28, 2021	
Topic	Return Date	Date of Referral	Prior Meeting	Referred by	Staff	Notes
SPTO Management Evaluation - Initial Recommendations and Draft Report	10/28/2021		1/28/2021	City Council		Presentation by L.A. Consulting - Harry Lorick & Jeff Thurman
Continued Discussion of FY22 Management Evaluation	10/28/2021		10/14/2021	BF&T	Tom Greene, Fredrick Ross	10/14/21 - Committee requested to continue the discussion of a potential management evaluation of the Procurement Department at the 10/28/21 meeting
2021 Quarterly Financial Reports - Q4	11/9/2021	Quarterly	Q1 - 2/11/2021 Q2 - 5/13/2021 Q3 - 8/12/2021	City Council	Fritz/Makofske	
FY2021 Budget Cleanup	11/9/2021	Annual			Liz Makofske	
2022 Health Insurance Renewal and Status update on current year health plan	12/9/2021	Annual		BF&T	Chris Guella, Vicki Grant	
Apprentice & Disadvantaged Workers Report	12/9/2021	Annual	12/10/2020	Ordinance 378-H	Stephanie Swinson	
2022 Management Evaluation		Annual	10/14/2021	Resolution 2012-271	Boriana Pollard	
SBE contracts - Quarterly Report	April 2022 Q1 & Q2	Quarterly		Ordinance 378-H	Jessica Eilerman	
Quarterly Financial Reports	Q1 - Feb. 2022 Q2 - May 2022 Q3 - Aug. 2022 Q4 - Nov. 2022	Quarterly		City Council	Fritz/Makofske	
2020 Property Insurance Renewals	Mar. 2022	Annual			Blaise Mazzola, Chris Guella	
External Audit	Mar. 2022	Annual			Anne Fritz	
Grants - Quarterly Report	April 2022 Q1 & Q2	Quarterly		City Council	Shrimatee Ojah-Maharaj	
FY23 Water/Utility Rates	June 2022 *July 2022	Annual			Angela Miller	*second meeting in July if needed
Draft Consolidated Plan and Proposed Budget. Approval of draft for publication and comment	Jun. 2022	Annual			Joshua Johnson	
Discussion on developing a plan for funding non-utility infrastructure projects that currently do not have a dedicated funding source	TBD	2/6/2020		Gina Driscoll		
Discussion on Co-Op Grocery and Businesses	TBD	9/24/2020 (COW)		Brandi Gabbard		*Referred to BFT committee by CM Gabbard at 9/24/20 COW meeting for further discussion
Discussion on utilizing scooter rental revenue for the creation of a bicycle giveaway program for disadvantaged population in need of transportation	TBD	6/3/2021		Robert Blackmon		
Procurement Update on Living Wage and Indexing Requirements		9/9/2021	9/16/2021	Administration	Legal, Stephanie Swinson	Will remove from referral list once ordinance is scheduled at City Council: Committee motion to set living wage as prescribed by City Code (not more than 3%) and requested staff bring an ordinance to the full City Council to amend City Code Sect. 2-276 to lower the major service contract threshold from \$500,000 to \$200,000 and increase living wage to \$15 while keeping the 3% cap in place

BUDGET, FINANCE & TAXATION COMMITTEE
WEEKI WACHEE PROJECT LIST

October 28, 2021

TOPIC	DATE REFERRED	REFERRED BY	RETURN DATE	STAFF RESPONSIBLE	SPECIAL NOTES
Jack Puryear Park Expansion Project	March 12, 2020	Montanari		Mike Jefferis	
Carter G. Woodson African American Museum – Outdoor Event Green Space Beautification Project	August 5, 2021	Figgs-Sanders		TBD	



Consulting, Inc.

October 25, 2021

Ms. Boriana Pollard
City Auditor - City of St. Petersburg
P.O. Box 2842
St. Petersburg, FL 33731

Subject: Project 084-003- Submittal of the Draft Final Report for the Management Evaluation of the City of St. Petersburg’s Stormwater, Pavement, and Traffic Operations Department

Dear Ms. Pollard:

LA Consulting, Inc. (LAC) is pleased to submit the draft final report. The draft report includes an executive summary, baseline, findings, recommendations sections, and an appendix. The report was prepared using information collected during on-site and off-site efforts through meetings, interviews, numerous presentations, the review of City documents, two surveys, and LAC’s nineteen days of onsite observations. In addition, LAC evaluated feedback from the City employees on the two working papers, and we incorporated all relevant comments.

We believe these recommendations provide significant opportunities for process improvement, staff optimization, and business process alignments, as well as improvement in staff communication. If not adopted and implemented, these recommendations will represent a critically missed opportunity for an enhanced and improved working environment, cost savings, as well as future improvement for the City. The full implementation of these recommendations would result in a considerable positive impact on the effectiveness of the expenditure of public dollars and the efficiency of work performed. This could also create a positive attitude among staff through increased involvement, greater transparency of decision making, and allowing employees to better understand actions being taken.

We look forward to presenting the initial recommendations and receiving the Committee’s feedback and input on October 28th. We will provide approximately two weeks for the review of the draft report. We will welcome all comments on the draft report from all stakeholders and look forward to completing this effort after integrating all relevant comments. We appreciate the opportunity to assist the City in performing this management evaluation to optimize resources and maximize efficiencies of the Stormwater, Pavement, and Traffic Operations Department.

Sincerely,

Harry Lorick, PE, PTOE, PWLF
Principal

cc: Honorable Mr. Ed Montanari, Chairman Budget, Finance and Taxation Committee
Mr. Claude Tankersley, Public Works Administrator
Ms. Dianna Rawleigh, CFM, CPWP-M, SPTO Director

Enclosure:

“We Help Public Works Work”

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City of St. Petersburg Stormwater, Pavement, and Traffic Operations Department

Management Evaluation



Draft Final Report October 25, 2021



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SECTION 1- EXECUTIVE SUMMARY

The Stormwater, Pavement, and Traffic Operations Department ("Department" or "SPTO") is large and dynamic, serving the City of St. Petersburg ("City") – the fifth-largest city in the state of Florida. The Department has been established and sustained using many innovative practices. The combination of key staff and good management and business practices has produced a positive environment to enable work process improvement.

LA Consulting, Inc. ("LAC") has reviewed the Department based on the scope of our consulting services with the City Council. An evaluation of the Department's operational processes was conducted to determine trends and current practices compared to effective and efficient industry benchmarks and performance of similar agencies. LAC has prepared a report documenting this evaluation and opportunities for improvement. The recommendations were developed and are presented to address areas for further potential improvement.

1.1. Approach and Methodology

This focused compilation of information was collected during on-site and off-site efforts, through meetings, interviews, two surveys, and the review of various Department documents. The collected information is supplemented with input from LAC's staff who are experienced in operations, engineering, management systems, and business process improvement. The details are described throughout three separate sections of the report – the Baseline, Findings, and Recommendations.

City leadership desired that many specific questions be explored in the evaluation of the SPTO Department. The questions posed in the contract scope were specifically addressed and are shown in *Section 5 – Appendix, sub-section 5.1 – Summary of Recommendations Related to Questions from Leadership*. LAC determined the Department's level of compliance to each of these questions. Each question in the Appendix links to the specific recommendation(s) related to addressing that issue.

Sub-section 5.2 of the Appendix contains a list of recommendations, prioritized by the following categories – *Employee Impacts, Systems, Business Processes, Organizational Improvements, and Further Studies*. Each category is prioritized independently. LAC identified priorities based on our observations, analysis, contract scope, and knowledge of the City, as well as what we believe presents the best opportunity for improvement.

LAC's evaluation approach was to investigate and document current operations and identify opportunities for improvement in various business process aspects (e.g., organizational structure, labor, and equipment usage, technology needs, work management, effectiveness, and efficiency). Several recommendations are related to improving employee communication through fair and transparent means, as well as equipping management with tools for planning and determining resource needs. The final report will outline a plan for how the SPTO Department can improve its existing operations by taking specific actions using key management principles of Planning, Organizing, Directing/Scheduling, and Controlling/Improving.

Information in the final report will be presented as historical, point-in-time data, as it may have changed since the original discovery. The baseline and findings information was provided to the

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SPTO employees and vetted by staff throughout the evaluation process. Consequently, any changes in policy, organization, and process that occurred after initial discovery may not have been revisited as part of this effort due to the impact on schedule and cost.

1.2. Report Structure

In addition to this executive summary, the report is structured as follows.

Baseline Section – The Baseline section includes an overview of LAC’s understanding of the Department’s operational processes and practices. This section outlines general City and departmental information, including good practices and innovative ideas, vision and mission statements, work locations and routes, functions and activities, current resources, budgets, and performance indicators, as well as current systems and their support. This section summarizes the resources, organization, activities, and operational processes of the two (2) operational divisions, including Stormwater Operations and Pavement and Traffic Operations.

Findings Section – The Findings section provides research and benchmark data to support the analysis of information uncovered in the Baseline. This further provides the basis for the development of key recommendations for the improvement of operational processes and practices. The evaluation’s seventy-four (74) findings are supported by observations, interviews, collected data, comparisons, prior knowledge, and analysis. The findings are not presented in an order of importance, but sequentially. However, many of the findings are related and should be reviewed in totality, rather than independently.

During the evaluation process, LAC conducted two confidential employee surveys. The paper-based employee survey was conducted through four (4) on-site meetings. The Leadership Survey was conducted via an online tool (Google Forms). The employee survey had 59 questions, and the Leadership survey had 16 questions. There were 130 responses to the employee survey and nine (9) responses to the Leadership survey.

The questions from both surveys were based on the questions posed in the project’s scope of work. The results and analysis from both surveys played a role in the development of project findings and ultimately several of the proposed recommendations. Analysis of both surveys will be detailed in the project’s final report.

Recommendations Section – The Recommendations section details LAC’s recommendations for improvement. The fifty-four (54) key recommendations are not listed by importance, but in a suggested implementation sequence after the general recommendation’s subsection. The recommendations are not always in a “one-to-one” relationship with each finding and are often “many-to-one,” where one finding may support several recommendations or vice versa. The recommendations are related in many cases so that a complete benefit may not occur without the implementation of prior recommendation(s). All recommendations are listed at the end of this section and are further detailed in Section 4 – Recommendations of the report.

The recommendations are divided into five categories. There are ten (10) in General, sixteen (16) in Planning, seventeen (17) in Organizing, four (4) in Directing, and seven (7) in Controlling/Improving.

1.3. Outline of Report Recommendations

Stormwater, Pavement, and Traffic Operations Department Management Evaluation

The following is a list of all project recommendations within each category. The specifics for each are outlined in Section 4 on page 114 of the report. If not adopted and implemented, these recommendations will represent a critically missed opportunity for an enhanced and improved working environment, cost savings, as well as future improvement for the City.

Full implementation of these recommendations would result in a considerable positive impact in the effectiveness of the expenditure of public dollars, in the efficiency of work performed, and would also create a positive attitude among staff through increased involvement, greater transparency of decision making, and allowing employees to better understand actions taken.

1.3.1. General Recommendations

The ten (10) General recommendations are overarching and should be applied to the entire organization. These recommendations address the decentralization of decision-making and the utilization of employee teams in several key implementation efforts and improvement opportunities.

The purpose of these recommendations is to improve the Department's resources overall which could not only provide positive change in systems and the improvement of individual groups but the entire organization. These specific recommendations include-

1. Establish employee teams to review various improvement opportunities. Utilize the teams on an annual basis to assist in the review of work guidelines and methods, levels of effort, quality controls, as well as annual performance planning.
2. Re-create mission statement to include elements focused on efficiencies and effectiveness as primary goals. Obtain buy-in from all levels of the organization.
3. The stormwater aspects of the Integrated Water Resources Master Plan (IWRMP) should be clearly identified in the short term, with the potential benefits. City staff should relate the plan to improvements with the availability of existing fundings CIP resources.
4. Formally review and report the progress and accomplishments of fulfilling the recommendations of the audit projects to the City Auditor quarterly. Set a goal of completion for all goals by October 1, 2022.
5. Formally review and update the Department Manual annually, using input from all levels of the organization and any other needed City external resources.
6. Report the progress and accomplishments of the Department's goals and objectives in the annual "State of Maintenance and Operations Report" provided to the Public Works Administrator, Mayor, and City Council.
7. Fully configure the WAMS/WACS databases to the needs of the SPTO Department, including the subgroups of their divisions. Include direct input for the sub-groups of stormwater, pavement, and traffic.
8. Fully implement the WAMS/WACS and related system management tools, allowing all levels assess to the system. Use WAMS/WACS data for work management, which includes the ability to plan, organize, schedule, monitor, and improve operations.

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9. Fully utilize the capabilities of the City's GIS database and information as a tool for dynamically planning and organizing work.
10. Identify or obtain a WAMS/WACS and GIS power user to provide operational and technical support. This user must have an intimate knowledge of the department's mission and operational functions.

1.3.2. Planning Recommendations

The sixteen (16) Planning recommendations are concentrated on the improvement of efficiency and effectiveness of the planning process. The full implementation of these recommendations could result in major cost and efficiency savings. The purpose of these recommendations is to improve specific annual and future work planning processes which include-

1. The Department should share appropriate resources across all Divisions including labor, equipment, and supervision.
2. The Department should implement an approach that allows for all resources to report out of one location.
3. Establish a process along with responsibilities for consistent and accurate asset inventory updates to compile and summarize data for functional application. Identify a process and departmental point of contact that verifies the values provided to produce the City's Annual Comprehensive Financial Reports (ACFR) and any other published documents, to promote consistency and accuracy.
4. Confirm the validity of 1,033 street segment conditions of all PCI values below forty, reporting to the Public Works Administrator on the results.
5. Establish a level of service for alley maintenance efforts to meet the needs of internal and external stakeholders using available resources. Stakeholder input from the Sanitation Department and alley adjacent homeowners should be considered.
6. Fully evaluate the complete cost of providing ROW maintenance. Determine the total and unit cost, use all labor with an applied avoidable overhead, equipment, and material costs and apply to all properties (City, FDOT, Private, and County) maintained.
7. Compare the cost of service to the revenue received from performing ROW maintenance for others. If the cost substantially exceeds the revenue, a determination should be made in obtaining additional revenue and or reducing service. Provide results to executive leadership to ensure that these contracts are acceptable.
8. Perform National Bridge Inventory (NBI) level structural inspections on the same frequency to all non-NBI structures in the City's bridge inventory.
9. Use facilitated employee teams annually to establish and update standardized activity lists, definitions, and work units for benchmarking of all maintenance and repair activities.
10. Establish levels of effort by activity for each asset type based on condition along with established minimum levels of service based on available resources and cost.

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Management Evaluation

11. Define performance guidelines and related measures to the annual plan utilizing facilitated employee teams and store results within the WAMS/WACS. Include the planning criteria of average daily production (ADP) and the related asset inventory values.
12. Establish the capability of developing a performance budget based on the level of service, asset inventory, productivity, and work methods with a quality standard for each activity. Use the established performance plan as a tool to develop a budget based on actual needs. Provide annual performance plans to the Public Works Administrator and City Leadership.
13. Use facilitated employee teams to develop specific goals and objectives for each sub-group, which include quantifiable performance measures and links to the Department's guiding principles.
14. Link work recorded in the WAMS/WACS to the Department's Budget Performance Metrics. Report the status and progress in achieving production goals monthly to the Public Works Administrator. Act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.
15. Determine the need for providing non-traffic sign fabrication services and ensure all costs for that service are recovered, including labor and overhead, equipment, materials, and storage. Consider discontinuing this non-traffic and departmental support unless full cost recovery occurs.
16. Determine and use avoidable overhead in the WAMS/WACS for work costing and outsourcing consideration. A full overhead rate should be used for external billing and reimbursement. Further, develop an annual process to update the rates and educate management and leadership of their application.

1.3.3. Organizing Recommendations

The seventeen (17) Organizing recommendations are concentrated on the improvement of the organizational structure of the Department and its organizational divisions. These recommendations focus on aligning the organization with the City and Department's mission.

The purpose of these recommendations is to develop an appropriate resource mix to improve, align, and support the organizational structure with the Department's vision and mission. These recommendations include-

1. Establish a goal of each Manager being credentialed as a Certified Public Works Professional-Manager (CPWP-M) and each Supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S) through the American Public Works Association (APWA). Establish these goals to be completed by October 1, 2022.
2. Conduct annual independent review (City Auditor or Human Resources) and or survey of interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization. With the results, the Director should

Stormwater, Pavement, and Traffic Operations Department
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compile an action plan to address any concerns and submit it to the Public Works Administrator.

3. All supervisors and managers should be trained on management skills to be updated annually, as well as on the methodology and capabilities of WAMS/WACS and GIS. This should be a requirement of promotion and part of an employee's annual review.
4. Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented, and all traffic staff time is being recorded by activity.
5. Managers and Forepersons should have three (3) or more direct reports or provide a documented justification for a lower span of control ratio, approved by the SPTO Director.
6. Establish a formal proactive process of field visits by the Department Director and Managers. This is to observe work efforts, promote communication, as well as provide senior staff availability to all levels of the organization. Establish and formalize the goal of visiting each sub-group at least once a year.
7. Establish a systematic methodology for connecting with employees to obtain unfiltered input and real feedback through quarterly meetings.
8. Develop and implement a sign reflectivity inspection program and replacement process to meet FHWA design to maintain traffic sign retro-reflectivity at or above the established minimum levels. Systematically report inspection program progress and results to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."
9. Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented and all signs and marking staff time are being recorded by activity.
10. Work shifts should be established based on specific work needs. The number of shifts should be standardized. An external evaluation on the benefits to the City should be conducted with employee team involvement, documenting the negative and positive benefits. The Department Director should review and approve all schedules and shifts.
11. The Traffic Signals group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. The Department Director should review and approve all schedules and shifts.
12. Track, compile and establish benchmarks for Worker's Compensation, FMLA, and leave without pay by sub-group. Review during monthly meetings and report annually to employees, the SPTO Director, and the Public Works Administrator. Calculate and report leave hours in full-time equivalents (FTE).
13. Utilize the Department's Safety Officer to systematically monitor and report the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director. Charge the Safety Officer with tracking and monitoring of all safety-

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related training, providing data to be reported monthly and in the Department's annual "State of Maintenance and Operations Report."

14. Track and monitor all traffic signal maintenance costs and productivity. Calculate and report the unit cost of each preventive maintenance routine performed and compare against an established benchmark. Determine if the total FDOT reimbursement covers the Department's resource costs to perform maintenance.
15. Establish equipment rates for each equipment class that includes all costs – repair, maintenance, fuel, & lubrication, and replacement. All 'Out of yard' hours for each piece of equipment should be tracked in the WAMS/WACS.
16. Some equipment including the classes of Concrete Truck, Loader, Skid Steer, and Backhoe should be evaluated by February 1, 2022, as they appear to be low use. Eliminate low-use equipment unless warranted by some specific need.
17. Perform and establish an equipment utilization analysis of all rolling stock by October 1, 2022. Document process to evaluate needed units that are under-utilized based on industry standards. Eliminate low-use equipment unless warranted by some specific need.

1.3.4. Directing / Scheduling Recommendations

The four (4) Directing/Scheduling recommendations are concentrated on the improvement of the directing, assigning, and scheduling of work. The purpose of these recommendations is to provide methods to improve work assignment and scheduling, as well as to provide accountability. Fully implemented recommendations in this category will allow the Department to optimize the mix of resource assignments to achieve expectations and directives. These recommendations include-

1. Define, standardize, and document priority procedures for all service requests based on need, safety, and risk to the public in the WAMS/WACS. Attempt to identify all non-emergency and safety work to be done at least two weeks in advance.
2. Monitor, assign and reduce the number of service requests in the status of Pending Approval, found in the WAMS database. Clearly define, use, and communicate the service requests statuses of the WAMS/WACS database.
3. Develop documented routine programs linked to GIS assets by key activities that are used for cyclical work and routines in support of stormwater operations, pavement, and traffic operations.
4. Fully develop a two-week schedule procedure for all staff and equipment, relating schedules to annual work plans and routine processes. Charge and hold accountable the Department's Forepersons and Supervisors with the responsibility of communicating short-term work schedules and plans to field staff.

1.3.5. Controlling / Improving Recommendations

The seven (7) Controlling and Improving recommendations are concentrated on the improvement, performance, and management of processes for work accomplishment. The purpose of this category is to provide tools to improve the control of work and accountability of

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staff, document actions, and establish productivity monitoring, as well as benchmark activities for continuous improvement. These recommendations include-

1. Standardize and document the flow of work over all the groups. Use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases.
2. Standardize work reporting, with resources used (labor, equipment, and materials), accomplishments and locations documented. Track and link all time to activities, including travel and preparatory effort. Account for one hundred percent (100%) of employee time in the WAMS/WACS.
3. Supervisors should utilize the WAMS/WACS for work tracking and planning. Establish a monthly meeting to review data from the WAMS/WACS with management responsible for creating accountability.
4. Cross-train Forepersons and Supervisors to produce and interpret management system outputs for decision making, as well as promote accountability.
5. Develop standard outputs that can be used by management to direct and manage work, schedules, and data quality. Each Operational Division should produce a monthly report prepared in a similar format. Each Division should also establish a monthly meeting with the Department Director to review the WAMS/WACS data, for establishing accountability with all teams.
6. Provide training to Managers and Supervisors in using WAMS/WACS data for developing operational alternatives and making management decisions to improve the efficiency and effectiveness of resource utilization. Utilize data from the WAMS/WACS to compare both effective and efficiency benchmark parameters to other agencies and industry standards.
7. Establish a continuous improvement process with quarterly updates given to employees using WAMS/WACS data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administrator, Mayor, and City Council. Compare planned activities, workdays, accomplishments, cost, and unit cost versus actual effort, with non-compliance identified and solutions for correcting.

SECTION 2- BASELINE – EXISTING OPERATIONS

LAC was retained by the City of St. Petersburg to perform a management evaluation of the SPTO Department through Section 4.05 (b)(1) of the City Charter. This effort included a complete review of the basic management functions of planning, organizing, scheduling, and controlling maintenance work, as well as a review of the various systems and processes utilized by management.

All available Department managers and supervisors, as well as other key staff, were interviewed for a total of twenty (20) in-person interviews. Interviewees included Mr. Ed Montanari, Council Chair and Budget, Finance, and Taxation (BF&T) Committee Chair, Ms. Boriana Pollard, City Auditor, and Mr. Claude Tankersley, Public Works Administrator. Many other employees and crews were observed in the field or their respective work locations over nine (9) days of on-site effort.

This section outlines the baseline information that was collected and used as a basis in identifying opportunities for improvement. It was compiled from many sources including, but not limited to interviews, field observations, data from paper and electronic databases, work history, inventories, and budgets, and supplemented by considerable input from City and departmental employees. LAC assumed the information provided was accurate and complete, but also performed some minor validation and triangulation of the information during the process. All information is presented as “point-in-time” data, as it was originally received.

The information was supplemented with input from LAC staff who are experienced in a variety of public works operations, organizational management, and management systems. Information in this working paper is presented in general terms, rather than in technical language, and is presented through best management practices for planning, organizing, directing/scheduling, and controlling/improving.

2.1. Evaluation Process

LAC was contracted to assist in meeting the desired goals of the City of St. Petersburg. First, to evaluate and document current operations (*Baseline*). Second, to compare and outline opportunities for improvement (*Findings*). Lastly, to make recommendations for improvement (*Recommendations*). This effort can be outlined as follows-

Baseline includes-

- Establishment of a foundation for the work processes and services performed.
- Review of various products and records.
- Interviews of all appropriate maintenance and operational staff (Director, Managers, Supervisors, and Administrative/Support).
- Observations of employees and crews performing work in the field.

Findings include-

- The expertise of the LAC staff in other similar projects.

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- Analysis of provided records.
- Process conclusions and cost evaluations.

Recommendations include-

- Outline of an Action Plan for improvement and sustainability.
- Predictions of the needs to meet future workload projections.

2.1.1. Ideal Maintenance Management System

Typically, a well-structured management process involves completion of the planning, organizing, directing, and controlling/improving functions regarding maintenance and operations. A graphic of this process is depicted in Figure 2-1. This model is used as a foundational basis for many of LAC's observations and is outlined in the American Public Works Association Administrative Manual (American Public Works Association, 2008) along with other documented industry support processes (American Public Works Association, 2014; Michel, 2004; National Association of County Engineers, 1992).

The planning effort involves determining major activities, defining guidelines, obtaining resource information, performing a condition assessment, and computing the level of effort that, in turn, allows a work program and budget to be determined. Upon completion of the process, the planning effort determines the amount of work to be performed on an annual basis for the agency.

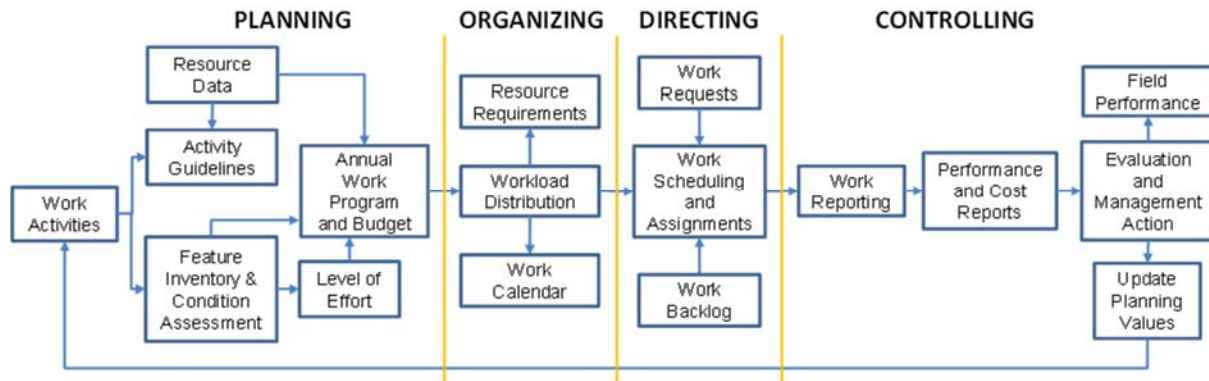
The next phase, organization, further divides the work program into work to be performed monthly. This phase allows the work by activity and resource requirements (labor, equipment, and materials) to be determined each month.

The direction phase uses the calendar, work requests, routine maintenance programs, and work backlog to generate a short-term schedule. This schedule is then used to direct staff to perform work by location.

The completed work is recorded and tracked within an automated system. A series of outputs are then generated which gives managers the planned versus actual effort of maintenance. This information is used to evaluate the field effort and identify opportunities to improve field performance. Actual accomplishment information derived from the process is used to update planning values each year, thus facilitating the improvement process.

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Figure 2-1 - Ideal Maintenance Management System



2.1.2. Departmental Baseline

This section outlines the existing operations for the City of St. Petersburg SPTO Department, including Stormwater Operations, Pavement and Traffic Operations, Special Projects, and Administrative Services. The management and work processes found within the Department and its sub-groups are also identified. The following topics are discussed in this section-

General Information

- General Facts
- Good Practices and Innovative Ideas
- Prior Studies
- Systems and Technology

Planning

- Assets and Features
- Work Activities
- Budgets

Organizing

- Structure and Staffing
- Hours and Leave
- Equipment
- Materials and Contracts

Directing

- Work Identification
- System Routine Processes
- Scheduling

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- Other Processes

Controlling / Improving

- Work Tracking
- System Evaluation and Performance
- Data Compilation and Evaluation
- Continuous Improvement Processes

2.2. General Information

2.2.1. City General Facts

The City of St. Petersburg was incorporated on February 29, 1892. The city is 59.6 square miles and is located in Pinellas County. The city is bordered by Tampa Bay on the east and south, Pinellas Park on the North, and several coastal communities on the west. In 2019, the estimated population was 265,351 (U.S. Census, 2019), making it the largest city in Pinellas County, with an annual population increase of 2% over the past five years. The population density of the city is estimated at 4,255 people per square mile (Advameg, Inc., 2017). Events such as the Firestone Grand Prix of St. Petersburg and museums such as the Salvador Dali Museum, Museum of Fine Art, and The Chihuly Collection help to bring approximately 6.2 million visitors annually to “The Sunshine City” with an average length of 5.6 days stay (City of St. Petersburg, 2017).

St. Petersburg has a strong mayor-council form of government, which combines a mayor with an eight-member elected council. The mayor and council members serve four-year terms. The mayor is responsible for the day-to-day affairs of the City, while the council looks after city policy, city budget, and mayoral appointments of other city officials. Currently, Mr. Rick Kriseman serves as Mayor and Dr. Kanika Tomalin as Deputy Mayor/City Administrator. The following are the City’s current Council Members- Mr. Robert Blackmon, District 1, Ms. Brandi Gabbard, District 2, Mr. Ed Montanari (Council Chair), District 3, Ms. Darden Rice, District 4, Ms. Deborah Figgs-Sanders, District 5, Ms. Dina Driscoll (Council Vice-Chair), District 6, Ms. Lisa Wheeler-Bowman, District 7, and Ms. Amy Foster, District 8. Figure 2-2 shows the City Council Districts.

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Figure 2-2 - Council Districts



2.2.2. SPTO Department General Facts

The SPTO Department is a large full-service organization. The Department reports to the Public Works Administrator. There are 200 full-time equivalents (FTE) within the Department. The Department is currently led by a Department Director with seven direct reports. Three of these positions, the Stormwater Environmental Services Manager, Pavement & Traffic Manager, and Administrative Services Manager are currently vacant. The positions of Stormwater Environmental Services Manager and Pavement & Traffic Manager are recently created positions.

Divisions within the Department include Stormwater Operations and Pavement & Traffic Maintenance. Stormwater Operations is divided into two major sub-groups including Stormwater Operations and Stormwater Quality. Pavement & Traffic Maintenance is subdivided into three sub-groups, which include Pavement, Signs & Markings, and Traffic Signals. Each of these sub-groups is further divided into additional sub-groups. The organizational structure will be further discussed in Section 2.4. The Department also has other support groups including Administrative Services and Special Projects.

2.2.3. Good Practices and Innovative Ideas

The Department is performing many innovative and good practices. Though only some of these are outlined below, many positive efforts have been completed or are underway.

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- On February 19, 2021, the Department achieved American Public Works Association (APWA) self-accreditation. The Department is just one of 22 agencies in the State and 159 in the Country. This shows the City's desire to have the tools for accountability.
- The Department has developed a Department Manual which contains standard operating procedures (SOPs) for several activities performed by maintenance and operations along with identified department goals.
- The integration and application of GIS support are utilized in some processes.
- The Department has and is beginning to utilize the work and asset management system (WAMS) to track a portion of their work effort.
- Mobile technology is available and is being utilized for work requests, work orders, and tracking by some employees.
- A centralized warehouse has been established for the Department that allows for many common items to be managed and controlled.
- There are several methods of receiving work requests that are being utilized by the Department to ensure service.
- Some short-term scheduling and work routines occur.
- Preventive maintenance exists for many functions such as sweeping, landscaping, and stormwater inlet cleaning. Also, Traffic Signals utilize an established series of preventive maintenance routines for traffic signal maintenance.
- The Signs & Markings group both manufactures and purchases signs demonstrating their desire for effective use of their resources.
- Several groups track work accomplishments in WAMS and spreadsheets and use them for accountability and documentation.
- Use of Pinellas Technical College (P-Tech) for employee training and professional development for entry-level employees and advancing mid-level employees with a focus on basic skills and techniques needed by the Department.
- The Department provides support for approximately 48 events annually, including the St. Petersburg Seafood & Music Festival, Tampa Bay Bluesfest, and the Firestone Grand Prix of St. Petersburg.

2.2.4. Previous Studies and Surveys

Integrated Water Resources Master Plan (IWRMP)

The IWRMP, a 723-page document, was created as a result of a Federal Department of Environmental Protection (DEP) consent order issued July 25, 2017. The regulatory submittal was produced by Jacobs Engineering Group, Inc. of Tampa, Florida. The goal is to improve the star rating system for sustainability. The master plan provided 33 scenarios in seven scenario categories (Jacobs Engineering Group Inc., 2019). The seven categories include-

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- Potable Water System- - six scenarios
- Wastewater Collection - five scenarios
- Wastewater Treatment - eight scenarios
- Reclaimed Water Distribution - six scenarios
- Stormwater Management - five scenarios
- Natural Resources - one scenario
- Sustainable Options - two scenarios

The scenarios related to Stormwater Management are in Section 8 of the IWRMP report. Figure 2-3 - Stormwater Management Scenarios shows the specific scenarios found in the section. There are three overarching categories – Manage Stormwater, Utilize Stormwater, and Policy Revisions. Each proposal is detailed with a purpose, merits and demerits, descriptions, and an estimated cost. The report estimates the Technology costs of the scenarios to be \$61.6 million, Implementation costs of \$61.6 million, and no costs related to Policy Revisions.

Figure 2-3 - Stormwater Management Scenarios

Potential Option	Purpose	Merits	Demerits	Description	Cost Estimate (\$)
Manage Stormwater	SW-1 Early Action Projects - Basin C	Enhance conveyance, pump station before outfall, secondary outfall off Salt Creek	<ul style="list-style-type: none"> • Addresses one area of highest concern for the City for flooding. • Alternative can be phased over time. • Improves lake storage and conveyance capacity. • Completes neighborhood storm sewer improvements. • Basin separate from impacts of tidal influences. • Increased pumping capacity for operational flexibility. 	<ul style="list-style-type: none"> • High capital investment \$53 million. • Likely to require easements and property acquisition. • Construction within urban corridors is expensive and causes disruptions. • Changes nature of Salt Creek from brackish to fresh water - impacting environmental conditions. • More energy costs for pumping. • Potential for environmental mitigation. 	This alternative would construct stormwater management improvements in Basin C. Technology Cost: \$53M Implementation Cost: \$53M
	SW-2 Replace Stormwater Management Systems at WRFs	Improve stormwater management	<ul style="list-style-type: none"> • Clean out silt from the existing storm system and improve grates. • Install curbing to stop dirt from entering the stormwater system. • Low-lying slabs can be raised while system is under construction. • Improved internal access to treatment units for City staff during wet weather. 	<ul style="list-style-type: none"> • Tidal gales may be needed for the stormwater points of discharge. • Construction required throughout entire WRF sites. 	This alternative would replace the on-site stormwater management systems at the WRFs. Technology Cost: \$3M Implementation Cost: \$3M
	SW-3 Construct Seawall at Northeast WRF	Long-term strategy for mitigating localized sea level rise	<ul style="list-style-type: none"> • Phased approach viable - could defend perimeter with short seawall to start with future flood barriers on top of the walls. • Eco-engineered seawall can improve marine habitat and levels of biodiversity. • Opportunity for local beautification/public art project. 	<ul style="list-style-type: none"> • Stormwater pump station required with a seawall. • Requires long-term maintenance by the City. 	This alternative would construct a seawall barrier in the future to mitigate sea level rise at the Northeast WRF. Technology Cost: \$5.6M Implementation Cost: \$5.6M
Utilize Stormwater	SW-4 Construct Stormwater ASR Wellfield	Utilize stormwater as a resource for water supply	<ul style="list-style-type: none"> • Provides means for storing and conserving large volumes of stormwater. • FDEP has permitted stormwater ASR wells (Peace River ASR). • Stormwater ASRs are advocated by the SWFWMD. • Potential funding from FDEP and SWFWMD. 	<ul style="list-style-type: none"> • General concern with arsenic groundwater contamination for ASR wells. • Uncertain of requirements for treatment prior to injection into ASR wells • High cost of pumping 	This alternative would construct an ASR wellfield to store stormwater. \$5M (per well)
Policy Revisions	SW-5 Revise City Policy	Require owners to raise elevation for new and retrofit construction	<ul style="list-style-type: none"> • Potential to establish a future marine conservation area in low lying coastal areas • Minimizes the City's risk for mitigating flood impacts to residences at/below the base flood elevation. • Educates the public regarding the risks associated with living in coastal areas. 	<ul style="list-style-type: none"> • Property owners not allowed to build/rebuild to current elevations because it is more expensive. • Potentially controversial subject for local property owners. • May be a challenge to apply policy uniformly. • Areas such as policy may apply will continue to expand over time if SLR propagates. 	This alternative recommends policy revisions related to stormwater management. NA

The plan recommended a 20-Year Stormwater CIP totaling \$634.8 million, divided into the following drivers-

- Asset Management - \$123,000,000
- Construction Coordination - \$3,000,000
- Enhanced Stormwater Management - \$108,805,000
- Future Projects - \$400,000,000

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Stormwater Operations Audit- Audit Project No. 18-04

The Stormwater Operations Audit (No.18-04) was performed by the Office of the City Auditor and a final report was submitted on September 13, 2018. The audit period was from October 1, 2016, through September 30, 2017. The primary objective of the audit was to verify that proper internal controls are in place and operating effectively for Stormwater Operations, complying with City and departmental policies and procedures. From the report, seven (7) issues were identified, including –

- All core processes are not properly documented in a formal policies and procedures manual.
- Purchase card transactions that appear to violate city procurement policies and procedures.
- Stormwater Street sweeping work order supporting documentation is not signed by the Foreman as evidence of review and approval.
- Stormwater work order supporting documentation is not maintained electronically.
- Intergovernmental Work Orders (IGWOs) process is primarily manual and labor-intensive.
- The Stormwater overhead rate does not appear to be fully supported or reviewed regularly.
- Review of user access to the Customer Master Maintenance file in the Naviline system is inefficient and ineffective.

As a result, the Auditor offered seven (7) recommendations with various target dates for completion, these include.

- Develop policy and procedure manual that is periodically reviewed and updated.
- Documentation of work order completion and management’s review.
- Secure work information through the WAMS or a folder on the network.
- Management review, update, and document overhead rate.
- Reinforce P-Card procedures.
- Implement internal controls for the Naviline system.
- The automation of IGWO data.

Follow-up Stormwater Operations Audit- Audit Project No. 18-04F

As a follow-up to the previous Stormwater Operations Audit, the City Auditor performed another Audit Project. A report was submitted on December 31, 2019. The follow-up concluded that two items were completed from the original recommendations and several lacked completion. These included –

- Core processes not documented – Manual started

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- Lack of documentation on WO
- Overhead not finalized – Review underway
- Internal Controls for Naviline – Process revision underway

PTO Complaint Review- Audit Project No. 19-07

The PTO Complaint Review Audit (No. 19-07) was performed by the Office of the City Auditor and a final report was submitted on January 8, 2019. The purpose of the audit was to investigate received allegations of mismanagement and dishonesty within the department on March 4, 2019. Twenty-seven (27) allegations were made after the report concluded that five (5) were unfounded, eleven (11) were unsubstantiated, and another eleven (11) were substantiated. From the report, several recommendations were made –

- Create a safety manual with the Safety Officer.
- Inspection of equipment by the Safety Officer.
- Create and implement a code of conduct for the Department.
- Create, document, and implement a formal process for determining on-call schedules.
- Continue to use Safety and Training Officer.
- Further evaluate vendor performances in providing the best product or price.
- Communication with HR and SEIU Union.
- Sensitivity training.
- Quality control on timekeeping.
- P-Card compliance.

Since the findings and recommendations were made, the entire Traffic Signal Division management team has changed over the last two years.

Pavement & Traffic Operations Audit- Audit Project No. 18-15

The Pavement & Traffic Operations Audit (No. 18-15) was performed by the Office of the City Auditor and a final report was submitted on May 22, 2019. The audit period was from July 1, 2017, through June 30, 2018. The primary objective of the audit was to verify that proper internal controls are in place and operating effectively for Pavement & Traffic Operations, complying with City and departmental policies and procedures. From the report, nine (9) issues were identified, including –

- All core processes are not properly documented in a formal manual of policies and procedures.
- An objective and verifiable pavement management process is not applied in decision-making to optimize results.
- Inventory is not properly recorded, tracked, and expensed when consumed.

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- The pavement & Traffic Operations (PTO) overhead rate does not appear to be fully supported, reviewed, or updated regularly.
- Overhead charges for Intergovernmental Work Orders (IGWOs) are not accounted for separately in the general ledger.
- Some IGWOs are missing support documentation and/or are not created promptly.
- Supervisory review and approval are not documented for WAMS work orders and supporting documentation.
- Some WAMS work orders are missing supporting documentation.
- PTO IGWO process involves duplication of effort within Oracle WAMS.

From the report, several recommendations were made related to the following –

- Developing a policy and procedure manual.
- Implementing a Pavement Management system.
- Establishing inventory control.
- Management review, update, and document overhead rate.
- The proper charging for IGWO.
- Documenting work order completion.
- Securing work information.
- Eliminating double WAMS entry.

Follow-up Pavement & Traffic Operations Audit- Audit Project No. 18-15F

As a follow-up to the previous Pavement & Traffic Operations Audit, the City Auditor performed another Audit Project (No. 18-15F). A report was submitted on February 18, 2020. The follow-up concluded that nine (9) items were completed from the original recommendations and several lacked completion. These included –

- Core processes not documented – Manual started.
- PMS not implemented – Retained Trans Map to complete.
- Overhead not finalized – Review underway.

2.2.5. Guiding Principles

The City has established a clear vision statement that focuses on the effectiveness of providing opportunities through innovation, creativity, and competitiveness. The vision statement is –

“St. Petersburg will be a city of opportunity where the sun shines on all who come to live, work and play. We will be an innovative, creative and competitive community that honors our past while pursuing our future.”

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The city has also four documented supporting Strategic Pathways and additional value statements. The Strategic Pathways include –

- Stewardship & Fiscal Responsibility
- Innovation
- Impactful Service
- Community Engagement

The value statements include –

- Accountable servant leadership that puts people and their well-being first.
- Empowerment that fosters ownership and the realization of every opportunity’s potential.
- Transparent access to the information that informs decisions.
- Celebration of diversity and respect for the value that it brings.
- Inclusive practices that promote equality and justice.
- Responsive processes that produce sustainable outcomes that build a seamless city.

The Public Works Department has also established both a vision and mission statement. Their Vision Statement is –

“We will achieve our mission by driving collaboration between employees and citizens with a spirit of partnership and pragmatism. Understanding what matters, bringing new ideas, and creating a positive impact!”

The SPTO Department has also established a clear mission statement, which focuses on both effectiveness and efficiency of service delivery, costs, and customer service. Their mission statement is –

“The mission of the Stormwater, Pavement and Traffic Operations Department is to deliver cost-effective services to the community and to enhance the environment through innovative customer stewardship, moving forward in operating and maintaining the city's stormwater, pedestrian, and roadway systems.”

2.2.6. Departmental Goals and Objectives

Communicated through Memo SPTOM20-144, the Department Director expressed twelve (12) department goals and objectives. The Director states that the following goals should be completed by the end of November 2021. The goals include –

- SWOT analysis – Department-wide and Garrett/DiAnna Leads
- Process Improvement Team (PIT) – Department-wide and Teena leads
- Improve Apprentice/Technician Program – Executive Team and DiAnna leads
- Cross Training Rotation Program – Leadership Team and Brian Anderson leads

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- Customer Service Standards – Management and Leadership Teams and DiAnna/Garrett Leads
- Operator Training Program – Brian Lucas leads
- Striping Plan – Sign Shop Team and Teena leads
- Mowing Plan – SW Quality and Ditch Crew and Brian Anderson leads
- Sidewalk Plan – Sidewalk Team and Rick Eads/Teena technical support
- Alley Plan – Alley Team and Rick Eads/Teena technical support
- Webpage Creation – Garrett Woods leads
- Operations and Maintenance Plan for Lake Maggiore – Brian Anderson, with Charles Hargrove and Chris Allen

2.2.7. Systems

The Department maintains several independent manual and automated databases to manage and account for maintenance and operations. The databases are maintained in a variety of different systems and applications. Further, the employees of the Department use numerous unlinked files in various formats for managing information. This includes Excel spreadsheets, Word documents, and independent databases to monitor inventory usage, work accomplishment, routines, inspections, and various work order logs. Most system linkages are performed through manual processes.

A list of the major databases and spreadsheets observed by LAC and their functions are provided below.

Work Order Database

The Work and Asset Management System (WAMS), also referred to as the Work Order Database, is the primary Computerized Maintenance Management System (CMMS) used by each group in the Department. All operational groups use the WAMS for tracking a portion of their work. The WAMS was implemented in 2007 and went live in 2008 in the Water Resources Department. The SPTO Department started utilizing the system within the past two years.

Some activity is tracked by the Department in the WAMS in three “Departments” – Stormwater, Pavement, and Traffic. Between October 1, 2019, and September 30, 2020, Stormwater recorded 60,595 regular hours, Pavement recorded 13,033 regular hours, and Traffic recorded 9,988 hours. Applying an annual production value of 1,760 hours for an FTE, Stormwater reported 34.4 FTEs, Pavement reported 7.4 FTEs, and Traffic recorded 5.67 FTEs.

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The City's Capital Asset Management Program (CAMP) and Asset Management Policy is being developed specifically to address the need for comprehensive asset inventories for all City-owned assets, including those owned by the SPTO Department. The Department will be required to create a comprehensive inventory under the Citywide CAMP initiative that will be linked to both GIS as well as the Department's CMMS. The CMMS platform has been procured and is in the initial stages of the implementation of WACS. The WACS platform will replace the outdated WAMS platform currently used by the City.

SeeClickFix

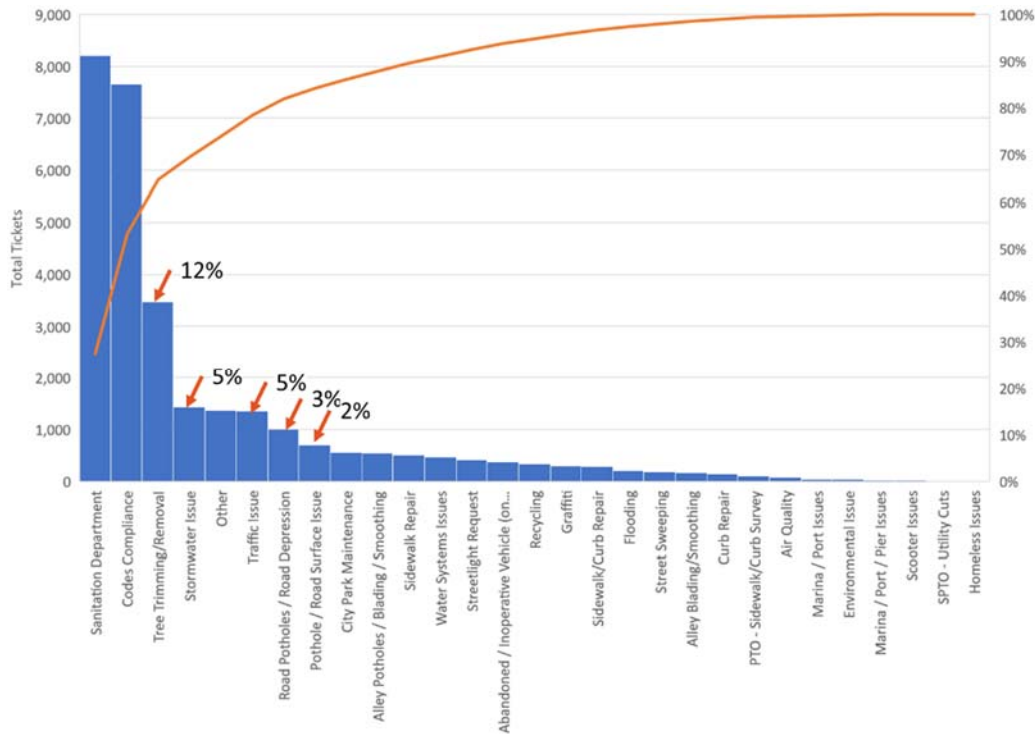
A citywide Customer Relationship Management (CRM) application and tool, through which citizens can request services from the City, allows for specific locations of issues to be identified with supplementary photos. The Mayor's Action Center will acknowledge newly submitted issues and forward them to the appropriate City departments, including the SPTO Department.

On the Mayor's Action Center webpage, the city makes available historical data related to the number of requests by category. The data is divided into 22 categories and four (4) statuses. Using data from June 2014 through May 21, 2021, there were 157,236 tickets generated with 42% (65,307) issued to the *SPTO Department*, 11% (17,671) issued to *Traffic Issues*, and 11% issued to the *Tree Trimming/Removal* category.

Between May 20, 2020, and May 21, 2021, 35% (10,543) of the total tickets were created in SeeClickFix for the Department. The twenty-two (22) categories and increasing percentages of the total are shown in Figure 2-4 - Categories of SeeClickFix Tickets. Over this period, Tree Trimming/Removal contributed 12% of the total, Stormwater Issues 5%, Traffic Issues and an additional 5%, Road Potholes/ Road Depression 3%, and Pothole/Road Surface Issue contributed an additional 2%. Of the 10,543 tickets, 43% were categorized in the status of "Archived", 35% as "Acknowledged", 19% as "Closed", and 3% in the status category of "Open".

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Figure 2-4 - Categories of SeeClickFix Tickets



ESRI-GIS

A geographic information system (GIS) software integrates hardware and data for capturing, managing, analyzing, and displaying all forms of geographically referenced information. The Department also utilizes ESRI's ArcGIS suite with Oracle as their spatial database. The software is distributed by ESRI and is a platform often integrated with maintenance management systems, linking maintenance and repair activities to spatial maps. Some employees print out maps and attach them to work orders. Interactive mapping tools are also available to customers online. The GIS database includes the following asset layers specific to the Department.

- Stormwater Basins
- Stormwater Vaults
- Stormwater Pump Stations
- Stormwater Culverts
- Sea Walls
- Pedestrian Bridges
- Catch Basins
- Stormwater Alum Stations
- Stormwater Ditches
- Street Sweeping Zones

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- Asphalt Roadways
- Brick Roadways
- Bridges
- Sidewalks
- Hex block Sidewalks
- Traffic Signals
- Stormwater Catch Basins
- Alleys
- Lakes/Ponds/Waterways
- Rapid Rectangular Flashing Beacons
- Crosswalks
- School Zones

GIS allows the Department to view, understand, and interpret data in many ways to help visualize relationships, patterns, and trends using maps, reports, and charts. This information is also available to users of the City's website.

Other Automated Systems

- **Kronos** – The Citywide payroll and time-keeping database.
- **M5/Fleet Focus** – An automated fleet management system used by the City's Fleet Management group to plan, schedule, and monitor equipment maintenance.
- **PaymentNet** – PaymentNet is a database used for recording PCard transactions.
- **TreePlotter** – A tree inventory and asset management software to map and manage the City's urban forest.
- **Centracs** – An Advanced Traffic Management System (ATMS), which is a GUI-based enterprise-class traffic software solution.
- Other Ancillary Documents, Spreadsheets, and Databases. A Pavement Management System (PMS) exists but is managed by City Engineering.

2.3. Planning

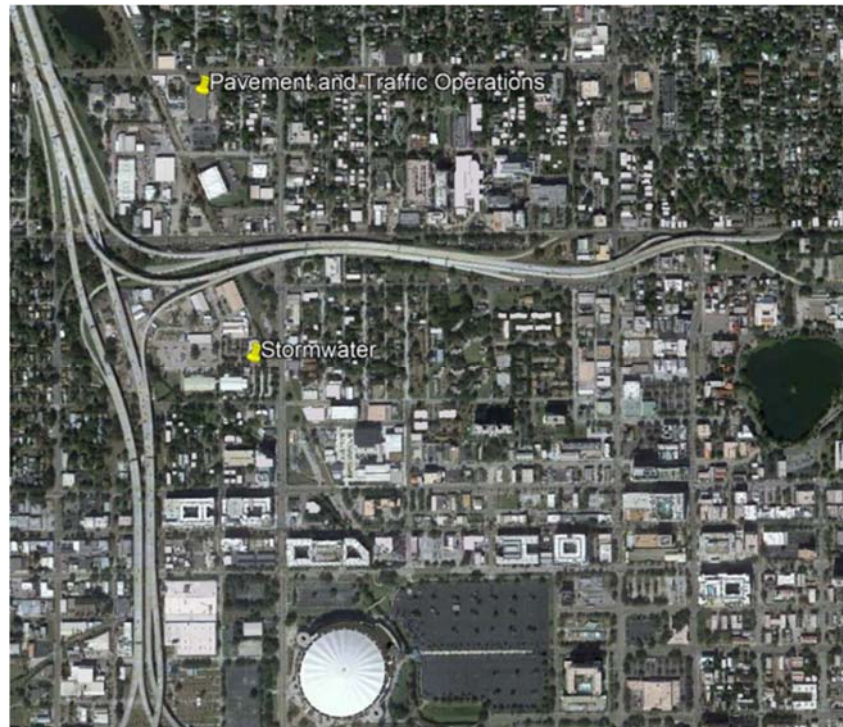
2.3.1. Assets and Characteristics

Staging Locations

The SPTO Department has abundant facilities, assets, and infrastructure related to stormwater, pavement, and traffic operations and maintenance. The most significant assets related to the planning and staging of work are the two work locations where most employees report. The Stormwater Division is based out of the 1650 3rd Ave North, St. Petersburg, FL 33713 office, along with most of the Department. The Pavement and Traffic Operations Divisions are based out of the facility at 1744 9th Ave North, St. Petersburg, FL 33713 (Pavement and Traffic Operations). There are 120 employees in the Stormwater division and 58 employees in Pavement and Traffic Operations, largely based at the respective facilities. Recently the Stormwater Quality group has been added to the 9th Ave North, St. location.

Figure 2-5 shows the primary staging locations of the Department. The 1650 3rd Ave North location is also home to the Water Resources Department, the City's consolidated warehouse, and fleet operations.

Figure 2-5 - Department Staging Locations



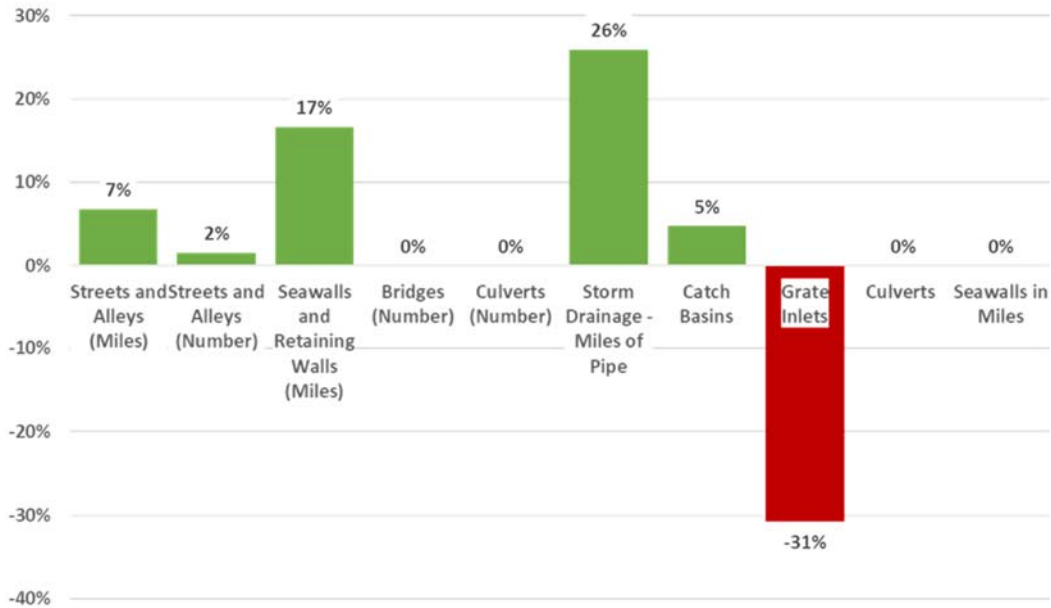
Field Assets

The Department is responsible for the repair and maintenance of numerous assets and features. Some of these include 81 bridges, 879 miles of asphalt roadways, 229 miles of alleys, 1,752 miles of curb line, 763 miles of sidewalks, 310 traffic signals, 17,900 stormwater inlets, 626 miles of stormwater pipe, 12 stormwater pump stations, 5 stormwater alum stations, 83 retention ponds, 100 miles of sea walls, and 704 acres of mowing areas.

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As reported in the City’s historical Consolidated Financial Reports, between 2011 and 2020, streets and alleys have increased 7% in mileage and 2% in number, seawalls and retaining walls have increased 17% in mileage, storm drainpipe mileage has increased 26%, and the number of catch basins has increased 5%. Grate inlets were the only asset to decrease over that period by (-31%). Figure 2-6 - Historical Asset Change shows these differences.

Figure 2-6 - Historical Asset Change



Street Inventory and Condition

Out of approximately 977 total miles of streets, almost 90% are asphalt. Though, there are a variety of other roadway types including an estimate by SPTO of 4 miles of concrete, 86 miles of brick, 6 miles of millings, .5 miles of unknown type, and .1 miles.

Using provided data, nearly 24% or 213.7 miles of the asphalt road miles are rated as poor or below. Another 25% are in fair condition, 22% are satisfactory, and 29% are in good condition, as shown in Ratings. Figure 2-7 - Paved Road PCI Ratings Figure 2-8 - PCI Distribution shows the Pavement Condition Index distribution of the City’s paved roads by rating and numerical score, respectively. The average rating of all asphalt streets is 68.4 out of 100.

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Figure 2-7 - Paved Road PCI Ratings

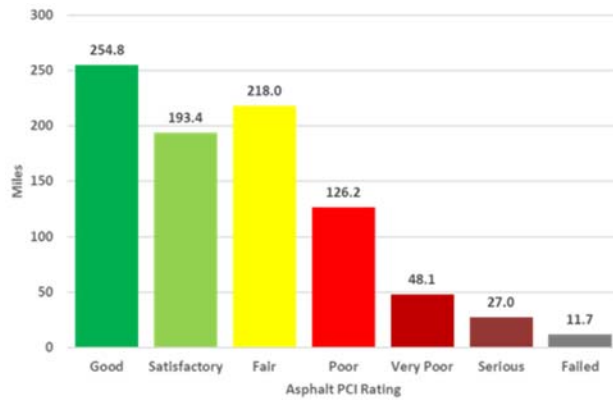
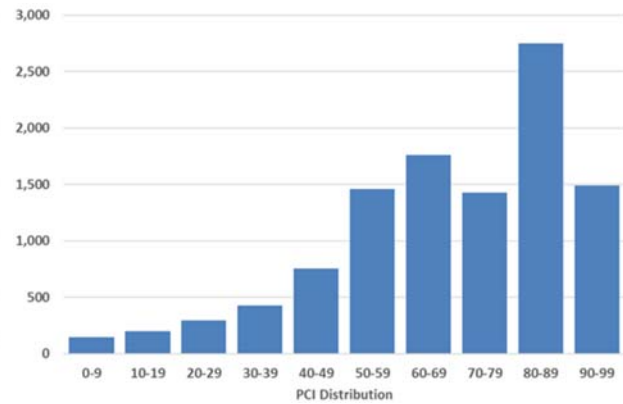


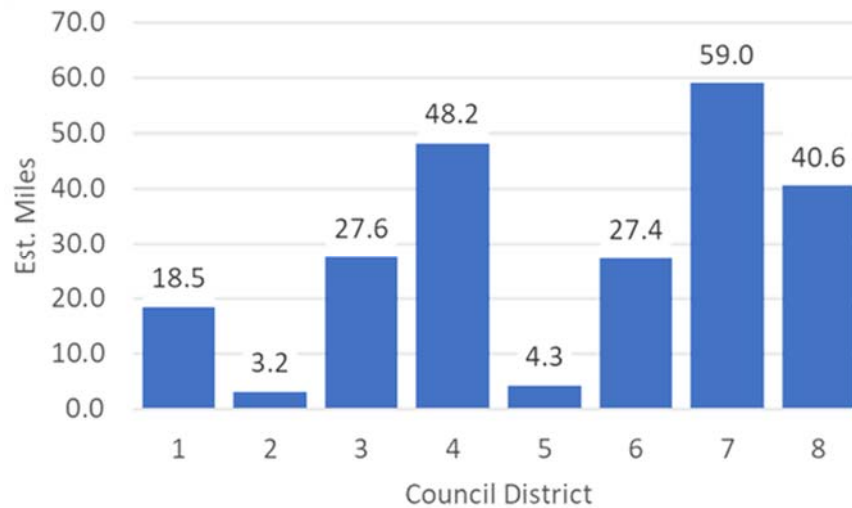
Figure 2-8 - PCI Distribution



Alley Inventory

There are 84 miles of asphalt alleys in the city, 10 miles are brick, and 132 miles are asphalt millings. Approximately 81% are a portion of the Solid Waste Department sanitation routing. Most of the alleyways are 12 feet in width. Additionally, only about 6% have a known base type, which includes 4% brick, >1% millings, and >1% shell. Just under 95% are unknown. Figure 2-9 - Miles per Council District shows the miles of alleyways within each council district.

Figure 2-9 - Miles per Council District

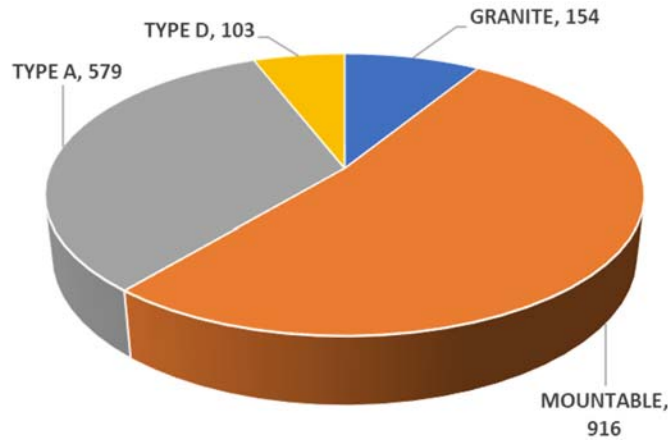


Curb Inventory

The Department is responsible for approximately 1,752 miles of curb line. This network is composed of four types of materials. Granite comprises 9% of all curbs, mountable comprises 52%, Type A vertical curb comprises 33%, while Type D mountable curb is the remaining 6%. Figure 2-10 - Curb Miles shows the number of miles in each category.

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Figure 2-10 - Curb Miles



Right-of-Way Maintenance Area Inventory

The SPTO Department is responsible for mowing and maintaining right-of-way areas, which total approximately 704 acres with some of the area done on a contract basis for the State. The City maintains 314 acres (45%) that are owned by the City, while 21 acres (3%) are owned by the County, 301 acres (43%) owned by the State, 35 acres (5%) which are private, and 33 acres (5%) which is “undeclared” within the provided data. Figure 2-11 - Maintained Areas by Type shows the acreage by type for which the Department is responsible.

Figure 2-11 - Maintained Areas by Type

Type	Acres
Bulb-Out	1.0
Center Island	91.3
City Facility	93.6
Ditch	96.7
Highway	239.0
Parcel	18.0
Park	1.5
Playground	0.4
Right-Of-Way	145.1
Seawall	4.5
Traffic Circle	1.0
Triangle	12.0

Bridge Inventory

There are 83 bridges owned by the City of St. Petersburg in their reported inventory. Of all the bridges, 28 have a span less than 20 feet, which is considered non-National Bridge Inventory (NBI), 24 have a span over 20 and up to 30 feet, and 27 have a span greater than 30 feet.

Though the average life expectancy for city bridges is approximately 25.9 years, the oldest bridge was built in 1920. The condition assessment data provided by the City shows an average sufficiency rating of 79.4 out of 100. The NBI ratings assess the components of the bridge

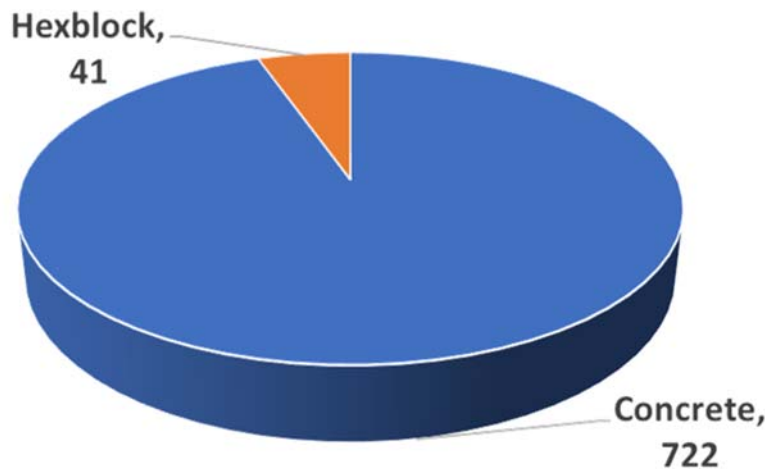
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structures on a scale of 0 to 9. The city bridges received an average performance score of 2.3, Deck – 6.71, Superstructure – 6.58, Substructure – 6.55, and Channel – 7.16.

Sidewalk Inventory

There are an estimated 763 miles of sidewalks throughout the city, for which the Department is responsible. Concrete sidewalks comprise 722 miles or 95% of all sidewalks, while the other 41 miles (5%) are made of Hexblock. Figure 2-12 - Sidewalk Inventory by Type (Miles) shows the comparison between the two categories.

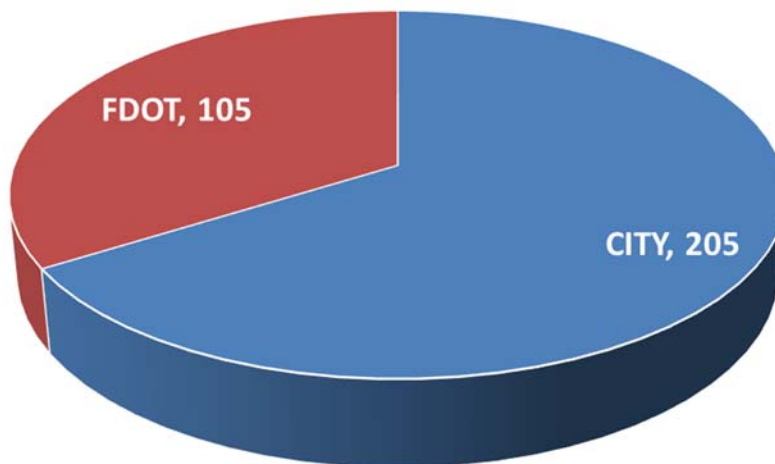
Figure 2-12 - Sidewalk Inventory by Type (Miles)



Signalized Intersection Inventory

The Traffic Signal group is responsible for 310 signals – the majority of which have LEDs for their indications. Of this inventory, 205 (66%) are owned by the city and the Florida Department of Transportation (FDOT) owns 105 (34%). Figure 2-13 Traffic Signal Inventory shows the traffic signal inventory the city is responsible for by category and number.

Figure 2-13 Traffic Signal Inventory by Ownership (Number of Signals)



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Signs

The city owns and maintains 60,899 signs across 12 MUTCD (Manual on Uniform Traffic Control Devices) categories. Approximately 16% of the total (9,512) are stop signs. Regulatory signs comprise the greatest number of signage, followed by directional signs, parking signs, and warning signs. There are far fewer of all other types of signs. The breakdown of signage by category and their number is shown in Figure 2-14 Sign Inventory

Figure 2-14 Sign Inventory by MUTCD Category



2.3.2. Work Methods

Standard Operating Procedures

The Department utilizes Standard Operating Procedures (SOPs) for many of its activities, which inform the managers and crew of the steps and performance measures to ensure the work is done properly. There are currently 24 SOPs, each of which includes the following sections found in the Department Manual.

- Purpose
- References
- Record of Revision
- Applicability
- Location
- Summary of Method
- Terms & Definitions
- Personnel Qualifications
- Procedural Steps

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- Records Management
- Quality Assurance/Quality Control

While some SOPs have already been established and guide in the performance of work, other activities without SOPs are primarily based on employee and/or supervisor experience. Traffic control is established per location. Two activities, Maintaining Bodies of Water (Lakes and Ponds) and Asphalt Long Patch Repair, are shown on the following page as examples of activities with SOPs with specific documented steps.

2.3.3. Activities Performed

Each Division within the Water Resources Department has a list of established activities that are found in various databases, including the WAMS.

Stormwater

The Stormwater group performs thirteen (13) related activities. Of these, eight (8) have SOPs developed and found within the Department Manual. These activities and their SOP status are listed below.

Activity	SOP Developed
• Catch basin inlet maintenance	Yes
• Closed drainage system maintenance	Yes
• Stormwater culvert installation	Yes
• Stormwater vault maintenance	Yes
• Chemical vegetation management	Yes
• Landscape maintenance	Yes
• Litter and debris collection	Yes
• Street sweeping operations	Yes
• Line Clearing	No
• Shallow and deep construction	No
• Hand ditch	No
• Mini mowing	No
• Sea wall	No

For the Stormwater group, an example of the documented operational steps for ‘Maintaining Bodies of Water (Lakes and Ponds)’ is listed below.

Step # Description

- 1 Select treatment (Spray truck, spray boat, Weedoo).

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- 2 Retrieve the chemicals and mix according to the label rates for each chemical.
- 3 Apply the needed treatments.
- 4 If the issue is trash removal, use johnboats and personnel with dip nets and trash pickers.
- 5 If the issue is for sediment removal, removal of sediment either with heavy equipment or a contractor for large jobs.
- 6 Repairs such as washouts or erosion use an operator.

Pavement

The Pavement group performs seven (7) related activities. Of these, five (5) have SOPs developed and found within the Department Manual. These activities and their SOP status are listed below.

Activity	SOP Developed
• Asphalt long patch repair	Yes
• Guardrail and attenuator maintenance	Yes
• Pothole patching	Yes
• Curb maintenance	Yes
• Alleyway grading	Yes
• Sidewalk repair	No
• Debris removal	No

For the Pavement group, an example of the documented operational steps for ‘Maintaining Asphalt Long Patch Repair’ is listed below.

Step # Description

- 1 Deploy traffic control devices.
- 2 Clean up any debris left behind from installing asphalt.
- 3 Start spreading asphalt ensuring it is leveled.
- 4 Proceed to compact asphalt using a steel-wheeled roller.
- 5 Clean the area of debris and spray the area with SS-1.
- 6 Inspect the area for depressions. If any is present, additional asphalt, level, and compact.
- 7 Cover the area with a light coat of sand.
- 8 Make a final inspection of the area making sure all tools are picked up and all debris is cleaned up.
- 9 Finally, remove traffic control devices.

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Traffic and Traffic Signals

The Traffic and Traffic Signals group performs nine (9) related activities. Of these, five (5) have SOPs developed and found within the Department Manual. These activities and their SOP status are listed below.

Activity	SOP Developed
• School zone marking management	Yes
• Traffic control signals maintenance	Yes
• Railroad marking installation and maintenance	Yes
• Sign visibility maintenance	Yes
• Thermoplastic application and maintenance	Yes
• Sign installation	No
• Sign replacement	No
• Sign fabrication	No
• Pavement marking	No

Special Events and Impact on Operation

The city is also host to several large seasonal events, which increase the total number of visitors and place an additional burden on the city’s infrastructure, as well as necessitate increased and occasionally overtime staffing. Major events include the Firestone Grand Prix, which brings an estimated 400,000 visitors, and parades, such as the MLK Dream Big Parade and Santa Parade. Smaller events include the Saturday Morning Market and Williams Park Summer Market. The Pride Parade is a significant event, which is held on the first Friday of each month.

2.3.4. Budget

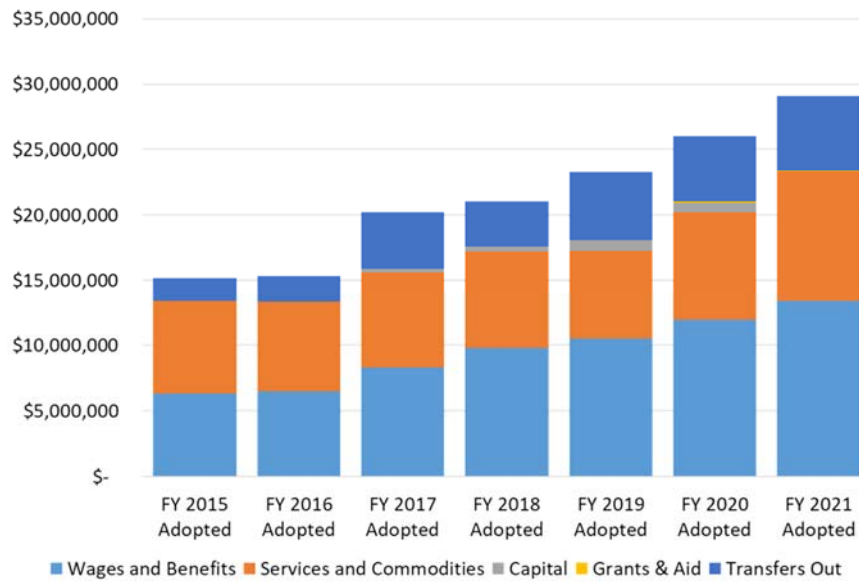
The Department budget is based on a line-item system. Performance measures are included in the budget with only an indirect dependency on the budgeted amounts. Two primary funds fund the Department’s budget – Fund 0001 and Fund 4011. Described below in more detail are the recent historic budgets, adopted budgets, and actuals between the Fiscal Year 2015 (FY 2015) and FY 2021, as well as current budget performance metrics.

Adopted Budgets

The adopted budgets for the SPTO Department have increased year-over-year since 2016. The budget remained the same between FY 2015 and FY 2016 at \$15 million but then increased sharply to approximately \$20 million in FY 2017. The most recent adopted budget for FY 2021 was for just under \$30 million. Between 2015 and 2021, the largest growth in the budget has been for Wages and Benefits, though Services and Commodities and Transfers Out have also grown slightly. Wages and benefits now comprise nearly half the total budget.

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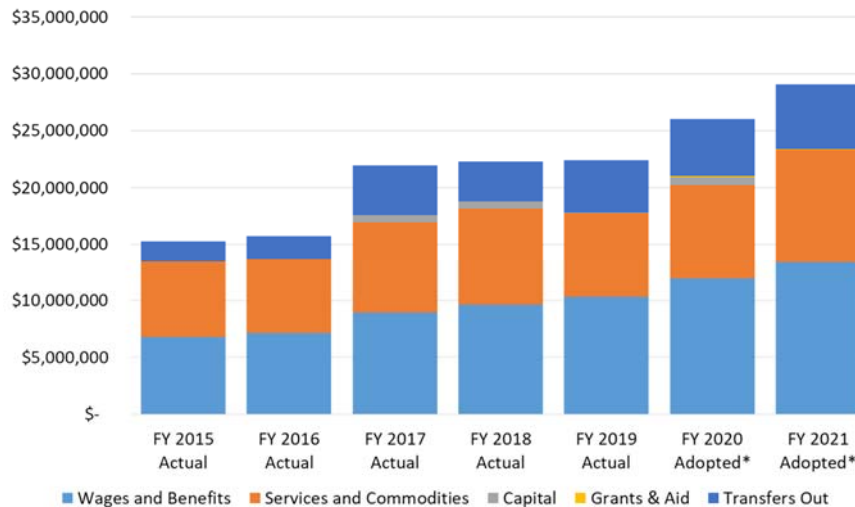
Figure 2-15 – Adopted Budgets by Subcategory



Historic Actuals

The actual expenditures generally follow the same trend as the adopted budgets. The expenditures in FY 2016 were only slightly higher than the budget. The FY 2017 expenditures, on the other hand, also jumped significantly, but approximately \$2.5 million more than budgeted. Total expenditures remained roughly the same between FY 2017 and FY 2019, though Wages and Benefits increased, and Services and Commodities decreased as a share of the expenditures. Therefore, the actual expenditures in FY 2018 and 2019 were less than budgeted. Expenditures and adopted budgets were much more consistent in FY 2020 and 2021.

Figure 2-16 – Historic Actuals by Subcategory



2.3.5. Budget Performance Metrics

The Department has specific strategic performance goals to measure the ability to meet its objectives. Each objective/performance measure has a unit of measure and is tracked between

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2018 and 2021. Outlined in the subsections below are the objectives and performance measures with actual values of each division/group.

FDOT Roadway Sweeping

The objective of the FDOT Sweeping subcontract is to reduce the volume of contaminants that enter the stormwater removal system and to maintain the aesthetic of the roadways. This division has one performance measure ‘Roadway Miles Swept – Stormwater,’ which fulfills the city values of Accountable Servant Leadership and Responsiveness.

This performance measure is measured in the number of miles, which remained the same between FY 2018-2020 (4,659 miles) and increased slightly in the estimated/adopted FY 2021 (est. 4,700 miles). Figure 2-17 -FDOT Roadway Sweeping shows the performance metric with actual values from FY 2018 through FY 2020 and the FY2021 Estimated/Adopted values.

Figure 2-17 -FDOT Roadway Sweeping

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/ Adopted
Roadway Miles Swept - Stormwater	#	4,659	4,659	4,659	4,700

Mowing Maintenance

The objectives of the Mowing Maintenance operations are to maintain ditch banks, lake perimeters, and slopes to improve hydraulic performance, as well as reduce erosion and potential health hazards to comply with the NPDES permit. These objectives fulfill the city values of Accountable Servant Leadership and Responsiveness. There is one existing performance measure in the Budget, which is ‘Erosion Control of Lakes and Slopes’. This is measured in the number of miles and has increased from 1,136 to 1,241 between FY 2018 and FY 2021, this is shown in Figure 2-18 - Mowing Maintenance.

Figure 2-18 - Mowing Maintenance

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/ Adopted
Erosion Control of Lakes and Slopes (Miles)	#	1,136	1,241	1,241	1,241

Pavement Maintenance

Pavement’s objective is to maintain the city's paved and unpaved streets and alleys in a condition conducive to safe drivability and proper drainage flow. This objective fulfills the city values of Accountable Servant Leadership, Empowerment, Transparent Access, Diversity, Inclusiveness, and Responsiveness.

The five performance measures included in the Budget are – ‘Alley Blading/Smoothing Work Orders’, ‘Pavement Repair Response Time’, ‘Pothole/Road Surface Work Orders’, ‘Sidewalk Repair Response Time’, and ‘Sidewalk/Curb Repair Work Orders’. The number of locations of

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Pothole/Road Surface Work Orders increased significantly from 1,257 in FY 2018 to 1,700 in FY 2021, as did the number of months for Sidewalk Repair Response Time from 2.5 to 6. Alley Blading/Smoothing and Sidewalk/Curb Repair work orders both decreased. The number of days to respond to Pavement Repairs decreased slightly from 25 to 23, this is shown in Figure 2-19 - Pavement Maintenance.

Figure 2-19 - Pavement Maintenance

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Alley Blading/Smoothing Work Orders (Locations)	#	450	400	400	400
Pavement Repair Response Time (Days)	#	25	23	23	23
Pothole/Road Surface Work Orders (Locations)	#	1,257	1,457	1,700	1,700
Sidewalk Repair Response Time (Months)	#	2.5	2	2	6
Sidewalk/Curb Repair Work Orders (Locations)	#	1,018	1,195	1,000	1,000

Pavement Markings

Pavement Markings provide a properly marked pavement system for the safe and efficient flow of traffic. There are three performance measures in the Budget, which have only been provided for FY 2020 (actual) and FY 2021 (target). The first, ‘Number of Symbols’ increased from 150 to 200, while the number of feet of ‘Lines Painted’ and ‘Lines in Thermoplastic’ remained the same. These measures are found in Figure 2-20 - Pavement Markings.

Figure 2-20 - Pavement Markings

Objective	Unit of Measure	FY 2020 Actual	FY2021 Target
Number of Symbols	#	150.00	200.00
Lines Painted (Feet)	#	99,499.00	99,499.00
Lines in Thermoplastic (Feet)	#	17,717.00	17,717.00

Sign Fabrication, Installation, and Maintenance

The primary objective of the Traffic Sign Fabrication and Traffic Sign Installation Division is to inform motorists and pedestrians of traffic regulations or information through sign installation and maintenance. This objective contributes to the city values of Accountable Servant Leadership, Empowerment, Transparent Access, and Responsiveness.

There are two performance measures included in the Budget – the number of ‘Signs Installed/Replaced’ and the number of ‘Signs Fabricated’. The number of signs installed and replaced decreased significantly from 9,000 in FY 2018 to 5,189 in FY 2019, though increasing again slightly to 5,713 in FY 2020 and FY 2021. The documentation for signs fabricated, however, shows an increase from 9,000 in FY 2018 to 10,712 by FY 2020 and FY 2021. These are shown in Figure 2-21 - Sign Performance Metrics

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Figure 2-21 - Sign Performance Metrics

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Signs Installed / Replaced	#	9,000	5,189	5,713	5,713
Signs Fabricated	#	9,000	10,063	10,712	10,712

Traffic Signals

The objective of Traffic Signals is to promote public safety through the installation and maintenance of a traffic signal system. This objective fulfills the city values of Accountable Servant Leadership, Empowerment, Transparent Access, Diversity, Inclusiveness, and Responsiveness.

There are four performance measures, each measured by total number – ‘Traffic Signal Calls Responded to in 30 Minutes’, ‘Number of Signal Intersections Maintained’, ‘Work Order, En-Route, and Trouble Calls’, and ‘Number of Resident Phone Calls for Service’.

Between FY 2018 and FY 2021, the number of Traffic Signal Calls Responded to in 30 Minutes decreased from 900 to 700, while the total Number of Resident Phone Calls for Service decreased significantly from 1,100 to 350. Work Order, En-Route, and Trouble Calls increased from 4,000 to 4,100, and the total Number of Signal Intersections Maintained increased from 306 to 309. These metrics are shown in Figure 2-22 - Traffic Signs Metrics

Figure 2-22 - Traffic Signs Metrics

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Traffic Signal Calls Responded to in 30 Minutes	#	900	900	900	700
Number of Signal Intersections Maintained	#	306	309	309	309
Work Order, En-Route, and Trouble Calls	#	4,000	4,000	4,100	4,100
Number of Resident Phone Calls for Service	#	1,100	350	350	350

Compliance with NPDES Permit

The SPTO Department must comply with the City’s National Pollutant Discharge Elimination System (NPDES) permit. This objective contributes to the city values of Accountable Servant Leadership and Responsiveness.

The performance measures for NPDES Permit compliance for roadway work include measuring ‘Estimated Quantity of Sweeping Material Collected’, ‘Litter Removal Street Program Estimated Amount of Litter Collected’, ‘Litter Removal Street Program Total Miles Cleaned’, and ‘Total Miles Swept’. Each performance measure has increased slightly between FY 2018 and FY 2021, except total miles swept, which has remained at 40,000 miles. These metrics are found in Figure 2-23 - NPDES Permit Compliance Performance Measures – Roadways.

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Figure 2-23 - NPDES Permit Compliance Performance Measures – Roadways

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Roadways – Estimated Quantity of Sweeping Material Collected (Cubic Yards)	#	13,351	14,000	14,000	14,500
Roadways – Litter Removal Street Program Estimated Amount of Litter Collected (Cubic Yards)	#	391	500	500	550
Roadways – Litter Removal Street Program Total Miles Cleaned	#	4,587	4,600	4,600	4,650
Roadway – Total Miles Swept	27,001	40,000	40,000	40,000	40,000

2.3.6. Overhead Rates

Spreadsheets are used to calculate benefits (overhead) for declared disasters. Overhead was last calculated to correspond with the changes given the Covid-19 pandemic (DR-4337). The rate for Regular Time Overhead is calculated at 64.99% and 15.89% for Overtime.

The Department uses different spreadsheets per fund to calculate burdened rates. The FY 2020 rate for Fund 4011 was 46% and 59% for Fund 0001.400. Two prior audits, one for stormwater and another for pavement and traffic, have called for this process to be documented and formalized.

2.3.7. Capital Improvement Project (CIP) Budgets

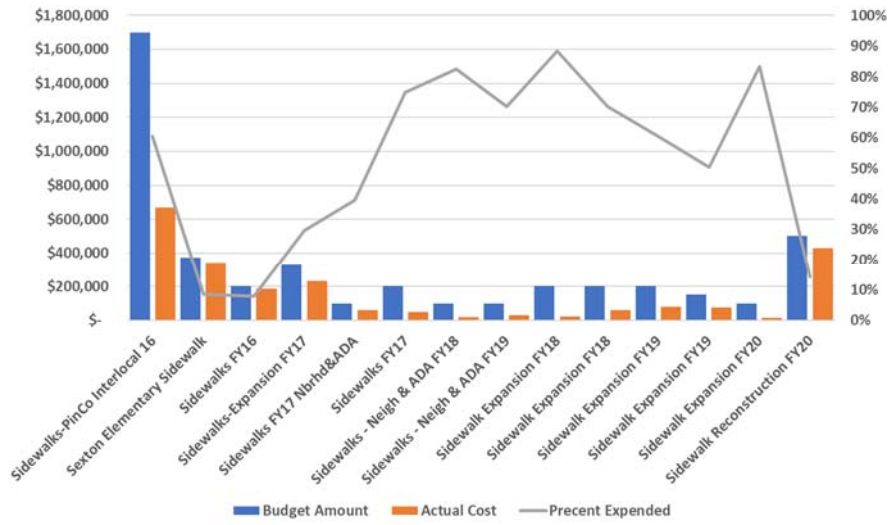
According to data provided on July 17, 2020, there are 638 approved projects between two funds for Capital Improvement Projects (CIPs).

Within Fund 4011, there are 24 approved projects, which have a total budget balance of \$21.2 million. All projects are expected to be complete by September 30, 2021. There is no budgeted amount for Project Number 14669 (New Meters Technology), however.

Fund 0001.400 has 614 approved projects – dramatically more than Fund 4013. The CIP in this fund has a total budget balance of \$880.3 million. All projects are expected to be complete by September 30, 2022. The Sidewalk CIP budgets are found within Fund 0001.400, which have \$4.9 million budgeted and \$2.3 million (54%) expended to date. Individually, projects range from 8% through 88% completion, as shown in Figure 2-24 - Sidewalk CIP Budgets, Actuals, and Percent Completion.

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Figure 2-24 - Sidewalk CIP Budgets, Actuals, and Percent Completion



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2.4. Organizing

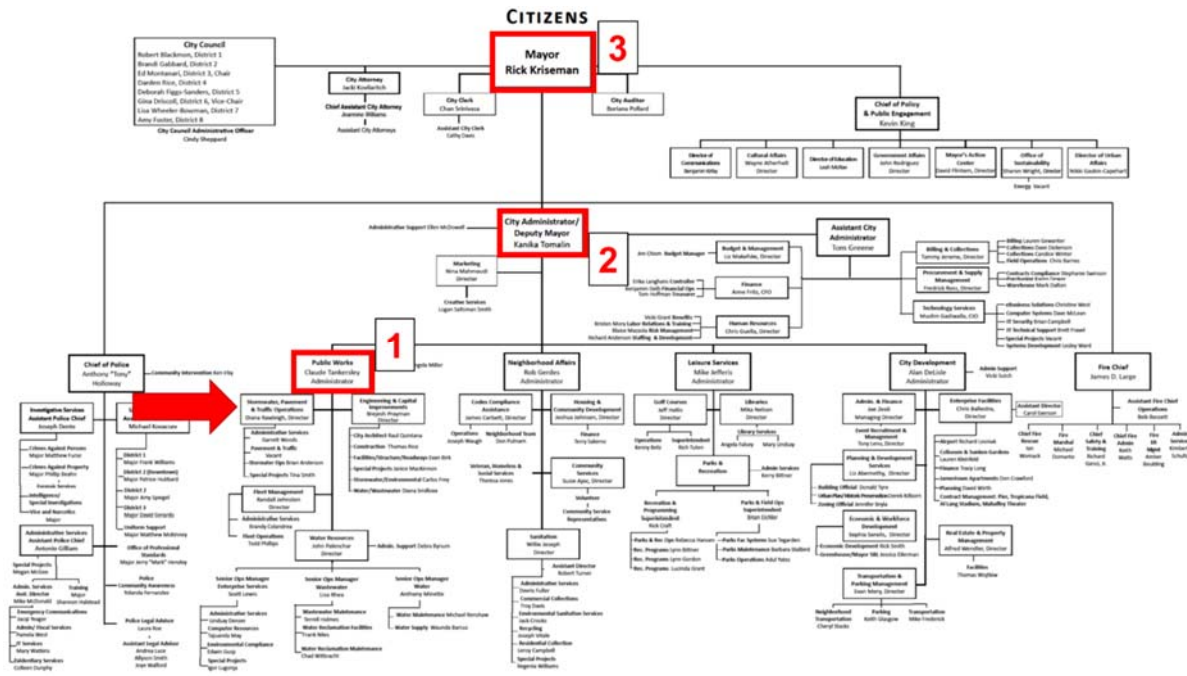
This section describes the organization of the Department, including where it fits within the City government, as well as internal structure and staffing, hours of operation, certifications, equipment, and maintenance contracts.

2.4.1. Organizational Structure

City of St. Petersburg

The SPTO Department has three levels of management above the Department’s Director, including the Public Works Administrator, City Administrator/Deputy Mayor, and Mayor. This organizational structure is shown in Figure 2-25 - City Organizational Structure with red boxes showing those levels.

Figure 2-25 - City Organizational Structure



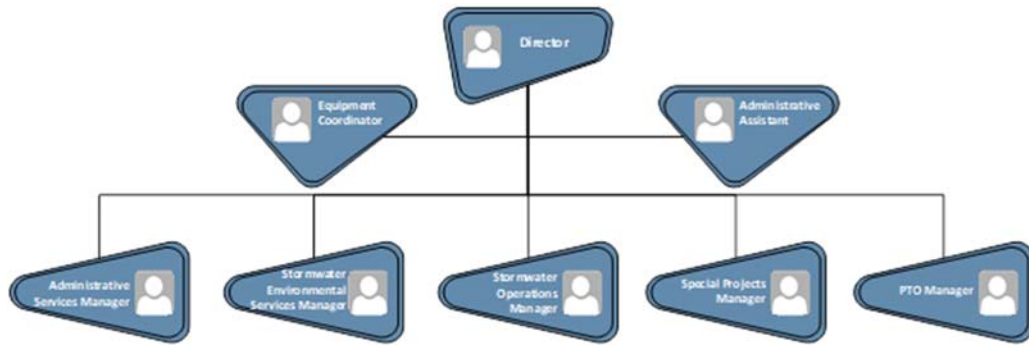
Stormwater, Pavement, and Traffic Operations Department

LAC used the organizational chart provided on April 26, 2021, for the development of this portion of the baseline, with the understanding that several reorganization moves were made during the study.

Within the Department, there are five levels below the Director. In order below the Director, these include managers, supervisors, forepersons, lead workers, and reporting employees. The Director’s Span of control is 1:7, with five (5) Managers, one (1) Equipment Coordinator, and one (1) Administrative Assistant. This structure is shown below in Figure 2-26 Department Director's Director Reports.

Stormwater, Pavement, and Traffic Operations Department
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Figure 2-26 Department Director's Director Reports



The Director is located at the 3rd Ave North location and reports to the Public Works Administrator. The divisions within the Department include Administrative Services, Stormwater Environmental Services, Stormwater Operations, Special Projects, and Pavement and Traffic. The span of control for the Director and managers varies between division and responsibility.

The Division Managers' spans of control range from 1:0 to 1:10. These spans of control are found below. It should be noted that the Stormwater Environmental Services Manager and PTO Manager are vacant. Also, the Stormwater Environmental Services Manager is a new position.

- Administrative Services Manager 1:10
- Stormwater Environmental Services Manager 1:0
- Stormwater Operations Manager 1:2
- Special Projects Manager 1:1
- PTO Manager 1:4

The organizational chart in Section 5 – Appendix of the Department Manual shows the organizational structure of the Department at the time of the initial LAC evaluation.

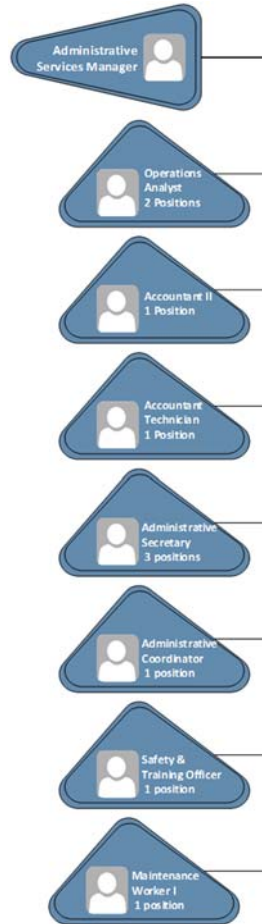
Administrative Services

The Administrative Services Division is tasked with providing administrative support through tracking and monitoring of the budget, administrative support for the Department, and both

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internal and external customer service support. Figure 2-27 - Administrative Services shows the organizational structure of the Division.

Figure 2-27 - Administrative Services



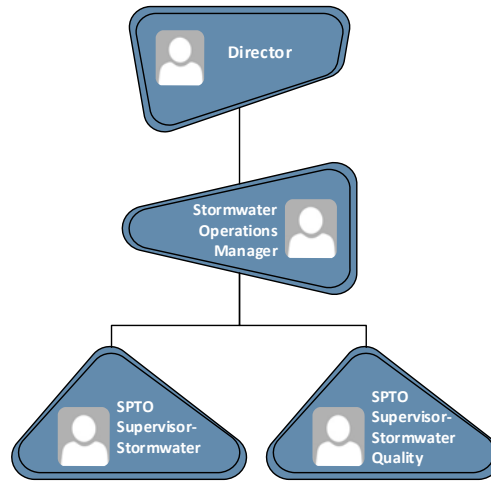
There are 11 positions within Administrative Services, all of which are full-time. The span of control for the Administrative Services Manager who oversees the whole division is 1:10. Under this position are the Operations Analyst (1:2), Accountant II (1:1), Accountant Technician (1:1), Administrative Secretary (1:3), Administrative Coordinator (1:1), Safety & Training Officer (1:1), and Maintenance Worker (1:1).

Stormwater Operations

The Stormwater Operations Division is the largest division with 124 full-time equivalents (FTEs), led by the Stormwater Operations Manager. This group is further sub-divided into Stormwater Operations and Water Quality. Figure 2-28 - Stormwater Operations shows the organizational structure of this group.

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Figure 2-28 - Stormwater Operations



Stormwater Operations

Stormwater Operations has 88 FTEs and is led by an SPTO Supervisor, who has a 1:17 span of control. The Supervisor had five (5) Equipment Operator IIIs and (5) Equipment Operator IIs that are direct reports. This division has several sub-groups including Line Clearing & Aquatics, Shallow & Deep Construction, Seawall Construction, Mini-Mowing, Hand Ditch Construction, Street Sweeping & FDOT Sweeping, and Equipment Services. The group's span of control is shown below.

- SPTO Supervisor 1:17
- Foreperson (Line Clearing & Aquatics) 1:1
- Foreperson (Shallow & Deep Construction) 1:1
- Foreperson (Seawall Construction) 1:1
- Foreperson (Mini-Mowing) 1:1
- Foreperson (Hand Ditch Construction) 1:1
- Foreperson (Street Sweeping & FDOT Sweeping) 1:15
- Foreperson (Equipment Services) 1:6
- Lead Workers (Line Clearing & Aquatics) 1:5
- Lead Workers (Shallow & Deep Construction) 1:4
- Lead Worker (Seawall Construction) 1:5
- Lead Worker (Mini-Mowing) 1:13
- Lead Worker (Hand Ditch Construction) 1:9

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Stormwater Quality

Stormwater Operations has 36 FTEs and is also led by an SPTO Supervisor, who has a span of control of 1:3. This division has several sub-groups including Stormwater Quality Maintenance, FDOT Landscape/Litter & Debris, Landscape & Roadway Medians, Common Mowing, and Lake Debris Removal. The group's span of control is shown below.

- SPTO Supervisor 1:3
- Foreperson (Stormwater Quality Maintenance) 1:3
- Foreperson (FDOT Landscape/Litter & Debris) 1:5
- Lead Worker (Landscape & Roadway Medians) 1:3
- Lead Worker (Common Mowing) 1:7
- Lead Worker (Lake Debris Removal) 1:4

Special Projects

Special Projects focuses on managing SeeClickFix, managing small maintenance contracts, and assigning them to an appropriate group through the WAMS.

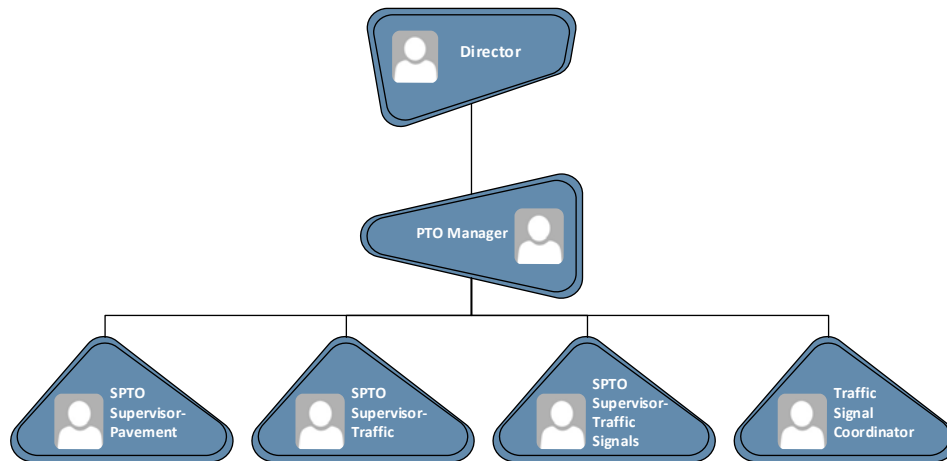
The Division consists of two positions. The Special Projects Manager has a span of control of 1:1, as the oversee the Engineering Clerk I. Special Projects Manager is temporarily assigned to oversee Signs & Markings.

Pavement & Traffic

The Divisions of Pavement and Traffic Operations are linked through the leadership of a PTO Manager. The Division consists of 58 FTEs, which are further divided into the groups of Pavement with 35 FTEs, Traffic Signs with 13 FTEs, Traffic Signals with 8 FTEs, and a Signal Coordinator (1 FTE). Figure 2-29 - Pavement & Traffic Operations shows the organizational structure of the group.

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Figure 2-29 - Pavement & Traffic Operations



Pavement

Pavement is further sub-divided into smaller groups of Asphalt, Curbs/Concrete/Projects, Sidewalks, and Alleys & Bricks. The Pavement Supervisor’s span of control is 1:4, the Foreperson for Asphalt is 1:1, the Foreperson’s span of control for Sidewalks is 1:1, and the Foreperson’s span of control for Alleys & Bricks is also 1:1. The Lead Worker’s span of control for Pavement Maintenance is 1:6, for Curbs/Concrete/Projects is 1:6, for Sidewalks 1:6, and 1:8 for Alleys & Bricks.

Traffic (Signs & Markings)

Traffic is also further sub-divided into Signs & Markings including two (2) Sign Fabricators and seven (7) Traffic Technicians. Currently, this group is being led on an interim basis by the Special Projects Manager. The Foreperson for this group has a span of control of 1:4, and two (2) Lead Workers with spans of control 1:3 and 1:4.

Traffic Signals

The Traffic Signals group is led by the Traffic Signals Supervisor, with a span of control of 1:7. This group has two (2) Traffic Signal Technician IIIs, two (2) Traffic Signal Technician IIs, and three (3) Traffic Signal Technician Is. The group is also assisted by an independent Traffic Signal Coordinator position, which is not a direct report of the Traffic Signals Supervisor.

2.4.2. Resources

Staff, materials, and equipment are staged out of two primary locations. These include the Water Resources Administrative Complex, located at 1650 3rd Ave N., and the Pavement and Traffic Operations at 1744 9th Ave N. The first location is the primary staging location for Stormwater Operations, the Department Director, and most of the Department’s support staff. The second location is the primary staging location of staff, materials, and equipment for Pavement and Traffic Operations. The two locations are less than one mile apart.

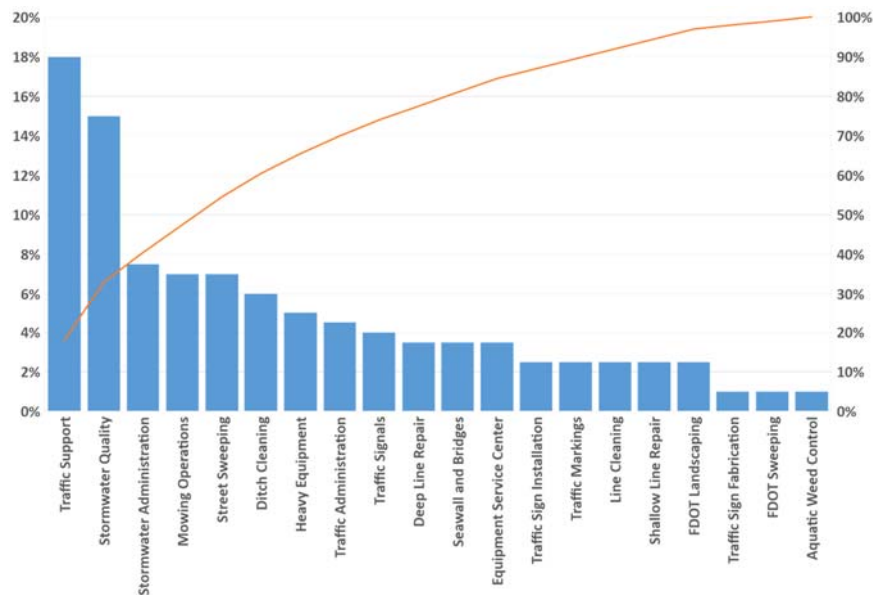
Stormwater, Pavement, and Traffic Operations Department Management Evaluation

Labor

The SPTO Department currently has 200 budgeted full-time positions. This includes thirty-eight (38) in Traffic Support, thirty (30) in Stormwater Quality, fifteen (15) in Stormwater Administration, fourteen (14) in Mowing Operations, fourteen (14) in Street Sweeping, twelve (12) in Ditch Cleaning, twelve (12) in Heavy Equipment, nine (9) in Traffic Administration, eight (8) in Traffic Signals, seven (7) in Deep Line Repair, seven (7) in Seawall and Bridges, seven (7) in the Equipment Service Center, five (5) in Traffic Sign Installation, five (5) in Traffic Markings, five (5) in Line Cleaning, five (5) in Shallow Line Repair, five (5) in FDOT Landscaping, two (2) in Traffic Sign Fabrication, two (2) in FDOT Sweeping, and two (2) in Aquatic Weed Control.

The Traffic Support and Stormwater Quality divisions account for approximately 33% of the Department’s total employees. Traffic Support and Stormwater Quality consist of several smaller sub-groups, which is why they tend to be larger overall. Figure 2-30 - Distribution of Employees by Group (% of Total) shows the distribution of employees of each workgroup by percentage (%) of the total employees.

Figure 2-30 - Distribution of Employees by Group (% of Total)

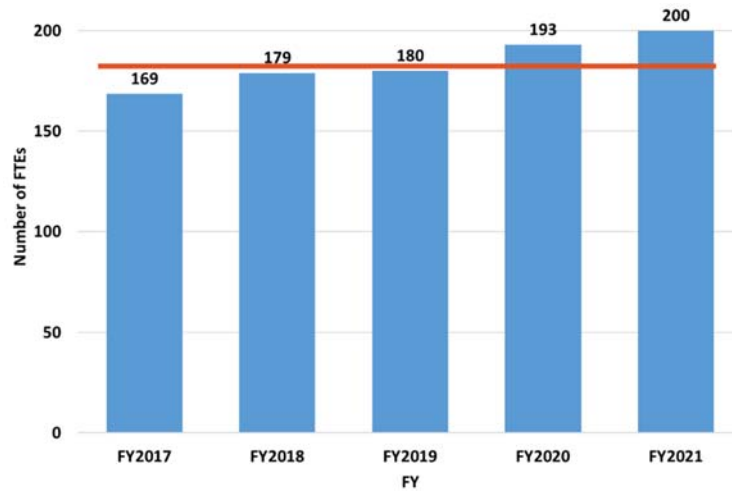


Historical Staffing

The SPTO Department has averaged over 184 FTEs over the past five years, including part-time staff, and currently has 200 FTEs. Figure 2-31 - Historical Staffing Levels shows the past staffing levels for FTEs of the Department from FY2017 through FY2021, with an increase of thirty-two FTEs over the five years. The five-year average is represented by the red line in Figure 2-31 - Historical Staffing Levels. In FY 2017, the Department had 169 FTEs, in FY 2018 there were 179 FTEs, 180 in FY 2019, 193 in FY 2020, and now in FY 2021, the Department has 200 budgeted FTEs.

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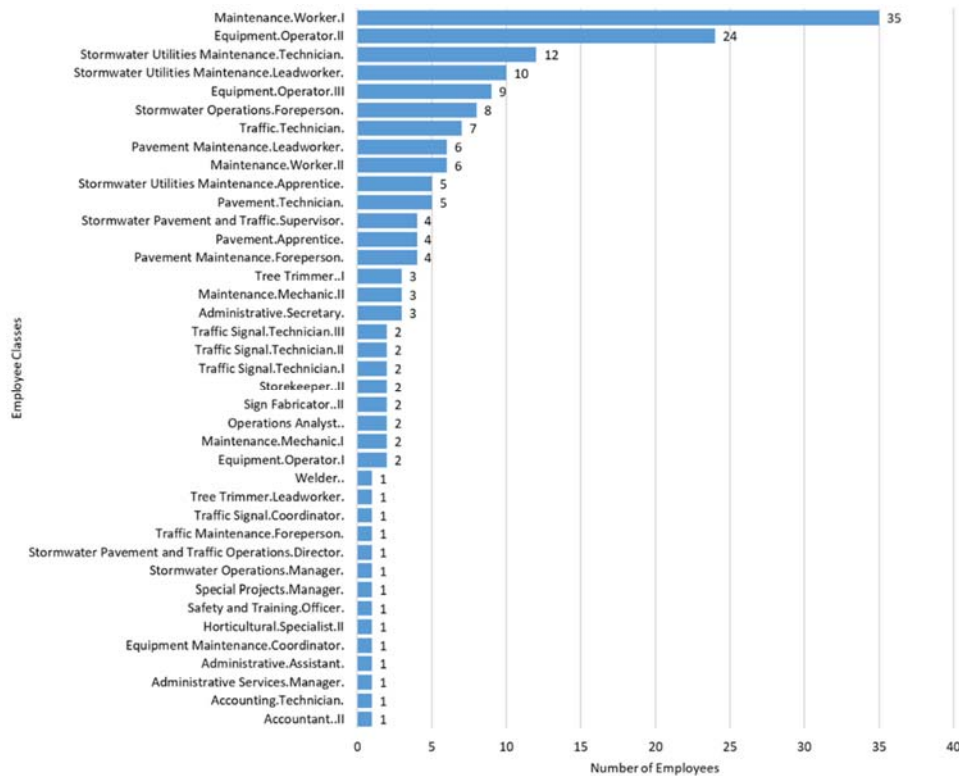
Figure 2-31 - Historical Staffing Levels



Employee Classifications

The data provided showed there are currently 176 positions filled within thirty-nine (39) different employee classes. Approximately 80 (45%) of the employees are assigned to just 15 employee classes. Maintenance Worker I and Maintenance Worker II alone are composed of 59 employees, as shown in Figure 2-32 - Employee Classification Distribution.

Figure 2-32 - Employee Classification Distribution

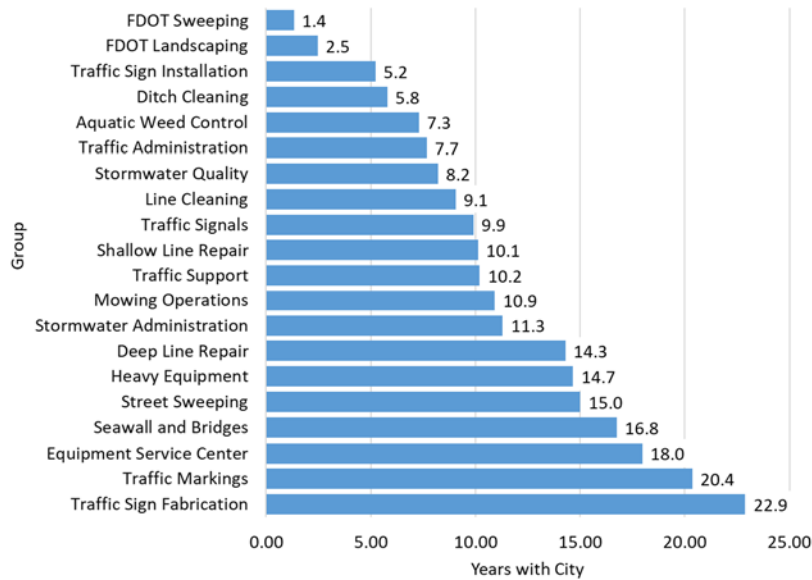


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Length of Service

The average length of service with the city is nearly 11 years. The Traffic Sign Fabrication and Traffic Markings employees average over 20 years of service to the city. FDOT Sweeping has the lowest average length of service at 1.4 years, followed by FDOT Landscaping at 2.5 years. The average years of service to the city are shown in Figure 2-33 - Average Length of Service by Group.

Figure 2-33 - Average Length of Service by Group



It is reported that there is currently sixteen (16) staff in the Deferred Retirement Option Program (DROP) and eligible for separation in the next five years. Though the opportunity exists, not all employees have selected to participate in DROP.

Employee Collective Bargaining Agreement

There is an Employee Collective Bargaining Agreement between the City of St. Petersburg and the Florida Public Services Union (FPSU) of the Service Employees International Union (SEIU) that extends through September 30, 2023. This Agreement includes 29 Articles with both White-Collar and Blue-Collar Bargaining Units.

Work Shifts

In response to COVID-19 and to address the operational and maintenance needs of the Department, twenty (20) different schedules were established over twenty-one (21) groups. This, along with the levels of management, communication, and accountability, was potentially impacted. More recently, the Department’s working groups have reportedly moved to the eight (8) shifts, with the majority of SPTO crews working 7:00 am to 3:30 pm, Monday through Friday, these shifts are listed below.

- Shift 1 - 7:00 am to 3:30 pm, Monday - Friday (Majority of SPTO crews)
- Shift 2 - 6:45 am to 3:15 pm, Monday - Friday (Traffic Signals and Signs and Markings)

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- Shift 3 - 3:15 pm to 11:15 pm, Monday - Friday (Traffic Signals)
- Shift 4 - 11:15 pm to 7:15 am, Monday - Friday (Traffic Signals)
- Shift 5 - 6:00 am to 2:30 pm, Signal Coordinator
- Shift 6 - 6:00 am to 2:30 pm, Tuesday - Friday (Stormwater Quality)
- Shift 7 - 6:00 am to 2:30 pm, Sunday - Thursday (Stormwater Quality)
- Shift 8 - 6:00 am to 2:30 pm, Thursday -Monday (Stormwater Quality)

The Traffic Signals group has three different shifts. The first shift runs from 7:00 AM to 3:30 PM focused on response and PMs. The second shift runs from 3:30 PM to 11:30 PM and focuses on YFI 100, illuminated street signs, and senior technicians. The third shift runs from 11:30 PM until 7:30 AM, overlapping with the first shift. Traffic Signals’ shift schedule is shown in Figure 2-34 - Traffic Signals’ Three Shifts.

Figure 2-34 - Traffic Signals’ Three Shifts

7:00 AM	7:30 AM	8:00 AM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	10:30 PM	11:00 PM	11:30 PM	12:00 AM	12:30 AM	6:30 AM
First Shift													
					Second Shift								
Third Shift										Third Shift			

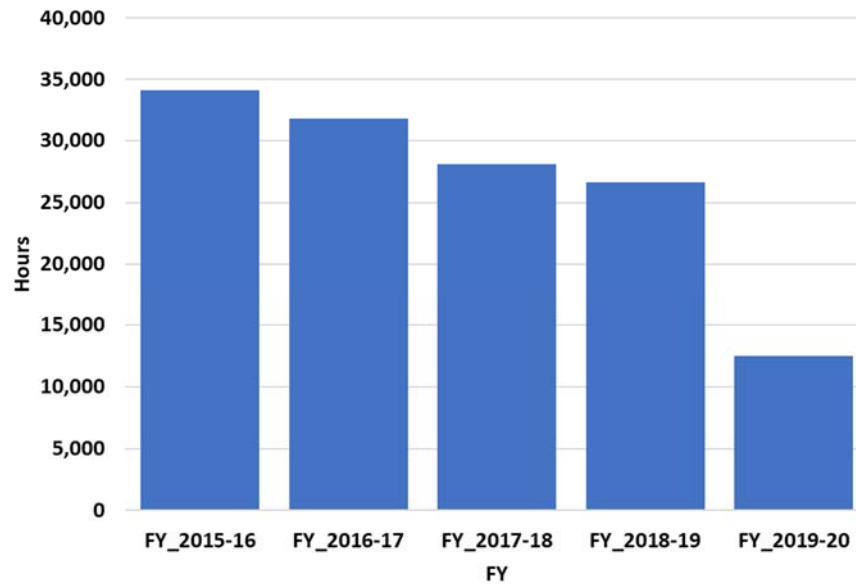
Additionally, **Error! Reference source not found.** shows the distribution of work schedules by shift. The majority of employee schedules fall between Monday-Friday 6:30 AM – 3:00 PM (60) and 7:00 AM – 3:30 PM (65). Seven (7) shifts only have one employee each.

Historical Overtime

Overtime hours have reduced by two-thirds in the last five years from approximately 34,000 in FY 2015-16 to approximately 12,500 in FY 2019-20. Figure 2-35 - Annual Overtime Hours Reported shows the reported historical overtime hours from FY 2015-16 through FY 2019-20. In this timeframe, overtime has gone from approximately 11% to 3% of total paid hours.

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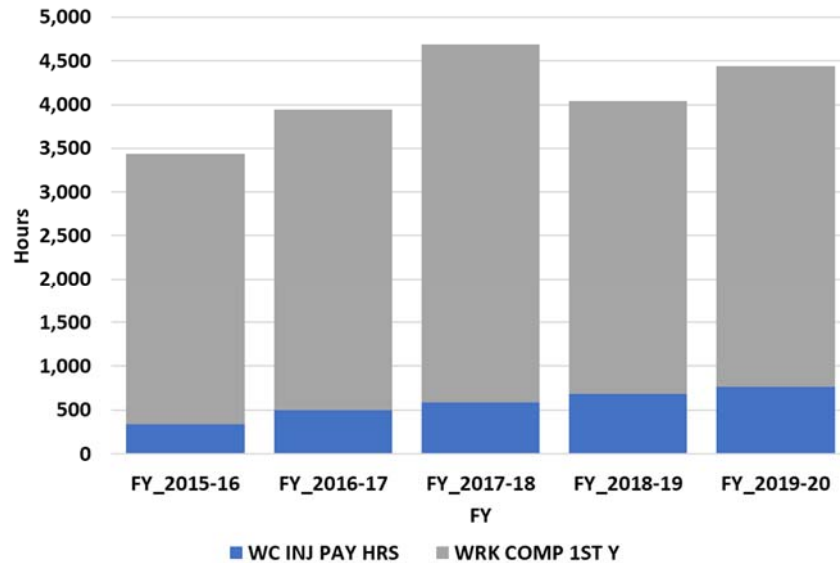
Figure 2-35 - Annual Overtime Hours Reported



Workers Compensation

The Department has averaged 3,534 hours of workers' compensation annually, or two (2) FTEs, for the past five years. As shown in Figure 2-36 - Workers Compensation History, there was an increase in reported Workers Compensation of just over 600 hours from 2015 to 2016 or 140%.

Figure 2-36 - Workers Compensation History



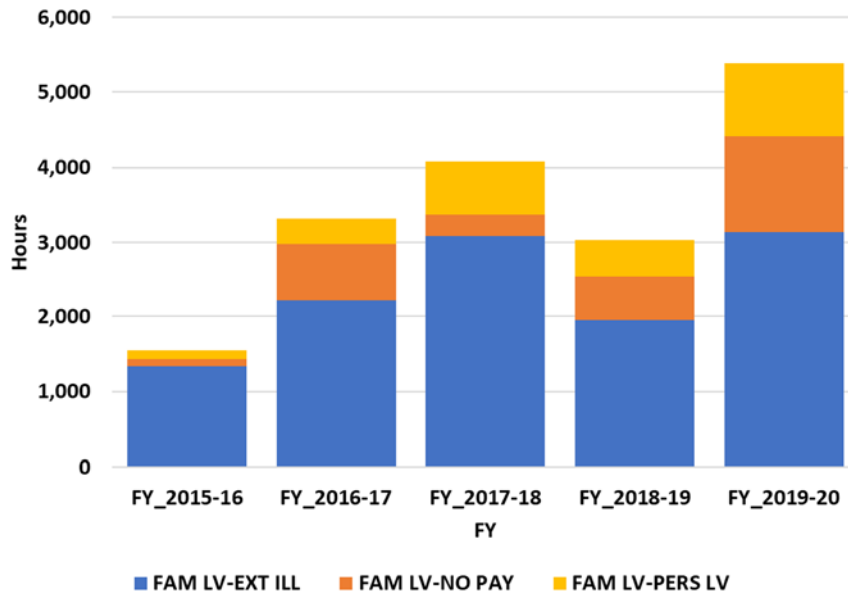
Family Medical Leave Act

Family Medical Leave Act (FMLA) hours cover extended illness and certain family emergencies. Extended Illness FMLA hours have averaged just over one (1) FTE annually, while non-Pay has averaged under one (1) FTE annually, and Personal Leave also has averaged under one (1) FTE annually. Together, FMLA has averaged just under two (2) FTEs annually but has

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increased by 250% in five years from approximately 1,500 in FY 2015-16 to nearly 5,250 hours in FY 2019-20. This is shown in Figure 2-37 - History FMLA Hours below.

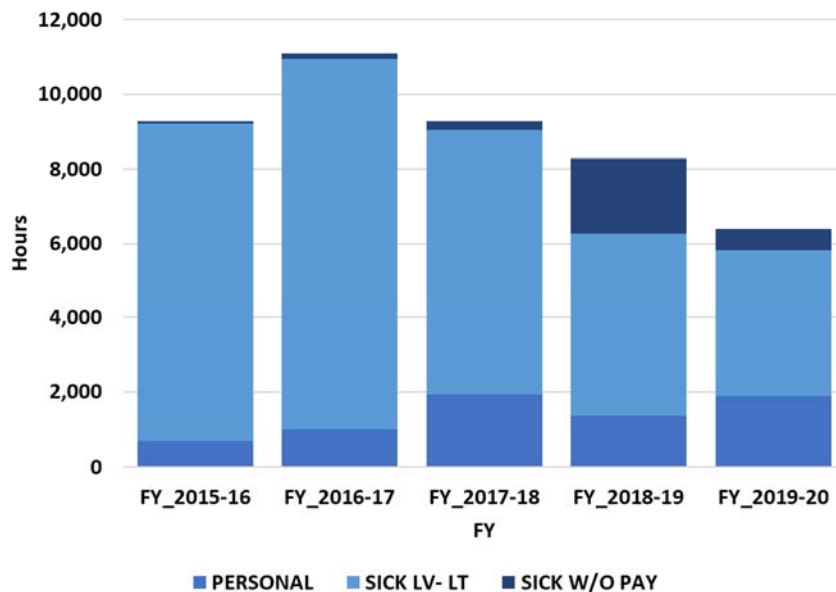
Figure 2-37 - History FMLA Hours



Personal & Sick Leave Hours

Personal and sick leave are categorized separately from FMLA and other recorded hours. Personal leave has averaged less than one (1) FTE annually. Sick leave is subcategorized into Limited Time, Without Pay, and Paid. Limited Time Sick Leave has averaged over three (3) FTE annually and Without Pay has averaged under one (1) FTE annually, averaging a total of just over four (4) FTE annually. Paid Sick Leave- Limited-Time has been reduced by more than half over the past five years. This is shown in Figure 2-38 - Personal & Sick Leave Hours, below.

Figure 2-38 - Personal & Sick Leave Hours



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Employee Certifications and Licenses

Employees in the Department carry many different certifications and licenses. The most common are Class B Commercial Driver License (CDL) (68), Class E DL (56), Class A CDL (35), and CPR (Cardiopulmonary resuscitation) certification (32). Figure 2-39 - Department Licenses shows a spectrum of certifications and licenses obtained by number, though various other certifications, endorsements, and training may have been achieved but not recorded here.

Figure 2-39 - Department Licenses

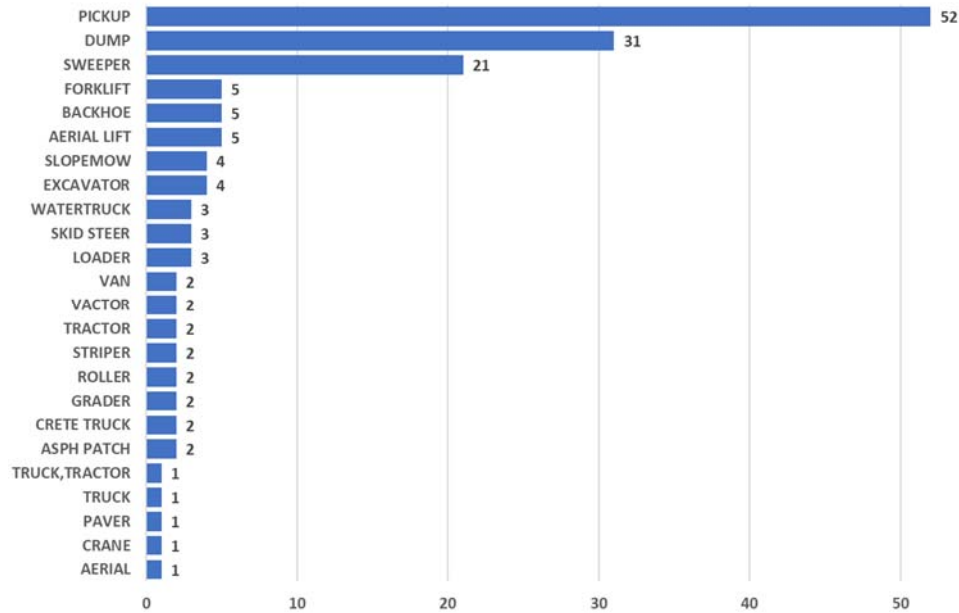
Certification/License Type	Number in Department
Class B CDL	68
Class E DL	56
Class A CDL	35
CPR	32
Public RUP Applicator License	6
Traffic Signal Inspector	3
Traffic Signal Field Technician Level II	2
Traffic Signals Senior Field Tech Level III	2
Maintenance of Traffic (MOT) Intermediate	1
Excavation & Trench Safety Course	1
Temporary Traffic Control (TTC) Intermediate Course	1
Public Pesticide Applicator	1
Apprenticeship Program- Independent Electrical Contractors	1

2.4.3. Vehicles and Equipment

The Department owns 157 pieces of rolling stock equipment in twenty-four (24) different classes. These include trucks, tractors, forklifts, vans, and loaders, among others. The amount of equipment by class is shown in Figure 2-40 - Count of Rolling Stock. Pickups make up 33% of the Department’s rolling stock fleet.

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Figure 2-40 - Count of Rolling Stock



The average age of all rolling equipment is just under eight (8) years. Forklifts have the oldest average age at nineteen (19) years, followed by Asphalt Patch and Water Trucks at thirteen (13) years each. Graders and Pavers have an average age of one (1) year. Figure 2-41 - Rolling Stock Average Age by Class shows the average age of each rolling stock by class.

Figure 2-41 - Rolling Stock Average Age by Class

Class	Average Age	Class	Average Age
FORKLIFT	19	ROLLER	7
ASPH PATCH	13	SWEEPER	6
WATERTRUCK	13	EXCAVATOR	6
TRACTOR	10	AERIAL LIFT	6
VAN	10	CRANE	4
AERIAL	9	SKID STEER	4
LOADER	9	CRETE TRUCK	4
PICKUP	9	STRIPER	3
DUMP	8	VACTOR	3
BACKHOE	7	GRADER	1
SLOPEMOW	7	PAVER	1
TRUCK,TRACTOR	7	TRUCK	New

The Department also has numerous non-rolling stock equipment, including trailers, pumps, boats, small mowers, small-motorized equipment, and other specialty equipment they use for performing maintenance and repair on the City’s public works infrastructure.

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Equipment Rates Used in WAMS

Using data provided from the City’s WAMS, the City uses fifty-four (54) key description codes for equipment to report against. Fourteen (14) classes are missing rates. Figure 2-42 WAMS System Equipment Rates shows the equipment rates that the Department uses for charging against work orders. It has been reported by Department leadership that FEMA equipment rates are used in the WAMS.

Figure 2-42 WAMS System Equipment Rates

Class	Rate	Class	Rate
AERIAL LIFT/OFF	\$ -	PICKUP/ON	\$ 17.86
AERIAL LIFT/ON	\$ 11.63	PRES WASH/OFF	\$ -
AERIAL/PU/ON	\$ -	PUMP/OFF	\$ 6.98
AIR COMP/OFF	\$ 20.98	ROLLER/OFF	\$ 28.72
ARR BOARD/OFF	\$ 4.53	SIFTER/OFF	\$ 1.80
ATTENUATOR/OFF	\$ 5.64	SKID STEER/OFF	\$ -
AUGER/OFF	\$ 2.34	SLOPEMOW/OFF	\$ 25.00
BACKHOE/OFF	\$ 33.36	STRIPER/OFF	\$ 45.28
BARGE/OFF	\$ 52.00	STRIPER/ON	\$ 83.35
BLOWER/OFF	\$ 1.53	STUMP GRIND/OFF	\$ -
BOAT/OFF	\$ 11.83	SWEEPER/OFF	\$ 78.79
CHAINSAW/OFF	\$ 2.10	SWEEPER/ON	\$ 91.18
CHIPPER/OFF	\$ 30.32	TRACTOR/OFF	\$ 20.06
CRANE/OFF	\$ -	TRAILER/OFF	\$ 4.75
CRETE TRUCK/OFF	\$ -	TRUCK/ON	\$ -
CRETE TRUCK/ON	\$ 198.30	VACTOR/ON	\$ 90.95
DUMP/ON	\$ 51.56	VAN/ON	\$ 22.44
EDGER/OFF	\$ 0.31	VEHICLE/OFF	\$ 6.41
EXCAVATOR/OFF	\$ 91.97	WEEDEATER/OFF	\$ 0.25
FORKLIFT/OFF	\$ 14.73	WELDER/OFF	\$ -
GRADER/OFF	\$ -	WATERTRUCK/ON	\$ 35.84
HEDGETRIM/OFF	\$ 0.36	WATERTRUCK/ON	\$ 35.84
HYDROSEED/OFF	\$ 14.78	ASPH PATCH/ON	\$ 24.85
LOADER/OFF	\$ 79.50	TRUCK,TRACTOR/ON	\$ 47.57
MOWER/OFF	\$ 12.14	TOW MOWER/OFF	\$ -
OUTBOARD/OFF	\$ 3.46	MOWER SELF/OFF	\$ -
PAVER/OFF	\$ -	TOW MOWER/OFF	\$ -

LAC calculated the hourly utilization rate for each classification of rolling stock equipment using the provided data of purchase price and year, repair and maintenance costs, fuel costs, depreciation, and usage (McCorkhill, 2008). These estimated rates are shown in Figure 2-43 Estimated Hourly Rate for Rolling Stock. LAC did not estimate rates for some vehicle and equipment types due to insufficient data provided.

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Figure 2-43 Estimated Hourly Rate for Rolling Stock

Class	Est. Cost Per Hour
CRANE	\$ 6.68
STRIPER	\$ 7.70
VAN	\$ 11.69
AERIAL LIFT	\$ 14.84
DUMP	\$ 19.88
VECTOR	\$ 20.74
SWEEPER	\$ 31.90
ASPH PATCH	\$ 37.50
PICKUP	\$ 61.51
AERIAL	\$ 178.87
WATERTRUCK	\$ 186.69
FORKLIFT	\$ 222.48
EXCAVATOR	\$ 306.29
SLOPEMOW	\$ 365.75
TRUCK, TRACTOR	\$ 464.27
BACKHOE	\$ 609.54
SKID STEER	\$ 733.25
ROLLER	\$ 775.47
PAVER	\$ 955.70
LOADER	\$ 1,434.22
CRETE TRUCK	\$ 1,592.61

Estimated Life Cycle and PM Schedules

Preventive maintenance (PM) schedules, like the Department’s other schedules and rates, vary quite drastically, depending on the type of equipment. Pickups, Trucks, and Sedans require preventive maintenance after 6 months or 3,000 miles – whichever comes first. Heavy equipment requires preventive maintenance after every 500 hours of use, while mowers require after 150 hours, small gas units every 100 hours, and trailers on an annual basis.

Figure 2-44 Average Estimated Useful Life (Years) of Rolling Stock by Group shows the average estimated useful life of equipment in each group in years, as well as the count of equipment. The planned life (average expected useful life) for rolling stock varies from 5 to 10 years. FDOT Sweep and Seawall Bridges have the longest average life at 10 years each, though they each have only one piece of rolling stock. The lowest average useful life belongs to two rolling stock pieces in the Street Sweep group.

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Figure 2-44 Average Estimated Useful Life (Years) of Rolling Stock by Group

Group	Average of (Est) USEFUL LIFE	Count
AQUATIC WEED	7	2
DEEP LINE REPAIR	9	2
DITCH CLEANING	7	3
EQUIP CENTER	7	3
FDOT SWEEP	10	1
HEAVY EQUIPMENT	7	1
LINE CLEARING	7	1
MOWING OPS	7	4
SEAWALL BRIDGES	10	1
SIGN INSTALLATION	7	3
STORM ADMIN	7	1
STREET SWEEP	6	2
STREETSCAPE MAINT	7	14
TRAFFIC MARKINGS	9	2
TRAFFIC SIGNALS	7	2
TRAFFIC SUPPORT	7	10

Small Equipment and Hand Tools

Small equipment is issued to each crew daily through a shared warehouse process. Each crew has specific equipment assigned to them, yet all the equipment is stored in a shared warehouse location. When a crew needs a specific piece of equipment, their foreman will notify the shop lead. When the crew arrives, the equipment will be fueled, tested, and ready for pickup. At the end of use, the crew will return the equipment to the warehouse and turn in the equipment for fueling, any needed repairs, or preventive maintenance. Hand tools are issued to specific crews and independent workers who are responsible for their care and security.

2.4.4. Purchasing and Materials

The Department utilizes the City’s Consolidated Warehouse for many bulk items such as manhole covers, concrete pipes, and PVC pipes. These items are secured and accounted for through the City’s procurement group located at the Warehouse. Department-specific items, such as signs, signal cabinets, and pump items are inventoried, stored, and controlled through storerooms at the Department’s two primary locations. All purchases, regardless of location, are coordinated with staff at the Consolidated Warehouse. Some inventories are tracked and managed using WAMS and some use manual databases, such as Excel.

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2.5. Directing/Scheduling

2.5.1. Work Identification

Work is identified through several methods within each group. In general, four main areas function to assist in this effort. These include emergency or response work, proactive inspection, documented and undocumented routines, and items that need to be addressed, which are identified by staff in the field or at their work sites.

Response work is work that is identified by customers through citizen requests, complaints, or emergency events, which require action by the Department. The City uses the WAMS and other ancillary unlinked manual databases to document this response work. Several of the sub-groups within the Department are primarily response-based, with some routines.

Figure 2-45 WAMS Work Order shows an example of a WAMS work order used by the Department for work assignment and tracking.

Figure 2-45 WAMS Work Order

WORK ORDER REPORT 06/17/21 13:53

Work Type: Regular Est. Start Date: Required: 21-MAY-21 Crew: TR44 Task Desc: PROJECT SCF # 9965023 TRD REQUEST: 30TH AVENUE & COFFEE POT BLVD NE CHARGE TO: 17937 / 81652 / 2138585-01 / 0001 RE-PAINT CENTERLINE PAVEMENT MARKINGS FOR THIS CURVE DOUG CHARGE	Priority: 0 Job Number: Task Status: FINISHED Assigned To: RLEADS	Work Order *2138585* Task *01*
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Page: 1

Asset: F / 00052 - MARKINGS	Description:
Component ID:	Area: MARKINGS
Department: TRAFFIC	

Task Note Type	Notes
FINISHINGNOTES	Complete - ML/WOODLE 06/07/21 Traffic markings crew refresh markings

RESOURCES:	Employee	Name	Date	Regular Hours	Premium Hours	Amount
	33703	Harris, Scotie	07-JUN-21	4	0	\$107.04
	46938	Burney, Akeem	07-JUN-21	-4	0	-\$82.36
	35265	Trice, Willie	07-JUN-21	4	0	\$91.36
	30916	Woodley, Michael	07-JUN-21	4	0	\$117.20
	46938	Burney, Akeem	07-JUN-21	4	0	\$82.36
						\$316.20

MATERIALS:	Store	Primary Bin	Stock Type / Code	Item Description	Qty	Amount

OTHER REQUIREMENTS:	Requirement	Quantity	Unit	Standard Price	Total Amount
	E7724.8184	4.00	HOURS	1.53	6.12
	6405.8804	4.00	HOURS	23.22	92.88
	6851.8442	4.00	HOURS	45.28	181.12
	E200018804	4.00	HOURS	23.22	92.88
					\$373.00

COMPLETION COMMENTS:
Traffic markings crew refresh markings

Failure code:	Repair Code:	Component:	Root Cause:
NORMWEAR	PAINTED	STREET	

Submitted by: AFBMTH Oracle Report s_rpd44 v 17151-9

Inspection work is work that is identified by Department personnel who are sent out specifically to identify if work needs to be performed, or to validate that work has been performed properly. An example would be the inspection of work locations after crews perform mini-mowing, sign installation, or stormwater quality inspections by managers or forepersons.

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Preventive maintenance is general proactive maintenance that is usually performed to prevent larger more costly and serious maintenance issues from occurring in the future. Routine maintenance is work that is performed on a specific cycle or schedule, often by routine. Examples of this are line cleaning, traffic signal maintenance, and street sweeping, which are done on geographical zone-based proactive cycles.

2.5.2. Scheduling and Assignments

For most groups, scheduling and assignment are primarily a combination of response and some preventive and proactive maintenance routines. Line Clearing & Aquatics, Mini-Mowing, Hand Ditch Construction, Street Sweeping, Landscape & Roadway Medians, Litter & Debris Collection activities by Stormwater and Stormwater Quality are almost entirely routine-based with supplemental actions added resulting from by the identification of needs during routine inspections. In the Traffic Signals group, work is a combination of response and routine-based with several preventive and proactive maintenance programs established.

Routines for preventive maintenance programs are based upon pre-established geographic areas and frequencies, that are adjusted based on the supervisor's direction and some customer response. At the beginning of their respective shifts, supervisors will meet with their direct reports to provide assignments or updates for previously directed work. Most supervisors use a standardized daily task list for the direction of their staff. Signs & Markings, Alleys & Bricks, Sidewalks, Curbs/Concrete/Projects, and Asphalt in the Pavement & Traffic group are almost exclusively response based.

Figure 2-46 General Workflow of Pavement and Stormwater shows the general workflow found within both groups. While they are in different divisions, the workflows are very similar. Initially, a request is received via phone call, email, or SeeClickFix. If it is determined the request is not the Department's responsibility, the appropriate agency is contacted, and the customer is notified. If the call is identified as an emergency, the appropriate Foreperson and Manager are notified, and resources are dispatched to the location to make the repair or mitigate the condition.

If the request is not an emergency, a Work Order is created in the WAMS and forwarded to the appropriate Foreperson. The Foreperson will investigate to determine the scope of the project and the validity of the work order. As a result of their investigation, the Foreperson will add additional information to the work order. If the work order is valid and work is to be performed, the Foreperson will prioritize the new work order with their existing orders and schedule the work to be performed. In some cases, the Foreperson will print hard copies of the work orders to be given to the appropriate Lead Worker or forward the work order to the Lead Workers' tablets. The Lead Worker will gather the needed materials and secure equipment.

After the work is performed, the Lead Worker will make notes and document the labor, materials, and equipment used via hardcopy work order or tablet. The Lead Worker will then submit the hardcopy work order to their respective Foreperson for QA/QC and then enters the related data into the WAMS. If the information is collected on hardcopy, it is returned to the Foreperson, and the work order information is keyed. After the data is entered into the WAMS, the order is closed, and an email is sent for staff to update and close the SeeClickFix incident.

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Figure 2-46 General Workflow of Pavement and Stormwater

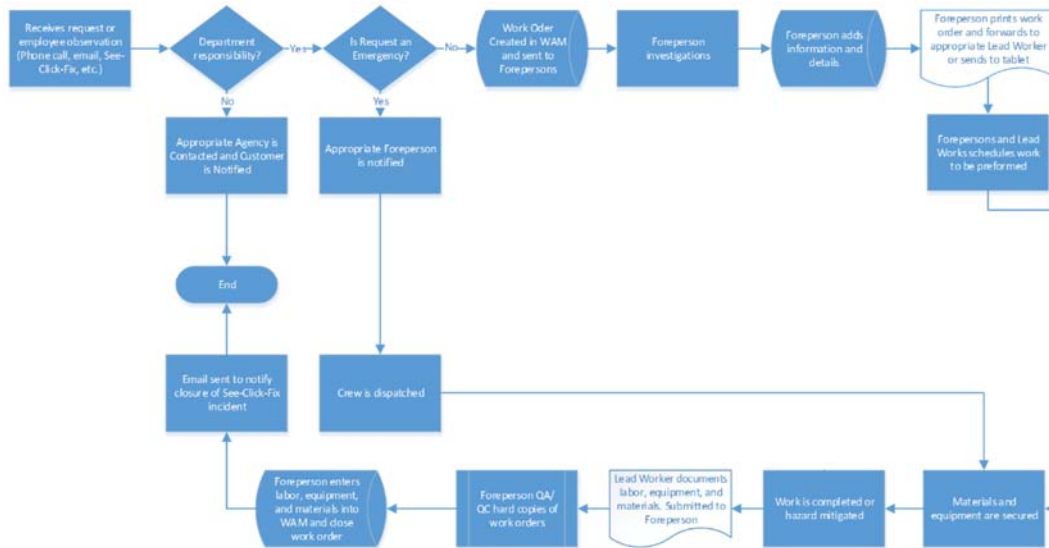


Figure 2-47 General Workflow of Traffic Signs & Markings shows the general flow of work found within this group. Unlike the other groups, the Supervisor of this group has developed, utilized, and provided a workflow unique for this group (the other group workflows were created through the use of interviews and observations).

If a request is called in as an emergency, an Administrative Secretary evaluates the request. If the request is not valid, the request is acknowledged and a request for clarification is sent to the requestor and re-evaluated by the Administrative Secretary. If action is required, the work request is acknowledged, a work order is created in the WAMS, and a crew is assigned. If a request is received via phone call, email, or SeeClickFix, it is evaluated by the Special Projects Manager. If the request is valid, a work order is created in the WAMS, and a crew is assigned. The crew will then complete the work, with the Lead Worker entering work hours, materials, and equipment used to complete the work order in the WAMS. The appropriate Foreperson will then provide quality assurance/quality control (QA/QC) of the entered data and close the work order. The Foreperson will notify the Special Project Manager or Administrative Secretary of the

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completion of the work. Finally, the customer is notified of the completed work and the SeeClickFix incident is closed in the system.

Figure 2-47 General Workflow of Traffic Signs & Markings

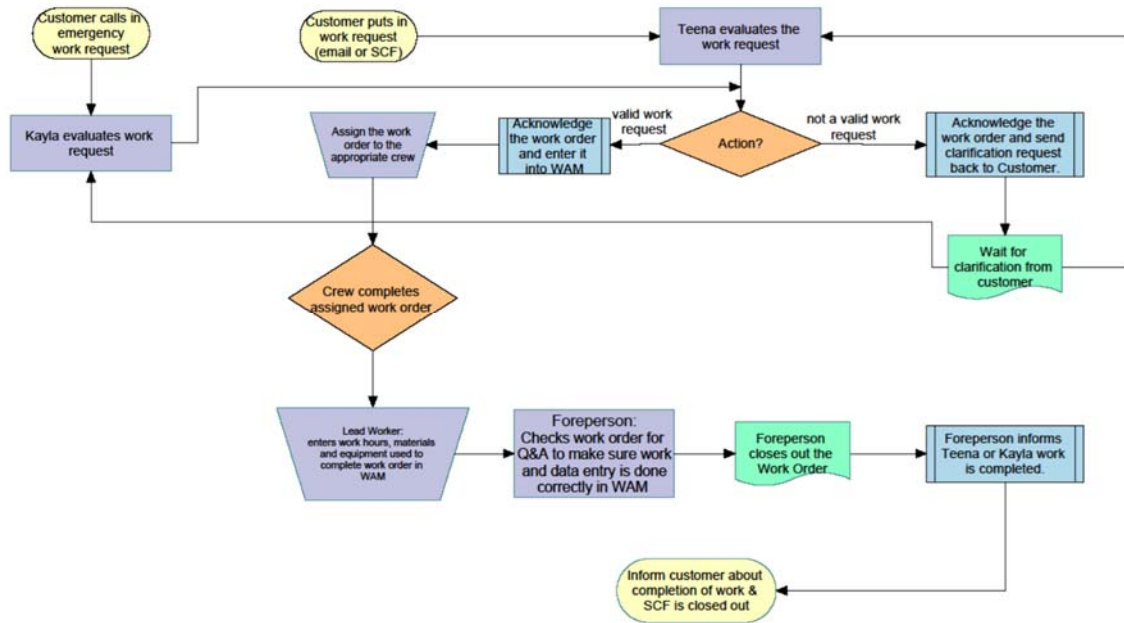


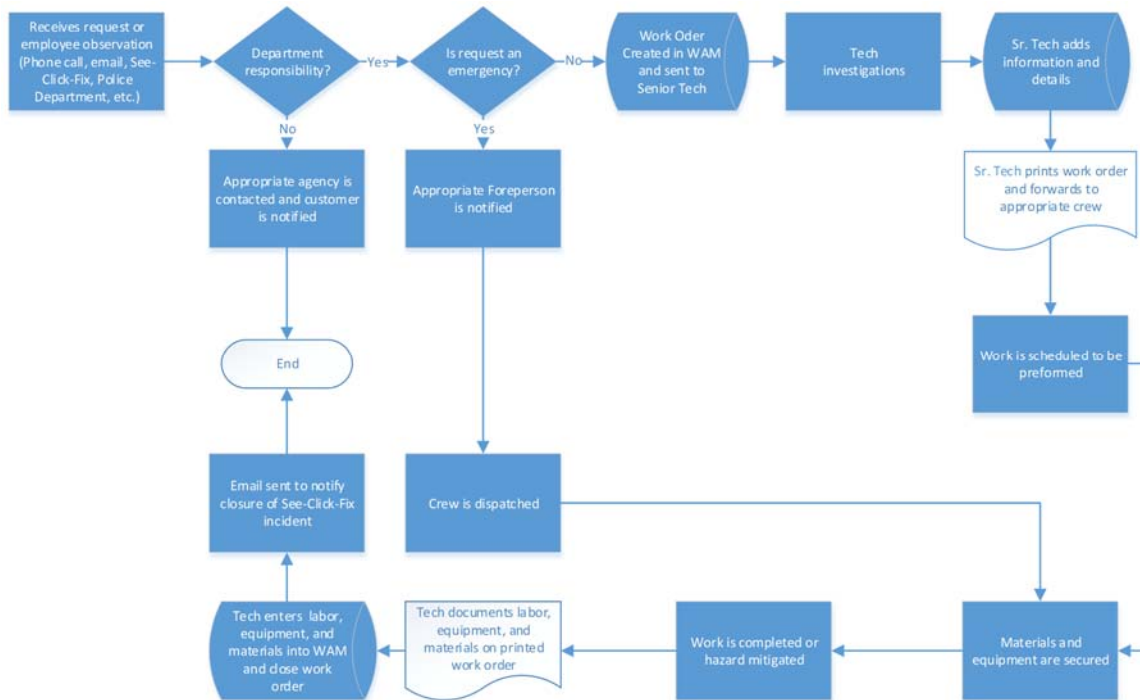
Figure 2-48 General Workflow of Traffic Signals shows the general flow of work found within this group. Initially, a request is received via phone call, email, or SeeClickFix. Occasionally work is identified and enters the workflow through the observation of staff while performing work in the field. If it is determined the request is not the Department’s responsibility, the appropriate agency is contacted, and the customer is notified. If the call is identified as an emergency, the appropriate Senior Tech and Supervisor are notified. Resources are dispatched to the location to make the repair or mitigate the condition. If the request is not an emergency, a work order is created in the WAMS and forwarded to the appropriate Senior Tech.

A Tech will investigate to determine the scope of the project and the validity of the work order. As a result of their investigation, the Tech will add additional information to the work order. If the work order is valid and work is to be performed, the Tech and Senior Tech will prioritize the new work order with their existing orders and schedule the work to be performed. The Sr. Tech will print hard copies of the work orders to be given to the appropriate Tech. The Tech will gather the needed materials and secure equipment.

After the work is performed, the Tech will make notes and document the labor, materials, and equipment used on the hardcopy work order. The Tech will then submit the hardcopy for QA/QC and then enter the related data into the WAMS. After the data is entered into the WAMS, the order is closed, and an email is sent for the administrative staff to update and close the SeeClickFix incident.

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Figure 2-48 General Workflow of Traffic Signals



Routines and Preventive Maintenance Programs

Routines exist for many operational and maintenance activities. These proactive efforts are performed to protect the City’s assets and ensure proper operation, as well as optimize asset life cycles. Several routines exist using manual databases and processes. Those identified and confirmed by the city are listed below and on the following page.

Stormwater Operations

Stormwater Operations focuses preventive maintenance primarily on the stormwater collection and conveyance system. They have divided the city into twenty-six (26) stormwater basin areas. Some of the systematic routines they have established include line clearing, mini-mowing, hand ditch construction, and street sweeping.

Stormwater Quality

Stormwater Quality, in the same division as Stormwater Operations, also operates within the twenty-six (26) stormwater basin areas. Some of the systematic routines they have established include landscape & median maintenance, common mowing, as well as litter and debris removal.

Traffic Signals

The Traffic Signals group is responsible for the repair and maintenance of over 300 traffic signals and other traffic or pedestrian indicators. Traffic Signals has established a frequency of one (1) year for performing preventive maintenance services to the various traffic control devices

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for which they are responsible. The city receives \$500,000 for maintaining FDOT signals which have a required annual maintenance effort for the signalized intersections.

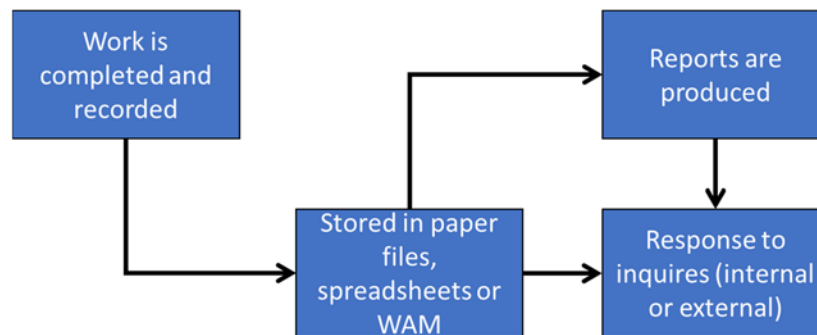
2.6. Controlling/Improving

2.6.1. Work Tracking

Each group uses a variety of systems, databases, spreadsheets, Word documents, and manual forms for tracking and analyzing some aspects of their work. Daily timesheets are used to account for labor and equipment hours, materials used, and work accomplished. The employees write on the timesheets the date, accomplishment, equipment and labor hours, materials used, and any comments associated with a specific work order. After being quality checked by a supervisor, the work orders or daily log sheets are input into the WAMS.

Information is often compiled through manual processes, accounting for past occurrences and the analysis of specific activities. Figure 2-49 General Process for Inquiries shows the general process used for inquiries. Work is completed and recorded in various manual and electronic databases and reports are produced, or direct response is provided to the requestor.

Figure 2-49 General Process for Inquiries



2.6.2. Work Reporting

WAMS Use and Monitoring

Work reporting is mainly used for after-the-fact research and accounting for past occurrences. Multiple work logs and unlinked databases exist with varying forms used by each group. Stormwater Operations and Signs & Markings field employees use tablets in the field to record and document the completion of daily routines and WAMS work orders. Stormwater Quality, Pavement, and Traffic Signals use hard copy forms and other manual methods to record work. Various groups use daily logbooks for manual recording of daily activity and to document any issues or concerns that occur.

WAMS work order reporting includes labor, equipment, and material resource utilization and is often linked to a specific asset in the database. Minimal recording of work accomplishment is performed by most groups. Performance measures and costing are done on a case-by-case basis external to data collected through the WAMS.

Of the data provided, the SPTO Department recorded 26,862 work orders, where 14,576 (54%) were tracked to an activity. Stormwater recorded 12,801 work orders, Traffic recorded 11,326, and Pavement recorded 2,736. Stormwater recorded 10,774 (74%) of the SPTO work orders against an activity. Traffic recorded 2,634 (18%), and Pavement recorded 1,169 (8%). This is shown in Figure 2-50 - Percent of Work Orders with Tracked Activities.

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Figure 2-50 - Percent of Work Orders with Tracked Activities

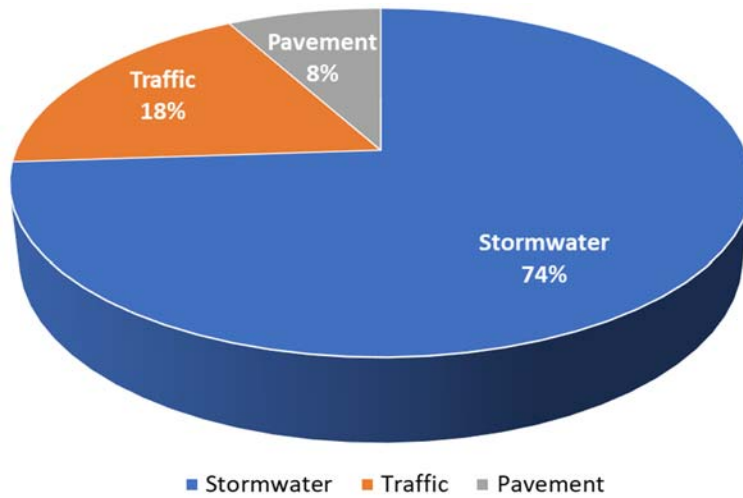
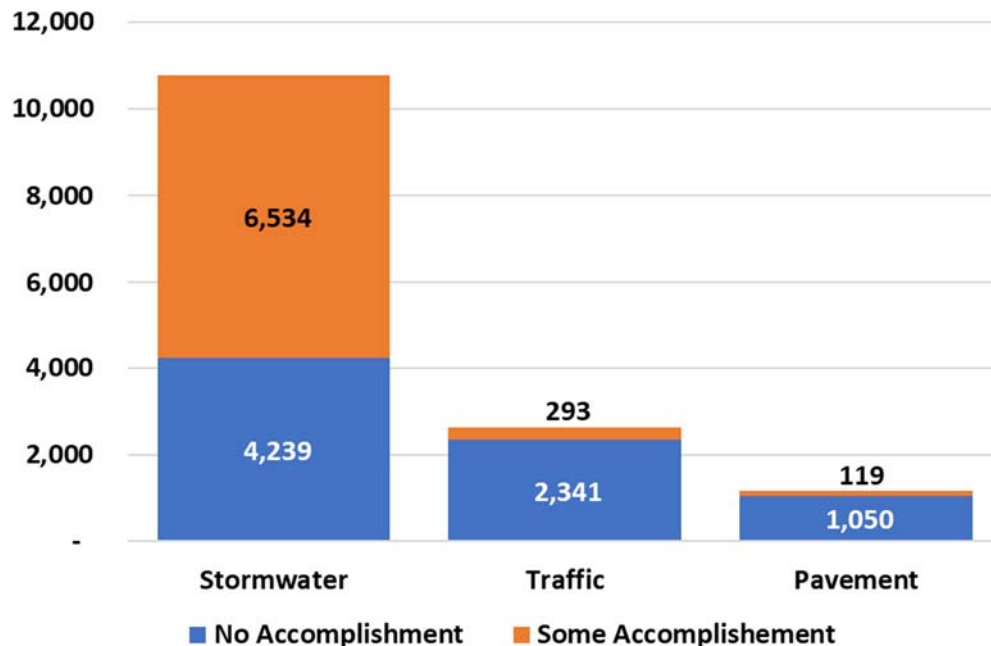


Figure 2-51 -Work Order Accomplishment Status shows each of the three departments and the status of their reporting of work accomplishment to the overall number of work orders. 61% of Stormwater’s work orders reported accomplishment, 11% for Traffic, and 10% for Pavement. The activities often use different reporting units, for example, sweeping uses six types (e.g., [blank], cubic yards, each, hours, miles, and square feet) with an average of three types per activity.

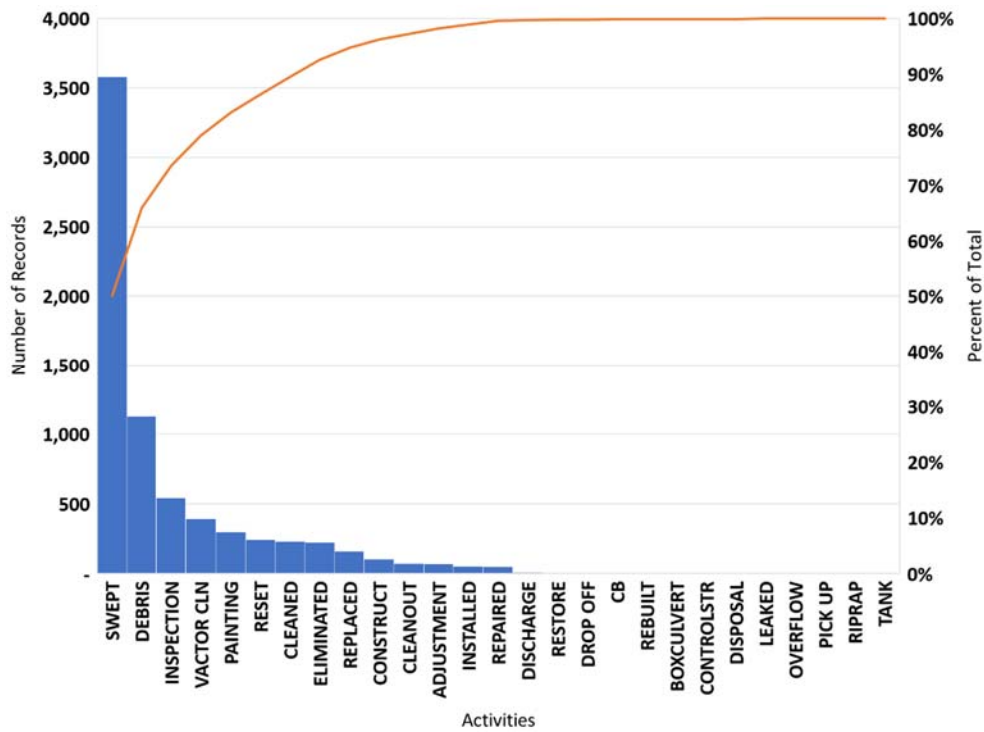
Figure 2-51 -Work Order Accomplishment Status



Of the tracked activities, four (4) activities make up 80% of the total, including SWEPT (50%), DEBRIS (16%), INSPECTION (8%), and VACTOR CLN (5%). Figure 2-52 - Number and Percent of Activity Records show the total of each activity and accumulated percentage of the total.

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Figure 2-52 - Number and Percent of Activity Records



2.6.3. Maintenance Management Process

The ideal management of maintenance follows four general phases: planning, organizing, directing, and controlling. This model is used as a basis for the project’s observations. This model is shown in Figure 2-1 - Ideal Maintenance Management System (American Public Works Association, 2008), earlier in the document.

Figure 2-53 Maintenance Management Process - Stormwater Operations through Figure 2-57 Maintenance Management Process -Traffic Signals, illustrate the SPTO Department’s actual maintenance management process compared to the ideal process outlined in Figure 2-1.

Checkmarks “✓” are used in the figures to identify existing processes, while a “P” is used if a portion or partial process is being undertaken. The Department has several of these processes in place, yet linkage between them is difficult to obtain due to the use of a combination of management tools to guide staff.

Stormwater Operations

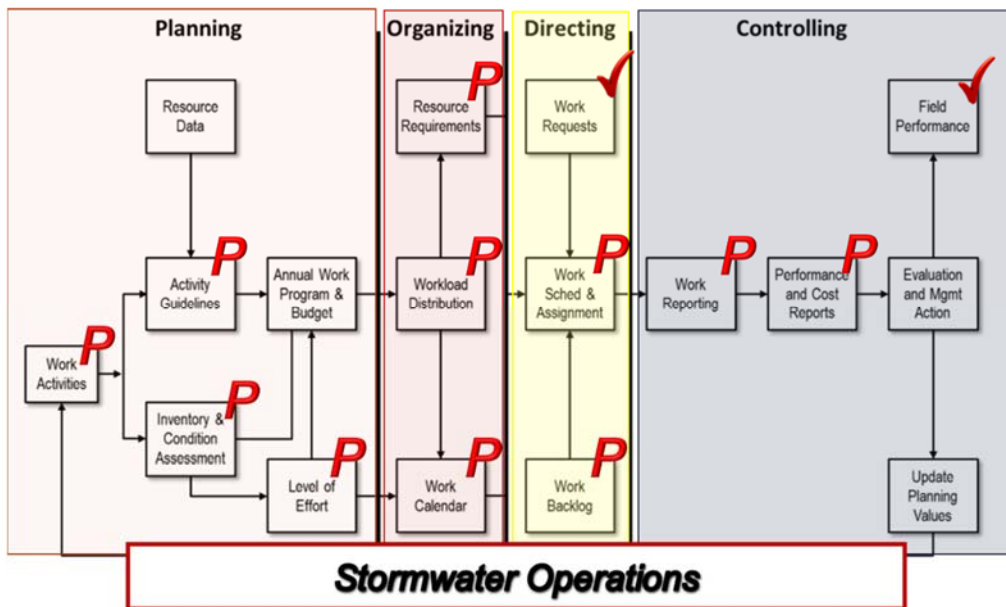
Stormwater Operations is partially performing many functions of the ideal maintenance management process (Figure 2-53 Maintenance Management Process - Stormwater Operations). A basic activity list exists within the WAMS and other documents. Asset lists with attributes exist in GIS and other various locations and files for key assets such as storm pump stations and storm inlets. Geographical maintenance zones also exist for stormwater basins and street sweeping for scheduling work orders and tracking. Resource data exist yet are outdated and do not reflect actual costs. Service levels have been established for some routine activities, such as hand ditch cleaning, street sweeping, and mini mowing yet an annual work program and budget are lacking and are not part of the group’s work process.

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Some short-term scheduling occurs with daily work assignments using a combination of tools and is integrated with the work backlog. A systematic approach to scheduling incoming and backlogged work is partially applied in WAMS using unlinked manual processes. Service requests are utilized and linked in the WAMS to work orders. Most labor, equipment, and material reporting occur on work orders.

Activity reporting occurs in many cases yet lacks full cost to allow management’s evaluation of performance and unit costs. Most management reports are generated *ad hoc* as a result of a request by the public, management, and elected officials. Some monitoring of work processes is performed of the WAMS system. The Stormwater Operations Manager prepares and submits a quarterly report of work accomplishment, using feedback from the Stormwater Operations Supervisor. The monitoring of field performance is performed by the Supervisor and Forepersons. The establishment of a continuous improvement process using collected data is not part of this group's work methodology.

Figure 2-53 Maintenance Management Process - Stormwater Operations



Stormwater Quality

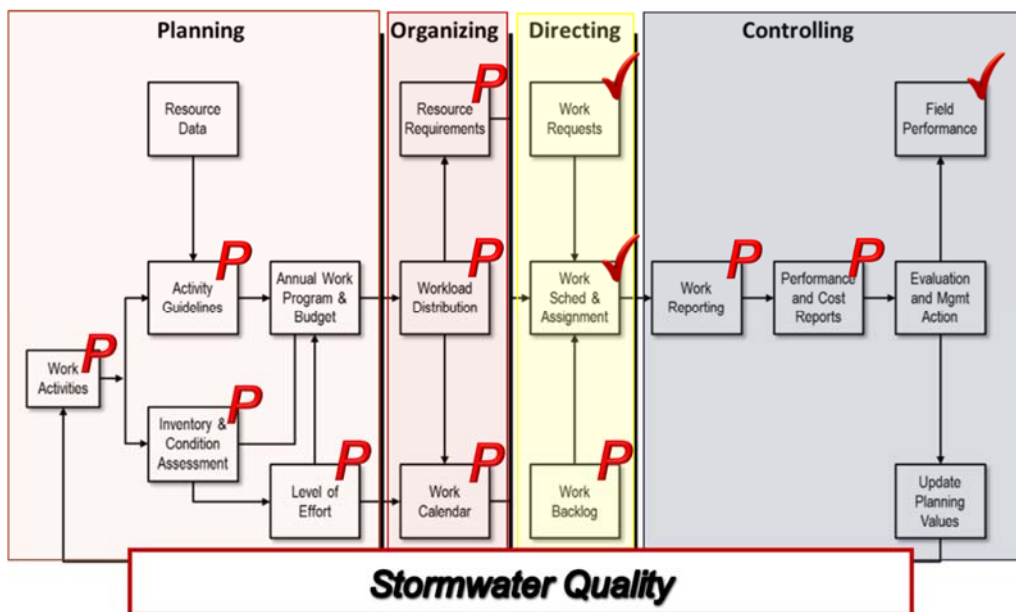
Stormwater Quality is also partially performing many functions of the ideal maintenance management process, almost identical to Stormwater Operations, as shown in Figure 2-54 Maintenance Management Process -Stormwater Quality. They have a list of basic activities in the WAMS and are depicted in other documents. Key asset lists and attribute features, such as retention ponds, mowing areas, and stormwater alum stations, exist in GIS and various other formats and files. Geographical maintenance zones also exist for stormwater basins, landscape and medians, and common mowing. Resource data are outdated or do not reflect actual costs. Service levels have been established for some routine activities, such as slope mowing, landscape and median maintenance, and litter and debris pickup. There is no annual work performance program, and this is not part of the group’s work process.

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Some short-term scheduling occurs along with daily assignments using a combination of tools and is partially integrated with the work backlog. A systematic approach to scheduling incoming requests is automated and connected to backlogged work by a combination of unlinked manual and communication processes. Service requests are utilized and linked in the WAMS to work orders. Some reporting of labor, equipment, and material occurs on work orders, yet work preparation and travel time are not reported to a specific work order. Time is only recorded to a work order once a crew or independent worker arrives at the job site.

Like Stormwater Operations, activity reporting lacks full cost to allow management’s evaluation of performance and costs and the controlling aspects are the same. All other control processes are the same.

Figure 2-54 Maintenance Management Process -Stormwater Quality



Pavement

Pavement has some similarities to the prior two groups and is performing some of the functions of the ideal maintenance management process, as shown in Figure 2-59. A basic activity list exists in the WAMS though not specific to the roadway maintenance effort. Asset attributes exist in GIS, excel documents, and paper files for key assets and features, such as paved roadways and streets, curbs and gutters, sidewalks, and alleys. Resource data for labor and equipment exist but the accuracy is questionable and does not appear to mirror actual costs. An annual work program and budget based on past production levels are not part of the group’s systematic workflow.

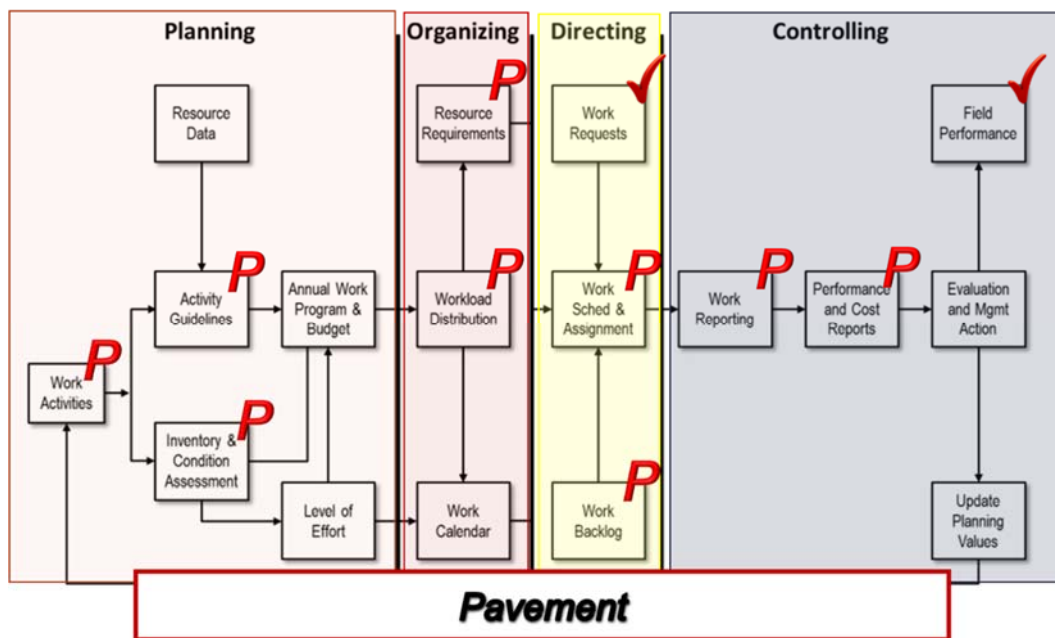
Some short-term scheduling occurs using a combination of tools to assign daily work and is somewhat integrated with the work backlog. A systematic approach is established for scheduling incoming requests. Work is partially backlogged using unlinked manual processes with support from administration and supervisors. Service requests are utilized and linked in the WAMS to work orders. Some reporting of labor, equipment, and material occurs on work orders, yet time for work preparation and travel time and accomplishment often are not reported to a specific work order yet are sometimes tracked by supervisors separately in a spreadsheet. Thus, limited

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work quantities are reported in the WAMS. Time is only recorded to a work order once a crew or independent worker arrives at the job site.

Recording of activity accomplishment and full cost are minimal, thus making the determination of performance and unit costs very difficult. Most management and evaluation reports are not often created and when they occur, are generated *ad hoc* based on inquiries by the public, management, and elected officials. Some monitoring of work processes in WAMS is performed by supervisors. Field performance is checked by a combination of the Supervisor and Forepersons. Collected information has been minimally utilized for future planning or continuous improvement.

Figure 2-55 Maintenance Management Process -Pavement



Signs & Markings

Signs & Markings is also partially executing some functions of the ideal maintenance management process, as shown in Figure 2-56 Maintenance Management Process - Signs & Markings. There is a list of basic activities in the WAMS, though not directly related to Signs and Markings. The City’s sign assets exist in GIS with some attributes and, along with pavement marking assets, are stored in various other formats and files. Asset lists exist in various formats and files for key assets and features, such as twelve (12) MUTCD sign categories and pavement markings. Resource data are not current, nor do they reflect actual costs. Service levels are planned for some routine activities, yet an annual work program and budget are not part of the group’s work process.

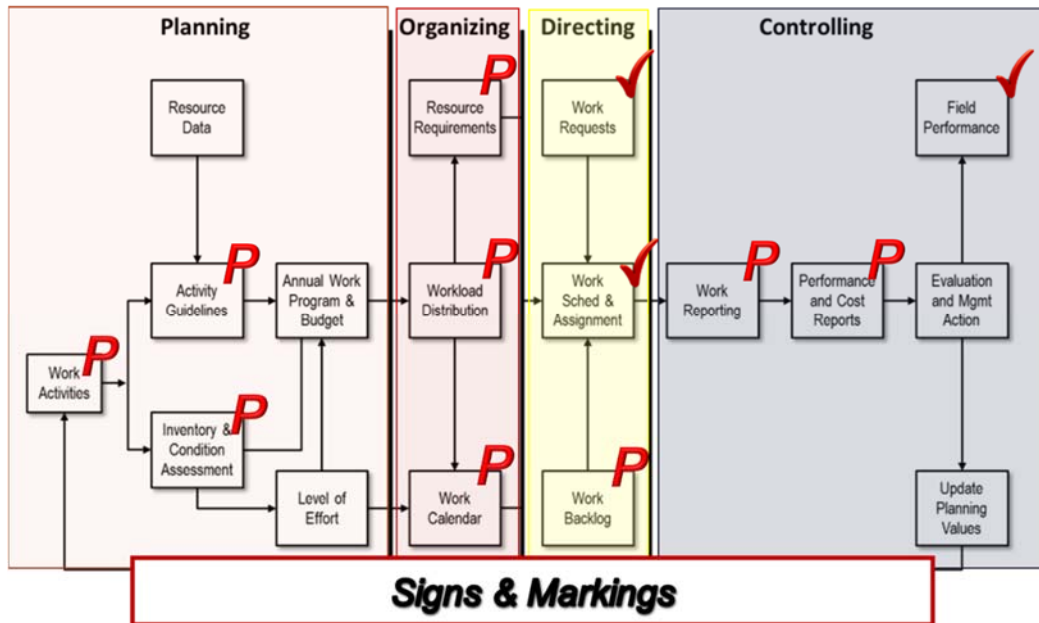
Some short-term scheduling occurs mainly for day-to-day assignments using a combination of tools and is integrated with the work backlog. A systematic approach to scheduling and assignment of the incoming request and backlogged work is partially applied by manual processes. Service requests are utilized and linked to work orders in the WAMS. Some labor, equipment, and material reporting occur on work orders, work preparation, and travel times are

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reported to a specific work order. Accomplishment is tracked on some work orders and in manual logs.

Activity reporting may be available as some key data elements exist yet are not fully developed along with the full cost, hence evaluation of performance and unit costs are unobtainable. Most management and control reports are generated *ad hoc* based on inquiries by the public, management, and elected officials. Some monitoring of work processes and data collection is performed while the Supervisor and Forepersons check field performance. Routine and systematic updating of planning values for future planning is not being utilized.

Figure 2-56 Maintenance Management Process - Signs & Markings



Traffic Signals

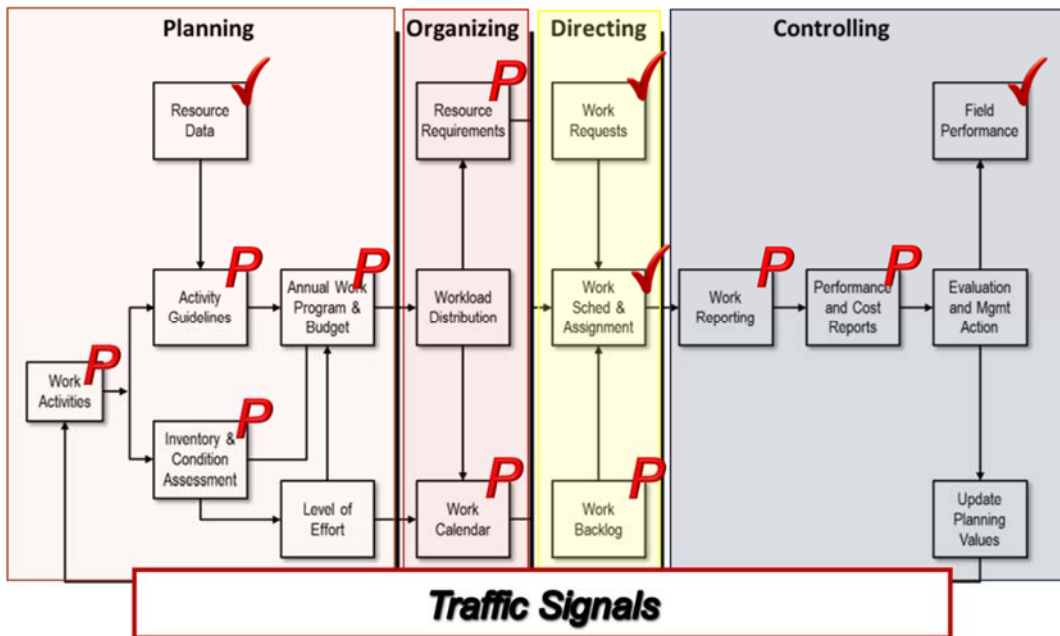
Traffic Signals' adherence to the ideal maintenance management process is depicted in Figure 2-57 Maintenance Management Process -Traffic Signals. A list of basic, non-specific traffic activities exists within the WAMS. Further, lists of assets are found in various formats and files for both the City and contract signals. The traffic group work is a combination of response and routines.

Preventive maintenance routines have been established in manual files and are utilized for annual preventive maintenance. WAMS resource data for labor and equipment are outdated or do not reflect actual costs. Service levels have been established for some routine activities, yet an annual work program and budget process is not part of the group's work practice. Some short-term scheduling occurs using a combination of tools that are integrated with the work backlog. A systematic approach occurs for scheduling and assigning incoming, ongoing, and backlogged requests using unlinked manual processes. Service requests are utilized and connected to work orders in the WAMS, along with other manual tracking methods. Reporting of some labor, equipment, and material occurs on work orders, yet work preparation and travel time are not reported to a specific work order.

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As a result of activity reporting without particular traffic activities, minimal accomplishment recording, and partial work tracking, full cost evaluation of performance is unobtainable. Management reports are not often generated and when they occur it is *ad hoc* based on inquiries by the public, management, and/or elected officials. Some monitoring of work processes is performed using a paper tracking system. Field performance is typically monitored by the Supervisor and one Traffic Signal Technician III. The systematic utilization of system data is not developed and updated in the WAMS system for annual planning updates for continuous improvement.

Figure 2-57 Maintenance Management Process -Traffic Signals



SECTION 3- FINDINGS/OPPORTUNITIES

This working paper provides information to support the analysis of opportunities to improve the existing operations of St. Petersburg’s Stormwater, Pavement, and Traffic Operations (SPTO) Department. This paper also uses LAC’s analysis to identify findings that will provide a basis for specific implementable recommendations. The paper is structured to follow the fundamental management functions of planning, organizing, directing, and controlling/improving. By categorizing the findings under each function, management can systematically approach the issues.

This evaluation of efficiency involves two parts. The first is the identification of opportunities in which work functions could be performed more efficiently. Second is the determination of processes to establish methods for continual improvement that meet the needs of the City and a growing customer base. Using the baseline information, along with field observations and expertise, LAC evaluated the Department and its divisions from several points of view.

The following findings are based on observations, interviews, data collection, comparisons, institutional knowledge, and evaluation. The seventy-four (74) findings are classified into a general group and the four functional categories of management, in their respective sections – general, planning, organizing, directing, and controlling. These findings are not presented in order of importance, but instead in a management flow sequence. However, many of the findings are related and should be reviewed in totality and not independently.

The SPTO Department is a dynamic organization and is constantly developing. It should be noted that much of the supporting information used to determine the findings is historical and “point-in-time” data provided by the City and interviews with staff, which may have changed since discovery. Most changes in policy, organization, and process that occurred after the initial discovery are not consequently revisited as part of this effort due to a significant impact on schedule and cost. The baseline information was previously submitted in the Baseline working paper and vetted by the Department’s Review Committee. Most baseline information is not repeated in this section, only referenced for the sake of brevity.

3.1. General

3.1.1. The Department is already performing many good and innovative practices, which demonstrates a philosophy of change and capability for continuous improvement.

The Stormwater, Pavement, and Traffic Operations (SPTO) Department is performing various efforts that demonstrate its earnest desire to improve and innovate. Some examples of these practices include-

- On February 19, 2021, the Department achieved American Public Works Association (APWA) self-accreditation. The Department is just one of twenty-two (22) agencies in

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the State and 159 in the Country. This shows the City's desire to have the tools for accountability.

- The Department has developed a Department Manual which contains standard operating procedures (SOPs) for several activities performed by maintenance and operations along with identified department goals.
- The GIS support is applied and integrated with some processes.
- The Department has and is beginning to utilize the work and asset management system (WAMS) to track a portion of their work effort.
- Mobile technology is available and utilized for work requests, work orders, and tracking by some employees.
- A warehouse has been established for the Department that allows for many common items to be centrally managed and controlled.
- There are several methods of receiving work requests that are being utilized by the Department to ensure service.
- Some short-term scheduling and work routines occur.
- Preventive maintenance exists for many functions such as sweeping, landscaping, and stormwater inlet cleaning. The Traffic Signals group utilizes an established series of preventive maintenance routines for traffic signal maintenance.
- The Signs & Markings group both manufactures and purchases signs demonstrating their desire for effective use of their resources.
- Several groups track work accomplishments in WAMS and spreadsheets and use them for accountability and documentation.
- The City has a relationship with Pinellas Technical College (P-Tech) for employee training and professional development for entry-level employees and advancing mid-level employees with a focus on basic skills and techniques needed by the Department.
- The Department provides support for approximately 48 events annually, including the St. Petersburg Seafood & Music Festival, Tampa Bay Bluesfest, and the Firestone Grand Prix of St. Petersburg.
- Most employees (86%) know how to track their work and they are encouraged to look for ways to improve.

These are just a few examples of the positive efforts, skills, and practices displayed by the Department's employees demonstrating their capabilities, successes, and desire to improve.

3.1.2. The City has thoroughly developed and published guiding principles for its organization.

The City has established a clear vision statement that focuses on the effectiveness of providing opportunities through innovation, creativity, and competitiveness.

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- 3.1.3. The Department’s mission statement supports the City’s mission statement and is focused on effective service and innovation. Yet efficiency linkages are lacking between performance measures and budget. Effectiveness and efficiency are often joint goals for high-performance organizations.**

The Department’s mission is focused on both the effective and efficient management of the City’s public works infrastructure. In the execution of its mission, the Department also supports the City’s overarching values, strategic pathways, and ultimate vision. High-Performance Organizations (HPOs) utilize both efficiency and effectiveness metrics to manage their operations (De Waal & Heijtel, 2017).

While it appears that the effective and efficient delivery of service is desired by the Department, their operational performance metrics lack automated linkages to their annual budget and budget performance metrics. The tracking of performance measures is primarily accomplished through manual processes with information from various sources and independent calculations. Several similar HPO agencies directly link performance measures with their budgets to promote accountability and transparency of expenditures to quantifiable measures.

- 3.1.4. It appears that only a portion of staff are aware of the Department’s mission statement or contributed to its creation.**

While the Department’s mission statement supports the City’s overarching values, strategic pathways, and ultimate vision, it appears a considerable number of the Department’s employees were unaware of its existence or helped in its creation. This was discovered through interviews and comments from key staff, as well as the analysis of employee survey results.

When employees were asked, “Have you seen or heard this mission statement? – *‘We will achieve our mission by driving collaboration between employees and citizens with a spirit of partnership and pragmatism. Understanding what matters, bringing new ideas, and creating a positive impact!’*”, approximately 60% responded either they had not heard of the mission statement or chose not to respond. In the leadership survey, when the statement was posed, “I have seen and understand the mission statement,” approximately 33% surveyed responded either disagree or neutral.

- 3.1.5. The Department is a full-service organization focused on stormwater, roads, and traffic maintenance and operations.**

The SPTO Department is a full-service public works operational organization. Through the department’s Stormwater Operations and Pavement & Traffic Operations groups, as well as the direction of its senior leadership, the City provides public works services to approximately 250,000 city residents and an additional 9,900 businesses (Pinellas County Economic Development, 2021).

Stormwater Operations is led by the Stormwater Operations Manager whose group is further subdivided into Stormwater Operations and Stormwater Quality. They are responsible for the repair and maintenance of 525 miles of stormwater pipes, 17,900 stormwater inlets, 83 ponds, and 100 miles of seawalls.

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The Pavement & Traffic Operations group is led by the PTO Manager. Similar to Stormwater Operations, this group is further subdivided into Pavement, Signs & Markings, and Traffic Signals. Pavement is responsible for the repair and maintenance of 978 miles of roadways with various surface treatments, as well as 808 miles of sidewalks and trails. Traffic is responsible for 60,899 signs, and Traffic Signals is responsible for the repair and maintenance of 310 traffic signals.

3.1.6. The Stormwater Management portion of the Integrated Water Resources Master Plan is 20% of the estimated ~\$3.1 billion of CIP recommendations over 20 years.

The Integrated Water Resources Master Plan (IWRMP) is a 723-page document created as a result of a Florida Department of Environmental Protection (FDEP) consent order issued July 25, 2017. The regulatory submittal was produced by Jacobs Engineering Group, Inc. of Tampa, Florida (Jacobs Engineering Group Inc., 2019).

The master plan provided thirty-three (33) scenarios in seven (7) categories. The fifth category includes Stormwater Management. There are three overarching categories in the section – Manage Stormwater, Utilize Stormwater, and Policy Revisions. The implementation of the entire plan is estimated at approximately \$3.1 billion over 20 years, and the Stormwater Management portion, costing approximately \$634.8 million or 20% of the total.

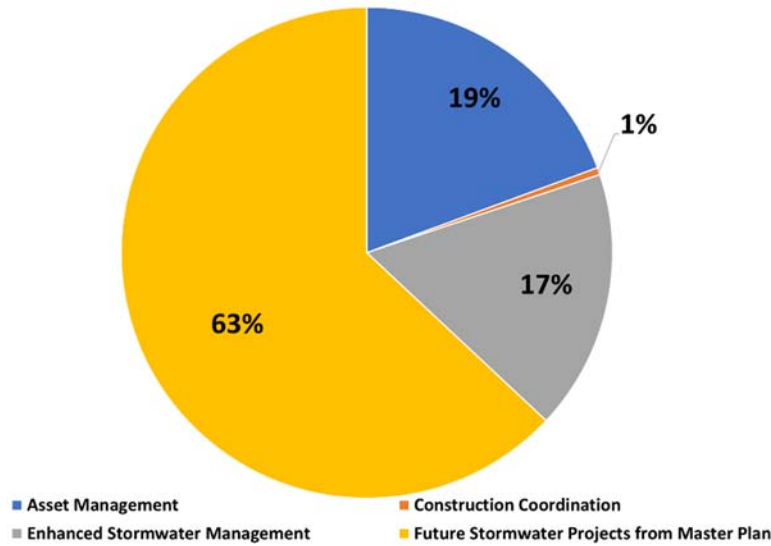
3.1.7. Projects classified as ‘Future Stormwater Projects’ comprise 63% of the Stormwater Management section of the IWRMP.

The IWRMP identifies four drivers within Section Eight- *Stormwater Management*. The drivers include – Asset Management, Construction Coordination, Enhanced Stormwater Management, and Future Stormwater Projects from Master Plan.

Of these drivers, Future Stormwater Projects from Master Plan contributes the largest portion of the approximately \$634.8. Figure 3-1 Stormwater Management Drivers shows the percentage of the driver portions of Section Eight- Stormwater Management. The driver Future Stormwater Projects from the Master Plan contributes \$400,000,000, or 63%, to the total.

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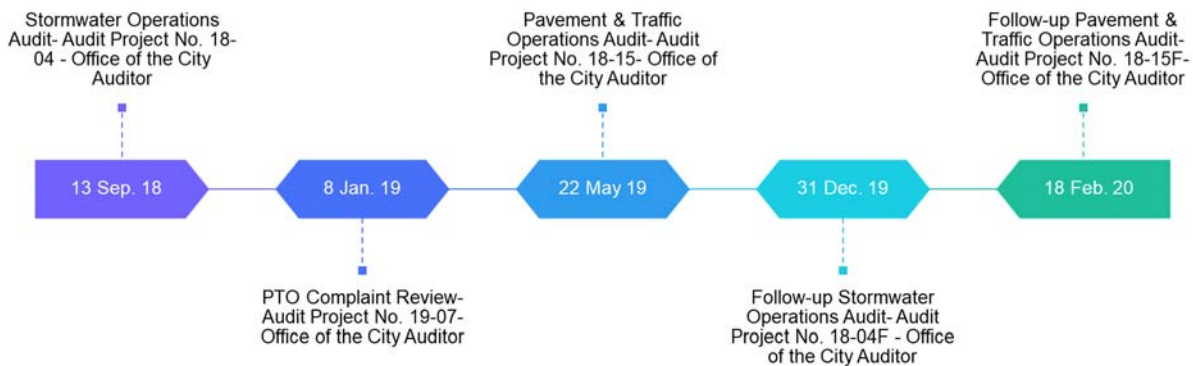
Figure 3-1 Stormwater Management Drivers



3.1.8. The Department has undergone several internal reviews and follow-ups by the Office of the City Auditor. Each review has resulted in numerous recommendations, of which some were found to be outstanding.

Over the past several years, the Department has faced several internal reviews and subsequent follow-up reports. Figure 3-2 Timeline of Internal Audits shows the historical timeline of the three departmental audits and follow-ups. Each review was conducted by the Office of the City Auditor. The primary objective of Audit Projects 18-04 and 18-15 was to verify that proper internal controls were in place and operating effectively for the respective groups, as well as compliance with City and departmental policies and procedures. Each of these audits also had a successive audit project. On January 8, 2019, a PTO Compliance Review was also conducted.

Figure 3-2 Timeline of Internal Audits



Of Audit Project 18-04 (*Stormwater Operations*), the following seven (7) recommendations were made-

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- Develop policy and procedure manual that is periodically reviewed and updated.
- Documentation of work order completion and management's review.
- Secure work information through the WAMS or a folder on the network.
- Management review, update, and document overhead rate.
- Reinforce P-Card procedures.
- Implement internal controls for the Naviline system.
- The automation of IGWO data.

Of Audit Project 18-15 (*Pavement & Traffic Operations*), the following eight (8) recommendations were made-

- Developing a policy and procedure manual.
- Implementing a Pavement Management system.
- Establishing inventory control.
- Management review, update, and document overhead rate.
- The proper charging for IGWO.
- Documenting work order completion.
- Securing work information.
- Eliminating double WAMS entry.

Through the follow-up audit projects 18-04F (Stormwater Operations) and 18-15F (Pavement & Traffic Operations), it was identified that some recommendations were found to be outstanding and in various stages of completion. These are listed below in their respective project.

Audit Project 18-04F (Stormwater Operations)

- Core processes not documented – manual started.
- Lack of documentation on WO.
- Overhead not finalized – review underway.
- Internal Controls for Naviline – process revision underway.

Audit Project 18-15F (Pavement & Traffic Operations)

- Core processes not documented – manual started.
- PMS not implemented – retained Trans Map to complete.
- Overhead not finalized – review underway.

3.1.9. The Department created and published a Department Manual in 2021. It appears that many work process forms were created as the result of APWA self-

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accreditation yet have not been fully implemented. Many managers and leaders are unaware of its content.

The Department has developed a Department Manual, effective 2021. This manual contains the following five sections – Introduction, Department Policies and Programs, Standard Operating Procedures, Emergency Operations, and Appendices.

The Introduction outlines the Department’s current twelve (12) organizational goals, six (6) organizational charts, and details of the forty-eight (48) governances and their associated agencies. Section 2: Departmental Policies and Programs provides forty (40) administrative policies, outlines eight (8) programs, and lists twelve (12) agreements. Section 3: Department Standard Operating Procedures provides standard operating procedures (SOPs) for twenty-four (24) activities. Section 4: Emergency Operations of the Department Manual offers their Department Disaster Operations Plan (DOP), Continuity of Operations Plan (COOP), and Sandbag Operations Plan. The final section, Section 5, offers thirty-one (31) departmental forms and numerous GIS-generated maps. It appears these forms were created to satisfy APWA’s self-accreditation criteria but lack full linkage. This lack of integration requires the Department to employ redundant manual processes.

Further, while the creation of the manual took a considerable effort, some managers, leaders, and field employees are unaware of its content. Through the employee survey, the statement was made, “I am aware of the Department Manual,” to which 29% responded they were unaware of the manual. When the following statement “I helped and provided feedback in the creation of the Department Manual,” only 20% of the respondents affirmed their contribution.

3.1.10. The current organizational chart is different than the organizational chart in the Department Manual.

While the effort to create the Department Manual was considerable and the SPTO Department is dynamic and adapting, there are disparities between the organizational chart presented in the manual and the current version. Since the start of the project, the organizational structure of the Department has also been modified several times. Figure 3-3 Current Organizational Chart shows the current organizational chart, while Figure 3-4 Department Manual’s Organizational Chart shows the contrasting organizational chart from the Department Manual.

The employee survey highlighted another issue related to the organization of the Department – 20% of employees indicated that they were unaware of their current supervisor.

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Figure 3-3 Current Organizational Chart

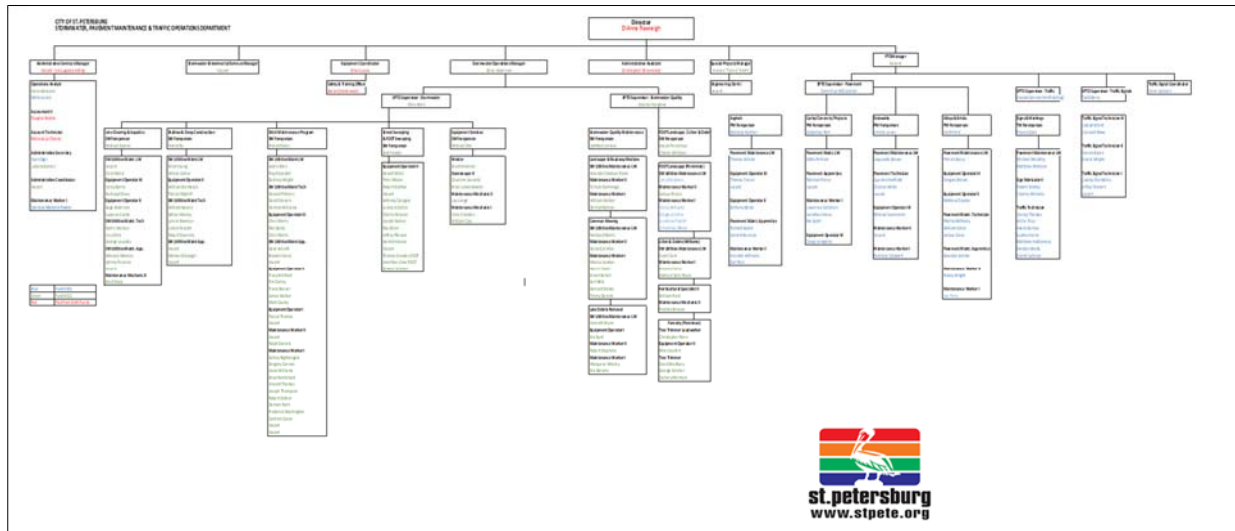
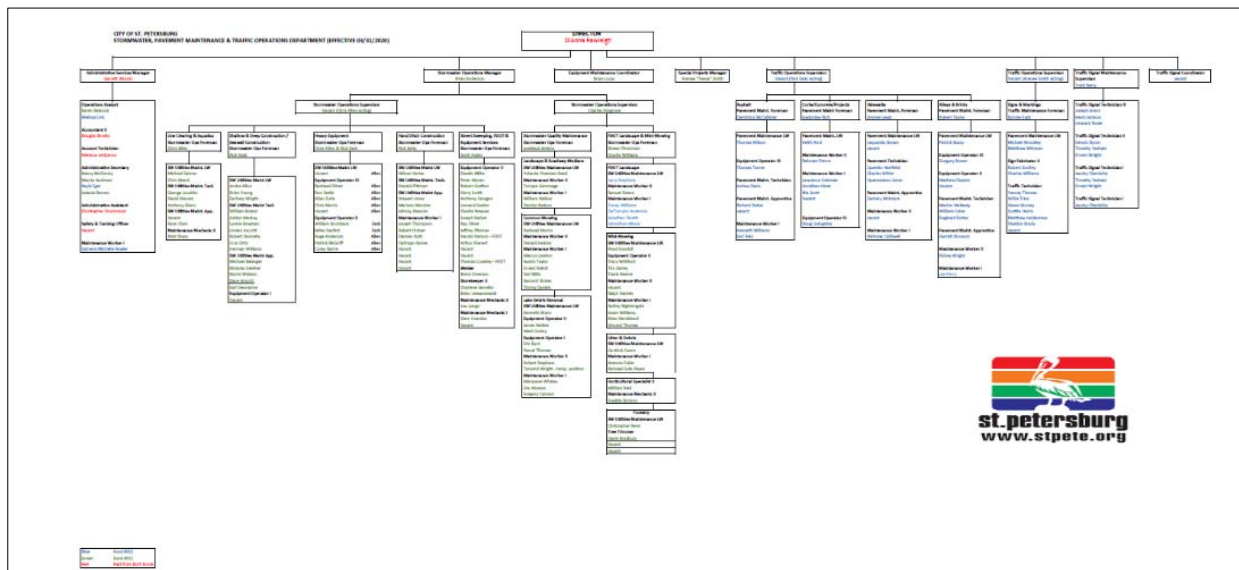


Figure 3-4 Department Manual's Organizational Chart



3.1.11. The Department has published an aggressive set of goals and objectives to be accomplished in FY2021, with many outstanding.

Published in the Department Manual and through Memo #SPTOM20-144, the Director has documented several aggressive goals and objectives to be accomplished by the end of November 2021. Each goal and objective have assigned leads. While the memorandum and section of the Department Manual reference the goals, the status of their completion is not known or communicated to the broader group of departmental employees. Some of these goals may have been completed yet lack documentation and confirmation.

- SWOT analysis – Department-wide and Garrett/DiAnna Rawleigh leads
- Process Improvement Team (PIT) – Department-wide and Teena Smith leads

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- Improve Apprentice/Technician Program – Executive Team and DiAnna Rawleigh leads
- Cross Training Rotation Program – Leadership Team and Brian Anderson leads
- Customer Service Standards – Management and Leadership Teams and DiAnna Rawleigh/Garrett Leads
- Operator Training Program – Brian Lucas leads
- Striping Plan – Sign Shop Team and Teena Smith leads
- Mowing Plan – SW Quality and Ditch Crew and Brian Anderson leads
- Sidewalk Plan – Sidewalk Team and Rick Eads/Teena Smith technical support
- Webpage Creation – Garrett Woods leads
- Operations and Maintenance Plan for Lake Maggiore – Brian Anderson, Charles Hargrove, and Chris Allen

3.1.12. Section 3 of the Department Manual provides standard operating procedures (SOPs) for 24 activities, yet some activities appear to be missing.


The Department Manual’s Section 3, documents twenty-four (24) SOPs in six (6) categories. Each SOP contains a documented purpose, specific references, a record of revision, applicability, and location sections. Each also provides a summary of method, terms & definitions, personnel qualifications, procedural steps, records management section, and quality assurance/quality control elements. Figure 3-5 Standard Operating Procedure (Pothole Patching) shows the first page of a typical SOP found in the Department manual’s third section.

While each SOP is comprehensive, it appears some SOPs for key activities are missing. For example, for the Stormwater Operations – Line Clearing, Hand Ditch Clearing, Mini Mowing, and Sea Wall Maintenance, for Pavement – Sidewalk Repair, and for Traffic and Traffic Signals – Sign Installation/Replacement, Sign Fabrication, and Pavement Marking.

Many similar agencies have evaluated their operations and maintenance activities, documenting every activity they perform. After all work activities are identified, facilitated teams will write each portion of a guiding document. Additionally, these guiding documents will be made available to all employees and will be annually reviewed by similar employee teams. These documents provide a tool for accountability and assist leadership in performing planning efforts by determining resource needs and levels of service. Though many employees are aware of the existence of the SOPs, 52% indicated in the survey that they had not seen or used them.

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Figure 3-5 Standard Operating Procedure (Pothole Patching)

 st.petersburg www.stpete.org	SPTOPR600-005 Pothole Patching Revision Number: 01 Effective Date: 20 January 2021		
PURPOSE The purpose of this document is to establish a procedure for pothole patching on asphalt roadways.	REFERENCES <ul style="list-style-type: none"> • Florida Department of Transportation Standard Specification for Road & Bridge Construction 		
RECORD OF REVISION			
REVISION	DATE	RESPONSIBLE PERSON	DESCRIPTION
00	18 Feb 20	Demetrius McCallister	Initial Release in Standardized Format
01	23 Mar 20	DiAnna Rawleigh	First Review
02	20 Jan 21	Christopher Drummond	Edited for content and distribution
03			
Author:	Demetrius McCallister	Supervisor, SPTO	18 Feb 2020
	Name	Title	Date
Reviewer:	Christopher Drummond	Administrative Assistant, SPTO	20 Jan 21
	Name	Title	Date
Approver:	DiAnna Rawleigh,	Director, SPTO	20 Jan 21
	Name	Title	Date

3.1.13. WAMS lacks configuration for Public Works’ operations and has been set up primarily for water and sewer utilities.

The WAMS was implemented in 2007 and has been utilized for approximately ten years as the primary Computerized Maintenance Management System (CMMS) for the Water Resources Department. It has been reported that the SPTO Department has more recently started using the system as their primary maintenance management tool.

Though the WAMS is used by the Department, it appears that the system has primarily been configured for the use of divisions in the City’s Water Resources Department. Further, the Water Resources Department has also developed a user support group for providing feedback and communicating the specific system needs ASM Computer Resources Division.

3.1.14. Use of the WAMS varies between groups for scheduling and tracking work. Some system capabilities for productivity and accomplishment are underutilized.

The use of the WAMS varies between the operational groups of the Department. For example, through the Leadership Survey, when posed the statement “The WAM system is useful to me for planning and scheduling work,” 55.5% of respondents answered *Strongly Disagree* or *Neutral*. In a similar and related question, the following statement was posed, “I review a WAMS output every _____ to help me make better work decisions.” 66.7% responded *Weekly*, while 33.3% responded *Never*.

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Additionally, accomplishment is tracked in various locations within the WAMS, including the notes section. This makes it difficult to compile work accomplishment efficiency data. When the accomplishment field is used, often different units are selected for an activity. For example, after the analysis of the WAMS database, six different units of measure had been used in recording accomplishment for street sweeping. Also, though most employees (86%) indicate that they understand how to track their work in the system, accomplishment is only accounted for in a small portion of the daily entries and often recorded inconsistently.

3.1.15. The Department's GIS administration and mapping are supported by other departments such as Water Resources, Technology Services, and Engineering.

The City's Geographical Information System (GIS) is utilized within the Department. The Water Resources' Computer Systems Division, the City's Technology Services Group, as well as the Engineering Department provide administrative and mapping support for the system. GIS can be used to generate maps and displays that may be printed and used for presentation, planning, or reporting work accomplished. However, many employees in the Department do not have access to electronic maps in daily operations and lack skills to use the system.

GIS is a common tool used in public works agencies, especially for linear assets such as roads, alleys, and sidewalks. Several benchmark agencies also developed and maintain a comprehensive inventory of all assets for which they are responsible, storing these inventories and their related attributes such as condition, location, and installation dates in their GIS system. These agencies also automate the linkage between their MMS and inventory data for easy access by employees at all levels of the organization.

3.1.16. GIS is mainly used for static maps with minimal use by the SPTO Department for dynamic graphic display, as well as analysis of spatial data and attributes.

GIS is a useful tool for planning, organizing, and analyzing work through the use of dynamic data-driven maps. Outputs by way of maps and spatial data from GIS systems can also be used for effectively communicating plans and work accomplishments to an agency's internal and external stakeholders.

The City's GIS and mapping capabilities and data are primarily used for the creation of static maps, like the maps included in the Department Manual. The Department lacks full utilization for dynamic graphic display or analysis of spatial data and the City's asset attributes.

Several similar benchmark agencies use GIS as a critical tool for each phase of maintenance management, including planning resources and levels of service. They use the system's capabilities to organize resources and preventative maintenance routines, as well as to schedule work and monitor work accomplishment.

3.1.17. The utilization of technology has only been marginally accepted by Leadership and employees, which has impacted the Department's ability to fully use existing automated tools.

The City has various tools such as GIS, GPS, mobile technology, SeeClickFix, and WAMS to help manage and direct resources. However, neither leadership nor employees have accepted the benefits provided by the full utilization of these tools. LAC's interviews and observations depict

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that those systems are used to store data, yet system outputs are rarely utilized for support for management decisions. Further, data accuracy is questionable as a quality control process is not in place and only a small portion of employees' work data is recorded and collected.

The employee survey indicated that 55% of employees see little value in GPS, while most have never used (58%) mobile technology and do not find it to be useful (35%). This lack of belief in system capabilities was reflected in the Leadership survey as well, which indicated that only 44% think WAMS helps in work planning and scheduling. This lack of system utilization has resulted in redundant off-system record-keeping, arbitrary decision making, and lack of use of analytics, as well as lost opportunities to utilize data that is collected.

Finally, analytical tools are available and have been used in the past, such as Socrata Data from Tyler Technologies that compiles and analyzes data from WAMS. The information allows for requests, work orders, and other data to be compiled and reviewed graphically and statistically to identify trends. It was utilized in FY 2019-2020 but stopped being used by SPTO leadership for analysis and /or decision making over the past year.

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3.2. Planning

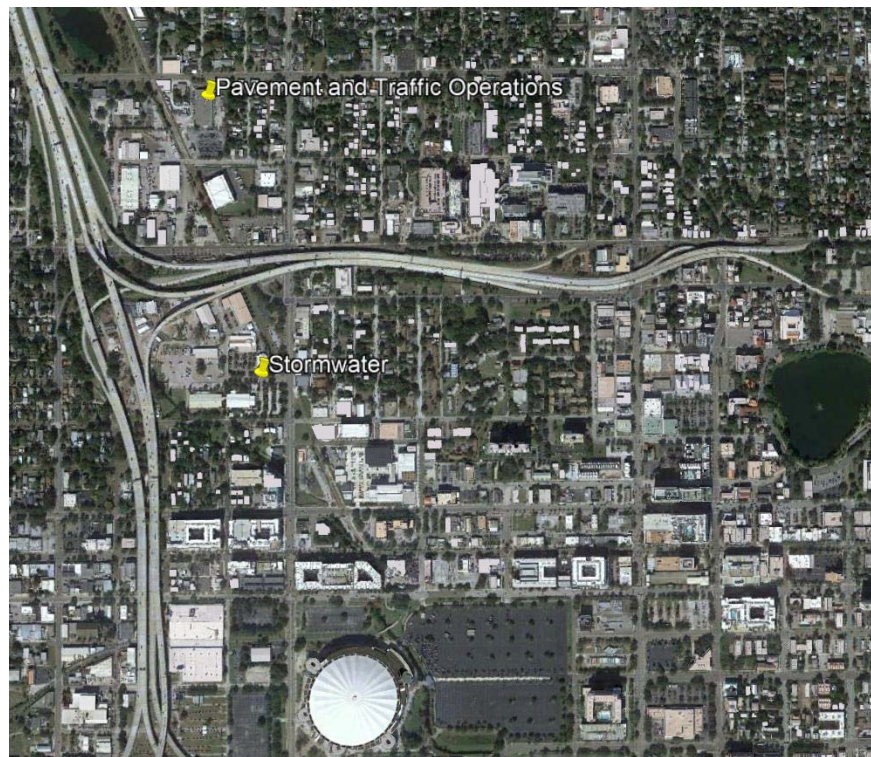
3.2.1. Stormwater Operations and the Department Manager stage out of the 3rd Ave North location, whereas Traffic Operations and Pavement report out of the 9th Ave North location.

The Department has abundant facilities, assets, and infrastructure related to stormwater, pavement, and traffic operations and maintenance. The most significant assets related to the planning and staging of work are the two work locations where employees report. A large portion of the Stormwater Division labor is based out of the 1650 3rd Ave North, St. Petersburg, FL 33713 office, along with most of the Department. The Pavement and Traffic Operations Divisions are based out of the facility at 1744 9th Ave North, St. Petersburg, FL 33713. The Water Quality section of Stormwater Operations recently moved to this location. Figure 3-6-Resource Staging Locations shows the primary staging locations of the Department. The 1650 3rd Ave North location is also home to the Water Resources Department, the City’s consolidated warehouse, and fleet operations.

Stormwater Operations and the Department Manager stage out of the 3rd Ave North location. While the labor and staff of the Water Quality have moved to the 9th Ave North location, their equipment is staged at the 3rd Ave North location. The survey indicated that 33% of employees thought their work is negatively impacted by having two work locations.

City Administration has developed a 6-year, \$35 million Capital Improvement plan to combine the 3rd Ave North, St. and 9th Ave North, St. facilities, at the 3rd Ave North, St. site.

Figure 3-6- Resource Staging Locations



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3.2.2. Stormwater, Pavement, and Traffic operate independently, with minimal sharing of resources.

The SPTO Department has several distinct groups, each with unique functions. Some require licenses and certifications for employees specific to their duties. Each group is led by a Manager and associated direct reports. Each operational group primarily operates independently of one another, with some support from the Special Projects and Business Services groups. There is very little cross-training or transfer between groups.

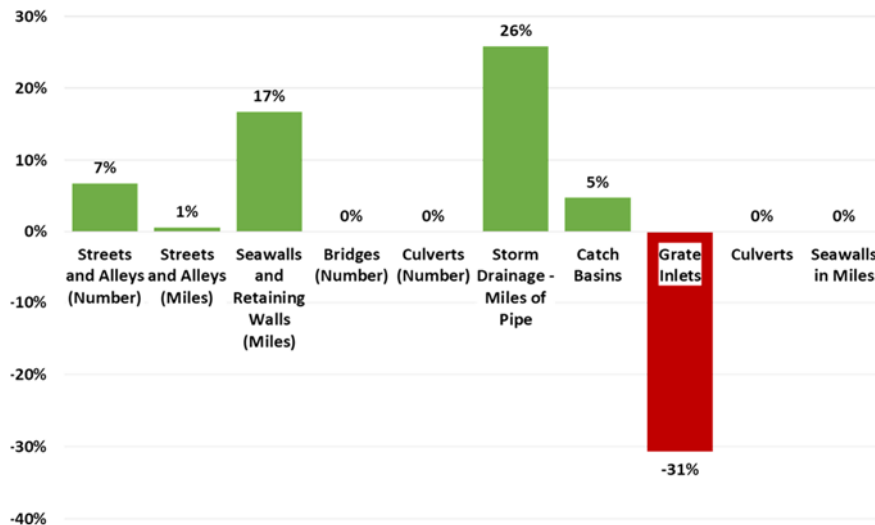
While there are some instances where the groups work together, such as in times of emergency support like storm preparation and response and fish kills clean up, as well as training functions, they normally work independently with little overlap. The employee survey indicated that 39% believe that the groups do not work well together to solve problems and accomplish work.

3.2.3. Assets and customers have increased significantly over the last ten years, except for Grate Inlets, which has decreased 31% over the period.

Each year, the City reports several asset classes, functions, and programs within their Annual Comprehensive Financial Report (ACFR). Figure 3-7- ACFR Asset Inventories shows the classes associated with the maintenance and repair responsibilities of the Department. As reported and reflected below, there has been a wide range of changes over the past ten years, some significant.

Over the past five years, staffing of the Department has increased by 18%. Over the past ten years, street and alley miles have increased approximately 1%, seawalls and retaining wall miles increased 17%, miles of storm pipe increased 26%, and catch basins increased by 5%. In contrast, grate inlets decreased by 31%, or 1,439 inlets. This reduction of an asset type appears to be questionable as no other data was available to verify such a large change.

Figure 3-7- ACFR Asset Inventories



3.2.4. The City's Annual Comprehensive Financial Reports (ACFR) provide statistical data of asset inventories, which come from many sources and do not match some department data.

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The City's ACFR provides statistical data of asset inventories, which come from many sources. However, it was discovered through interviews and feedback with Department leadership that several of the reported data inventory values do not match those reported by the Department. Further, they were unaware of the source of data for the inventory values in the ACFR.

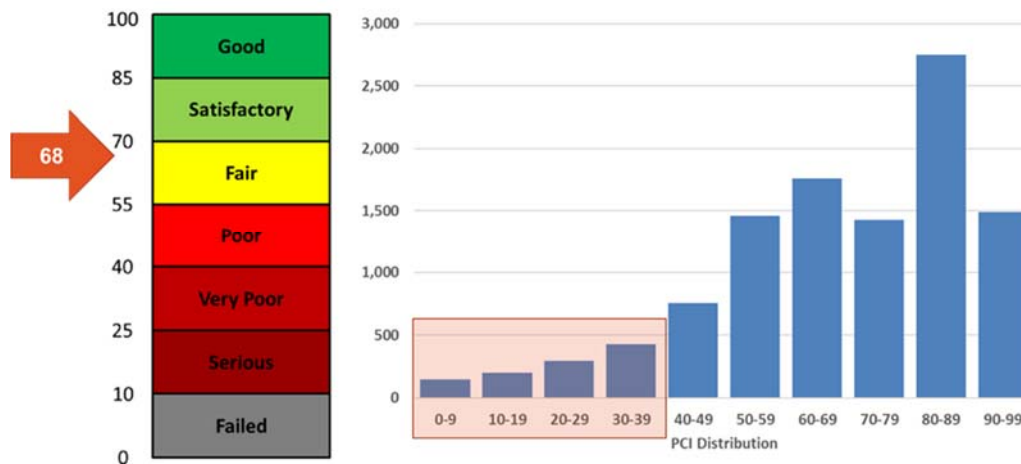
Several similar benchmark agencies standardize the sourcing of data provided for the creation of the agency's certified reporting documents. These same agencies will use historical ACFR data as a confident source of information for performing trending analysis of operations, projecting resources needs, and calculating levels of services if the information is properly tracked and recorded.

3.2.5. The overall condition rating appears reasonable, yet 10% of streets have questionably low (<40) rating values.

Out of approximately 977 total miles of streets, almost 90% are asphalt. Though, there are a variety of other roadway types including an estimate by SPTO of 4 miles of concrete, 86 miles of brick, 6 miles of millings, .5 miles of unknown type, and .1 miles.

Using provided data, nearly 24% or 213.7 miles of the asphalt road miles are rated as poor or below. Another 25% are in fair condition, 22% are satisfactory, and 29% are in good condition. The average rating of all asphalt streets is 68.4 out of 100, as shown in Figure 3-8. After reviewing the data, it was discovered that approximately 10% of the asphalt ratings were rated less than 40, which are questionable ratings for asphalt roadways. These questionable rating categories are also highlighted in Figure 3-8- Pavement Condition Rating.

Figure 3-8- Pavement Condition Rating



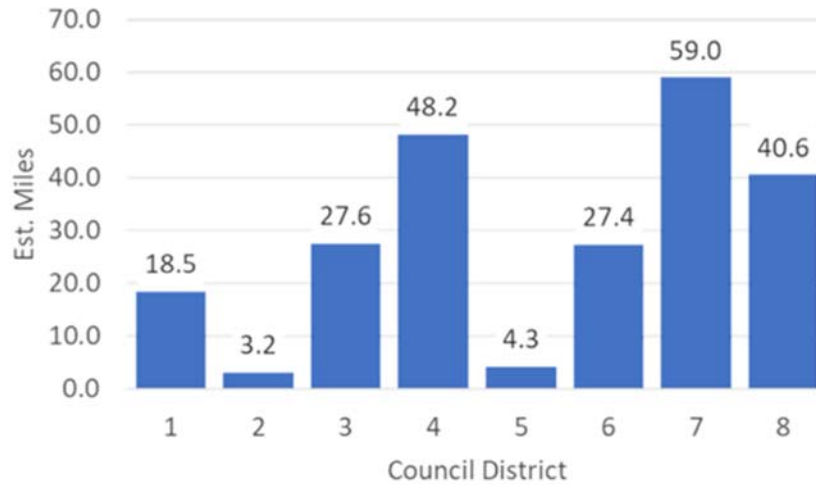
3.2.6. Alley inventory is located in the more established neighborhoods and varies between council districts. The Sanitation Department is also a significant stakeholder as 81% of alleys have a portion of a sanitation route.

There are 228.8 miles of alleys in the city – approximately 81% of which have sanitation routing provided by the Solid Waste Department, which is a major stakeholder of this asset class. Most of the alleyways are 12 feet in width. Figure 3-9- Miles of Alley per Council District also shows

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the miles of alleyways within each council district. From the data and field observations, the highest alley mileage is located within more established and urbanized population centers.

Figure 3-9- Miles of Alley per Council District



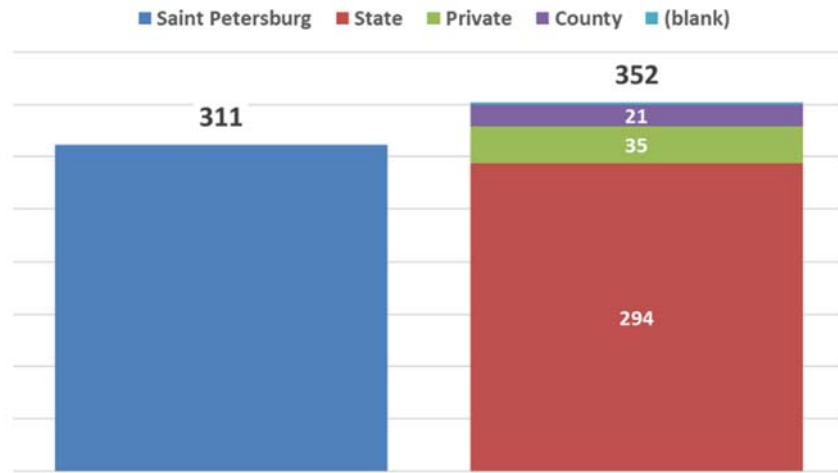
3.2.7. The majority of City ROW maintenance areas (53%) are owned by the state, private, and county entities.

The SPTO Department is responsible for mowing and maintaining right-of-way areas, which total approximately 704 acres with some of the area accomplished on a contract basis for the State and County. Of the areas maintained by the City, 311 acres (45%) are owned by the City, 21 acres (3%) are owned by the County, 301 acres (43%) are owned by the State, 35 acres (5%) are private, and 33 acres (5%) are “undeclared” within the provided data. This is represented in Figure 3-10 Inventory of Right of Way Maintenance. After analyzing the provided data, it was discovered the majority or approximately 53% of the acres maintained by the Department are not owned by the City.

High-performance organizations (HPOs) will use their CMMS to plan work accomplishment through creating annual performance work plans, track and record all resources used, such as labor with applicable overhead rates, equipment hours and rates, materials, and work accomplishment. They also use outputs to systematically monitor unit costs and productivity against the annual performance work plan.

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Figure 3-10 Inventory of Right of Way Maintenance

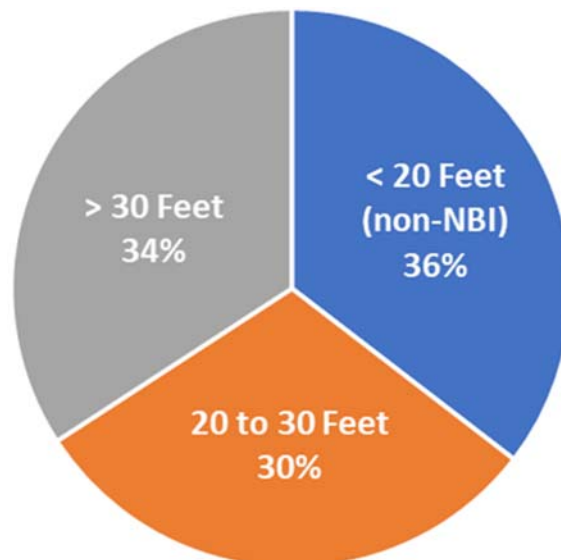


3.2.8. Twenty-eight, or 35%, of the structures in the bridge inventory, are non-national bridge inventory (NBI) structures that are the City’s responsibility for inspection.

There are eight-four (84) bridges owned by the City of St. Petersburg in their reported inventory. Of these, 28 have a span less than 20 feet, which is considered non-National Bridge Inventory (NBI), 24 have a span over 20 and up to 30 feet, and 27 have a span greater than 30 feet. The ratio of the three categories is shown in Figure 3-11- City Bridge Inventory. Though the average “life expectancy” for city bridges is approximately 25.9 years, the oldest bridge was built in 1920.

The federal government requires the state of Florida to conduct the structural inspection of all NBI bridges every two years, supplying the maintaining agency a copy of the reports which list the rating of each bridge and its components. Several similar benchmark agencies will perform inspections on their non-national bridge inventory (NBI) structures on the same schedule as the state for the NBI structures.

Figure 3-11- City Bridge Inventory



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3.2.9. Some standard operating procedures (SOPs) exist with many components yet lack planned production values.

The Department has documented twenty-four (24) SOPs in six (6) categories. Each SOP contains a purpose, references, record of revision, applicability, and location sections. Each also provides a summary of method, terms & definitions, personnel qualifications, procedural steps, records management, and quality assurance/quality control elements. While each SOP contains a broad set of elements, each lacks a standard reporting value and planned estimated daily production value.

Some like-agencies identify reporting and planned estimated daily production values for each activity. They store their SOPs within their CMMS, linking available resources (labor, equipment, and materials) to planned work accomplishment based upon asset inventories, average daily production, levels of service, and desires of senior managers (APWA, 2008). This integration allows supervisors and managers to monitor work accomplishment for a specific period and compare against an annual performance plan, making operational adjustments to achieve pre-established performance goals. However, 31% of the employees have not seen or understood the SOPs and 75% were not involved in the creation of the department manual.

3.2.10. Some traffic control methods are used minimally, despite being referenced in the SOPs and the existence of Traffic and Safety Officer.

Each of the developed and documented activity SOPs reference the use of appropriate traffic control methods for temporary, moving operations, and longer-range projects. These methods include the use of workers ahead signage, staff to flag traffic, as well as traffic cone tapers and barricades when appropriate. The Department has also employed a Safety Officer specifically to monitor the use of overall safety methods by employees.

While the Department's SOPs reference the use of traffic control methods, it was discovered through observation of work performed in the field to be used minimally. Further, the employee surveyed indicated that 36% believe traffic control is used inadequately and 36% indicated that more safety training is needed.

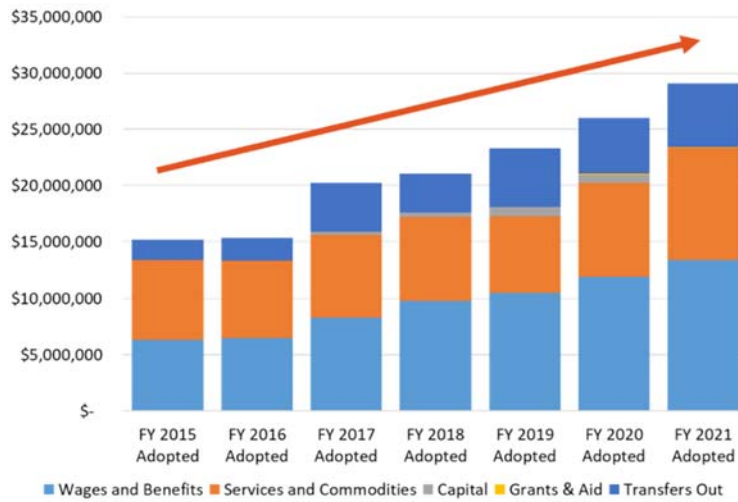
3.2.11. The Department's adopted budget has increased by 91%, or approximately \$13.9 million, over the past six years.

The adopted budgets for the SPTO Department have consistently increased year-over-year since 2016. It has increased 91%, approximately \$13.9 million, over the past six years. The budget remained the same between FY 2015 and FY 2016 at \$15 million but then increased sharply to approximately \$20 million in FY 2017. The most recent adopted budget for FY 2021 was for just under \$30 million.

Between 2015 and 2021, the largest growth in the budget has been for Wages and Benefits, though Services and Commodities and Transfers Out have also grown slightly. Wages and benefits now comprise nearly half the total budget. Past adopted budgets are shown in Figure 3-12- Adopted Budget.

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Figure 3-12- Adopted Budget



3.2.12. The identified performance metrics appear appropriate for linking to the City’s goals, yet the values are questionable. The WAMS tracking of data lacks linkage with the Department’s Budget Performance Metrics. These datasets are tracked independently through manual processes. There is a lack of supporting data for the Department’s Budget Performance Metrics.

The Department has specific strategic performance goals to measure the ability to meet its objectives. Each objective/performance measure has a unit of measure. These are published in the City’s budget documents and have been tracked from 2018 through 2021. These objectives/performance measures fall into the following categories- FDOT Roadway Sweeping, Mowing Maintenance, Pavement Maintenance, Pavement Markings, Sign Fabrication, Installation, and Maintenance, Traffic Signals, and Compliance with NPDES Permit.

While the performance metrics appear appropriate for linking and supporting the City’s goals, the values are questionable. For example, within the category of Traffic Signals, the reported value of “Traffic Signal Calls Responded to in 30 Minutes” is identical for FY 2018, FY 2019, and FY 2020, at 900. There appears to be a lack of linkage between the WAMS data tracking capability and the Department’s Budget Performance Metrics. These datasets are tracked independently through manual processes. There is a lack of supporting data for the Department’s Budget Performance Metrics. There is minimal work accomplishment tracking in WAMS by employees and there appears to be a lack of understanding of where it should be recorded.

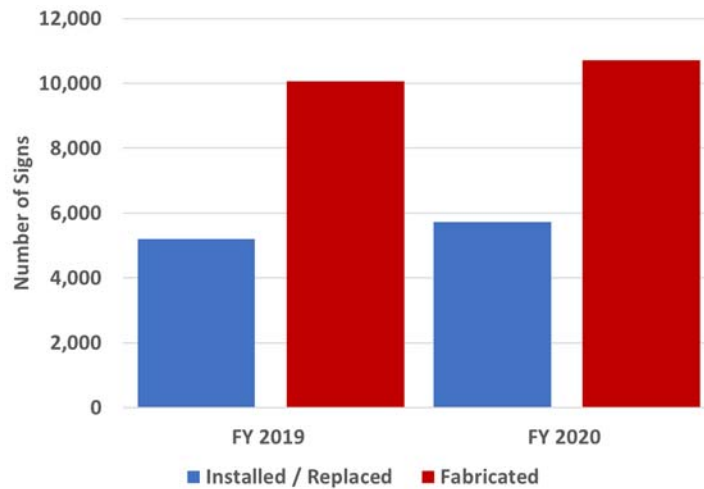
3.2.13. Only half of the signs fabricated appear to be used for Traffic’s sign install/replacement.

The primary objective of the Traffic Sign Fabrication and Traffic Sign Installation Division is to inform motorists and pedestrians of traffic regulations or information by sign installation and maintenance. As detailed in the Department’s Budget Performance Metrics portion of the annual budget, this objective contributes to the city values of Accountable Servant Leadership, Empowerment, Transparent Access, and Responsiveness.

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There are two performance measures included in the Budget – the number of ‘Signs Installed/Replaced’ and the number of ‘Signs Fabricated’. The number of signs installed and replaced, increased from 5,189 in FY 2019 to 5,713 in FY 2020. During the same period, fabricate also increased from 10,062 in FY 2019 to 10,712 in FY 2020. This is shown in Figure 3-13- Sign Fabrication as Compared to Install/Replacement. Although the reported numbers for these metrics are questionable, it appears that sign fabrication outpaced traffic sign installation in the last two years. Traffic sign installation is for the installation of new street signs or their replacement.

Figure 3-13- Sign Fabrication as Compared to Install/Replacement



3.2.14. The applied overhead rate for FEMA is estimated at 64.99%. Two previous reviews by the Office of the City Auditor made recommendations to formalize the Department’s overhead rate calculation.

The effective rate used by the City for overhead charges is 63% which only covers a portion of the employee’s direct benefits. The rate includes direct costs such as, benefits, material, and equipment which could be eliminated if work planned was not done in-house. The City overhead rate appears to exclude some relevant items such as employee leave, uniforms, training, and small equipment and hand tools, etc.

LAC estimates the overhead rate for the City is 175%, as outlined by Martin (2003). This is much higher than the City’s estimate as many components are not considered in the City’s rate. The difference in overhead estimates is substantial and would have a 20-30% overall impact on the total costing of most work. The Office of the City Auditor also made specific recommendations on two separate occasions to formalize the Department’s overhead rate calculation which has yet to occur.

Several similar benchmark agencies have developed and documented an annual process for calculating and applying overhead rates to work that is performed. The purpose of this best business practice is to determine the true cost of performing work and for full cost recovery when performing work of others outside the agency.

3.3. Organizing

3.3.1. The Department has recently undergone reorganization efforts, with many new supervisors selected in the past two years.

Although the field supervisory staff have considerable experience in the repair and maintenance of infrastructure, all are relatively new to their positions. Results from the nine (9) in a supervisory role that responded to the leadership survey showed that 78% have been in their current positions and the balance of respondents have been in their positions between three and five years. While each brings the strengths of practical experience, they lack the longevity in the role to develop specific skills of systematically planning, organizing, directing, and controlling resources as well as system tools that are in place.

Training and development of foundational skills are critical in the ideal maintenance management process to provide a good foundation for new leadership and supervisors to become fully functional leaders. This is further compounded by the need for considerable direction and guidance of employees who have limited work experience – 56% of whom have worked less than five years and 19% less than one year.

3.3.2. There are four levels of leadership below the Director, which increases the difficulty in communicating.

There are four levels of leadership below the Director and the lowest level in the organization. These levels include managers, supervisors, forepersons, lead workers, and reporting employees. The Director's span of control is 1:7. Between this high number of leadership levels, the number of employees, and the impact of COVID, communication has been impacted. The Director and the senior staff have needed to depend on lower leadership levels in communicating both existing and newly created policies and procedures.

3.3.3. The span of control for some managers and supervisors appears low, such as the Stormwater Environmental Services Manager, Stormwater Operations Manager, Special Project's Manager, and SPTO Supervisor Traffic.

The SPTO Department Director's span of control is 1:7 and within the range of 1:3 to 1:7 for similar benchmark agencies. The Division Manager's span of control ranges from 1:0 to 1:10. These spans of control include the Administrative Services Manager at 1:8, the Stormwater Environmental Services Manager at 1:0, the Stormwater Operations Manager at 1:2, Special Projects Manager 1:1, and the PTO Manager 1:4. It should be noted that the Stormwater Environmental Services Manager position is currently vacant.

Applying the same range as for the Department Director, the Stormwater Environmental Services Manager, Stormwater Operations Manager, and Special Projects Manager's span of control ratios are *below* similar benchmark agencies.

3.3.4. The span of control varies within the Stormwater Operations group. Several Forepersons have low spans of control. The Foreperson of Street Sweeping and FDOT Sweeping has a high span of control yet appears adequate.

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Stormwater Operations, a sub-group of a larger Division, has 88 FTEs and is led by an SPTO Supervisor. This Supervisor has a 1:17 span of control. The Supervisor had five (5) Equipment Operator IIIs and (5) Equipment Operator IIs that are direct reports. This division has several sub-groups including Line Clearing & Aquatics, Shallow & Deep Construction, Seawall Construction, Mini-Mowing, Hand Ditch Construction, Street Sweeping & FDOT Sweeping, and Equipment Services.

The span of control for this group varies, with all but one Forepersons having low spans of control. These forepersons include Line Clearing & Aquatics, Shallow & Deep Construction, Seawall Construction, Mini-Mowing, as well as Hand Ditch Construction. The Foreperson of Street Sweeping and FDOT Sweeping has a high span of control yet appears adequate based on the tasks of his direct reports been scheduled repetitive work, with very little need for direct supervision.

3.3.5. The span of control for the SPTO Supervisor of Traffic, Asphalt Foreperson, Sidewalk Foreperson, and Alleys & Bricks Foreperson is low.

The Pavement and Traffic Operations Divisions are linked through the leadership of a PTO Manager. This manager joined the City this year and brings substantial public works experience. The Division consists of 58 FTEs, which are further divided into Pavement (35 FTEs), Traffic Signs (13 FTEs), Traffic Signals (8 FTEs), and a Signal Coordinator. Pavement is further subdivided into smaller groups of Asphalt, Curbs/Concrete/Projects, Sidewalks, and Alleys & Bricks.

The Pavement Supervisor's span of control is 1:4, the Foreperson for Asphalt is 1:1, the Foreperson's span of control for Sidewalks is 1:1, and the Foreperson's span of control for Alleys & Bricks is also 1:1. The Lead Worker's span of control for Pavement Maintenance is 1:6, for Curbs/Concrete/Projects is 1:6, for Sidewalks 1:6, and 1:8 for Alleys & Bricks.

Most spans of control ratios are within expected benchmark agency ranges except for the SPTO Supervisor of Traffic, the Asphalt Foreperson, the Sidewalk Foreperson, as well as the Alleys & Bricks Foreperson. All these leaders' spans of control have a ratio of 1:1.

3.3.6. SPTO Leadership is new with 78% being hired or selected in the last two years overlapping the Covid-19 time period. The interview and surveys identified that there are trust and concern issues the employees identified.

The last two years have been a very difficult time as Covid -19 has impacted employees and work accomplishment with added safety protocols. This difficult time is compounded as 78% of new leaders were hired or promoted in the last two years and all of them were selected in the last five years.

LAC observed that these new leaders and employees have only recently had the opportunity to directly interact due to safety and health restrictions. The leadership in some cases has worked through a hybrid approach, with a portion of work being performed virtually and some on-site, while field employees have worked on-site through modified schedules. The employee survey shows employees have concerns with the new leadership with over two-thirds (2/3) of employees

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indicating concern over senior leadership communication, working in an open environment, as well as concern for leaders and capacity to guide the department.

3.3.7. Employees believe that they have good working relationships with coworkers and understand their responsibilities, as well as what is required of them.

Most employees believe that they and their work teams are capable of accomplishing their assignments. The employee survey showed that 90% indicated that they know their work requirements, 86% have good working relationships with coworkers, 62% believe their coworkers are capable, and 93% indicated that they understand the importance of their job. Further, 68% of employees indicated that they get good coaching and guidance from forepersons and lead workers.

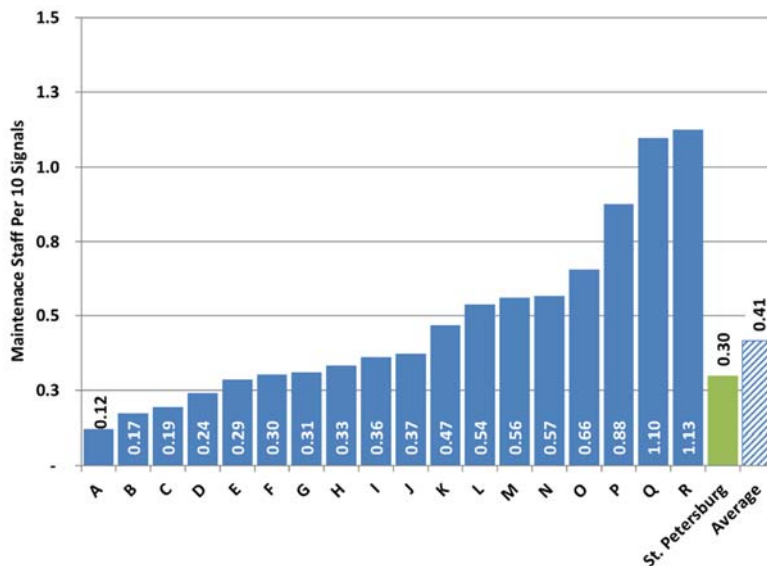
The Leadership survey concluded with some similar results, including that 67% of leaders believe that employees are capable. LAC field observations found that work practices and methods appeared adequate except for some traffic control deficiencies and resource allocation.

3.3.8. The benchmark of maintenance staff per 10 signals is lower than LAC’s benchmark average.

Using LAC’s benchmark information, it appears that the Department's staff to maintain traffic signals is lower than the average value of similar agencies. The benchmark agency high is 1.3 staff per 10 signals, the low is .12, and the average is .41 as shown in a shaded blue column of Figure 3-14 Staff per 10 Signals shows Department staff per 10 signals is .3 (shown as a green column), which is slightly lower than the benchmark average.

This high-level metric implies yet does not lead to a conclusion. However, it does show staffing by the City for traffic signal maintenance is in the general range of other agencies that are based on the use of ratios of asset inventory values and staffing.

Figure 3-14 Staff per 10 Signals



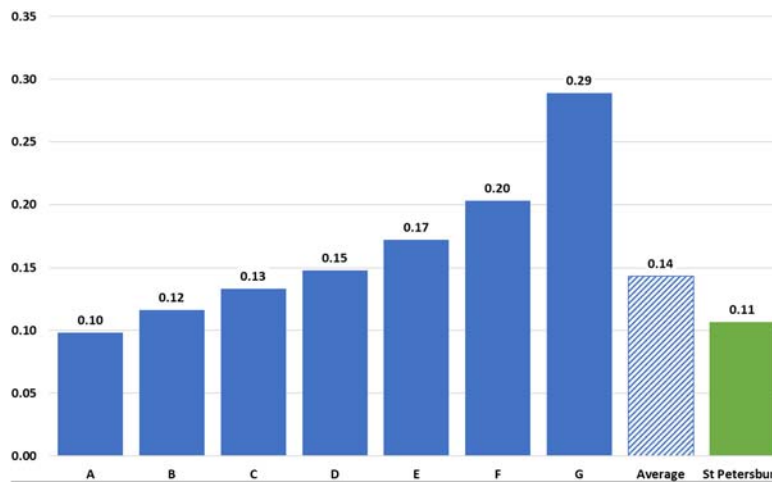
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3.3.9. Benchmark sign staff per 1,000 signs appears slightly lower than LAC’s benchmark average.

The Department’s sign benchmark of staff per 1,000 signs is slightly lower than LAC’s average benchmark value. The benchmark agency high is .29 staff per 1,000 signs, the low is .10, and the average is .14 as shown in a shaded blue column of Figure 3-15 Staff Per 1,000 Signs. The sign staff per 1,000 signs is .11 shown as a green column, which is slightly lower than the benchmark average.

This high-level metric provides some staffing understanding and shows that the City’s staffing for sign maintenance is in the general range of other agencies based on ratios of asset inventory values and staffing.

Figure 3-15 Staff Per 1,000 Signs



3.3.10. Sign reflectivity inspections and replacements are minimally conducted and lack adherence to State and Federal guidelines.

The Department is responsible for the repair and maintenance of approximately 60,899 signs. Approximately 16% of the total (9,512) are stop signs. Regulatory signs comprise the greatest number of signage, followed by directional signs, parking signs, and warning signs. Through a combination of field reviews, observations, and interviews, it appears the systematic process of sign reflectivity inspections and replacement following State and Federal mandates lacks compliance.

As referenced by the U.S. Department of Transportation, Federal Highway Administration, the basic concept of an assessment method is that the condition of each sign is assessed or evaluated periodically. While the Manual on Uniform Traffic Control Devices (MUTCD) does not set specific intervals, they recommend agencies assess their signs every one to two years. Public agencies or officials also must maintain sign retro-reflectivity at, or above minimum levels found in the MUTCD (U.S. Department of Transportation: Federal Highway Administration, 2009). The city had been in process of replacing stop signs that appeared to be a stage that did not meet reflectivity standards, yet it appears that the City is in the range of 50% complete. Further, the City has yet to establish a process to implement and perform these mandated inspections.

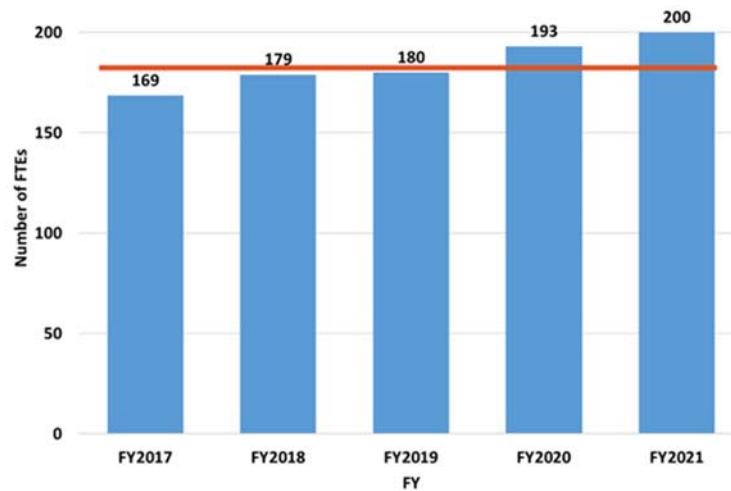
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3.3.11. Over the past five years, the Department has averaged almost 184 FTE with an increase of 18% between FY2017 and FY2021.

Data from the City’s ACFR reports from FY 2017 through FY 2021 show that staffing has increased by 22 employees, or 18%, over the period. This is shown in Figure 3-16 Historical Staffing Levels.

This increase in staffing was based on the experience of key management with input from the Division Managers and key leadership. Some best-in-class agencies utilize performance plans and work plan projections from their work and asset systems to estimate needed resources based upon asset inventories, levels of service, and productivity. For example, Hillsborough County uses a performance-based budget from their CMMS in Public Works to estimate staffing levels.

Figure 3-16 Historical Staffing Levels



3.3.12. Employees and leadership both indicate a lack of available staff to complete their work yet do not use the existing tools to determine resource needs.

Both surveys overwhelmingly indicate that employees and leadership believe they are understaffed. The employee survey showed that 68% believe their group was understaffed and 83% that their division, does not have the right number of employees. In addition, 66% of leadership believe that they need more labor resources. LAC’s review of documentation and field observations looking at the number of assets, service levels, and life cycles show that Signs, Signals, and Concrete may need resources to maintain the assets at mandated and desired levels.

Suggestions for staffing adjustments have lacked documentation to justify an increase, as the WAMS is not fully utilized and most work effort is not recorded. Additionally, few work planning and scheduling tools are utilized. Though additional staff may be needed, without data and staff not fully utilizing existing management tools (GIS, GPS, mobile technology, and WAMS), and a large percentage of relatively new employees (55% less than 5 years), it is not conclusive at this time staff adjustments are needed. Further, the Director does not conclude there is a lack of staff for the current workload.

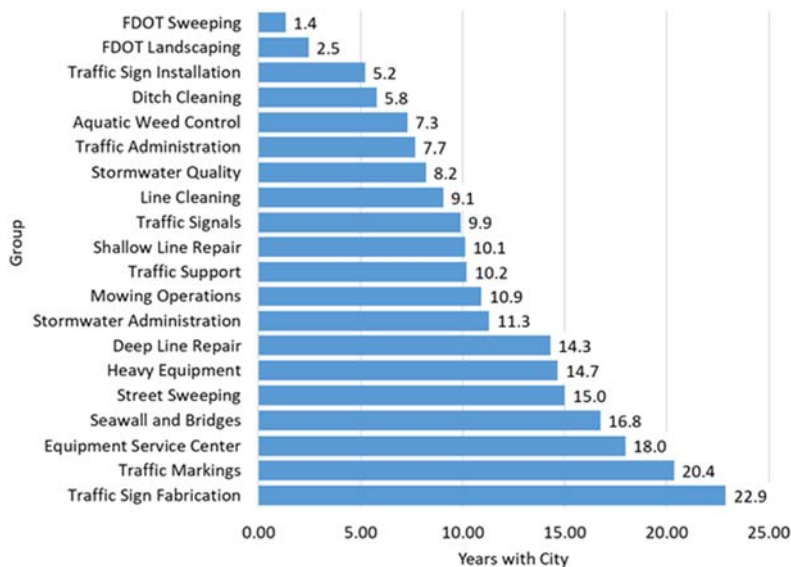
3.3.13. The average length of service is similar to other LAC benchmark agencies.

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The departmental staff has worked for the City for varying lengths of time. The average length of service for the Department is approximately eleven (11) years. Though, some employees have made employment with the Department a second career with prior industry experience. The median length of service is much lower at 6-7 years, however. The average appears to be shifted higher by few employees with a long length of service, while many employees (41%) have less than five years of service with City and 55% have less than five years with the Department.

Figure 3-17 Staff Years of Service shows the average years of service by group. FDOT Sweeping has the lowest average at less than two (2) years and Traffic Sign Fabrication has almost twenty-three (23) years. The LAC benchmark range is between twelve and fourteen years for most agencies. It is reported that there are currently sixteen (16) employees in the Deferred Retirement Option Program (DROP) and eligible for separation in the next five years. Though the opportunity exists, not all employees have selected to participate in DROP.

Figure 3-17 Staff Years of Service



Currently, the Department lacks a documented succession plan to address this circumstance. Any succession planning is performed independently at the discretion of individual leaders. Several benchmark agencies have established mentoring, data, and system processes to capture this knowledge and transfer it back to their employees.

Using provided data, LAC calculated the Department’s vacancy rate at 8% of positions. At the time of discovery, the Department had sixteen (16) vacant positions. Senior leadership has provided feedback that typically the Department’s vacancy rate is much higher yet has not provided the supporting historical data to substantiate this claim. Similar benchmark agencies consistently have a vacancy rate of 15% to 20%.

3.3.14. In response to COVID-19 and to address the operational needs of the Department, twenty (20) different schedules were established, which could have potentially impacted work monitoring.

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In response to COVID-19 and to address the operational and maintenance needs of the Department, twenty (20) different schedules were established over twenty-one (21) groups. This, along with the levels of management, communication, and accountability were potentially impacted. More recently, the Department's operational groups have reportedly moved to the eight (8) shifts listed below.

- Shift 1 - 7:00 am to 3:30 pm, Monday - Friday (Majority of SPTO crews)
- Shift 2 - 6:45 am to 3:15 pm, Monday - Friday (Traffic Signals and Signs and Markings)
- Shift 3 - 3:15 pm to 11:15 pm, Monday - Friday (Traffic Signals)
- Shift 4 - 11:15 pm to 7:15 am, Monday - Friday (Traffic Signals)
- Shift 5 - 6:00 am to 2:30 pm, Signal Coordinator
- Shift 6 - 6:00 am to 2:30 pm, Tuesday - Friday (Stormwater Quality)
- Shift 7 - 6:00 am to 2:30 pm, Sunday - Thursday (Stormwater Quality)
- Shift 8 - 6:00 am to 2:30 pm, Thursday -Monday (Stormwater Quality)

This has resulted in some employees in Traffic Signals and Stormwater Quality groups working while their managers are not working in the same timeframe. In the survey, 36% of the employees stated that their direct supervisor is unable to communicate specific goals, objectives, and expectations which may be partially a result of this.

3.3.15. The use of four Traffic Signals shifts is different than that of LAC's benchmarks. The rationale for the second and third shifts lack documentation.

The Traffic Signals Group has four (4) different shifts, including one that is used only by the Signal Coordinator. The first shift runs from 6:45 am to 3:15 pm, focused on response and PMs. The second shift runs from 3:15 pm to 11:15 pm and focuses on YFI 100, illuminated street signs, and senior technicians. The third shift runs from 11:15 pm until 7:15 am, overlapping with the first shift. The Signal Coordinator's schedule is from 6:00 am to 2:30 pm.

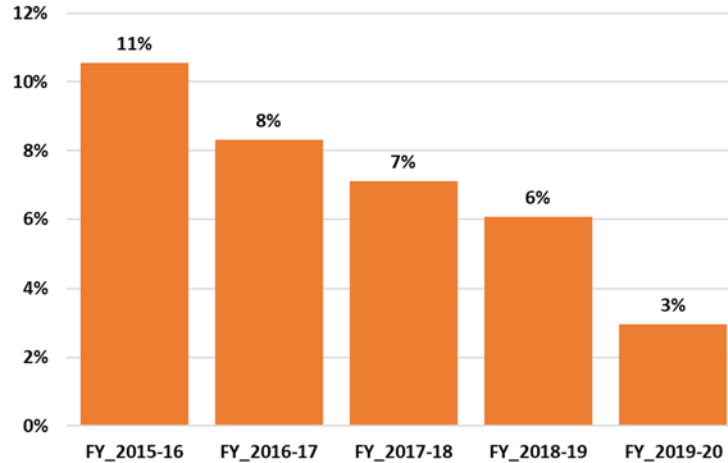
While the Traffic Signals group uses this blend of schedules, the rationale for the second and third shifts lack documentation and justification. Only a few similar benchmark agencies utilize a second shift, and LAC lacks any documented experience of agencies with a third shift to maintain and repair traffic signals.

3.3.16. The Department's overtime percentages are less than LAC's database average and lower than other departments in the City. The average has also decreased 8% over the past five years.

Overtime hours have reduced by two-thirds in the last five years from approximately 34,000 hours in FY 2015-16 to approximately 12,500 in FY 2019-20. Figure 3-18 Percent of Total Hours Reported shows the reported historical overtime hours as a percentage of the total reported hours from FY 2015-16 through FY 2019-20. This represents a decrease of 8% over the period. This is within the lower range of LAC's benchmark best management practices.

Figure 3-18 Percent of Total Hours Reported

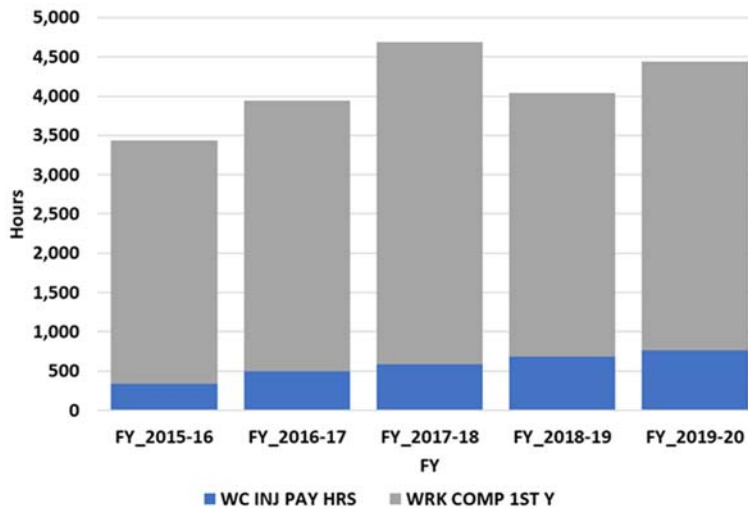
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3.3.17. Worker compensation hours have remained relatively consistent and are less than 2% of the total hours reported for FY2019-20. This is similar to other LAC benchmark agencies, and departments in the City.

The City’s worker compensation utilization was compared to LAC benchmarks. This utilization measurement shows the impact of leave in the reduction of productive time of a workforce and their ability to provide maintenance and repair to the activities. The Department averaged 3,534 hours of workers' compensation annually, or two (2) FTEs, for the past five years. The Department’s reported hours are shown in Figure 3-19- Reported Worker Compensation Hours. When compared to like agencies, the Department’s overall rate was found to be similar to LAC benchmarks and other departments within the City.

Figure 3-19- Reported Worker Compensation Hours



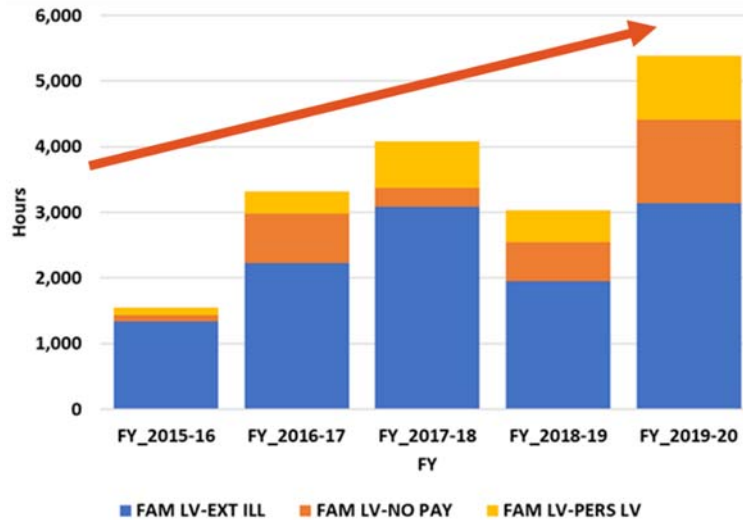
3.3.18. FMLA hours in FY2019-20 are higher than any of the previous four years and increased 250% over the period. This is equivalent to over two (2) full-time employees.

Benchmark indicators are used to measure the impact of leave including Family Medical Leave Act (FMLA) time. Reported FMLA is the highest it has been in the past five years. As shown in

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Figure 3-20 FMLA Hours, FMLA has averaged over (2) FTEs annually, yet has increased by 250% in the last five years from approximately 1,500 hours in FY 2015-16 to nearly 5,250 hours in FY 2019-20. This increase has meant less available work time exists for production and has added pressure on those who can work.

Figure 3-20 FMLA Hours

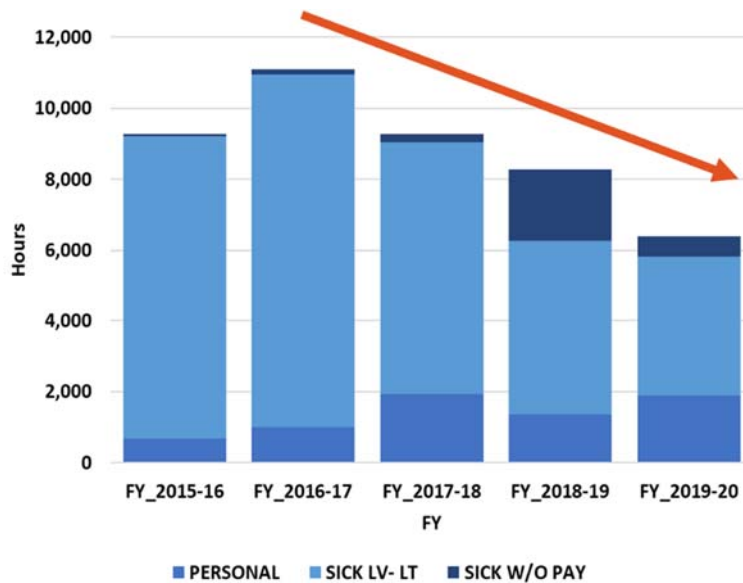


3.3.19. Reported sick and personal leave hours have been reduced over the past four years, with Paid Sick Leave- Limited-Time reducing by more than half. The total hours have averaged four FTEs.

Personal and sick leave are tracked separately from FMLA and other recorded hours. Personal leave has averaged less than a single FTE annually. Sick leave is subcategorized into Limited Time, Without Pay, and Paid. Limited Time Sick Leave has averaged over three (3) FTE annually and Without Pay has averaged under one (1) FTE annually, averaging a total of just over four (4) FTE annually. Paid Sick Leave- Limited-Time has been reduced by more than half over the past five years. This is shown in Figure 3-21- Personal and Sick Leave Hours below. This decrease has meant the Department’s leadership has had more available labor hours for production for work to be accomplished.

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Figure 3-21- Personal and Sick Leave Hours



3.3.20. A considerable number of Department Forepersons and Leadworks are responsible for temporary traffic control at work locations, yet none are reported to possess FDOT Flagger Training certification.

Employees in the Department carry many different certifications and licenses. Absent from the provided data is the listing of FDOT Flagger Training certification.

A considerable number of Department Forepersons and Lead workers are responsible for temporary traffic control at work locations for moving operations and longer-term projects, yet none are reported to possess FDOT Flagger Training certification. Senior leadership and some field employees have indicated that Forepersons and Lead workers have these certifications yet supporting data have not been provided to date. Further showing support for training, 38% of the employees in their survey indicated the need for the proper amount of traffic control.

3.3.21. The Traffic Signals group provides preventive maintenance service to 94 FDOT signals with an annual lump sum revenue of \$554k or ~\$5.9k per signal.

The Traffic Signal group is responsible for 310 signals – the majority of which utilize LEDs for their signal indications. Of this inventory, 205 (66%) are owned by the City and the Florida Department of Transportation (FDOT) owns 105 (34%). Through a contractual agreement, the City receives a lump sum payment of \$554,000 annually or approximately \$5,900 per signal.

With inconsistency in resource reporting, labor and equipment rates, and various work accomplishment values, it is difficult to calculate the unit cost or productivity of performing a preventive maintenance routine consistently and accurately for a traffic signal.

Several HPO benchmark agencies fully utilize their work management system to track all associated costs and productivity-related preventive maintenance routines to ensure all their costs are covered through any reimbursement they may receive.

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The City does not track time and cost for support of FDOT assets, so the ability to determine adequate repayment for the cost of the service incurred does not exist.

3.3.22. The average rolling fleet age of 8 years for the SPTO is at the low end of LAC’s 8 to 10-year benchmark for desirable average.

The average age of all the Department’s rolling stock is approximately 8 years, with little variance among units. This average is less than other agencies in LAC’s benchmark database as well as those of NAFA and APWA benchmarks. A fleet of this age generally indicates that there should be a lower operational cost and less maintenance that needs to be performed, allowing for higher operational hours and less downtime.

3.3.23. It has been reported that the Department uses FEMA rates in the WAMS, yet the rates are different than LAC’s estimated rates, and not based on actual costs.

The Department had provided feedback that FEMA equipment rates are in the WAMS, yet the rates are different than LAC’s estimated rates, nor are they based on actual costs. Using data provided from the City, LAC calculated the hourly utilization rate for each classification of rolling stock equipment using the provided data of purchase price and year, repair and maintenance costs, fuel costs, depreciation, and usage (McCorkhill, 2008). Several rates used by the Department were found to be significantly different. Figure 3-22- Examples of Fleet Rate Comparisons show examples of the rates found in the WAMS, the current FEMA rates, and the rates calculated by LAC. As shown, the Class of PICKUP has an array of rates between \$12.30 to \$24.85, as compared to a FEMA rate of \$12.78, and an hourly cost utilization rate based on the purchase price and year, repair and maintenance costs, fuel costs, depreciation, and usage. Some of the City equipment rates calculated by LAC are very high due to the reported low usage. The rate is equal to total capital and maintenance cost divided by usage. Low usage creates high unit costs which implies vehicle ownership may not be warranted.

Figure 3-22- Examples of Fleet Rate Comparisons

CLASS	WAM	FEMA	LAC
PICKUP	\$12.30 to \$24.85	\$ 12.78	\$ 61.51
LOADER	\$ 79.50	\$ 41.33	\$1,434.22
DUMP	\$23.22 to \$91.65	\$ 79.62	\$ 19.88
VACTOR	\$85.10 or \$96.80	\$ 86.94	\$ 20.74
BACKHOE	\$ 33.36	\$ 23.95	\$ 609.54
SWEEPER	\$78.70 or 102.03	\$ 102.03	\$ 31.90

3.3.24. Rolling stock equipment and vehicles are in an internal service fund (ISF) managed by the City’s Fleet Management Department.

Lifecycles/ replacement cycles have been established for all rolling stock equipment. For example, trucks on an 8-year replacement cycle and heavy equipment, such as payloaders and backhoes, on a 15-year replacement cycle. Sedans, SUVs, and pickups are on an 8-year replacement cycle. Each is within the City’s internal service fund (ISF) managed by the City’s Fleet Services group.

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While the establishment of equipment lifecycles, vehicle replacement schedules, and an ISF are all good practices, many like-agencies depend on their fleet management group to coordinate and administer all capital equipment replacement, regardless of class.

3.4. Directing/Scheduling

- 3.4.1.** Data exist within the City’s SeeClickFix CRM system, which is available to the public, yet it is used minimally by the Department. The Department had received ~42% of the total tickets since June of 2014.

SeeClickFix is the citywide Customer Relationship Management (CRM) application and tool, through which citizens can request services from the City, allowing for specific locations of issues to be identified with supplementary photos.

On the Mayor’s Action Center webpage, the City makes available historical data related to the number of requests by category and the status of requests. The data is divided into twenty-two (22) categories and four (4) statuses. Data from June 2014 through May 21, 2021, show there were 157,236 tickets generated, with 42% (65,307) issued to the SPTO Department, 11% (17,671) issued to Traffic Issues, and 11% issued to the Tree Trimming/Removal category.

The Mayor’s Action Center acknowledges newly submitted issues and forwards them to the appropriate City departments, including the SPTO Department. This data is readily available to citizens yet is used minimally by the Department as a broader dataset used for developing performance work plans.

- 3.4.2.** The process for receiving a request through the CRM system is complicated and cumbersome with many steps and a human interface between two systems is required.

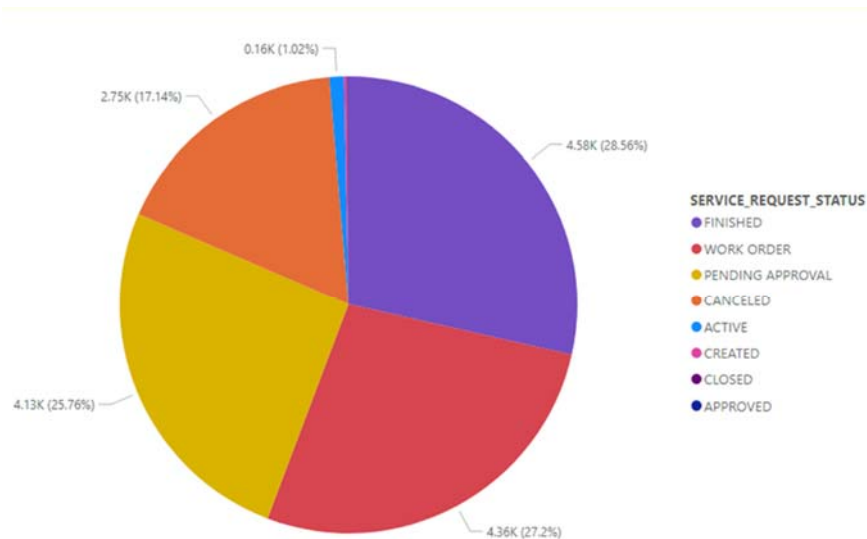
SeeClickFix requires several different staff groups to be involved. The process starts with an electronic request from the citizen which is reviewed by the Mayor’s Action Center. They then forward to the Customer Service Representative who confirms or denies the request and then sends all affirmed requests electronically to the appropriate departments. Two administrative staff within SPTO review the SeeClickFix request - one for Stormwater and another for Pavement and Traffic and are then tasked with the responsibility to distribute them.

They then transfer the service request by keying the request into a WAMS work order and forwarding it to the appropriate department staff who then assigns it to a crew. Once the crew completes the work, a foreperson closes the work order in the WAMS. The administrative staff then manually and systematically searches for closures in the WAMS by using a tracking spreadsheet. Once a work order is closed, it is found and updated in the SeeClickFix system. The processes slightly vary with the two administrative staff in this process.

- 3.4.3.** Over 25% of the service request statuses found in the WAMS database are in a Pending Approval status, which appears to be a high value.

Using data provided from the City’s WAMS database, an analysis was performed on the status of service requests for the SPTO Department. It was discovered that over 25% of the service requests were in a ‘Pending Approval’ status. Although this analysis was performed point-in-time, this value appears to be high. The analysis is shown in Figure 3-23- Service Request Status. This means that almost 26% of the service requests in the WAMS are pending approval for the creation of an associated work order.

Figure 3-23- Service Request Status



3.4.4. Some preventive maintenance routines and cycles are planned using manual databases, while others are planned to use WAMS. Paper maps and spreadsheets are used for tracking and performing such routine preventive maintenance procedures as street sweeping, traffic signal maintenance, and line clearing.

Routines exist for several operational and preventive maintenance activities. These proactive efforts are performed to protect the City’s assets, ensure proper operation, optimize asset life cycles, and increase longevity. Some routine activities are planned to use the WAMS, whereas some are planned using manual processes, paper forms, and spreadsheet tools.

The manual processes use tools such as hardcopy maps and external spreadsheets, for routine preventive maintenance procedures which have been established. For example, the Signs and Markings group uses static paper maps and spreadsheets to track and document sign maintenance that is performed.

Several similar agencies utilize their WAMS to fully automate the process of preventative maintenance and inspection routines. The agencies automate the linkage between these systems and their GIS database to plan, schedule, and monitor these routines. Annual performance plans are also used to plan and project work based on asset inventories, available resources, and desired levels of service. Volusia County, Florida uses this concept in its directing of staff in Public Works.

3.4.5. Scheduling for all groups is primarily a daily assignment process with minimal use of systematic short-range planning. Each operational group utilizes an undocumented workflow using a combination of manual processes.

Although some routines exist, the scheduling and assigning of work are primarily performed on a day-to-day basis. Work scheduling and assignments are primarily response-driven or determined according to the availability of resources. Often work is assigned by each group’s supervisor or foreperson and is performed at the beginning of each day. Each morning employees receive

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assignments, obtain materials, and discuss specific assignments with their supervisor or foreperson. Most forepersons prioritize existing and current open work orders and projects, assigning staff based on the current availability of resources and the skill level of staff that day. Although functional, the process lacks an automated linkage to the current CMMS system.

Many similar agencies develop a systematic workflow of planning, organizing, scheduling, and controlling work and resources. This process is documented and followed by every member of the organization to provide consistency and reduce unnecessary redundancies. The workflow identifies the responsible staff for each of its elements. The workflow is evaluated annually as part of the planning process, reflecting any changes identified by agency leadership in making service delivery increasingly more effective and efficient.

A good business practice is to proactively schedule 70% to 80% of work. Several similar agencies utilize short-term scheduling to prioritize and proactively schedule their work. These short-term schedules include annual planned work, work backlog, routines, and new work orders. The schedules are based upon predefined priorities and available resources.

3.4.6. During the last year of change, communications, availability, and direction of work provided by Leadership are a survey concern for employees.

The Covid-19 pandemic and a change in leadership occurred approximately in the same timeframe. Both managers and crew-level employees have expressed concern about trust and communication. The employee survey indicated concerns about communication (69%) and openness (74%). There was also concern over leadership capabilities and 28% refused to even indicate their position in the survey, with several saying they were concerned that someone could identify their comments. In the open comment section of the survey, over 25% made statements related to wanting better communication. Finally, in the leadership survey, 44% indicated that they received adequate guidance and that 55% were involved in decision-making. LAC was not able to confirm all these issues during the interviews they conducted, yet it was suggested during the questioning and answering process that others had similar perceptions.

3.5. Controlling/Improving

3.5.1. Most operational groups utilize an undocumented workflow yet use a combination of unlinked manual processes.

Although some work is scheduled proactively and some routines exist, work is primarily prioritized, scheduled, and assigned through manual processes. These practices are based upon available staffing and equipment as well as the judgment of the group's respective supervisor or Foreperson. These processes lack automated linkages to the current CMMS.

Many similar benchmark agencies develop a systematic workflow of planning, organizing, scheduling, and controlling/monitoring work. This process is documented and followed by every member of the organization to provide consistency and reduce unnecessary redundancies. The workflow identifies the responsible staff for each of its elements. The workflow is evaluated annually as part of the planning process, reflecting any changes identified by agency leadership in making service delivery increasingly more effective and efficient.

3.5.2. Work requests and work orders are managed differently within the Department, with some crews utilizing laptops and tablets, whereas others use manual forms.

Work requests and work orders are managed differently within the Department. Some groups manually link requests to work orders, whereas others utilize automated linkages, laptops, and tablets in the field. The status of work request closures lacks consistency with some blanket closures made at periodic intervals. The WAMS is used inconsistently between groups for information reporting and accounting for cost and accomplishment. These different approaches make the utilization of WAMS data difficult for high-level decisions making.

Some agencies, including many in Florida, utilize a fully linked automated CMMS and/or asset system to plan, organize, schedule, and control resources to both meet annual performance plan goals and address new service requests from the public. These systems allow for multiple service requests to be linked to a single work order, tracking the status of multiple work requests, costs, and productivity monitoring of single or multiple work orders, as well as for the communication of priorities based upon pre-established criteria.

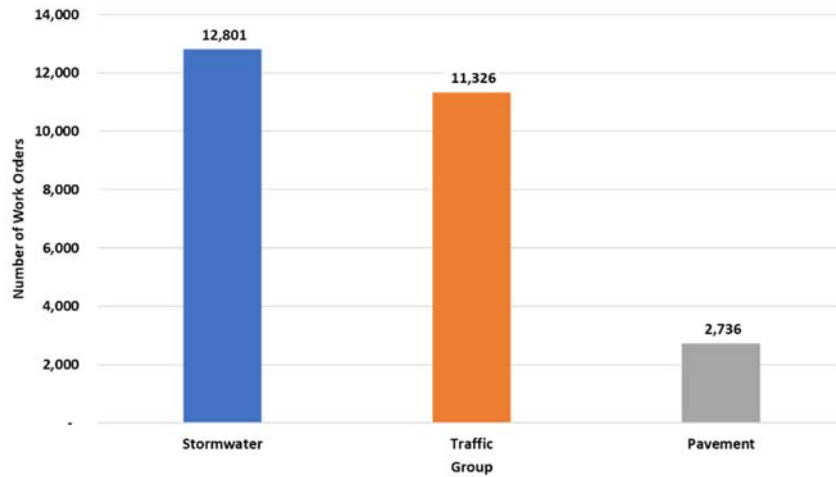
3.5.3. Stormwater Operations has 48% of the total work orders and Traffic 42%.

Using data provided from the City's WAMS database, an analysis was performed on the number of SPTO Department work orders in the system. The results of the analysis are shown in Figure 3-24- Work Order Totals. At the time of analysis, there was a total of 26,863 work orders in the system. The data was found to be categorized in the broad classes of Stormwater Operations, Traffic, and Pavement. At the time, Stormwater Operations had 48% of the total, Traffic 42%, and the remaining 10% in Pavement.

With such broad classifications used in the WAMS, it is difficult to perform deeper productivity analysis into the three classes, which should be used for making operational changes at lower levels of the organization. Several like agencies with maintenance management systems configure their system to an additional lower lever, such as the current Foreperson level of the SPTO Department. This allows managers and supervisors to fully utilize data-driven analytics for operational efficiency improvement.

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Figure 3-24- Work Order Totals

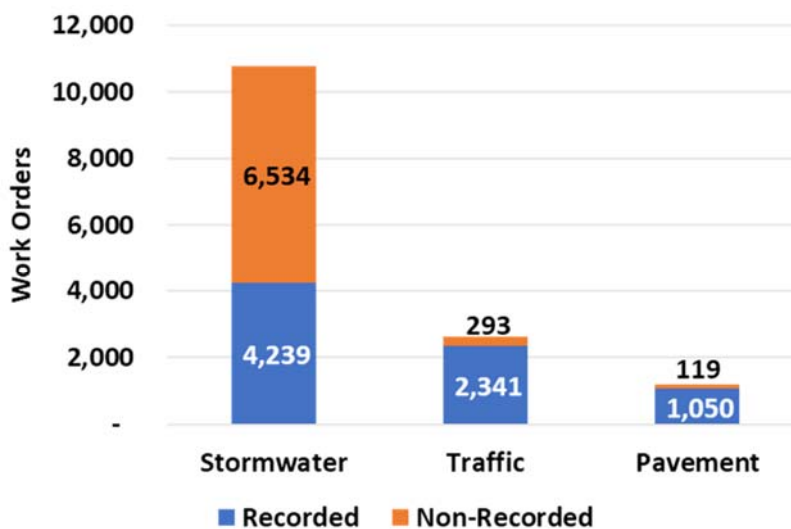


3.5.4. Pavement has 89% of their work orders with recorded accomplishment and Traffic has 90%, yet the values appear questionable with different units.

Using data provided from the City’s WAMS database, LAC performed an analysis of work orders containing recorded work accomplishments. The results of the analysis are shown in Figure 3-25- Work Orders Found in WAMS. At the time of analysis, there was a total of 26,863 work orders in the system. Data was found to be categorized in the broad classes of Stormwater Operations, Traffic, and Pavement. Pavement had 89% of work orders with recorded accomplishment, Traffic recorded 90%, and Stormwater tracked only 39%.

While these values appear questionable, using various units of measure, the consistency of tracking accomplishment makes it difficult to measure the efficiency and effectiveness of work effort.

Figure 3-25- Work Orders Found in WAMS

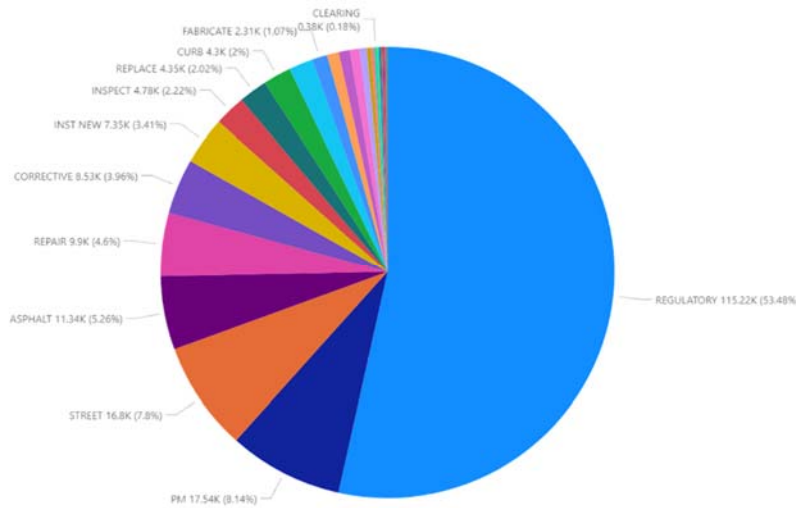


3.5.5. 53% of the reported regular hours data in the WAMS is reported to Regulatory.

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Using data provided from the WAMS, an analysis was performed on the category of work order reported hours. The results of the analysis are shown in Figure 3-26- Reporting Hours in WAMS. At the time of analysis, there was a total of 26,863 work orders in the system. The regular hours are categorized into 21 divisions. The data revealed that 53% of the reported regular hours were reported to the category of Regulatory. This category is followed by PM at 8%, Street at 8%, and Asphalt at 5%.

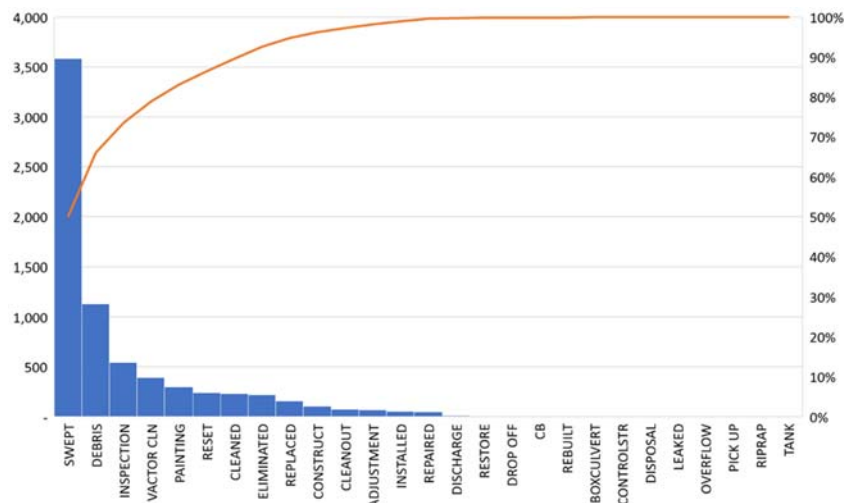
Figure 3-26- Reporting Hours in WAMS



3.5.6. Street sweeping comprises 50% of the work orders tracked in the WAMS.

Using data provided from the WAMS, an analysis was performed on the activity categories of work order found within the system. At the time of analysis, there was a total of 7,146 work orders in the system and 27 activity categories. The results of the analysis are shown in Figure 3-27- Work Orders by Type. Three (3) activities accounted for over 80% of the work orders. These include Swept, Debris, Inspection, and Vactor Clean. Of the work orders analyzed in the system, 50% were for Sweeping and 16% were classified for Debris.

Figure 3-27- Work Orders by Type



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3.5.7. The activities tracked are inconsistent without key attributes preventing the ability to produce unit cost or productivity analysis.

Each group uses a variety of systems, databases, spreadsheets, word documents, and manual forms for research and tracking some aspects of their work. Employees document the accomplishment dates, equipment and labor hours, materials used, and any comments associated with a specific work order through various methods. After being quality checked by their supervisor, the work orders or daily log sheets are put into the WAMS. WAMS work order reporting includes labor, equipment, and material resource utilization, and is often linked to a specific asset in the database.

Although some work data is collected, basic information such as the completed cost of work and productivity is unable to be captured. Complete costing with overhead, equipment, and materials is also lacking. For example, some groups do not record support work preparation in the yard or travel time, just the time spent at the individual work locations. This lack of complete costing makes an analytical comparison to alternative service providers very difficult.

3.5.8. Though many tools are used, many redundant manual and independent processes occur with quality control difficult to achieve.

While many tools and processes are used by the Department and its divisions, uniform quality control is difficult to achieve. For example, some field employees use laptops or tablets in the field to record and document the completion of daily routines and work, whereas some use forms or paper copies of work orders for manual recording of daily activity and to document any issues or concerns that occur. Inconsistent reporting of information is a risk of using multiple processes and systems.

Similar benchmark agencies will develop and implement automated systems and processes to reduce redundancies and increase data quality. These measures allow managers and leaders consistent reliable information to base operational decisions on consistent data.

3.5.9. Performance plans and accountability are lacking in the current system and business processes. The Department has some effectiveness measures yet lacks any efficiency measures. Good business practice suggests utilizing and relating measures to the work budget.

Minimal tools and data parameters are in place for employees to measure performance and maintenance costs or evaluate field performance which would allow them to take proactive management actions based on the identified inefficiencies. The tools and processes that are now in place are manual tracking processes that research accounting for past occurrences. Thus, performance planning, internal benchmarks, and associated accountability are missing. Further, the Department also lacks specific key performance measures used to monitor and routinely report on effective and efficient operations.

HPOs utilize systems and establish documented processes to measure job performance and cost-effectiveness for all activities they perform (APWA, 2008 & De Waal, 2016). These established processes assist managers in measuring the productivity and cost of performing work. They can

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then utilize this information to act and monitor work, comparing to others and then striving for improvement. This opportunity for productivity enhancement was even implied in the employee survey with 45% indicating more work could be done.

3.5.10. Complete activity reporting varies and only a portion of time is tracked without accomplishment, contributing to a lack of adequate data for productivity determination and unit costing. The outputs from the WAMS are primarily used for after-the-fact responses to inquiries.

The Department and its divisions rely upon a combination of manual processes and automated systems for reporting and tracking work. It has been estimated that approximately 23% of the budgeted staff's time is accounted for in the WAMS. WAMS work order reporting includes labor, equipment, and material resource utilization, though most groups record minimal work accomplishment. Another example of inconsistent tracking is the difference in tracking time, where some groups will track only on-the-job hours, while others will track the entire day.

Basic work tracking by the hour or activity is inconsistent. This results in the inability to determine specific unit costs and makes productivity difficult to determine. The low reporting of labor resource hours in the WAMS, making analyses of information very weak and difficult to be used for management decisions. In contrast, HPOs benchmarks report they account for all work time (De Waal, 2016).

The WAMS data is sometimes used for after-the-fact reporting and to satisfy inquiries. Multiple work logs exist with varying forms used by each group. Performance measures and costing are done on a case-by-case basis. The data collected and utilized is often used for resource justification, yet the information compiled is incomplete, making its application difficult. Thus, management's capability of applying the WAMS as a tool for the improvement of work quality, productivity, or service decisions is problematic. This system lacks a continuous improvement business process as suggested by APWA (2008), for using system information to enhance work processes.

3.5.11. Data is collected and reported through various methods yet is only used on a limited basis for management decisions.

Information is often compiled through manual processes for accounting for past work activities or analysis of specific issues or locations. Additionally, reports must be produced using multiple sources as no single source has enough data to complete a thorough analysis. For example, using a combination of data, estimates, and judgment sources, the Department Director has been able to perform *ad hoc* analyses related to sidewalk repair and alley maintenance.

Performance measures and costing are done on a case-by-case basis and are used on a limited based for operational and management decisions. When data is compiled and analyzed these results are rarely communicated and shared to lower levels in the organization.

3.5.12. There appears to be a lack of standardized management reports used for control, accountability, and production.

The Department relies upon a combination of manual tracking and automated systems for monitoring work. When data is compiled, it is mainly used for after-the-fact research,

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justification of action, and/or accounting for past occurrences. Multiple work logs and unlinked databases exist with varying formats used by each group. Data is collected and compiled from multiple ways including forms, spreadsheets, the WAMS, and written forms that vary by group, which makes consistent output reporting difficult.

It appears that few standardized management reports out of the WAMS are used for the basic management function of controlling resources and to provide the accountability of productivity and cost. Many similar benchmark agencies such as Volusia, Hillsborough, and Charlotte Counties used standard reports to monitor planned accomplishment and unit costs against actual work accomplishment, justifying proactive operational changes if necessary.

Some analytic tools had been established using the Socrata Data program that extracted and compiled the WAMS data into standard formats. It had been used by senior executive management to monitor work order trends, work order completion, and other analytics by group on a statistical and graphical basis. Some standard outputs were created yet have now ceased to be used. The analysis had depicted available data on an easy-to-understand basis with live data.

3.5.13. Some desired management functions are partially performed and those that exist lack linkage or integration. There is also a lack of uniformity and accountability tools in place. A continuous improvement process has missing components. This prevents full accountability from being established.

While some desired management functions are partially performed by the Department, those that exist lack linkage or integration. There is also a lack of consistency, uniformity, and accountability tools in place for managers and leaders to use data analytics to make operational decisions. A continuous improvement process has missing components. This prevents full accountability from being established and the inability to consistently illustrate accountability to the Department's stakeholders.

A basic activity list exists in the WAMS for their general activities and other documents for each group. Asset lists with attributes exist in GIS and other files for such key assets. Some geographical maintenance zones exist for scheduling work orders and tracking. Resource data is outdated or lacks the reflection of actual costs. Service levels have been established for very few routine activities. There is also a lack of annual performance work plan development, and this is not part of the Department's work process.

Some short-term scheduling occurs with daily work assignments using a combination of tools and is integrated with the work backlog. For most groups, their effort is driven by response to work requests. A systematic approach to scheduling incoming and backlogged work is partially applied in WAMS using unlinked manual processes.

Activity reporting lacks full resource and accomplishment tracking, to allow management's evaluation of performance and costs, as well as the controlling aspects. For example, some groups report all time, while others lack reporting of work preparation and travel time. Time is only recorded to a work order once a crew or independent worker arrives at the job site.

Most management reports are generated *ad hoc* as a result of a request by the public, management, and elected officials. Some monitoring of work processes is performed using

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unlinked manual processes and spreadsheets. The Stormwater Operations Manager prepares and submits a quarterly report of work accomplishment, using feedback from the Stormwater Operations Supervisor. The monitoring of field performance is performed by the Supervisor and Forepersons. The establishment of a continuous improvement process using collected data is not part of the Department's work methodology. The systematic utilization of system data has not been developed for annual planning updates or continuous improvement.

The surveys from both employees and leadership indicate that many believe that senior leadership and political leaders are unaware of their work and accomplishments. The scarcity of database analytics used, distributed, and made transparent for all stakeholders may be indicators of why this is the case.

SECTION 4- RECOMMENDATIONS

This section provides the details of the recommendations for the Stormwater, Pavement, and Traffic Operations Department. The fifty-four (54) recommendations are not in order by priority but are in a suggested implementation sequence. The recommendations are related in many cases so that the complete benefits indicated may not occur without the prior recommendations being implemented. The following recommendations are structured in five sections according to the best business and management process to assist with improving existing operations.

4.1. General

4.1.1. Establish employee teams to review various improvement opportunities. Utilize the teams on an annual basis to assist in the review of work guidelines and methods, levels of effort, quality controls, as well as annual performance planning.

The Department's employees show an earnest desire to implement sound business practices and proudly represent their organization. Employee involvement is a critical component in the implementation of effective improvement processes. LAC surveyed employees who expressed concern about open communications, their involvement, and their awareness of system changes.

Employee support and acceptance can be further enhanced by establishing capable employee teams. This employee involvement will provide a conduit for ideas and the flow of information during the implementation. Essential involvement includes the development of work methods, annual work plans, and equipment needs. Forepersons, as well as lead and senior workers, would then be consulted on the work methods and activity guidelines to ensure valuable input is obtained from those employees closest to the work.

The involvement of employee teams is crucial to the successful implementation and development of methods for continuous improvement. Therefore, the teams should be used on an annual basis to update work methods and guidelines as well as to review the annual work plans.

4.1.2. Re-create mission statement to include elements focused on efficiencies and effectiveness as primary goals. Obtain buy-in from all levels of the organization.

The SPTO Department is a full-service public works operational organization. Through the department's SPTO's group, the City provides public works services to approximately 250,000 city residents and 9,900 businesses (Pinellas County Economic Development, 2021).

While the Department's mission statement supports the City's overarching values, strategic pathways, and ultimate vision, it appears a considerable number of the Department's employees were unaware of its existence or helped in its creation.

To encourage buy-in and a shared common strategic focus, the Department should re-create its mission statement with input and feedback from every level of the organization. Also, the new mission statement should fully support the City's overarching values, strategic pathways, and vision. Finally, the statement should include the elements of both efficiency and effectiveness metrics to manage their operations (De Waal & Heijtel, 2017).

4.1.3. The stormwater aspects of the Integrated Water Resources Master Plan (IWRMP) should be clearly identified in the short term, with the potential benefits. City staff

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**should relate the plan to improvements with the availability of existing fundings
CIP resources.**

The Integrated Water Resources Master Plan (IWRMP) is a 723-page document created due to a Federal Department of Environmental Protection (FDEP) consent order issued July 25, 2017. The regulatory submittal was produced by Jacobs Engineering Group, Inc. of Tampa, Florida (Jacobs Engineering Group Inc., 2019).

The master plan provided thirty-three (33) scenarios in seven (7) categories. The fifth category includes Stormwater Management. The Stormwater Management portion of the program will cost approximately \$634.8 million or 20% of the total.

As a focus on accountability and establishing an implementable plan, the stormwater aspects of the IWRMP should be clearly defined and identified in the near term, explicitly detailing the City's return on investment (ROI) from the effort. In addition, this plan should be further linked to existing and future CIP funding resources.

A plan was outlined by Public Works but not completed in 2019, due to a myriad of factors including COVID-19. This plan is now expected to take more than thirty (30) months to complete.

4.1.4. Formally review and report the progress and accomplishments of fulfilling the recommendations of the audit projects to the City Auditor quarterly. Set a goal of completion for all goals by October 1, 2022.

Over the past several years, the Department has faced several internal reviews and subsequent follow-up reports conducted by the Office of the City Auditor. The primary objective of Audit Projects 18-04 and 18-15 was to verify that proper internal controls were in place and operating effectively for the respective groups and compliance with City and departmental policies and procedures. In addition, through follow-up audit projects 18-04F (Stormwater Operations) and 18-15F (Pavement & Traffic Operations), it was identified that some recommendations were found to be outstanding or in various stages of completion.

To promote the completion and provide accountability as a follow-up to each review, the Department should formally review and report the progress and accomplishment of all audit project recommendations. This formal review should be conducted quarterly and a goal set for accomplishing all recommendations by October 1, 2022. These results should also be reported in the Department's annual "State of Maintenance and Operations Report" for FY 2021-22, which will be further defined later in this report.

4.1.5. Formally review and update the Department Manual annually, using input from all levels of the organization and any other needed City external resources.

The Department has developed a Department Manual, with an effective date of 2021. This manual offers five sections – Introduction, Department Policies and Programs, Standard Operating Procedures, Emergency Operations, and Appendices. While the manual is generally comprehensive and took a considerable effort to compile, some managers, leaders, and field employees are unaware of its content. Through the employee survey, the statement was made, "I am aware of the Department Manual," to which 29% responded they were unaware of the

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manual. When the following statement “I helped and provided feedback in the creation of the Department Manual,” only 20% of the respondents affirmed their contribution.

As an annual review and follow-up edit to the manual, Department leadership should further solicit and employ participation from employees and all levels of the organization. This method of review and update will foster buy-in and a shared strategic focus from all internal stakeholders. Further, SPTO may seek to use input from other external stakeholders to enhance the document.

4.1.6. Report the progress and accomplishments of the Department’s goals and objectives in the annual “State of Maintenance and Operations Report” provided to the Public Works Administrator, Mayor, and City Council.

Published in the Department Manual and through Memo #SPTOM20-144, the Director has documented twelve (12) aggressive goals and objectives assigned personal responsibilities. Some of these goals include the implementation of Process Improvement Teams (PIT) and a Cross Training Rotation Program. While the memorandum and section of the Department Manual reference these goals, their completion status is unknown or not communicated to the broader group of departmental employees.

The Department Director and senior leadership should report on the progress and accomplishments of the Department’s goals and objectives. In addition, the status should be registered to all employees through the quarterly meetings by each assigned lead. Further, this update should be placed in the proposed annual “State of Maintenance and Operations Report” along with being provided to the Public Works Administrator, Mayor, and City Council. These steps can help promote accountability to Department staff and external stakeholders.

4.1.7. Fully configure the WAMS/WACS databases to the needs of the SPTO Department, including the subgroups of their divisions. Include direct input for the sub-groups of stormwater, pavement, and traffic.

The WAMS was implemented in 2007 and utilized for approximately ten years as the primary Computerized Maintenance Management System (CMMS) for the Water Resources Department. The system appears to be adequate for wastewater and water plant maintenance, water distribution, and wastewater collection of the Water Resources Department. However, it was only recently implemented and utilized in 2019-2020 by SPTO.

WAMS lacks complete configuration for street, traffic, and stormwater infrastructure for SPTO. These functions require information and structure on activity, performance metrics, resources, locations, assets, and accomplishment. This lack of development for SPTO has impacted the usage, accuracy, and relevance of this system. The data collected has minimal use in making management decisions and is mainly used for tracking external service requests.

The City should fully configure the current WAMS and future WACS database, which is 1-3 years away from completion, to meet the needs of the SPTO to the sub-group level. This would contain work directed at the Supervisor and Foreperson levels, which includes –

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- Line Clearing & Aquatics
- Shallow & Deep Construction
- Seawall Construction
- Mini-Mowing
- Hand Ditch Construction
- Street Sweeping
- Equipment Services
- Stormwater Quality
 - Stormwater Quality Maintenance
 - FDOT Landscape / Litter & Debris
- Pavement
 - Asphalt
 - Alleys & Brick
 - Concrete
- Traffic
 - Signs & Markings
- Traffic Signals and devices

A more significant and complete configuration will equip the leaders and managers of the Department with standard tools for monitoring efficiency and making any organizational change based on historical system data in their specific functional area.

4.1.8. Fully implement the WAMS/WACS and related system management tools, allowing all levels assess to the system. Use WAMS/WACS data for work management, which includes the ability to plan, organize, schedule, monitor, and improve operations.

The use of the WAMS varies between the Department’s operational groups. For example, through the Leadership Survey posed the statement “The WAM system is useful to me for planning and scheduling work,” 55.5% of respondents answered *Strongly Disagree* or *Neutral*. Related to a similar question, the following statement was posed, “I review a WAMS output every _____ to help me make better work decisions,” 66.7% responded *Weekly*, while 33.3% responded *Never*. Also, during the solicitation of feedback for employees, it was shared that some lead workers have limited access to areas of the WAMS that they could use to follow trends in the work they perform and measure historical work accomplishments.

Additionally, accomplishment is tracked in various locations within the WAMS, including the notes section. This makes it difficult to compile work accomplishment efficiency data. When the accomplishment field is used, often different measurement units are selected for an activity making productivity and unit cost very difficult to compile. Also, though most employees in the

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survey (86%) indicate that they understand how to track their work in the system, accomplishment is accounted for only in a small portion of the daily entries and when recorded is often logged inconsistently.

The current WAMS and future WACS are the systems of record and management tool for the tracking of maintenance and repairs performed by the Department. Both the current WAMS and future WACS databases should be configured to properly allow for the appropriate access of information for administrative and field leaders. This can be performed through appropriate security protocols such as read-only, read-write, and read-write-delete. All leaders should have the ability to use the work management system as a tool for planning, organizing, scheduling, and monitoring the use of resources. All this to collectively pursue operational improvement based on actual production data. Without proper training and access to the data collected by operational supervisors and managers, the system produces little value beyond what a simple service request could provide for tracking complaints.

4.1.9. Fully utilize the capabilities of the City’s GIS database and information as a tool for dynamically planning and organizing work.

Several similar benchmark agencies use GIS as a critical tool for each phase of maintenance management, including planning resources, levels of service, scheduling, and monitoring productivity. They use the database’s capabilities to organize resources, establish preventative maintenance routines, and monitor work accomplishments.

SPTO primarily uses the City’s GIS mapping capabilities and data to create static maps, as with the maps included in the Department Manual. However, the Department currently lacks the full utilization of the City’s GIS database for analysis and planning.

The Department should fully exploit the capabilities of the City’s GIS as a tool for planning, organizing, and analyzing work through the use of dynamic data-driven information. For example, similar benchmark agencies have dynamically linked their GIS database with their maintenance management tool using outputs from both systems to effectively communicate plans and work accomplishments to their internal and external stakeholders.

4.1.10. Identify or obtain a WAMS/WACS and GIS power user to provide operational and technical support. This user must have an intimate knowledge of the department’s mission and operational functions.

The capability of the users of the WAMS database found in the Department varies, with some groups integrating the system with their daily work processes and others using the system to track portions of their work accomplished. The WAM is supported by the staff of the Water Resources Department, who are knowledgeable of the automated system and have experience in retrieving data out of the system. Further, the GIS system exists yet is utilized by only a few SPTO leaders, which is only in very basic functionality.

Many of the functions being performed by the SPTO Department have specific technical nuances and require some operational background in stormwater, pavement, and traffic maintenance and operations. Therefore, the daily interaction and system integration with work processes are paramount for GIS system success and full functionality.

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SPTO should identify or acquire a power user within their department to provide operational and technical support of the current WAMS and future WACS databases and operational functions of the City's enterprise GIS. This user should be the point of contact and work closely with the Department's senior leadership in fully utilizing the available automated systems and tools to promote consistency and data accuracy. Finally, specific goals for the implementation of these capabilities should be identified and specifically outlined for the selected power user.

4.2. Planning

4.2.1. The Department should share appropriate resources across all Divisions including labor, equipment, and supervision.

Each of the three primary groups of Stormwater, Pavement, and Traffic Operations operates independently with little involvement in their work functions with little overlap. The assistance in work of employees between groups does occur to some extent through promotions, participation in City special events, and emergency response.

A process needs to be established to readily share resources among groups such as equipment, basic labor support, and traffic control. Specialty groups that perform traffic signal maintenance and herbicide application may be challenging to include in this resource-sharing effort, yet there are several other areas where this effort will be possible. These groups should support each other with cross-training to allow for increased resource capabilities and open opportunities for employees. All work should be appropriately accounted for in the WAMS system and accounting and tracking, especially for work in specific fund categories such as stormwater, FDOT, and contract support.

4.2.2. The Department should implement an approach that allows for all resources to report out of one location.

SPTO staff, materials, and equipment are staged out of two primary locations. These include the Water Resources Administrative Complex, located at 1650 3rd Ave N., and the Pavement and Traffic Operations at 1744 9th Ave N. The first location is the primary staging location for Stormwater Operations, the Department Director, the Department's support staff. The second location is the primary staging location of staff, materials, and equipment for Pavement, Traffic Operations, and Water Quality. In addition, the City has a 6-year, \$35 million CIP project to combine the two facilities into one along with a myriad of Water Resources facilities improvements that are planned in a 5–6-year time frame.

The implementation of this improvement is warranted to promote lower operational costs, the availability and exposure of leadership to all department staff, and the potential of additional resource sharing. The City should continue to pursue and fully fund the CIP plan of developing a one-site location for the SPTO Department and Water Resources as it has multiple efficiencies and effectiveness values.

Further, efforts should be made in the interim to unite the groups in SPTO by management expending office time in both locations and creating opportunities to share equipment, labor, and materials resources.

4.2.3. Establish a process along with responsibilities for consistent and accurate asset inventory updates to compile and summarize data for functional application. Identify a process and departmental point of contact that verifies the values provided to produce the City’s Annual Comprehensive Financial Reports (ACFR) and any other published documents, to promote consistency and accuracy.

The City reports several asset classes, functions, and programs within its Annual Comprehensive Financial Report (ACFR). Figure 3-7- ACFR Asset Inventories reported reflecting a wide range of changes over the past ten years, some are significant. Over the past five years, staffing of the Department has increased by 18%. Over the past ten years, storm pipes increased 26%, and catch basins increased by 5%. In contrast, grate inlets decreased by 31%. This reduction of an asset type appears to be questionable as no other data was available to verify such a large change and casts doubt on the accuracy of the different asset data. Finally, the staff that is responsible for updating these values for Finance does not appear to reside in SPTO.

The SPTO Department, in coordination with the authoring City Department, should develop a standardized and repeatable process for consistently and accurately reporting and updating asset values in the ACFR and other published documents. The reporting of consistent and accurate data will allow the Department and other stakeholders reliable information to base asset trends and analysis along with other external interests and stakeholders to have a precise portrayal of City assets.

The City’s ACFR provides statistical data of asset inventories, which come from many sources. Several reported data inventory values do not match those of the SPTO’s data records. Further, the SPTO staff are unaware of the data sources provided or who supplies these inventory values.

Several similar benchmark agencies standardize the sourcing of data provided to create the agency’s certified reporting documents. These agencies use historical ACFR data as a confident source of information for performing trending analysis of operations, projecting resources needs, and calculating levels of services if the information is appropriately tracked and recorded.

The Department should develop and implement a process of validating and verifying the values provided for the City’s Annual Comprehensive Financial Reports (ACFR) and any other published documents. An SPTO Department point of contact should be identified and responsible for supplying this information to promote consistency and data accuracy. Any noted irregularities of the assets data should be corrected and documented for historical reference.

4.2.4. Confirm the validity of 1,033 street segment conditions of all PCI values below forty, reporting to the Public Works Administrator on the results.

The City has 890.2 total miles of streets, with 99% having an asphalt surface. Nearly 24% or just under 214 miles of the asphalt roads are rated as poor or below according to the Pavement Condition Index (PCI) from City’s Pavement Management Program (PMP) for each road segment. The rest of the roadway network has 25% are in fair condition, 22% are satisfactory, and 29% are in good condition scale used in the PMP.

The average rating of all asphalt streets is 68.4 out of possible 100, which is in the higher range of the Fair category scale used in the PMP. The City should confirm the validity of the street

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segments that have reported PCI ratings of below 40 as some appeared to be questionably low. Additionally, Public Works and SPTO should also establish a benchmark condition range rating for their paved road network. The PCI results should be compared against this benchmark and reported to the Public Works Administrator, SPTO Director, PTO Manager, and Pavement Supervisor with actions taken to maintain, enhance and/or improve.

4.2.5. Establish a level of service for alley maintenance efforts to meet the needs of internal and external stakeholders using available resources. Stakeholder input from the Sanitation Department and alley adjacent homeowners should be considered.

There are almost 229 miles of alleys in the City – approximately 81% of which have sanitation routing provided by the City’s Solid Waste Department, which is a major stakeholder of this asset class. Most of the alleyways are 12 feet in width and the highest alley mileage is located within more established and urbanized population centers.

As the City’s alleys are a major asset class of the Department and impact both internal and external stakeholders, as well as one of the Department’s documented goals, the Department should establish and document a level of service (LOS) for alley maintenance. This LOS should be a key element in calculating the performance-based work plan and budget for this activity. The Department should solicit and include feedback to meet the needs of internal and external stakeholders, such as the Sanitation Department and alley adjacent homeowners. When determining the LOS for this activity, the Department’s available resources should also be considered.

4.2.6. Fully evaluate the complete cost of providing ROW maintenance. Determine the total and unit cost, use all labor with an applied avoidable overhead, equipment, and material costs and apply to all properties (City, FDOT, Private, and County) maintained.

The SPTO Department is responsible for mowing and maintaining right-of-way areas, which total approximately 704 acres, with some of the area accomplished on a contract basis for the State and County. The City maintains 311 acres owned by the City, twenty-one (21) acres are owned by the County, 301 acres are owned by the State, and thirty-five (35) acres are designated as private. Some of these private acres include a ditch at 17th Way N and 78th Ave. N to 83rd Ave. N, a playground at Bay Point Elementary School, and a right-of-way at Oak St N / 105th Terrace NE to Gandy Blvd N.

High-performance organizations (HPOs) use their maintenance management program as a tool to plan work accomplishment through creating annual performance work plans, track and recording all resources used, such as labor with applicable overhead rates, equipment hours and rates, materials, and work accomplishment. They also use outputs to systematically monitor unit costs and productivity against the annual performance work plan.

Using this methodology, the Department should thoroughly evaluate the total cost of providing maintenance in each owner data type. A total and unit cost should be determined using all labor with an applied avoidable overhead, equipment, and applicable material costs.

4.2.7. Compare the cost of service to the revenue received from performing ROW maintenance for others. If the cost substantially exceeds the revenue, a determination should be made in obtaining additional revenue and or reducing service. Provide results to executive leadership to ensure that these contracts are acceptable.

The Department is mowing and maintaining right-of-way areas throughout the City. The City owns approximately 311 acres, and others own an additional 357 acres that require this ROW support. This includes Pinellas County, the FDOT, and others. Of the 357 acres maintained for others, 301 acres are maintained for the FDOT through a subcontract with Ferrovia Services Infrastructure Inc. Ferrovia Services is the primary contractor for maintenance with the FDOT. In addition, the City has entered into an agreement with Ferrovia Services Infrastructure Inc. to provide roadway sweeping, various roadway repairs, and other services on selected state roadways in Pinellas County. This contract is valued at \$411,300 annually. The City has also agreed with Ferrovia Services to provide sweeping services and specific sections of the Crosstown Expressway. This contract is valued at just under \$100,000 annually.

While it is difficult to determine the actual cost of fulfilling the scope of these agreements as SPTO labor, equipment, and material records are not fully tracked to these contracts, it appears, using rough budget values, that the total cost incurred by SPTO substantially exceeds the revenue generated. Plus, this subcontracted work is done on higher speed roadways where several accidents have occurred with City equipment impacting SPTO employees in which the City bore the cost.

In all cases, the Department should consistently track all costs to include labor and applicable overhead, equipment, and materials in meeting the contractual agreements with others. Once consistent data is collected, a cost comparison should be made, comparing the cost of service to the revenue received. If the cost substantially exceeds the revenue, a determination should be made to obtain additional revenue by negotiating with Ferrovia Services and FDOT or reducing service or, at a minimum, providing executive leadership the cost that this service for other facilities is costing the City.

SPTO should provide cost analysis results to executive leadership with assistance from other departments such as Audit and Finance. This decision should be an executive, not departmental decision if the City is willing to pay a higher cost to provide an increased level of service on facilities within the City that are owned by others.

4.2.8. Perform National Bridge Inventory (NBI) level structural inspections on the same frequency to all non-NBI structures in the City's bridge inventory.

The City owns eighty-one (81) bridges, with 28 having less than 20 feet, which is considered a non-National Bridge Inventory (NBI) bridge. The remaining 24 bridges have a span over 20 and up to 30 feet, and 27 have a span greater than 30 feet. The average "life expectancy" for these bridges is approximately 26 years.

The federal government requires the state of Florida to conduct the complete inspection of all NBI bridges every two years, supplying the maintaining agency a copy of the reports which list the rating of each bridge and its components.

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Like several similar benchmark agencies, the City should develop and implement a program of inspection for their non-national bridge inventory (NBI) structures on the same schedule as the state for the NBI structures. This will ensure the City's non-national bridge inventory assets are inspected similar to the frequency and to the measure of those found on the national list, maximizing the useful life of the asset class.

4.2.9. Use facilitated employee teams annually to establish and update standardized activity lists, definitions, and work units for benchmarking of all maintenance and repair activities.

While the Department has developed and published twenty-four (24) formal standard operating procedures (SOP), as well as several similar department policies related to specific repair and maintenance activities, each functional group should further develop a list of specific, well-defined activities which are understood and communicated to all employees. In addition, employee teams with supervisor facilitation support should be used annually to identify key actions and associated work units for their respective groups.

A combination of historical data, institutional knowledge of staff, and industry benchmarks should be utilized to accomplish this effort. This concept should be applied by employee teams working independently in the following years to annually configure, refine, and update to match the current working environment and mandated required work and related processes.

4.2.10. Establish levels of effort by activity for each asset type based on condition along with established minimum levels of service based on available resources and cost.

Actual levels of effort (LOE), whether quantitative or qualitative, are not known for activities performed by the SPTO. Due to the lack of established LOE, work is performed without understanding whether specific overall service goals are being achieved.

As outlined by APWA (American Public Works Association, 2008), a good business practice is to define levels of service by the individual maintenance activity the Department desires or is required to achieve and then allocate the related resources.

The work effort in production units for the year can be determined by knowing the number of assets to maintain and the frequency of each activity. These units are the basis of information needed to perform an estimate of the resources required to perform the work and are a critical element of preparing a performance-based budget by activity.

The LOE should be established by activity and policy for all infrastructure assets. This would allow each operational group to develop specific performance-based work plans and provide direction to supervisors and forepersons in their use of resources.

Establishing specific maintenance and performance goals allows for the development of service levels, which helps determine the funding and yearly service projections. The effort levels and performance goals can be adjusted to reflect population growth, mandates, and rising customer expectations. Optimal routine maintenance cycles improve the quality of assets, reduce the need to perform response work, and help minimize life cycle costs.

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There is a cost-benefit trade-off that must be determined of the cost versus the service being provided. Benchmarking to others can assist to determine this value, but it should be a combination function of the community's desires and the effort to optimize asset life.

The Department should establish specific LOE for each activity and then, through the budget and resource process, determine specific cycles that would be achieved. A process should be established to monitor status to assure compliance and understanding of shortfalls for actions planned.

4.2.11. Define performance guidelines and related measures to the annual plan utilizing facilitated employee teams and store results within the WAMS/WACS. Include the planning criteria of average daily production (ADP) and the related asset inventory values.

While the Department has developed and published twenty-four (24) formal standard operating procedures (SOP), as well as several similar policy memorandums developed in the last two years, currently general work method and quality expectations are verbal or uses from the employees' experience for the maintenance and repair activities. The performance standards should be modified and enhanced through facilitated employee support and then defined as guidelines. They can then be used daily and to include associated planning criteria of average daily production (ADP) and the related asset inventory values. These tools would assist employees and management in understanding the tasks that are to be performed and provide guidance and expectations (APWA, 2008; 2011).

Each activity guidelines guideline should include –

- An activity definition
- Criteria to be used for work identification and planning
- The mix of resources required, including labor, equipment, and materials
- The general method and steps to conduct work
- Expected daily productivity or average daily production (ADP)
- Work quality expectation or what should the outcome be after the work is complete

This information should serve as a baseline and resource for all of the work planning and provide the additional benefit of common terminology and a device for training. Most importantly, guidelines can be used as a tool for continuous improvement. The establishment of an annual update process of new methods, technology, and processes should be considered as part of the guideline improvement process each year.

The guidelines would also serve as a basis for comparison and benchmarking to determine how various decisions impact efficiency and allow for staff input in the work process. Therefore, the guidelines should be made available to all employees and annually describe how they will be used and the intent of their use in work planning.

4.2.12. Establish the capability of developing a performance budget based on the level of service, asset inventory, productivity, and work methods with a quality standard for each activity. Use the established performance plan as a tool to develop a budget based on actual needs. Provide annual performance plans to the Public Works Administrator and City Leadership.

The Department should establish a process to allow each group to produce an annual performance-based work plan and budget based on anticipated work performance. A performance-based work plan and budget allow planned dollars to be directly linked to the quantity and quality of work budgeted (Balanced Score Card Institute, 2014).

The work program should be established for each organizational unit by activity and include inventory, level of service, productivity, and required resources. Also, each outcome (traffic light serviced, linear feet of lines cleaned, or linear feet sidewalk removed and replaced) should be linked to a quality standard. For example, develop a specific goal of sidewalk replacement to be performed and establish a budget based upon the actual maintenance performance. The performance budget would establish accountability and is a good business practice, ensuring work is planned based on a desired measured outcome.

Seasonal variations may occur for some activities, which are a function of weather, special events, or community schedules. The performance plan should be adjusted to account for these variations in workload and resources, which should be planned accordingly. An opportunity may exist for the utilization of temporary or contract support during peak workloads.

This effort will also produce a work calendar, which quantifies the number of work units planned each month and needed resources. This allows for major activities and routine work to be broken down into manageable amounts for both scheduling and coordination.

Once the performance plan is complete, it should be provided to senior leadership, executive leadership, and elected officials communicating the utilization of available resources for the year. This establishes accountability, as well as educates leadership on how resources are being used.

4.2.13. Use facilitated employee teams to develop specific goals and objectives for each subgroup, which include quantifiable performance measures and links to the Department's guiding principles.

Minimal tools and data parameters are in place for employees to measure performance and maintenance costs or evaluate field performance, which would allow them to take proactive management actions based on the identified inefficiencies.

The tools and processes that are now in place are manual-tracking processes that research after-the-fact accounting for past occurrences. Thus, performance planning, internal benchmarks, and associated accountability are missing. Further, the Department also lacks specific key performance measures used to monitor and routinely report on effective and efficient operations.

4.2.14. Link work recorded in the WAMS/WACS to the Department's Budget Performance Metrics. Report the status and progress in achieving production goals monthly to the Public Works Administrator. Act as the primary source of information to be

provided to those who prepare the annual budget documents reporting metric values.

While it appears that the SPTO desires the effective and efficient delivery of service, their operational performance metrics lack automated linkages to their annual budget and budget performance metrics. Instead, tracking performance measures is primarily accomplished through manual processes with various sources and independent calculations. Several similar HPO agencies directly link performance measures with their budgets to promote accountability and transparency of expenditures to quantifiable measures.

The Department should develop and implement a process of linking work recorded in the current WAMS and future WACS to the Department's Budget Performance Metrics. These metrics should be monitored internally by the Department's senior leadership, and the status and progress reported to the Public Works Administrator monthly. This process and status should act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.

4.2.15. Determine the need for providing non-traffic sign fabrication services and ensure all costs for that service are recovered, including labor and overhead, equipment, materials, and storage. Consider discontinuing this non-traffic and departmental support unless full cost recovery occurs.

The primary objective of the Traffic Sign Fabrication and Traffic Sign Installation Division is to inform motorists and pedestrians of traffic regulations or information by sign installation and maintenance. The Budget includes two performance measures – the number of 'Signs Installed/Replaced' and the number of 'Signs Fabricated.' It appears that sign fabrication outpaced traffic sign installation in the last two years. Traffic sign installation is for the installation of new street signs or their replacement.

Although the reported numbers for these metrics may be questionable, the City should determine all costs to include labor and overhead, equipment, materials, and storage using data from the current WAMS and Future WACS of sign fabrication. If the decision is made to continue to provide non-traffic sign fabrication services to others, the Department should ensure all costs for that service are being recovered. This requires enhancing reporting all-time, equipment, materials, and overhead to all non-traffic sign work, and the appropriate department/group is charged for that service.

4.2.16. Determine and use avoidable overhead in the WAMS/WACS for work costing and outsourcing consideration. A full overhead rate should be used for external billing and reimbursement. Further, develop an annual process to update the rates and educate management and leadership of their application.

As previously recommended by the City Auditor, the SPTO Department should establish a repeatable process of determining overhead rates to be applied to labor rates. The Department should establish an avoidable overhead rate for internal cost comparisons and use it for outsourcing determination (Martin, 1993). Applying this rate allows true cost analysis, benchmarking, and other comparative analyses concerning direct maintenance and repair costs.

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This rate should also be used as the default value in the current WAM system and future configuration of the WACS.

A second rate should also be determined for a full overhead allocation to consider the costs related to all aspects of the Department that includes various fees, administrative salaries, insurance, professional services, and rents/leases. This rate should be applied to work conducted for other agencies, citizens, or external groups to recoup the Department's full costs of performing work. These rates should be reviewed and updated on an annual basis.

4.3. Organizing

4.3.1. Establish a goal of each Manager being credentialed as a Certified Public Works Professional-Manager (CPWP-M) and each Supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S) through the American Public Works Association (APWA). Establish these goals to be completed by October 1, 2022.

While each manager and supervisor bring the strengths of practical experience, most lack the lengthy time in their current roles to develop the specific skills of systematically planning, organizing, directing, and controlling resources as well as system tools that are in place. The training and development of these foundational skills are critical in the ideal maintenance management process to provide a good foundation for new leadership and supervisors to become fully functional leaders. Additionally, the employees indicated some concern in that only 32% of employees in the employee survey showed they had confidence that management could lead their Division. Further, over $\frac{3}{4}$ have been in their roles less than two years, most of that during the Covid time frame.

As the primary industry organization, the American Public Works Association (APWA) has developed and offers several certification programs to promote excellence leading to an improved workforce and improved delivery of services. They currently provide a Certified Stormwater Manager (CSM), Certified Public Works Professional-Supervision (CPWP-S), and Certified Public Works Professional-Management (CPWP-M). Now, the SPTO Department Director holds a CPWP-M displaying the value to the organization.

Each credential has specific education, experience, and application process requirements to promote the advancement of particular leadership and supervisory skills. A goal should be established where each manager should be credentialed as a Certified Public Works Professional-Manager (CPWP-M), and each supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S). A goal should be set for October 1, 2022, for certification.

Obtaining these will require self-study and guidance by the Director and should enhance each manager and supervisor skill set and demonstrate all their capabilities to be in their positions. Further, it also increases their value to the organization in general and reveals to others the department's professionalism.

4.3.2. Conduct annual independent review (City Auditor or Human Resources) and or survey of interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization. With the results, the Director

should compile an action plan to address any concerns and submit it to the Public Works Administrator.

There are four levels of leadership below the Director to the lowest level in the organization. These levels include managers, supervisors, forepersons, lead workers, and reporting employees. The Director's span of control is 1:7. Communication has been impacted between this high number of leadership levels, the number of employees, and the COVID-19 influences. The Director and the senior staff have needed to depend on lower leadership levels in communicating existing and newly created policies and procedures. The employee survey returns also indicated that generally, employees believe there is a lack of communication and availability between the Director and field employees.

To address and monitor this concern, an annual independent review or survey by the City Auditor or Human Resources should occur. The tool should measure the interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization. From the results, the Director should compile an action plan to address any concerns and submit it to the Public Works Administrator.

4.3.3. All supervisors and managers should be trained on management skills to be updated annually, as well as on the methodology and capabilities of WAMS/WACS and GIS. This should be a requirement of promotion and part of an employee's annual review.

The WAMS system has been selected to manage operations, yet less than 23% of all labor is now being captured, and supervisors and management utilize minimal system outputs for decision making. While being generally understood, GIS is not fully applied by managers, supervisors, and forepersons. Both of these tools and the future WACS are critical tools for the leadership and management of resources, as well as planning, executing, and monitoring work.

Leaders and managers should have a basic operational understanding of the current WAMS system, future WACS, and increased utilization of the City's GIS database. This understanding and utilization should be a requirement for promotion to supervisor or manager positions. Also, utilization of WAM/GIS and future WACS for decision-making should be an element of managers, supervisors, and the lead person's annual review.

4.3.4. Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented, and all traffic staff time is being recorded by activity.

It appears that the Department's staff to maintain traffic signals is slightly lower than the average benchmark data. The LAC benchmark agency average is .41 staff per 10 signals, where the Department is approximately .3 per 10 signals.

This high-level metric does not lead by itself lead to a specific conclusion. After the Department begins and records consistent work management and production data, a staffing analysis should be performed to determine if the critical preventative and proactive activities are being completed for all signals that SPTO is responsible for.

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It is essential to gather labor and overhead, equipment and materials resources, and work accomplishment data. This information will allow the Department to establish a performance standard for developing an annual performance plan and budget and a reportable performance metric for the traffic signals group to determine if staffing matches the desired service levels.

4.3.5. Managers and Forepersons should have three (3) or more direct reports or provide a documented justification for a lower span of control ratio, approved by the SPTO Director.

The span of control for all but one Foreperson has a low span of control, most having a span of control of 1:1. These will low spans include the Asphalt Foreperson, Sidewalk Foreperson, the Alleys & Bricks Foreperson, and the forepersons of Line Clearing & Aquatics, Shallow & Deep Construction, Seawall Construction, Mini-Mowing, and Hand Ditch Construction. In contrast, the Foreperson of Street Sweeping and FDOT Sweeping has a high span of control yet appears adequate based on the tasks of these direct reports which are scheduled repetitive work, with very little need for direct supervision.

A range of 1:4-8 is a typical desirable benchmark and good business practice for this management level unless direct reports need increased supervision or consistent direction and communication, where a low ratio should be considered. Higher levels are acceptable when little day-to-day supervision is required, such as in the case of the Department's Sweeping group with repetitive routine tasks.

As a good management practice and effective use of leadership, all leaders should have three (3) or more direct reports. For any variances to this target benchmark, a documented justification for a lower ratio should be provided and approved by the SPTO Department Director. Often there are cases where lower spans make sense yet should be justified.

4.3.6. Establish a formal proactive process of field visits by the Department Director and Managers. This is to observe work efforts, promote communication, as well as provide senior staff availability to all levels of the organization. Establish and formalize the goal of visiting each sub-group at least once a year.

Communication concerns at various levels are perceived through the organization as shown in both surveys. For example, the employee survey results in employees generally indicating a belief that there is a lack of communication and availability between the Director and field employees. Additionally, only 32% of employees in the employee survey indicated they had confidence that management can lead their Division. This may have been compounded during the Covid-19 timeframe, where managers often worked virtually while operational employees maintained a regular physical work environment.

To address this concern and apply a form of Management by Walking Around (MBWA) (Mears, 2009), the Department Director and Managers should establish annual goals of proactively performing field visits to each of the Department's sub-groups or their respective divisions sub-groups. The purpose of these visits would be to observe and further understand work efforts, promote communication, as well as increase interaction opportunities between senior management and field employees, providing availability to all levels of the organization. These

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visits would assist the leaders in gaining first-hand knowledge of their employee's state of morale and allow for the understanding and implications of directives impacting front-line employees.

4.3.7. Establish a systematic methodology for connecting with employees to obtain unfiltered input and real feedback through quarterly meetings.

The lack of involvement and understanding are other issues identified from the employee surveys and LAC interviews. The LAC survey indicated that senior management has a perceived problem of lacking in communication with employees and not creating an open work environment. The employees also expressed a lack of confidence in management's ability to lead the Department through the survey.

Senior management needs to reach out to all employees on a routine basis. Establish a quarterly meeting where senior management (The Department Director and the Public Works Administrator) can receive unfiltered direct input from employees and then transparently discuss identified common issues. Once the concerns have been presented and identified, management should outline actions to address each issue or explain their understanding and consideration.

4.3.8. Develop and implement a sign reflectivity inspection program and replacement process to meet FHWA design to maintain traffic sign retro-reflectivity at or above the established minimum levels. Systematically report inspection program progress and results to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."

The Department is responsible for repairing and maintaining approximately 60,900 signs, with about 9,500 being stop signs. Regulatory signs comprise the most significant number of signage, followed by directional signs, parking signs, and warning signs. Unfortunately, through a combination of field reviews, observations, and interviews, it appears the systematic process of sign reflectivity inspections and replacement following State and Federal suggested guidance lacks adherence.

As referenced by the U.S. Department of Transportation, Federal Highway Administration, the basic concept of an assessment method is that the condition of each sign is assessed or evaluated periodically. While the Manual on Uniform Traffic Control Devices (MUTCD) does not set specific intervals, they recommend agencies assess their signs every one to two years. In addition, public agencies or officials also must maintain sign retro-reflectivity at or above minimum levels found in the MUTCD (U.S. Department of Transportation: Federal Highway Administration, 2009).

While MUTCD does not set a specific interval, the City should develop and implement a sign reflectivity inspection program and replacement process to meet FHWA designed to maintain traffic sign retro-reflectivity at or above the established minimum levels. They should consider following the recommended inspection frequency every two years. Through this methodology, a systematic process of reporting the programs' progress and results should be reported to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."

4.3.9. Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented and all signs and marking staff time are being recorded by activity.

The Department's sign staff benchmark of staff per 1,000 signs is slightly lower than LAC's average benchmark value. The LAC benchmark average is .14, where the sign staff per 1,000 signs is .11. This is somewhat lower than the benchmark average.

While this high-level metric does not by itself lead to a specific conclusion but shows that sign maintenance staffing is in the general lower range of other agencies. After the Department begins and records consistent work management and production data, a staffing analysis should then be performed. It is essential to gather labor and overhead, equipment and materials resources, and work accomplishment data. This information will allow the Department to establish a performance standard for developing an annual performance plan and budget and a reportable performance metric for the signs and marking group. This analysis can help determine if the basic proactive maintenance practices are being done of inspection, cleaning, replacement and then determine the appropriate staffing to meet the desired service levels.

4.3.10. Work shifts should be established based on specific work needs. The number of shifts should be standardized. An external evaluation on the benefits to the City should be conducted with employee team involvement, documenting the negative and positive benefits. The Department Director should review and approve all schedules and shifts.

In response to COVID-19 and to address the operational and maintenance needs of the Department, twenty (20) different schedules were established over twenty-one (21) groups. This, along with the levels of management, communication, and accountability, was potentially impacted. More recently, the Department's working groups have reportedly moved to the eight (8) shifts, with the majority of SPTO crews working 7:00 am to 3:30 pm, Monday through Friday. In addition, some Stormwater Quality and Traffic Signals employees work other various shifts. This results in some employees working while their direct supervisor is not working in the same timeframe. In the survey, 36% of the employees stated that their immediate supervisor could not communicate specific goals, objectives, and expectations, which may be a partial result.

All working hours should be based on what is best for the City, with some employee considerations that allow retention and recruitment. Working in the Florida environment involves high temperatures and humidity in the summer and shorter days in the winter. This results in crews working at twilight and during peak traffic periods, which further impacts work. Crews that work longer hours can negatively impact productivity (Lorick, 2012). It is possible schedules could vary for some groups depending on what their job entails and the needs of the City. All shifts should be standardized as logically possible and aligned with the lead person and supervisor's schedules. The Department Director should approve all schedules.

4.3.11. The Traffic Signals group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. The Department Director should review and approve all schedules and shifts.

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The Traffic Signals Group has four (4) different shifts, including one used only by the Signal Coordinator. The first shift runs from 6:45 am to 3:15 pm, focused on response and PMs. The second shift runs from 3:15 pm to 11:15 pm and focuses on YFI 100, illuminated street signs, and senior technicians. The third shift runs from 11:15 pm until 7:15 am, overlapping with the first shift. The Signal Coordinator's schedule is from 6:00 am to 2:30 pm.

While the group uses this blend of schedules, the rationale for the second and third shifts lacks documented justification. Only a few similar benchmark agencies utilize a second shift, and LAC lacks any documented experience of agencies with a third shift to maintain and repair traffic signals.

This group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. All after-hours responses should be addressed through an on-call process, and special needs should be addressed through temporary shift variances. The SPTO Manager and Department Director should review and approve all schedules and shift variances.

4.3.12. Track, compile and establish benchmarks for Worker's Compensation, FMLA, and leave without pay by sub-group. Review during monthly meetings and report annually to employees, the SPTO Director, and the Public Works Administrator. Calculate and report leave hours in full-time equivalents (FTE).

A key to accomplishing work and providing value to the Department's stakeholders is employee availability. Workman compensation (WC) and the Family Medical Leave Act (FMLA) provide employees with benefits for leave from work that can affect work planning and production. Over the last five years, the Department has averaged 3,539 hours of Workers Compensation or almost two (2) FTEs. FMLA is the highest it has been in five years, at 3,470 hours or just over 1.5 FTEs. Another factor in resources availability is the use of leave without pay. In the same period, the Department averaged 611 hours.

These three measures impact work accomplishment, budgets, and staffing. As well as leadership's ability to plan based on a stable workforce. The Department should establish benchmarks for these leave categories by Division and sub-group, with monthly monitoring for accountability and measuring their impact. The impact of these values and adherence to goals should be evaluated and reported to the Public Works Administrator monthly in full-time equivalents (FTE).

4.3.13. Utilize the Department's Safety Officer to systematically monitor and report the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director. Charge the Safety Officer with tracking and monitoring of all safety-related training, providing data to be reported monthly and in the Department's annual "State of Maintenance and Operations Report."

Each of the developed and documented activity SOPs references appropriate traffic control methods for temporary, moving operations, and longer-range projects. These methods include the use of workers ahead signage, staff to flag traffic, as well as traffic cone tapers and barricades when appropriate. The Department has also employed a Safety Officer specifically to monitor overall safety methods by employees.

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While the Department's SOPs reference traffic control methods, it was discovered through observation to be minimally used. Further, the employee surveyed indicated that 36% believe traffic control is used inadequately, and 36% indicated that more safety training is needed.

Increased safety training should occur for all staff responsible for traffic control during maintenance and repair activities performed by the Department. In addition, the Department's Safety Officer should be utilized and charged with systematically monitoring and reporting the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director and specific Manager.

As the safety of the public and workers should be paramount in the day-to-day operations of the Department, the Safety Officer should be charged with the tracking and monitoring of all safety-related training. This would include training in response to observed behaviors inconsistent and non-compliance with safety standards. The Safety Officer should also report his findings monthly to the Department Director and Managers, as well as annually in the Department's "State of Maintenance and Operations Report."

4.3.14. Track and monitor all traffic signal maintenance costs and productivity. Calculate and report the unit cost of each preventive maintenance routine performed and compare against an established benchmark. Determine if the total FDOT reimbursement covers the Department's resource costs to perform maintenance.

The Traffic Signal group is responsible for 311 signals – the majority of which utilize LEDs for their signal indications. Of this inventory, 205 (66%) are owned by the City, and the Florida Department of Transportation (FDOT) owns 106 (34%). Through a contractual agreement, the City receives a lump sum payment of \$554,000 annually or approximately \$5,900 per signal from the FDOT.

Inconsistency exists in resource reporting, labor and equipment rates, and various work accomplishment values. This makes it difficult to calculate the total cost or unit cost consistently and accurately, or productivity of performing preventive and response maintenance for a traffic signal.

Using the current WAMS and future WACS, the Department should track all traffic signal maintenance costs, including labor and appropriate overhead, equipment, materials, and work accomplishment by intersection. The Department should calculate and report each preventive maintenance routine's unit cost and compare it against an established benchmark with this data. Further, the determination should be made if the FDOT total reimbursement covers the Department's resource costs to perform traffic signal maintenance for the FDOT assets. Finally, cost and labor hours for each signal by PM, response, and repair regardless of ownership should be determined and used as guidance for enhancement or replacement.

4.3.15. Establish equipment rates for each equipment class that includes all costs – repair, maintenance, fuel, & lubrication, and replacement. All 'Out of yard' hours for each piece of equipment should be tracked in the WAMS/WACS.

Equipment rate determination methods should be developed and documented for consistency, using all costs such as repair, maintenance, fuel and lubrication, and replacement. This is

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significant when determining the total cost of performing an activity (resource costs of labor, equipment, and materials). The actual cost of the operation could be distorted by using national FEMA rates that are not representative of the actual cost of ownership.

The SPTO Department should adopt the methods outlined in APWA publications (McCorkhill, 2008). Utilizing this method is helpful in many ways –

- Communication with customers – breaking down the equipment rate allows users to understand what the rate includes.
- Comparison with others – having rate components available can facilitate an “apples-to-apples” comparison with other agencies and service providers.
- Financial management – allows an agency to track revenues and match these against actual expenditures periodically.

In addition, the rates should be based on the number of hours that the vehicle or equipment leaves the yard and is staged and/or committed for a particular activity (out of yard hours). Also, if it is unavailable for other employees to use This measurement would be in addition to the operating hours of the equipment and the running time of the hour meter or mile meter. The current WAMS and future WACS should be utilized to track the “out of yard” hours for each piece of equipment.

4.3.16. Some equipment including the classes of Concrete Truck, Loader, Skid Steer, and Backhoe should be evaluated by February 1, 2022, as they appear to be low use. Eliminate low-use equipment unless warranted by some specific need.

A performance-based budget can estimate resource needs, including equipment needs by activity and/or group (APWA, 2008). Resource needs are based upon a series of developed activity guidelines, inventory values, and service levels. By first enhancing the plan and being more effective and efficient with work, the City can optimize the equipment needed. In addition, having the correct number of equipment units owned will save the City in unneeded equipment expenses by providing potential one-time salvage costs of those unnecessary vehicles.

Unit costs were calculated using equipment-related data for each piece of rolling stock, while some data is questionable, some critical equipment classes appeared to have low usage values. These classes included Concrete Truck, Loader, Skid Steer, and Backhoe.

The City should confirm and evaluate the annual hourly usage for these equipment classes by beginning to track all time when these vehicles are on the worksite in WAMS. This data could then be used to determine actual utilization as currently, there is minimal information being tracked in WAMS. These equipment classes appear to be essential to fulfill the Department's mission. The target date for this evaluation should be February 1, 2022. For those individual units found to be still in a low-use state, the Department should either eliminate the unit or justify its continued usage and report to the Director the rationale for retention.

4.3.17. Perform and establish an equipment utilization analysis of all rolling stock by October 1, 2022. Document process to evaluate needed units that are under-utilized

based on industry standards. Eliminate low-use equipment unless warranted by some specific need.

As with the previous recommendation, a performance-based budget can estimate resource needs, including equipment needs by activity and/or group (APWA, 2008). Optimizing the number of equipment units needed to the equipment owned will save the City in unneeded equipment expenses with potential one-time salvage costs of vehicles that are not needed.

Initially, the City should initiate an annual equipment utilization analysis of all rolling stock equipment. The initial network-wide analysis should be completed by October 1, 2022. Next, the City should confirm and evaluate the annual hourly usage for all equipment classes. This analysis should also occur every year. Finally, the Department should either eliminate the unit or justify its continued ownership for those individual units in a low-use state and report to the Director the rationale for low use vehicle retention. This will require full reporting of equipment on the job site every day in the WAMS system so that data is available to make these decisions on the hours that the vehicles were used.

4.4. Directing/Scheduling

4.4.1. Define, standardize, and document priority procedures for all service requests based on need, safety, and risk to the public in the WAMS/WACS. Attempt to identify all non-emergency and safety work to be done at least two weeks in advance.

Service requests and work orders are managed and processed differently within the Department, including assignment, monitoring, closure, and recording. Some groups use technology, such as laptops and tablets, while others use manual forms. The priority assignment for service requests and work orders are not defined and consequently handled differently by each group and dependent on the discretion of the group's leader.

The Department should standardize priorities based on specific needs, safety-related issues, and any risk to the public and infrastructure. Call takers should be trained and the Department to manage service requests consistently in a standardized and documented workflow manner. Assign items that do not pose immediate safety, liability, or public risk to a priority category to future efforts. Then integrate them with scheduling and group work by geographical area to allow for more efficient assignment.

4.4.2. Monitor, assign and reduce the number of service requests in the status of Pending Approval, found in the WAMS database. Clearly define, use, and communicate the service requests statuses of the WAMS/WACS database.

Using City's WAMS database, an analysis of the status of service requests for the SPTO Department discovered that over 25% of the service requests were in a 'Pending Approval' status. Although this analysis was performed point-in-time, this value appears to be high. This means that over a quarter of the service requests in the WAMS are pending approval to create an associated work order. There are also seven (7) other statuses, including Finished, Work Order, Canceled, Active, Created, Closed, and Approved.

While the current work management database is the WAMS, the Department should monitor, assign, and reduce the number of service requests in Pending Approval status. In the WAMS and

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future WACS, the statuses should be clearly defined, prioritized, and communicated, reducing the transitional status categories. In addition, all work that cannot be done should be backlogged and the estimated workload generated used to determine any needed resource requirements.

4.4.3. Develop documented routine programs linked to GIS assets by key activities that are used for cyclical work and routines in support of stormwater operations, pavement, and traffic operations.

Many activities with related assets can be predetermined, grouped, and scheduled. Managers and Supervisors should focus on these activities and others by structuring as many activities as possible into defined routines. These routines should be documented with established levels of effort and linked to GIS assets and the current WAMS database and through the future configuration of the WACS. The Department should develop a documented routine program for cyclical work supporting all maintenance efforts and SPTO infrastructure.

These routines should be used within the current WAMS and future WACS as a basis for the annual performance-based work plan, distribution of resources, and the generation of proactive work orders from the system. The development and subsequent use of routines will aid managers and supervisors to better plan, organize, and schedule their resources. By grouping and scheduling work, travel time and setup can also be minimized.

4.4.4. Fully develop a two-week schedule procedure for all staff and equipment, relating schedules to annual work plans and routine processes. Charge and hold accountable the Department's Forepersons and Supervisors with the responsibility of communicating short-term work schedules and plans to field staff.

A systematic two-week scheduling process should be developed with all employees trained to utilize and enhance the current daily work assignment process. This scheduling process needs to include all work by activity to be accomplished in a specific time based on a developed annual work plan and outstanding service requests. Systematic involvement of managers, supervisors, and forepersons should occur to coordinate equipment, labor and material needs, methodology, and any special circumstances. A two-week scheduling meeting should involve managers, supervisors, and forepersons to discuss the adherence to and future efforts of these schedules. Various points related to this process should include –

- Allowance for maximum use and sharing of limited resources
- Minimize work insertions and “fire-fighting.”
- Communicate among all employees about the work plan and available resources
- Provide for employee involvement and feedback in planning work
- Reduce resource conflicts

Forepersons should focus on adherence to the two-week schedule with field support by informed field employees. This will assist in the completion of the annual plan and established performance measures. Such a two-week scheduling process is now being done in similar Florida stormwater, street, and traffic agencies such as Hillsborough, Charlotte, and Volusia Counties.

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The systematic two-week schedule should be prepared and released for all maintenance employees to know the planned work. Further, forepersons and supervisors should be required to discuss their new schedules and compare them with the prior two-week plan to determine the adherence to the preceding schedule.

Supervisors should be held accountable for their scheduled completion. Before establishing an effective scheduling system, tools such as a PM program, routines, performance plans, cross-training, and an adequately configured WAM system must be operational.

Supervisors and forepersons should lead their respective sections with support provided by field lead workers. Schedules should be derived primarily from the annual work plan and work calendar, which is broken down into manageable 'projects' on a two-week basis. Forepersons should use the two-week schedules for guiding daily assignments with adjustments made for defined emergencies or urgent requests only.

4.5. Controlling/Improving

4.5.1. Standardize and document the flow of work over all the groups. Use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases.

Although some work is scheduled proactively and some routines exist, work is primarily prioritized, scheduled, and assigned manually. These practices are based upon available staffing and equipment as well as the judgment of the group's respective supervisor or foreperson. These processes lack automated linkages to the WAMS.

The Department should standardize and document the flow of work over all the groups. Through the configuration of the future WACs, the Department should use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases. The workflow should be based on systematic planning, organizing, scheduling, and controlling/monitoring work. This process should be documented and followed by every organization member to provide consistency and reduce unnecessary redundancies. The workflow should identify the responsible staff for each of its elements. The workflow should be evaluated annually as part of the planning process, reflecting any changes identified by leadership in making service delivery increasingly more effective and efficient methods.

4.5.2. Standardize work reporting, with resources used (labor, equipment, and materials), accomplishments and locations documented. Track and link all time to activities, including travel and preparatory effort. Account for one hundred percent (100%) of employee time in the WAMS/WACS.

Although some work data is collected, basic information such as the completed cost of work and productivity cannot be captured. In addition, complete costing with overhead, equipment, and materials is also lacking. For example, some groups do not record support work preparation in the yard or travel time, just the time spent at the individual work locations. This lack of complete costing makes an analytical comparison to alternative service providers very difficult.

The Department should establish a mechanism for 100% tracking of time to activities, assets, and locations. Currently, less than 1/3 of time is accounted for in the WAM system. This complete tracking will provide input on evaluating how work is being completed and give data to assist and improve ways to manage work.

The data on accomplishment (i.e., linear feet of curb repaired, cubic yards of asphalt for potholes, and the number of signs replaced) would be included in work reporting. All work activities would then be stored in the current WAMS database and future WACS in the appropriate field. In addition, locations such as zone or areas should be systematically reported and stored by activity. This will assist with future reporting and compilation of data. Reports will be able to be run by one location, one activity, or an entire section to determine where work efforts are concentrated. The standardized complete tracking and accounting of time, resources, and accomplishment by asset and location are paramount for establishing accountability and productivity.

4.5.3. Supervisors should utilize the WAMS/WACS for work tracking and planning. Establish a monthly meeting to review data from the WAMS/WACS with management responsible for creating accountability.

The WAM system is used by all groups at varying degrees to collect and store limited portions of work data. Less than 23% of working hours are recorded in the WAMS. Additionally, little utilization is made of the data collected to adjust or enhance operations. Some outputs are generated on work order numbers yet are not widely utilized. Various groups create ad-hoc reports for their specific uses. The data is being collected but lacks any focused utilization to improve the organization. Outputs and reports are mainly created on a request basis, or by administrative staff. Any accountability in the system uses and data compiled are minimal or nonexistent.

The Divisions of Stormwater, Pavement, and Traffic should establish a report or outputs that can be reviewed for accountability. The output should be a report for each Division of the labor hours by activity, work accomplishment in units, productivity, and cost of actual effort versus a desired plan (Michel, 2004). These reports should be created with data from the current WAMS and in the future, the WACS. The outputs should be reviewed by management, and the necessary actions taken to quality control data to use for improving operations. These outputs, after being reviewed by each group's respective Manager, should be released to both the SPTO Director and the Public Work Administrator. The utilization of outputs that display work, response, cost, and resources fully utilizes these large computerized work and assets systems (WAMS and WACS). Some output data were extracted from the WAMS system on work order status and reviewed by senior management but was discontinued in 2020. Hence, analytics must be used from the system to leverage these databases to make the best business decisions for the City's extensive stormwater, pavement, and traffic assets.

4.5.4. Cross-train Forepersons and Supervisors to produce and interpret management system outputs for decision making, as well as promote accountability.

As field staff including Lead Works, Forepersons, and Supervisors prepare for the next advancement in their careers, they should be mentored and cost-trained on producing and interpreting management system outputs from the current WAMS and future WACS databases. Further, these levels of staff should be involved and collaborate in the configuration of the WACS system, as they are the future mid-level and senior-level Department leaders. Through the interpretation of such outputs, they should learn to link current field decisions with the successful accomplishment of short-term operational goals and annual performance-based work plans. The successful implementation of this recommendation will foster buy-in and accountability throughout the organization.

4.5.5. Develop standard outputs that can be used by management to direct and manage work, schedules, and data quality. Each Operational Division should produce a monthly report prepared in a similar format. Each Division should also establish a monthly meeting with the Department Director to review the WAMS/WACS data, for establishing accountability with all teams.

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Minimal tools and data parameters are in place for employees to measure performance and maintenance costs or evaluate field performance, which would allow them to take proactive management actions based on identified inefficiencies. The tools and processes that are now used are manual-tracking processes that research after-the-fact accounting for past occurrences. Thus, performance planning, internal benchmarks, and associated accountability are missing. Further, the Department also lacks specific key performance measures to monitor and routinely report on effective and efficient operations.

Management can use standard outputs to assist the managers and leaders in monitoring performance as well as directing and managing work, schedules, and data quality. These outputs should be created using data from the current WAMS and configured through the development and implementation of the new WACS. This should be designed to allow easy access by managers and leaders to information concerning the efficiency and effectiveness of their operation and contribute to successfully achieving established short-term and annual performance goals.

The Department should use the current WAMS and future WACS to determine the unit cost, productivity, total cost, and work accomplished for all activities. This data is critical to aid supervisors and managers to plan, organize, schedule, control, and adjust operations for improvement.

Each organizational group should compile, and report work accomplishments in defined units, productivity in units per hour, and unit costs. These production and cost units should be compared against benchmarks and the annual plan monthly and report the action taken to ensure compliance or corrective measures taken, for accountability.

4.5.6. Provide training to Managers and Supervisors in using WAMS/WACS data for developing operational alternatives and making management decisions to improve the efficiency and effectiveness of resource utilization. Utilize data from the WAMS/WACS to compare both effective and efficiency benchmark parameters to other agencies and industry standards.

Currently, basic management data such as unit costs by activity, total project costs, productivity, and work accomplishment measurements are difficult to compile, with most cost factors not fully being considered or available in the WAMS. Most documented reporting on performance measures takes considerable effort to produce and is created external to the WAMS. The ability to track accurate total project costs and activity unit costs is complicated through the use of multiple systems and processes with many cost factors such as equipment, overhead, and materials not being fully considered. The result of this effort minimizes the effectiveness of managers and supervisors to make decisions, as well as the reduction of communication and direction to frontline supervisors that could also use data for making decisions.

The managers and supervisors should be fully trained in using the current WAMS and future WACS data to fully utilize data-driven analytics for meaningful operational decision-making and developing functional alternatives. Further, all cost factors must be in the WAMS and WACS systems and updated annually. This data and metrics can then be utilized to improve operational efficiencies and the effectiveness of their operation in resource utilization.

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Additionally, and as discussed in recommendation 4.5.5, each group should compile a report in a similar format, which includes work accomplishment in defined units, productivity in units per hour, and unit cost. This data should be compared annually against established internal and external benchmarks. Further, the Department should benchmark against other similar agencies, comparing similar activity productivity. If the SPTO Department's metrics are below benchmarks, actions should be taken to evaluate for improvement opportunities as well as to ensure compliance to the city's annual performance-based work plans.

4.5.7. Establish a continuous improvement process with quarterly updates given to employees using WAMS/WACS data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administrator, Mayor, and City Council. Compare planned activities, workdays, accomplishments, cost, and unit cost versus actual effort, with non-compliance identified and solutions for correcting.

The Department has many good work processes, yet they are not linked and integrated as discussed in prior recommendations. System feedback is not used to update any planning or scheduling data from one year to the next. Limited short-term scheduling is done, yet it is independent of other processes. Historically minimal work is tracked, with a lack of linkage to a performance work plan and budget. A performance-based work plan and associated budget are absent. Many tools and manual processes are in place, but they lack system integration and understanding by employees.

A systematic method for evaluating the effectiveness and efficiency of the operation is not currently available. The Department's mechanism for tracking, planning, and scheduling is recorded in various databases and spreadsheets, which does not allow for the evaluation of cost-effectiveness and/or the measurement of efficiency.

The current WAMS system and future WACS should be fully utilized as a planning tool to establish a baseline consisting of frequency of service, the desired quality and quantity of work, and unit cost for all activities that can be obtained on a routine basis by any specific time frame and/or location. By developing these capabilities, training the managers, supervisors, and forepersons, then re-engineering processes, methods could be established to have an integrated business-like operation.

Each group should have tools to review all alternatives for cost-effectiveness and quality service and select the best options (internal, contract, or combination) to meet these criteria. These tools, if implemented, could provide a process and mechanism to maximize the best use of the public's dollars and increase stewardship of Department assets.

A complete continuous improvement process as outlined in APWA's s Public Works Administrative Manual (American Public Works Association, 2008) and NACE (National Association of County Engineers, 1992) should be implemented with facilitation, and these independent systems linked and optimized. Training should be performed to guide the Department's managers, supervisors, and forepersons on fully utilizing system concepts to plan, organize, schedule, and improve their work. This system would then provide both data and feedback methods to all levels to work toward continuous improvement. The Department has some of the processes, but they are not tied together with employees lacking the background on

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implementing this concept. A quarterly meeting should occur where summary information on costs, productivity, and accomplishment is presented to all employees. Actions planned because of this information should be documented and used as targets for improvement. Various activities' performance in cost and productivity should be available and posted for all employees to observe results.

The information should be compiled into a short report to further communication and accountability on an annual basis. It should be provided to the Public Works Administrator, outlining the results of work effort and compliance to the annual performance work plan. Information on response to customers, performance measures, unit cost, accomplishment, and productivity. Proposed actions to ensure compliance and acknowledgment of success should also be provided. Once information is confirmed and reviewed, the "State of the Maintenance and Operations" should be presented to the City's executive leadership and elected officials.

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SECTION 5- APPENDIX

Section 5.1 includes the list of specific questions presented by leadership, along with LAC’s response with related recommendations. Section 5.2 lists the final report’s recommendations prioritized in categories with a value of dependence identified. Section 5.3 provides an organizational chart of the Stormwater, Pavement, and Traffic Operations Department at the time of this evaluation.

5.1. Summary of Recommendations as Related to Questions from Leadership

The following section includes the list of specific questions identified by leadership in the RFP’s scope of work, along with LAC’s response with the related recommendations indicated. These are grouped into ten categories that are shown below. In answering the City leadership’s question four codes are used. These included “Yes” meaning compliance, “Yes but enhance” indicating acceptable but can improve, “Partial “meaning not fully compliant, and “No” indicating lack of meeting the scope question. Related recommendations are indicated for each question. some questions were marked “inconclusive” as the data was not available, observed, or provided to adequately respond to the question.

Mission and Goals

Mission and Goals	Answers/Findings	Related Recommendations
Has the department adopted a departmental mission (or vision) statement?	No	4.1.1 and 4.1.2
Is the department’s mission compatible with the mission of the City?	Yes	4.1.1 and 4.1.2
Has management set operational goals for the department?	Partial	4.1.1, 4.1.6, 4.2.13, and 4.2.14
Is the department’s mission (or vision) stated clearly, concisely and in easily understandable terms and are employees aware of its mission?	No	4.1.1, 4.1.2, 4.2.13, and 4.5.7
Are these goals congruent with each other?	No	4.1.1, 4.1.6, 4.2.13, and 4.2.14
Do these goals directly support the mission?	Inconclusive	4.1.1, 4.1.6, 4.2.13, and 4.2.14
Are these goals stated in measurable terms (benchmarks)?	No	4.1.1, 4.1.6, 4.2.12, 4.2.13, 4.5.6, and 4.5.7
Is there methodology used to help employees understand how their daily work contributes to the goals of their units and the overall mission of the department and the City?	No	4.1.1, 4.1.8, 4.2.11, 4.2.12, 4.2.13, 4.2.14, 4.4.4, 4.5.4, 4.5.6, and 4.5.7

Organization Structure

Organization Structure	Answers/Findings	Related Recommendations
Is the organizational structure currently in place adequate to accomplish the department’s mission and/or goals?	Partial	4.3.4 and 4.3.5
Is the staff organized in such a way that missions and accountability are clearly defined without duplication and overlap of responsibility?	Partial	4.3.5, 4.3.9, 4.3.10, 4.3.11, and 4.3.12
Is the department organized to optimize integration, cooperation, and communication within the department as well as with other departments, other outside agencies, the Mayor and Council, and the citizens?	No	4.1.2, 4.2.1 and 4.2.2
Does the organizational structure for the department have the appropriate span of control and does it follow best practices?	No	4.3.5 and 4.3.12
How does the organizational structure compare to other governmental units of similar size?	Similar	4.3.5 and 4.3.12

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Staffing Levels

Staffing Levels	Answers/Findings	Related Recommendations
Is the staffing level adequate to maintain the service levels expected by our citizens and anticipated in the approved budget document?	Partial	4.2.5, 4.2.7, 4.2.12, 4.3.4, and 4.3.9
Are staffing levels adequate within each classification (i.e. drivers, servicemen, maintenance workers, inspectors, technicians, professional, specialists, supervisory, management, etc.)?	Partial	4.2.5, 4.2.7, and 4.2.12
Is the current staff turnover levels appropriate for the department and how do these compare with other governmental units of similar size?	No	4.2.5, 4.2.7, and 4.2.12

Staff Qualifications

Staff Qualifications	Answers/Findings	Related Recommendations
Are the staff members, including management, supervisory, office staff and operations staff qualified to carry out their duties as well as the City's policies and procedures?	Partial	4.1.1, 4.3.1, 4.3.3, 4.4.4, and 4.5.6
Do managers, supervisors and operations staff have the necessary education, licenses, and professional certifications to perform their duties?	Yes	4.1.1, 4.3.1, 4.3.3, 4.4.4, and 4.5.6
Do managers, supervisors and operations staff have the necessary experience and knowledge to perform their duties?	Partial	4.1.1, 4.3.1, 4.3.3, 4.4.4, 4.5.4, and 4.5.6
Is the overall experience level of staff adequate?	Yes	4.1.1
Are there adequate growth opportunities in place for all staff including promotions and management opportunities and are these available to all staff on an equal basis?	Inconclusive	4.3.3, 4.5.4, and 4.5.6
Is there training of staff (both short-term and long-term) adequate for the required duties and is the opportunities for training available to all staff on an equal basis?	Inconclusive	4.3.3 and 4.3.13

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Management of Staff

Management of Staff	Answers/Findings	Related Recommendations
Do managers and supervisors demonstrate strong leadership?	Partial	4.4.4, 4.5.4, and 4.5.5
Do they possess the soft skills required to be effective leaders?	Inconclusive	4.3.1, 4.3.2 and 4.3.6
Do they have credibility and the confidence of subordinates?	No	4.1.1, 4.1.2, 4.1.5, 4.3.1, 4.3.6, 3.3.7, and 4.5.7
Do they have credibility and the confidence of their peers and City leadership?	Partial	4.1.2, 4.1.6, 4.2.2, 4.2.12, 4.3.1, 4.3.2, 4.3.6, and 4.5.7
Do managers and supervisors clearly communicate the City's and department's goals and objectives?	No	4.1.2, 4.1.6, 4.2.13, 4.2.14, 4.5.7, and 4.4.1
Are these goals and objectives incorporated into daily tasks and action plans?	No	4.2.14, 4.2.12, 4.4.1, 4.4.4, and 4.5.2
Do managers and supervisors hold their subordinates accountable for meeting established goals, objectives, and expectations?	No	4.2.14, 4.2.12, 4.3.6, 4.3.12, 4.4.4, and 4.5.7
Do managers and supervisors hold themselves accountable for meeting the needs of their staff?	No	4.1.6 and 4.5.6
Do managers and supervisors lead by example?	Partial	4.3.7, 4.3.1, and 4.5.7
Do managers and supervisors empower their staff to make decisions, be creative, make mistakes, learn from those mistakes and take reasonable risks in order to improve efficiencies and service to our customers?	Partial	4.2.13, 4.2.9, and 4.5.7
Do managers and supervisors encourage staff to work as a team where every member is valued and invited to fully participate?	Partial	4.2.13, 4.2.9, 4.3.6, 4.3.7, and 4.4.4
Do managers and supervisors encourage change management throughout the department?	Partial	4.1.6, 4.5.3, 4.5.6, and 4.5.7
Do they provide consistent coaching, counseling, and feedback to subordinates?	Partial	4.3.12, 4.5.7, and 4.4.1
Do they provide fair and equal access to training and growth opportunities?	No	4.3.3 and 4.3.13
Is staff operating in accordance with existing rules, regulations, and policies?	Yes	4.1.5 and 4.5.7
Are work schedules (including the scheduling of routes) established to accomplish the goals and objectives of the department in the most efficient and effective manner?	No	4.3.9, 4.3.10, 4.3.11, and 4.4.4
Are staff responsibilities determined in such a way as to reduce duplication of effort, both within the department and with other City departments?	Inconclusive	4.3.9, 4.4.4, and 4.5.7
Is the distribution of assignments the most equitable and efficient?	No	4.2.13, 4.3.11, 4.4.4 and 4.5.7
Does the department have a succession plan in place for management, supervisory, and operational staff and does this plan include empowerment and/or training of current staff of these future roles?	No	4.1.10 and 4.5.4
Is there a plan to develop staff expertise to allow for reduction of consultant needs within the department?	No	4.1.10 and 4.2.13

Policies and Procedures

Policies and Procedures	Answers/Findings	Related Recommendations
Are the City's (including departmental) policies and procedures as applied by the department adequate to provide for efficient and effective operations of the department?	No	4.2.1, 4.2.5, 4.2.8, 4.2.9, 4.2.13, 4.2.16, 4.3.14, 4.3.11, and 4.4.4
Are industry best practices being utilized by the department?	Partial	4.2.1, 4.2.5, 4.2.9, 4.2.10, 4.2.11, 4.3.8, 4.3.11, and 4.5.7
Are departmental projects, including the use of consultants, being managed appropriately and efficiently?	Yes	4.2.7 and 4.3.14
Is the department's use of consultants including the number of consultants, consultant projects and management of consultant projects consistent with industry best practices and how do these compare with other governmental units of similar size?	Inconclusive	4.1.3
Does the department utilize a team project approach in addressing issues with consultants, contractors and staff to determine the best solutions and if not should this type of process be implemented?	No/Yes (Two questions)	4.1.3 and 4.2.4
Is this team approach concept industry best practice?	Yes	4.1.3 and 4.2.4
Is the department's operating and/or CIP budget adequate for it to accomplish its mission?	Inconclusive	4.1.3

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Customer Service

Customer Service	Answers/Findings	Related Recommendations
Has the management team established and communicated clearly the customer care standards that are expected from the employees?	Partial	4.3.7 and 4.4.4
Does the department train employees in customer care and standards expected of them as part of their onboarding?	Yes	4.4.1
Are there refresher sessions periodically for all employees who have an impact on customer care?	Inconclusive	4.2.13 and 4.4.1
Is the department doing all it can to provide good standards of employee care?	Inconclusive	4.3.2, 4.3.6 and 4.3.7
Are all employees given the opportunity to put forward practical suggestions about how they feel customer care could be improved?	No	4.2.10, 4.2.11, and 4.3.2
Do employees currently appreciate the importance of 'internal customer care'?	Yes	4.1.10, 4.2.15, 4.3.2, 4.3.7, and 4.4.2
Is customer satisfaction levels measured on a regular basis with feedback from typical customers?	No	4.2.10, 4.2.13, and 4.4.2
Is action taken where possible on customer suggestions/common complaints?	Inconclusive	4.2.13 and 4.4.2
Are employees kept informed about customer satisfaction and action being taken to improve it?	No	4.5.7
Are employees who provide 'that little bit extra' for excellent customer care rewarded?	Inconclusive	4.2.10 and 4.4.1
Are employees given feedback on their performance and coached how to improve?	Inconclusive	4.2.10 and 4.5.7
Do managers have regular opportunities to experience customer-facing roles?	Yes	4.4.1
Is there an effort to continuously seek ideas how to improve customer care?	Inconclusive	4.2.10 and 4.4.1
Are employees recruited partly on the basis of their attitude towards customers or skills in customer care?	Inconclusive	4.2.10 and 4.4.1
Are successes with customers celebrated and communicated to all employees?	No	4.2.10 and 4.5.7
Are our system/ideas built around what is most likely to satisfy the customer, (or what is easiest for us?)	No	4.2.10, 4.2.11, 4.2.15, 4.3.10, and 4.4.2

Safety of Staff

Safety of Staff	Answers/Findings	Related Recommendations
Are there adequate safeguards for staff on the job in all areas of the department?	Yes	4.3.13
Is there an established on the job safety training program, and is this program effective?	Partial	4.3.13
Are there incentives in place to provide for greater safety of employees?	No	4.3.13
Is the current safety program appropriate for the department and how does it compare to industry best practices and with other government units of similar size?	Yes	4.3.13

Equipment and Technology

Equipment and Technology	Answers/Findings	Related Recommendations
Does the department effectively and proactively utilize technology to improve services and control costs?	No	4.1.7, 4.1.8, 4.1.9, 4.4.3, and 4.5.1
Does the department effectively maintain and utilize their equipment and plant facilities?	Yes	4.2.2, 4.3.15, 4.3.16, and 4.3.17
Does the department have adequate technology and experience to assess the condition of the drainage, sidewalks, roadways, and traffic signal system?	Yes	4.1.9, 4.2.3, and 4.4.2
Is the current technology utilized appropriate for the department and how does this technology compare with that used by other government units of similar size?	Similar	4.1.7, 4.1.8, and 4.5.1

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5.2. Priority of Recommendations

The proposed fifty-four (54) recommendations are a combination of independent and interdependent actions. LAC has organized each recommendation into several categories including employee impacts, systems, business process, organizational improvements, and further studies. The priorities are only within each category and not overall.

The City’s priorities are influenced by many factors including managerial and leadership desires, overarching City goals, desired levels of service and pressing issues, as well as available resources and employee capabilities. LAC has assumed priorities based on our limited City background and those we believe present the best opportunity for improvement. These priorities should be used along with the above-mentioned factors to determine which actions should be pursued first.

On the following pages, each recommendation is prioritized within four categories, including a value indicating independence. Independent recommendations (Y) could be pursued without significant need for another recommendation to be implemented or impact others. Interdependent recommendations (N) are directly related to one or more other recommendations and benefits may not occur without concurrently implementing those related recommendations.

Business Process

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.1.2	Re-create mission statement to include elements focused on efficiencies and effectiveness as primary goals. Obtain buy-in from all levels of the organization.	Business Process	1	N
4.1.1	Establish employee teams to review various improvement opportunities. Utilize the teams on an annual basis to assist in the review of work guidelines and methods, levels of effort, quality controls, as well as annual performance planning.	Business Process	2	N
4.2.13	Use facilitated employee teams to develop specific goals and objectives for each sub-group, which include quantifiable performance measures and links to the Department’s guiding principles.	Business Process	3	N
4.5.1	Standardize and document the flow of work over all the groups. Use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases.	Business Process	4	N
4.2.9	Use facilitated employee teams annually to establish and update standardized activity lists, definitions, and work units for benchmarking of all maintenance and repair activities.	Business Process	5	N
4.5.6	Provide training to Managers and Supervisors in using WAMS/WACS data for developing operational alternatives and making management decisions to improve the efficiency and effectiveness of resource utilization. Utilize data from the WAMS/WACS to compare both effective and efficiency benchmark parameters to other agencies and industry standards.	Business Process	6	N
4.2.11	Define performance guidelines and related measures to the annual plan utilizing facilitated employee teams and store results within the WAMS/WACS. Include the planning criteria of average daily production (ADP) and the related asset inventory values.	Business Process	7	N
4.3.13	Utilize the Department’s Safety Officer to systematically monitor and report the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director. Charge the Safety Officer with tracking and monitoring of all safety-related training, providing data to be reported monthly and in the Department’s annual “State of Maintenance and Operations Report.”	Business Process	8	Y

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Business Process (Cont.)

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.2.3	Establish a process along with responsibilities for consistent and accurate asset inventory updates to compile and summarize data for functional application. Identify a process and departmental point of contact that verifies the values provided to produce the City's Annual Comprehensive Financial Reports (ACFR) and any other published documents, to promote consistency and accuracy.	Business Process	9	N
4.3.8	Develop and implement a sign reflectivity inspection program and replacement process to meet FHWA design to maintain traffic sign retro-reflectivity at or above the established minimum levels. Systematically report inspection program progress and results to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."	Business Process	10	Y
4.2.10	Establish levels of effort by activity for each asset type based on condition along with established minimum levels of service based on available resources and cost.	Business Process	11	N
4.2.5	Establish a level of service for alley maintenance efforts to meet the needs of internal and external stakeholders using available resources. Stakeholder input from the Sanitation Department and alley adjacent homeowners should be considered.	Business Process	12	N
4.3.15	Establish equipment rates for each equipment class that includes all costs – repair, maintenance, fuel, & lubrication, and replacement. All 'Out of yard' hours for each piece of equipment should be tracked in the WAMS/WACS.	Business Process	13	N
4.2.16	Determine and use avoidable overhead in the WAMS/WACS for work costing and outsourcing consideration. A full overhead rate should be used for external billing and reimbursement. Further, develop an annual process to update the rates and educate management and leadership of their application.	Business Process	14	N
4.3.16	Some equipment including the classes of Concrete Truck, Loader, Skid Steer, and Backhoe should be evaluated by February 1, 2022, as they appear to be low use. Eliminate low-use equipment unless warranted by some specific need.	Business Process	15	N
4.2.12	Establish the capability of developing a performance budget based on the level of service, asset inventory, productivity, and work methods with a quality standard for each activity. Use the established performance plan as a tool to develop a budget based on actual needs. Provide annual performance plans to the Public Works Administrator and City Leadership.	Business Process	16	N
4.4.2	Monitor, assign and reduce the number of service requests in the status of Pending Approval, found in the WAMS database. Clearly define, use, and communicate the service requests statuses of the WAMS/WACS database.	Business Process	17	N
4.2.14	Link work recorded in the WAMS/WACS to the Department's Budget Performance Metrics. Report the status and progress in achieving production goals monthly to the Public Works Administrator. Act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.	Business Process	18	N
4.4.4	Fully develop a two-week schedule procedure for all staff and equipment, relating schedules to annual work plans and routine processes. Charge and hold accountable the Department's Forepersons and Supervisors with the responsibility of communicating short-term work schedules and plans to field staff.	Business Process	19	N
4.3.14	Track and monitor all traffic signal maintenance costs and productivity. Calculate and report the unit cost of each preventive maintenance routine performed and compare against an established benchmark. Determine if the total FDOT reimbursement covers the Department's resource costs to perform maintenance.	Business Process	20	N
4.3.11	The Traffic Signals group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated. The Department Director should review and approve all schedules and shifts.	Business Process	21	Y

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Business Process (Cont.)

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.3.12	Track, compile and establish benchmarks for Worker's Compensation, FMLA, and leave without pay by sub-group. Review during monthly meetings and report annually to employees, the SPTO Director, and the Public Works Administrator. Calculate and report leave hours in full-time equivalents (FTE).	Business Process	22	N
4.3.7	Establish a systematic methodology for connecting with employees to obtain unfiltered input and real feedback through quarterly meetings.	Business Process	23	Y
4.1.6	Report the progress and accomplishments of the Department's goals and objectives in the annual "State of Maintenance and Operations Report" provided to the Public Works Administrator, Mayor, and City Council.	Business Process	24	N
4.5.7	Establish a continuous improvement process with quarterly updates given to employees using WAMS/WACS data. Provide an annual "State of Maintenance and Operations Report" to the Public Works Administrator, Mayor, and City Council. Compare planned activities, workdays, accomplishments, cost, and unit cost versus actual effort, with non-compliance identified and solutions for correcting.	Business Process	25	N
4.1.5	Formally review and update the Department Manual annually, using input from all levels of the organization and any other needed City external resources.	Business Process	26	N
4.2.8	Perform National Bridge Inventory (NBI) level structural inspections on the same frequency to all non-NBI structures in the City's bridge inventory.	Business Process	27	Y
4.3.17	Perform and establish an equipment utilization analysis of all rolling stock by October 1, 2022. Document process to evaluate needed units that are under-utilized based on industry standards. Eliminate low-use equipment unless warranted by some specific need.	Business Process	28	N

Further Study

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.2.6	Fully evaluate the complete cost of providing ROW maintenance. Determine the total and unit cost, use all labor with an applied avoidable overhead, equipment, and material costs and apply to all properties (City, FDOT, Private, and County) maintained.	Further Study	1	Y
4.2.7	Compare the cost of service to the revenue received from performing ROW maintenance for others. If the cost substantially exceeds the revenue, a determination should be made in obtaining additional revenue and or reducing service. Provide results to executive leadership to ensure that these contracts are acceptable.	Further Study	2	Y
4.3.2	Conduct annual independent review (City Auditor or Human Resources) and or survey of interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization. With the results, the Director should compile an action plan to address any concerns and submit it to the Public Works Administrator.	Further Study	3	Y
4.1.3	The stormwater aspects of the Integrated Water Resources Master Plan (IWRMP) should be clearly identified in the short term, with the potential benefits. City staff should relate the plan to improvements with the availability of existing fundings CIP resources.	Further Study	4	Y
4.3.10	Work shifts should be established based on specific work needs. The number of shifts should be standardized. An external evaluation on the benefits to the City should be conducted with employee team involvement, documenting the negative and positive benefits. The Department Director should review and approve all schedules and shifts.	Further Study	5	Y
4.2.15	Determine the need for providing non-traffic sign fabrication services and ensure all costs for that service are recovered, including labor and overhead, equipment, materials, and storage. Consider discontinuing this non-traffic and departmental support unless full cost recovery occurs.	Further Study	6	Y
4.1.4	Formally review and report the progress and accomplishments of fulfilling the recommendations of the audit projects to the City Auditor quarterly. Set a goal of completion for all goals by October 1, 2022.	Further Study	7	Y
4.2.4	Confirm the validity of 1,033 street segment conditions of all PCI values below forty, reporting to the Public Works Administrator on the results.	Further Study	8	Y

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Organization Improvement

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.3.3	All supervisors and managers should be trained on management skills to be updated annually, as well as on the methodology and capabilities of WAMS/WACS and GIS. This should be a requirement of promotion and part of an employee's annual review.	Organization Improvements	1	N
4.3.6	Establish a formal proactive process of field visits by the Department Director and Managers. This is to observe work efforts, promote communication, as well as provide senior staff availability to all levels of the organization. Establish and formalize the goal of visiting each sub-group at least once a year.	Organization Improvements	2	Y
4.3.5	Managers and Forepersons should have three (3) or more direct reports or provide a documented justification for a lower span of control ratio, approved by the SPTO Director.	Organization Improvements	3	Y
4.3.1	Establish a goal of each Manager being credentialed as a Certified Public Works Professional-Manager (CPWP-M) and each Supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S) through the American Public Works Association (APWA). Establish these goals to be completed by October 1, 2022.	Organization Improvements	4	Y
4.2.1	The Department should share appropriate resources across all Divisions including labor, equipment, and supervision.	Organization Improvements	5	Y
4.2.2	The Department should implement an approach that allows for all resources to report out of one location.	Organization Improvements	6	Y
4.3.4	Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented, and all traffic staff time is being recorded by activity.	Organization Improvements	7	N
4.3.9	Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented and all signs and marking staff time are being recorded by activity.	Organization Improvements	8	N

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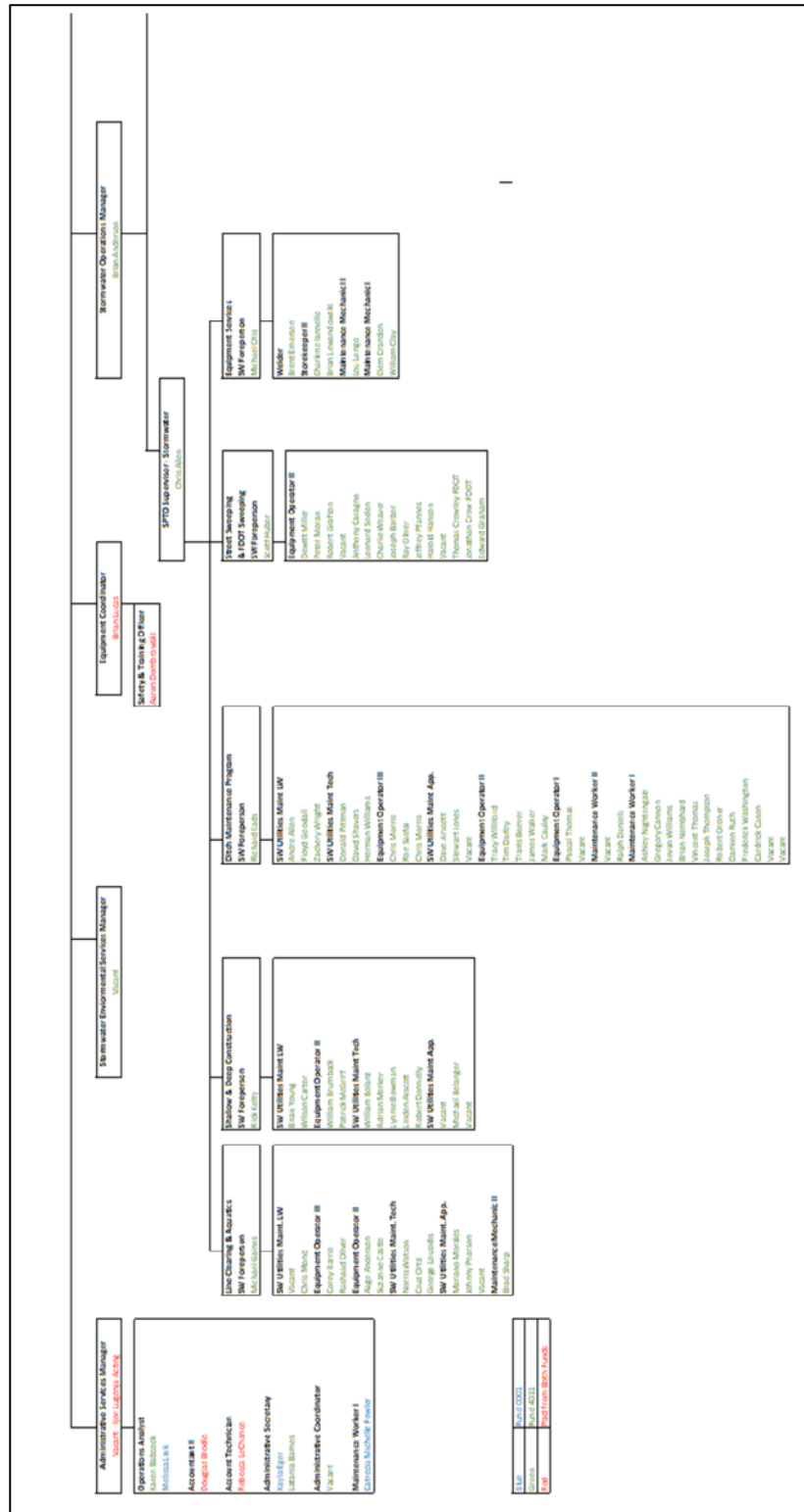
Systems

Recommendation No.	Recommendation	Category	Priority Number	Independent
4.1.10	Identify or obtain a WAMS/WACS and GIS power user to provide operational and technical support. This user must have an intimate knowledge of the department's mission and operational functions.	Systems	1	N
4.1.7	Fully configure the WAMS/WACS databases to the needs of the SPTO Department, including the subgroups of their divisions. Include direct input for the sub-groups of stormwater, pavement, and traffic.	Systems	2	N
4.1.8	Fully implement the WAMS/WACS and related system management tools, allowing all levels access to the system. Use WAMS/WACS data for work management, which includes the ability to plan, organize, schedule, monitor, and improve operations.	Systems	3	N
4.1.9	Fully utilize the capabilities of the City's GIS database and information as a tool for dynamically planning and organizing work.	Systems	4	N
4.4.3	Develop documented routine programs linked to GIS assets by key activities that are used for cyclical work and routines in support of stormwater operations, pavement, and traffic operations.	Systems	5	N
4.4.1	Define, standardize, and document priority procedures for all service requests based on need, safety, and risk to the public in the WAMS/WACS. Attempt to identify all non-emergency and safety work to be done at least two weeks in advance.	Systems	6	N
4.5.2	Standardize work reporting, with resources used (labor, equipment, and materials), accomplishments and locations documented. Track and link all time to activities, including travel and preparatory effort. Account for one hundred percent (100%) of employee time in the WAMS/WACS.	Systems	7	N
4.5.3	Supervisors should utilize the WAMS/WACS for work tracking and planning. Establish a monthly meeting to review data from the WAMS/WACS with management responsible for creating accountability.	Systems	8	N
4.5.5	Develop standard outputs that can be used by management to direct and manage work, schedules, and data quality. Each Operational Division should produce a monthly report prepared in a similar format. Each Division should also establish a monthly meeting with the Department Director to review the WAMS/WACS data, for establishing accountability with all teams.	Systems	9	N
4.5.4	Cross-train Forepersons and Supervisors to produce and interpret management system outputs for decision making, as well as promote accountability.	Systems	10	N

Stormwater, Pavement, and Traffic Operations Department Management Evaluation

5.3. Department Organizational Chart

The following two pages show the organizational chart at the time of this evaluation.



SECTION 6- SURVEY INFORMATION

This section includes information for two survey efforts performed by LAC with City employees. The first survey was performed with available employees in the Stormwater, Pavement, and Traffic Operations Department, and the second survey was performed with the Management team.

6.1. Employee Survey

During the management evaluation of the Stormwater, Pavement, and Traffic Operations Department, LAC conducted a confidential paper-based employee survey. The survey did not track any employee identity and the assessment was drafted, administered, and collected by LAC who also compiled and analyzed the results in our office, with no City involvement. The survey was conducted through four (4) on-site meetings on August 10th, 11th, and 19th of 2021. A total of one hundred and thirty (130) employees participated in the survey. Only the compiled information is shared with City employees, while LAC retains the actual survey forms.

The process was designed to collect background data such as demographic information, including ethnic background and gender, position title, and division, to be compiled relative to specific questions that LAC included in the survey.

6.1.1. Survey Form

The survey form, shown on the following pages, was given to each employee as they entered the meeting with LAC as a group. The form had questions requesting background information such as the employee's division, section, position, function, race, gender, number of years they had been with the City, as well as their work shift. The fifty-nine (59) questions were divided into five (5) pages and were mostly in multiple-choice format except for the last question, which was a freeform response. The employees were encouraged to answer each question but did have the option to skip the questions they didn't feel comfortable answering. The division, group, and gender questions had a considerable number of blank entries on the surveys, making it difficult to parse data by division, group, or gender. Figure 6-1 through Figure 6-3 shows each page of the employee survey form that was used.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Figure 6-1 Employee Survey Page 1 of 5

What is your Division? *(Please cross one)*

Administrative Services Stormwater Operations
 Special Projects Pavement & Traffic

What is your Section or Group?

What is your job title?

What is your primary function? *(Please cross one)*

Field Office
 Leadwork/Foreperson Supervisor/Manager

What is your race? *(Please cross one)*

White or Caucasian Hispanic or Latino
 Black or African American Native American or American Indian
 Asian / Pacific Islander Other

What is your gender? *(Please cross one)*

Male Female Other

How many years have you worked for the City? *(Please cross one)*

0-1 1-5 6-9 10-15 15+

How many years have you worked for the Department? *(Please cross one)*

0-1 1-5 6-9 10-15 15+

Which best describes your work schedule? *(Please cross one)*

4 x 10 hour days 5 x 8 hour days Other Schedule

Have you seen or heard this mission statement? "We will achieve our mission by driving collaboration between employees and citizens with a spirit of partnership and pragmatism. Understanding what matters, bringing new ideas, and creating a positive impact!" *(Please cross one)*

Yes No

(If Yes above, please answer) This statement directly relates to my job or assignments. *(Please cross one)*


Strongly Disagree Disagree Agree Strongly Agree

I know my job requirements and what is expected of me. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree


My Division (Stormwater or Pavement and Traffic) works well together to solve problems and get the job done. *(Please cross one)*


Strongly Disagree Disagree Agree Strongly Agree



1

To respond: or





7244 0001

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Figure 6-2 Employee Survey Page 2 of 5

My Department Director's leadership capabilities match what is needed by the Department. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

I enjoy my overall working conditions. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

I have a good working relationship with co-workers. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

I see a path and opportunity to advance my career in the organization. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

My Department Director and my Division Manager communicates work issues and organizational goals to me. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

We work well with crews from other Divisions (Stormwater, Pavement, and Traffic) to accomplish work. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

I have a clear understanding of who my direct supervisor is. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

The separation of two-yard locations have no impact on my work? *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

We have the right number of employees in my Division (Stormwater or Pavement and Traffic). *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

We have the right number of employees in my group. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

I believe opportunities to do more work exist during my workday. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

I have received the training I need to do my job efficiently, effectively, and safely. *(Please cross one)*




Strongly Disagree Disagree Agree Strongly Agree

My coworkers are capable of performing the work that we are required to accomplish. *(Please cross one)*

Strongly Disagree Neutral Agree Strongly Agree

Training and growth opportunities are provided fairly and equally in my Department. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree




 To respond: or  

1 7244 0002

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Figure 6-3 Employee Survey Page 3 of 5

Promotional opportunities are treated fairly and equally for all jobs based on experience, training, and capabilities. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My Department Director and Division Manager respect and care about me. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My Supervisor and Foreperson respect and care about me. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My Department Director and my Division Manager have created an open and comfortable work environment. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My Supervisor and Foreperson have created an open and comfortable work environment. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I have confidence in my Division Manager and Foreperson's ability to lead my group. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My direct supervisor is available to talk about job environment issues. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My direct supervisor communicates specific goals, objectives, and expectations. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I am aware of the Department Manual. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I helped and provide feedback in the creation of the Department Manual. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I am encouraged to develop new and more efficient ways to do work. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My manager and supervisor provide consistent coaching, counseling, and feedback related to my job performance. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My foreperson and lead worker provide consistent coaching, counseling, and feedback related to my job performance. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree




 To respond: or  

1 7244 0003

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Figure 6-4 Employee Survey Page 4 of 5

I have seen and understand the standard operating procedures (SOP) that have been created. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
The time and effort required to complete my work are manageable. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I know how to properly record and track my work activities. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I am provided clear expectations by my supervisor. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I understand the importance of my job and how it affects the customers of the Department and City. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I feel like I am recognized for my customer service. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My manager and supervisor set an example of excellent customer service. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My foreperson and lead worker set an example of excellent customer service. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I am satisfied with the amount of safety training and the use of safety devices used on the job site. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I am responsible for the proper use of personal protective equipment (PPE) and/or traffic control. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
My job sites have the proper amount of traffic control. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I have ready access to the information, tools, and technology to perform my job. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I have received the appropriate level of equipment training I need to do my job. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree
I see the value and advantage of having a GPS in my vehicle. <i>(Please cross one)</i>
<input type="radio"/> Strongly Disagree <input type="radio"/> Disagree <input type="radio"/> Agree <input type="radio"/> Strongly Agree

 To respond: or  

1 7244 0004

Stormwater, Pavement, and Traffic Operations Department
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Figure 6-5 Employee Survey Page 5 of 5

My immediate supervisor understands my work and the resources needed to get my job done.
(Please cross one)

Strongly Disagree Disagree Agree Strongly Agree

I use a mobile (tablets and laptops) device to receive work orders and record the resources used.
(Please cross one)

Frequently Occasionally Rarely Never


How useful are the mobile devices (tablets and laptops) for receiving work orders and recording resources?
(Please cross one)

Critical Very Useful Somewhat Useful Not Useful

My crew could do a better job if we had more...
(Please cross one)


Access to Technology Additional Training
 Mgmt. Communication Succession Planning and Mentoring


How can the City and Department improve the organization, other than pay?



1

To respond: or





7244 0005

Stormwater, Pavement, and Traffic Operations Department
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6.1.2. Survey Form Results Summary

The following is a summary of the patterns seen in the Employee Survey responses after completing the analysis of data received.

Although it was stated that the survey was anonymous, most questions that would provide any insight into the identity of the respondent were left unanswered. This makes any analysis of differences in department divisions, or by race/gender/etc., difficult to determine. In addition, there were many questions to which the greatest number of responses was not responded.

Many of the questions in the survey were phrased to ask the employees for their feedback on their performance if they have the knowledge/items/training to complete their job, and how their performance is seen by their coworkers and management. The questions often involved language including “I,” “My,” “We.” One of the stronger themes in the responses, shown in the results, was that workers are highly confident in their ability to do their job but believe more training could be provided to enhance their skills. They also believe their group is understaffed and believe they do not have enough time and effort to complete their work during a working day.

When asked about their relationship with the leadership and upper management, most of the employees believe there is little to no communication from the managers and department director, doubt their leadership skills, and believe that they do not care about the employees.

Safety is one the most essential measures for any maintenance and operation task, but a large portion of employees indicate that proper safety measures are not applied, including traffic control.

Most employees do not use technology (tablets and laptops) and highly doubt their usefulness in performing tasks.

The open-ended question saw a wide variety of responses, common themes included-

- Better Communication from the upper management
- More training opportunities for all
- Need for more employees to perform job duties
- Equal Opportunities for advancement in the organization
- Adjusting the schedule to allow more work during the days
- Establishing mutual respect between leadership and employees

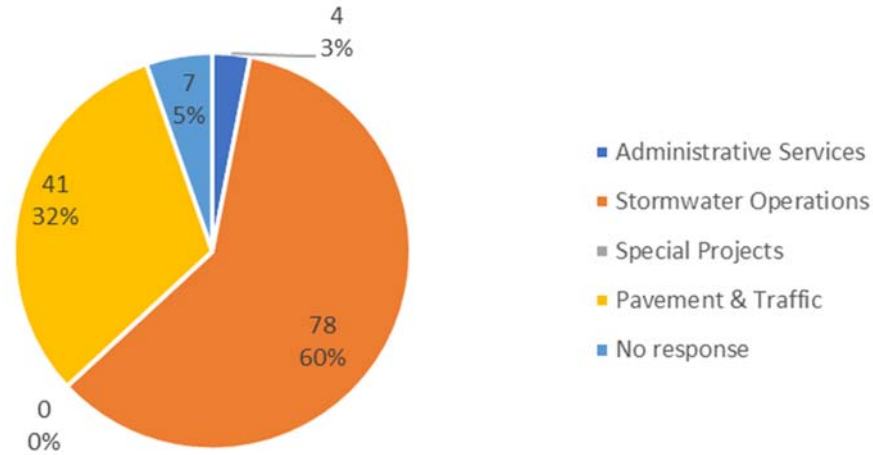
6.1.3. Survey Form Results

The following form results show each question from the employee survey and the breakdown of answers to the respective questions in a pie chart format. For questions with a write-in answer, all answers recorded are shown in tabular format. For questions with multiple choice answers ranging from 1 - Strongly Disagree, 2 - Disagree, 3 - Agree, and 4 - Strongly Agree, the responses were gathered to show the general agreement or disagreement towards a specific question.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q1. What is your Division?

60% of the employees work for the Stormwater Division, while 32% work for the Pavement & Traffic, and there were no responses for Special Projects.



What is your Division?	Administrative Services	Stormwater Operations	Special Projects	Pavement & Traffic	No response	Total Responses
Count	4	78	0	41	7	130

Q2. What is your Section or Group?

The Sections or Groups were reported with many variations, we combined the identifiable ones. Almost 50% of responses were either blank or unidentifiable.

Section/Group	Count
Accounting - Admin	1
Administration	2
Ditch	5
Equipment Center	3
FDOT	4
Heavy Equipment	3
Interstates	1
Line Clearing and Aquatics	2
Marking	1
Mowing	5
Pavement	6
Quality	1

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Right Aways	1
Sidewalks / Concrete/ Asphalt	2
Storm Water Crew Construction	1
Stormwater Heavy Equipment	2
Stormwater Quality	5
Street Scape Landscaping	1
Street Sweeping	10
Traffic	5
Traffic Signals	5
Total Responses	66
Blank/Unidentifiable	64

Q3. What is your job title?

The Job Titles were reported with many variations, we combined the identifiable ones. Over 28% (37/130) of employees elected not to identify their job titles. Some concern was expressed that doing this will allow the respondent to be identified.

Job Title	Count
Accountant	1
Accounting Technician	1
Admin Secretary	2
Crew	1
Engineering Clerk	1
Equipment Mechanic 1	1
Equipment Operator 2	14
Equipment Operator 3	2
Foreperson	8
Heavy Equip. Op	1
Heavy Equip. Op 2	1
Lead Traffic Tech	1
Lead Worker	7
Maintenance Mech 1	1

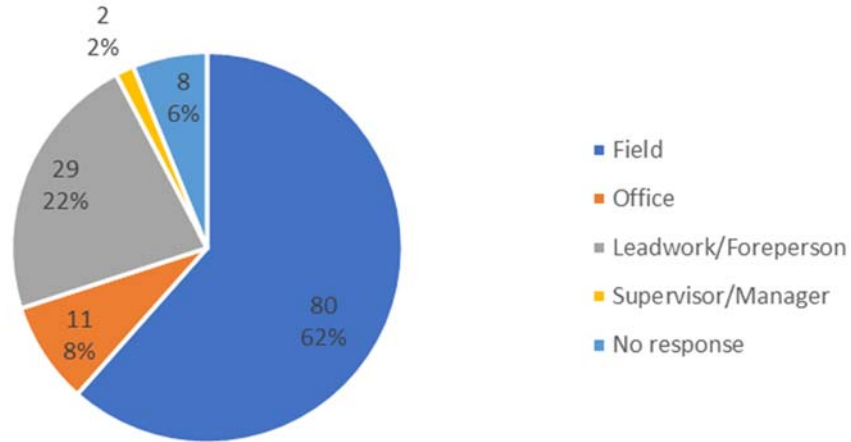
Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Maintenance Worker 1	19
Maintenance Worker 2	4
Oper 2	1
Operations Analyst	1
Pavement Apprentice	1
Pavement Technician	1
Safety And Training Officer	1
Sign Fab	1
Signal Tech 2	2
Storekeeper 2	1
Stormwater Lead Tech	1
Stormwater Lead worker	1
Stormwater Operation 2	1
Stormwater Technician	5
Supervisor	2
Traffic Signal Coordinator	1
Traffic Signal Tech 2	2
Traffic Signal Tech 3	1
Traffic Tech	4
Worker	1
Total Responses	93
Blank/Unidentifiable	37

Q4. What is your primary function?

The majority of respondents identified as from the field, followed by Leadwork/Forepersons.

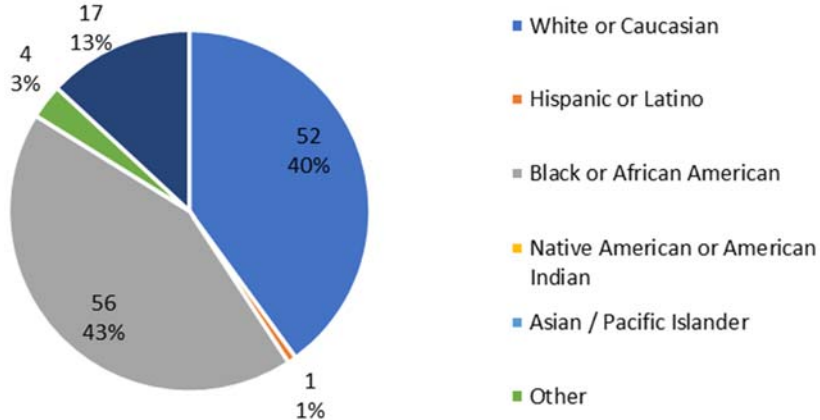
Stormwater, Pavement, and Traffic Operations Department
Management Evaluation



What is your primary function?	Field	Office	Leadwork/Foreperson	Supervisor/Manager	No response	Total Responses
Count	80	11	29	2	8	130

Q5. What is your race?

While 13% of the participants did not choose to respond, it can be seen that the majority of the population is either almost evenly distributed between White/Caucasian and Black/African American. And there is a very low presence in the survey of any other race.

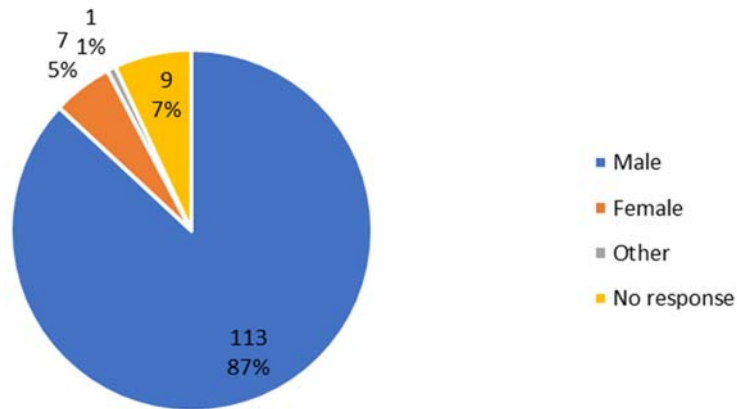


What is your race?	White or Caucasian	Hispanic or Latino	Black or African American	Native American or American Indian	Asian / Pacific Islander	Other	No response	Total Responses
Count	52	1	56	0	0	4	17	130

Q6. What is your gender?

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

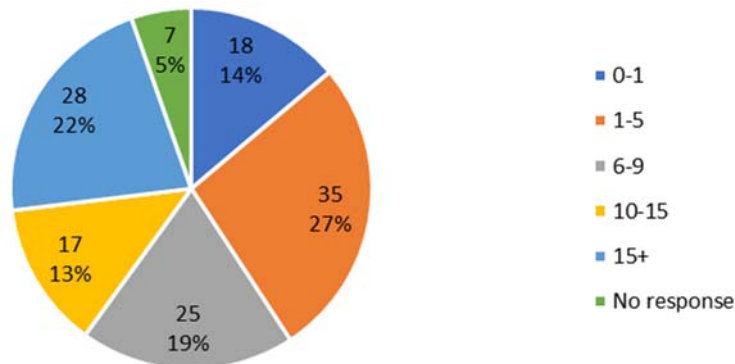
Over 87% of the responses were male along with almost 6% females.



What is your gender?	Male	Female	Other	No response	Total Responses
Count	113	7	1	9	130

Q7. How many years have you worked for the City?

41% of the workers have only worked for the city for less than 5 years. With 22% who have worked for 15+ years.

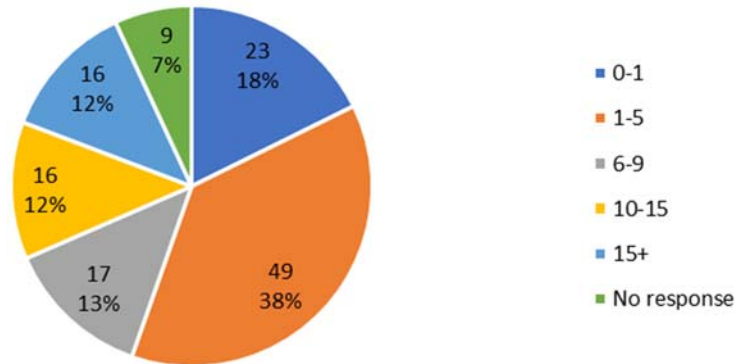


How many years have you worked for the City?	0-1	1-5	6-9	10-15	15+	No response	Total Responses
Count	18	35	25	17	28	7	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q8. How many years have you worked for the Department?

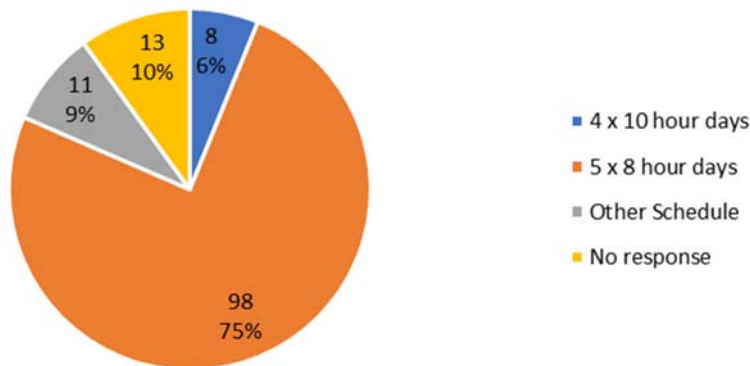
Over half of the employees (56%) has worked for the department 5 years or less.



How many years have you worked for the Department?	0-1	1-5	6-9	10-15	15+	No Response	Total Responses
Count	23	49	17	16	16	9	130

Q9. Which best describes your work schedule?

Over 75% of the employees work 5 x 8 hours shift. While there are around 6% on 4 x 10 hours shifts, and 19% reported other or no response.



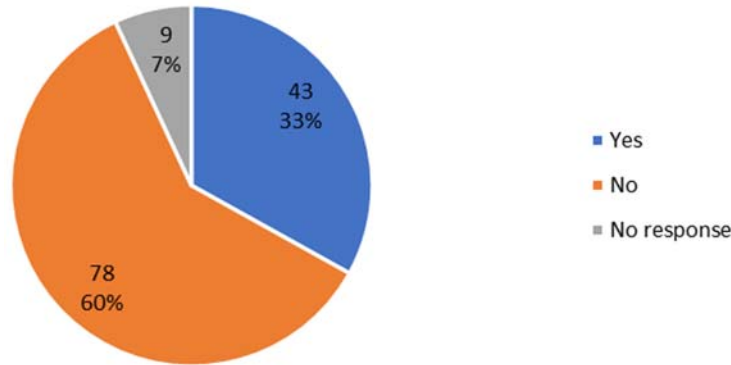
Which best describes your work schedule?	4 x 10-hour days	5 x 8-hour days	Other Schedule	No response	Total Responses
Count	8	98	11	13	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q10. Have you seen or heard this mission statement?

“We will achieve our mission by driving collaboration between employees and citizens with a spirit of partnership and pragmatism. Understanding what matters, bringing new ideas, and creating a positive impact!”

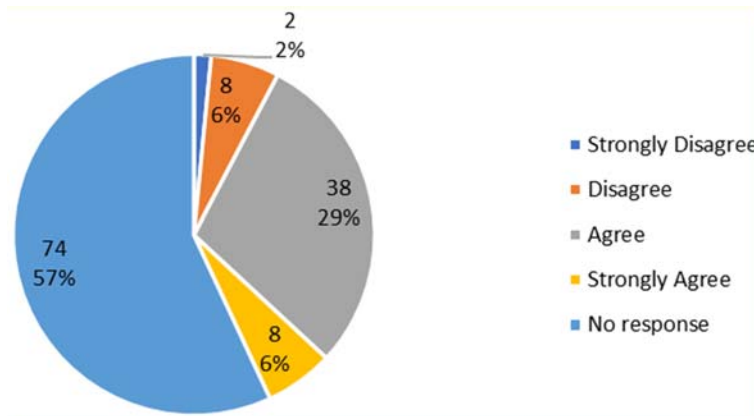
Almost 60% of the employees have not heard about the mission statement.



Response	Yes	No	No response	Total Responses
Count	43	78	9	130

Q11. (If Yes above, please answer) This statement directly relates to my job or assignments.

The results for this question were skewed as 43 employees selected “Yes” to the above question, but there were 56 responses to this question.

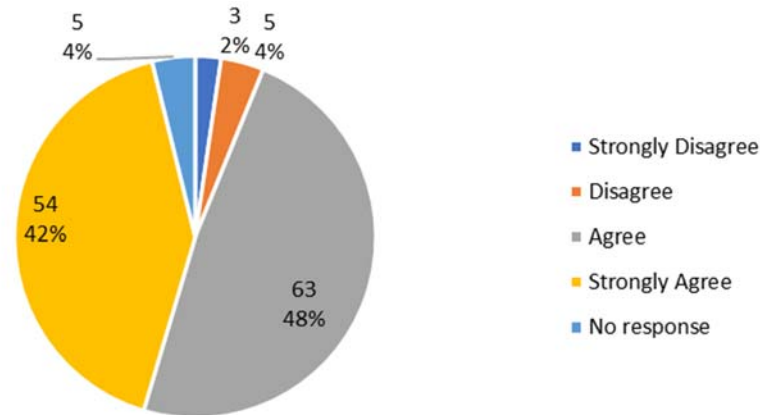


(If Yes above, please answer) This statement directly relates to my job or assignments.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	2	8	38	8	74	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q12. I know my job requirements and what is expected of me.

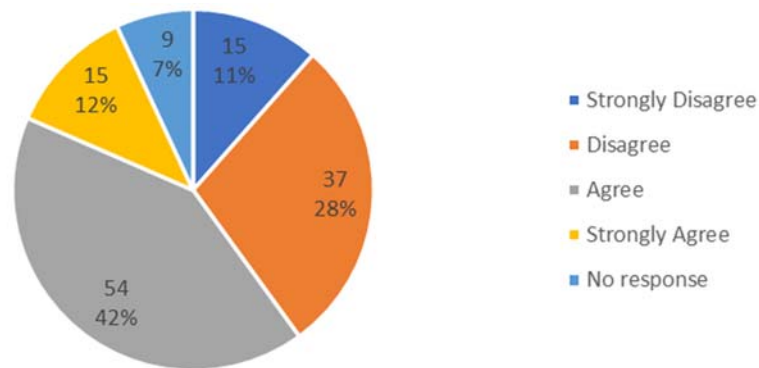
Almost all employees (90%) acknowledge that they are aware of their job responsibilities.



I know my job requirements and what is expected of me.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	3	5	63	54	5	130

Q13. My Division (Stormwater or Pavement and Traffic) works well together to solve problems and get the job done.

Over a third of the employees, 39% disagree or strongly disagree with the above question.

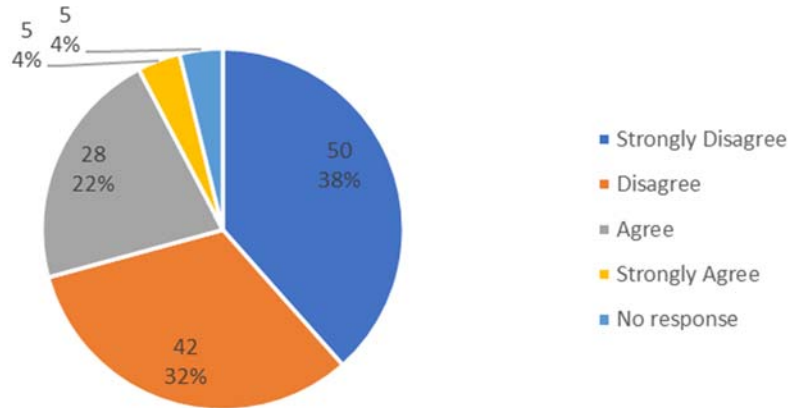


My Division (Stormwater or Pavement and Traffic) works well together to solve problems and get the job done.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	15	37	54	15	9	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q14. My Department Director's leadership capabilities match what is needed by the Department.

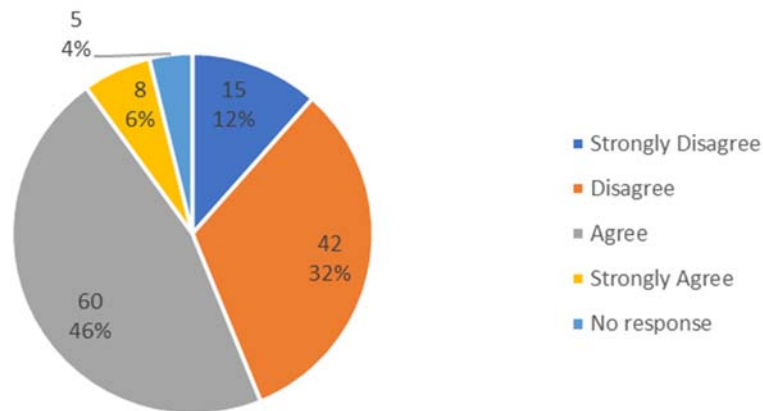
38% strongly disagree and 32% disagree with the leadership capabilities of the Department Director.



My Department Director's leadership capabilities match what is needed by the Department.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	50	42	28	5	5	130

Q15. I enjoy my overall working conditions.

Almost half (44%) of the employees do not enjoy the overall working conditions.



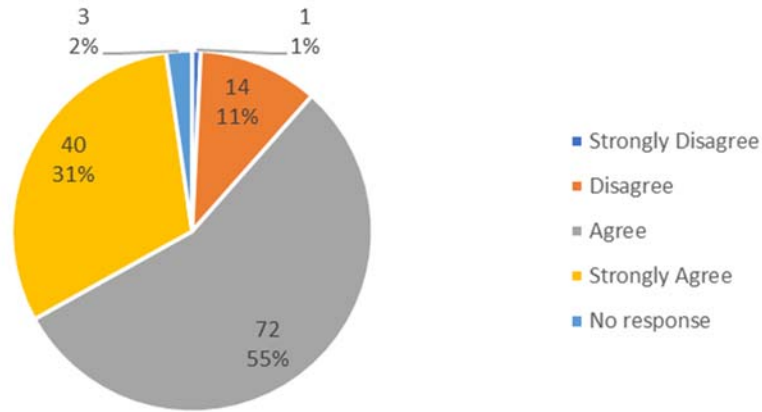
I enjoy my overall working conditions.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	15	42	60	8	5	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Count	15	42	60	8	5	130
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Q16. I have a good working relationship with co-workers.

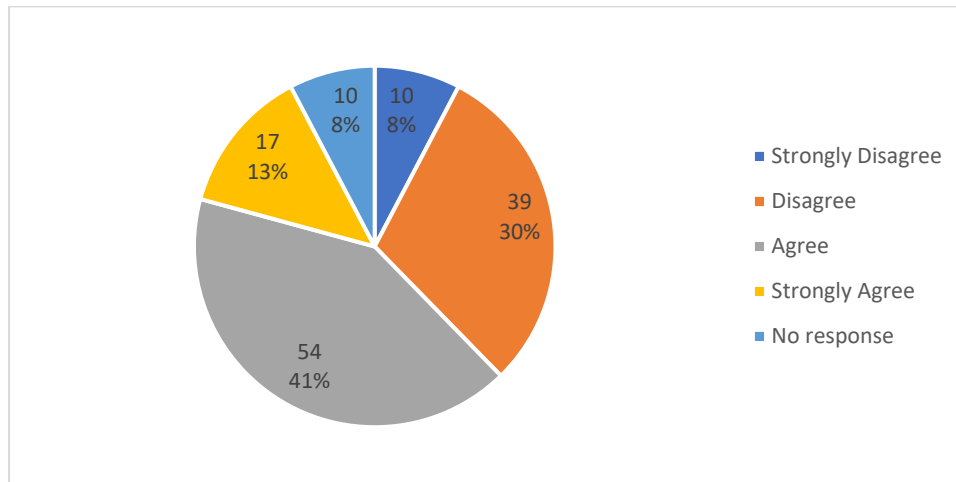
The majority (86%) of the employees believe to have a good relationship with their coworkers.



I have a good working relationship with co-workers.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	1	14	72	40	3	130

Q17. I see a path and opportunity to advance my career in the organization.

Over 38% of the employees do not find a path or opportunity to advance in the organization.

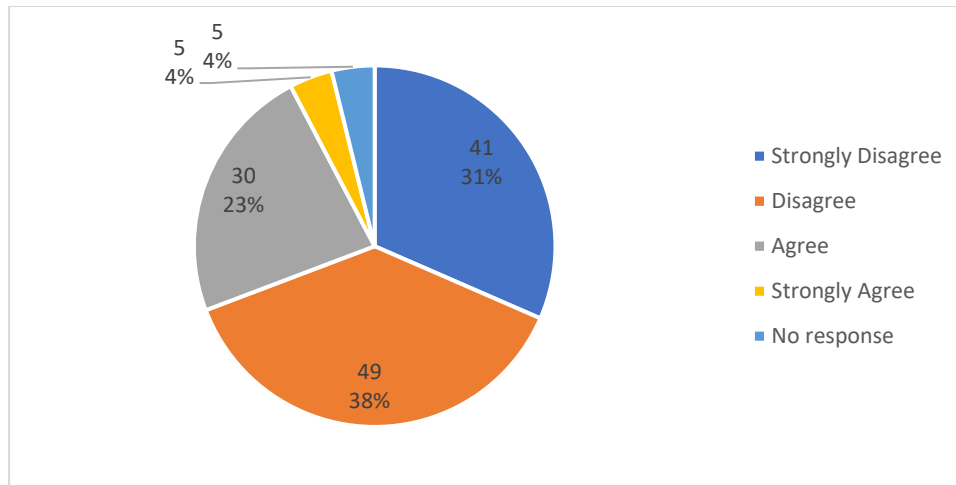


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

I see a path and opportunity to advance my career in the organization.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	10	39	54	17	10	130

Q18. My Department Director and my Division Manager communicate work issues and organizational goals to me.

Over two-thirds of employees disagree with communication from Director and/or division manager.

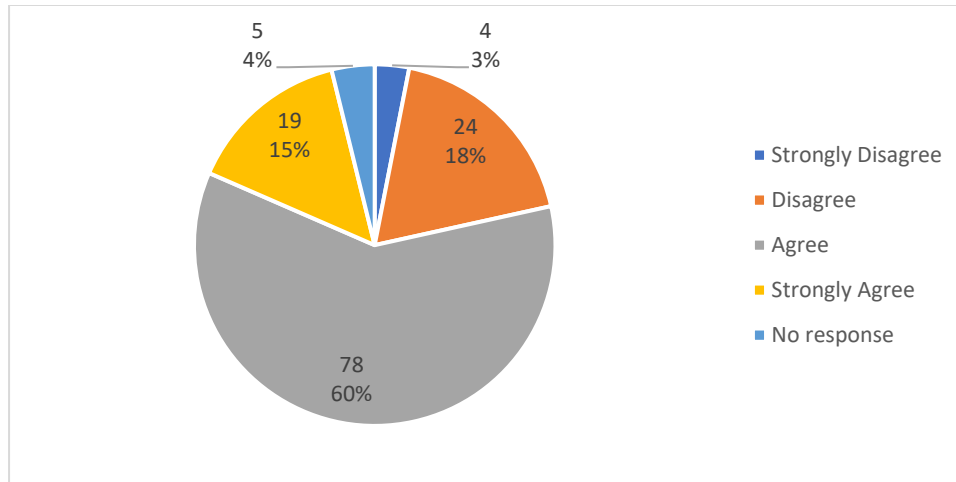


My Department Director and my Division Manager communicate work issues and organizational goals to me.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	41	49	30	5	5	130

Q19. We work well with crews from other Divisions (Stormwater, Pavement, and Traffic) to accomplish work.

75% agree that they work well with other Divisions.

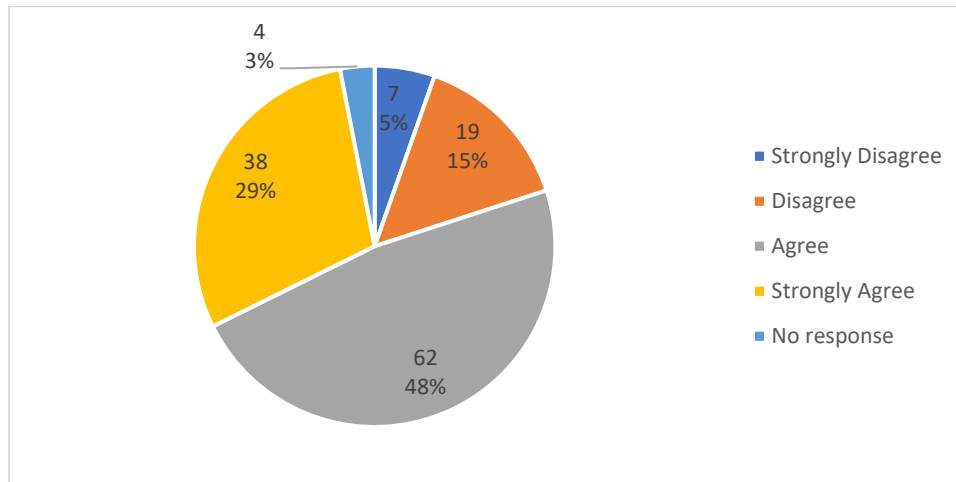
**Stormwater, Pavement, and Traffic Operations Department
Management Evaluation**



We work well with crews from other Divisions (Stormwater, Pavement, and Traffic) to accomplish work.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	4	24	78	19	5	130

Q20. I have a clear understanding of who my direct supervisor is.

20% of the employees do not have a clear understanding of who their direct supervisor is. Only 29% strongly agree they know who their direct supervisor is.

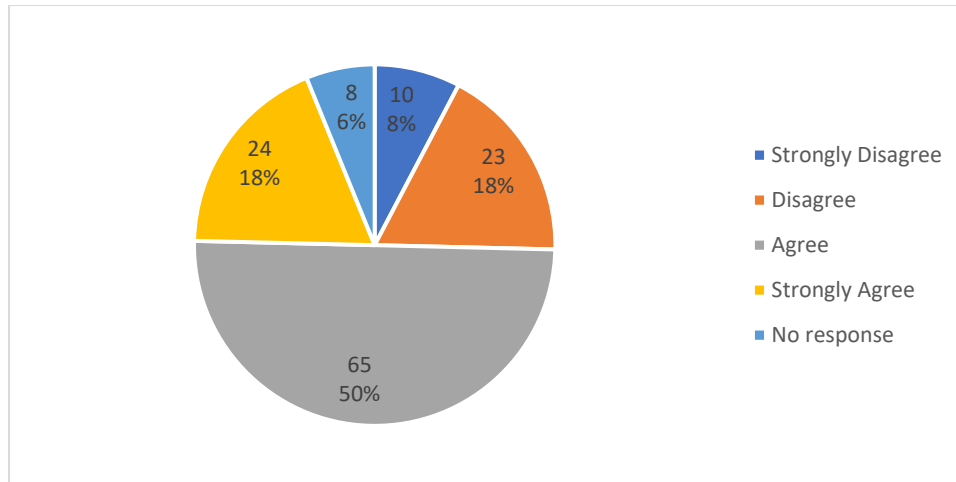


I have a clear understanding of who my direct supervisor is.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	7	19	62	38	4	130

Q21. The separation of two-yard locations has no impact on my work.

Almost 25% believe that the separation of two-yard locations impacts their work.

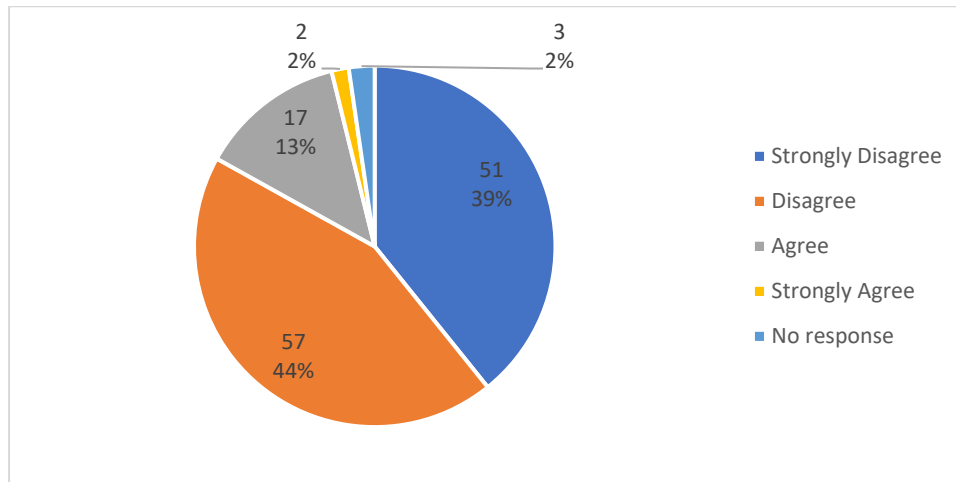
**Stormwater, Pavement, and Traffic Operations Department
Management Evaluation**



The separation of two-yard locations has no impact on my work.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	10	23	65	24	8	130

Q22. We have the right number of employees in my Division (Stormwater or Pavement and Traffic).

Over 83% disagree with having the right number of employees in their Divisions.

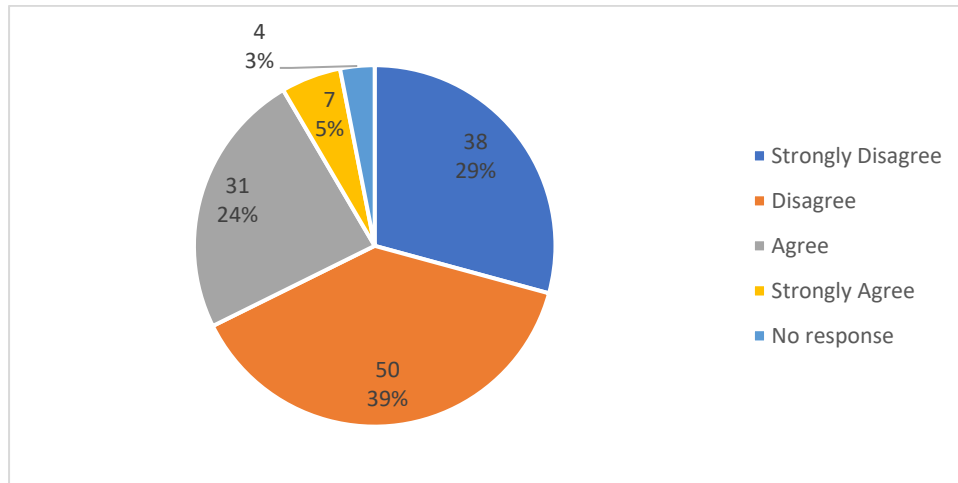


We have the right number of employees in my Division (Stormwater or Pavement and Traffic).	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	51	57	17	2	3	127

Q23. We have the right number of employees in my group.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

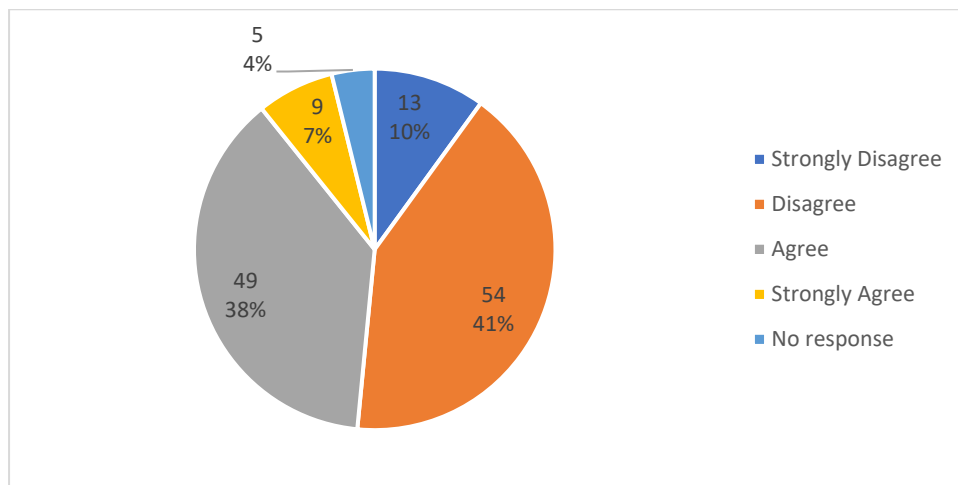
68% disagree with having the right number of employees in their groups.



We have the right number of employees in my group.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	38	50	31	7	4	130

Q24. I believe opportunities to do more work exist during my workday.

Some (45%) employees believe more work opportunities exist during the day.

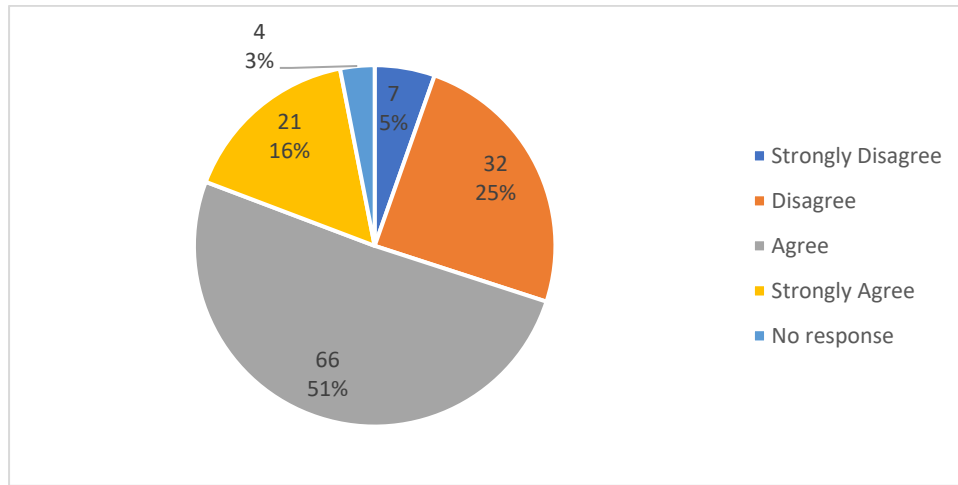


I believe opportunities to do more work exist during my workday.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	13	54	49	9	5	130

Q25. I have received the training I need to do my job efficiently, effectively, and safely.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

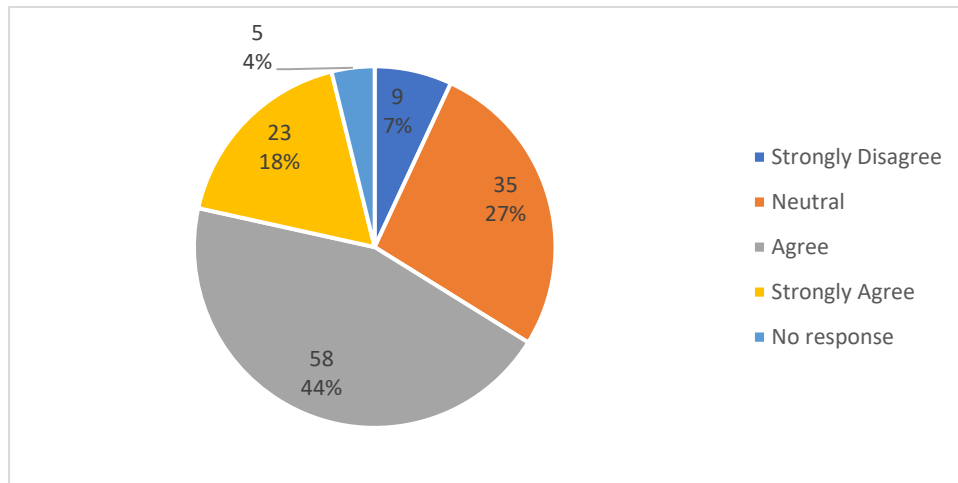
Over 30% believe they have not received training for their job.



I have received the training I need to do my job efficiently, effectively, and safely.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	7	32	66	21	4	130

Q26. My coworkers are capable of performing the work that we are required to accomplish.

62% of the employees believe that their coworkers can perform the required tasks.

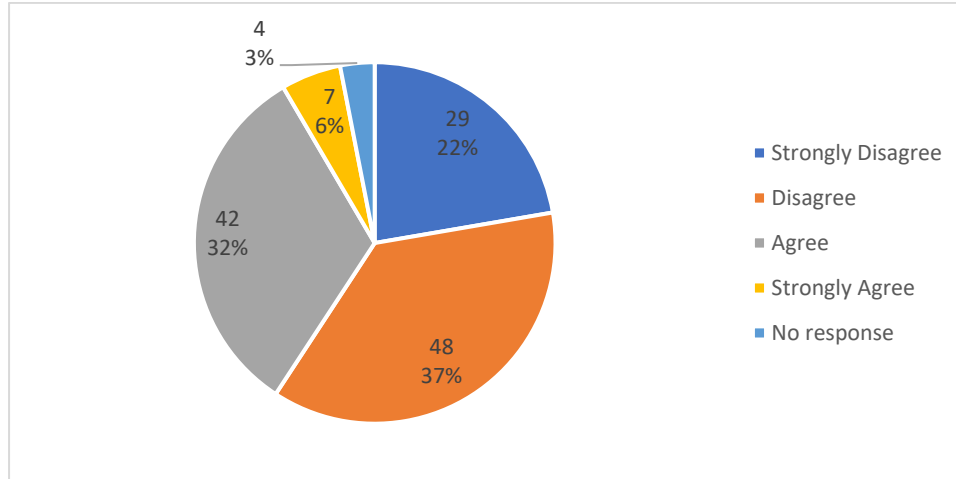


My coworkers are capable of performing the work that we are required to accomplish.	Strongly Disagree	Neutral	Agree	Strongly Agree	No response	Total Responses
Count	9	35	58	23	5	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q27. Training and growth opportunities are provided fairly and equally in my Department.

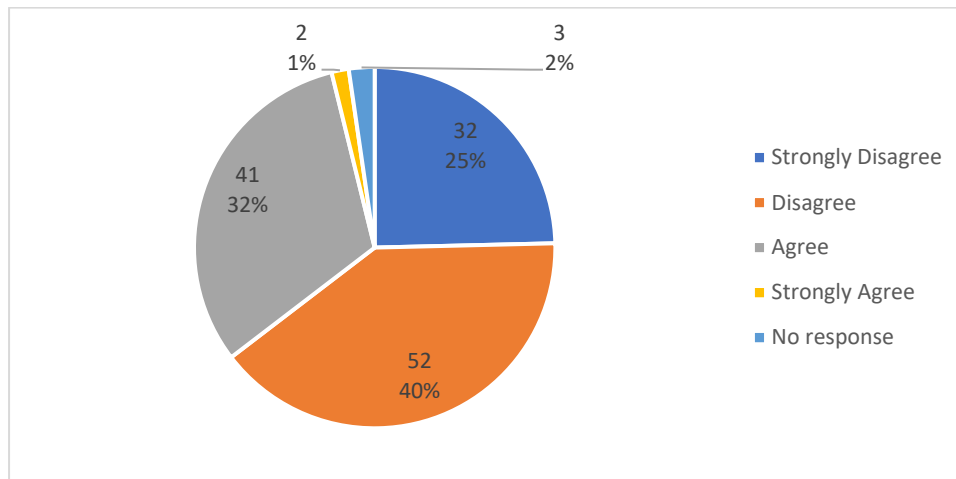
Over half (59%) of the department disagree that training and growth opportunities are provided fairly in the department while 38% agree with the statement.



Training and growth opportunities are provided fairly and equally in my Department.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	29	48	42	7	4	130

Q28. Promotional opportunities are treated fairly and equally for all jobs based on experience, training, and capabilities.

Over half (65%) of the department disagree that promotional opportunities are provided fairly in the department while 33% agree with the statement.



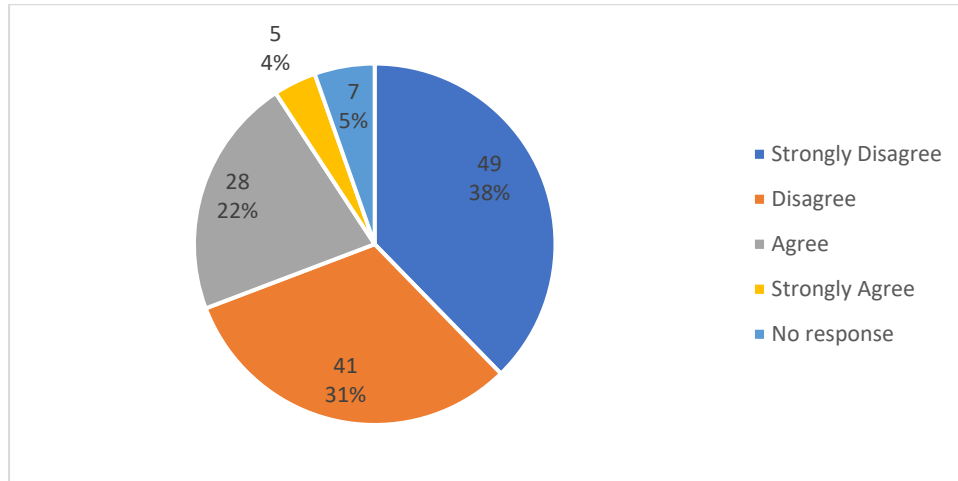
Promotional opportunities are treated fairly and equally for all jobs based on experience, training, and capabilities.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	32	52	41	2	3	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Count	32	52	41	2	3	130
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Q29. My Department Director and Division Manager respect and care about me.

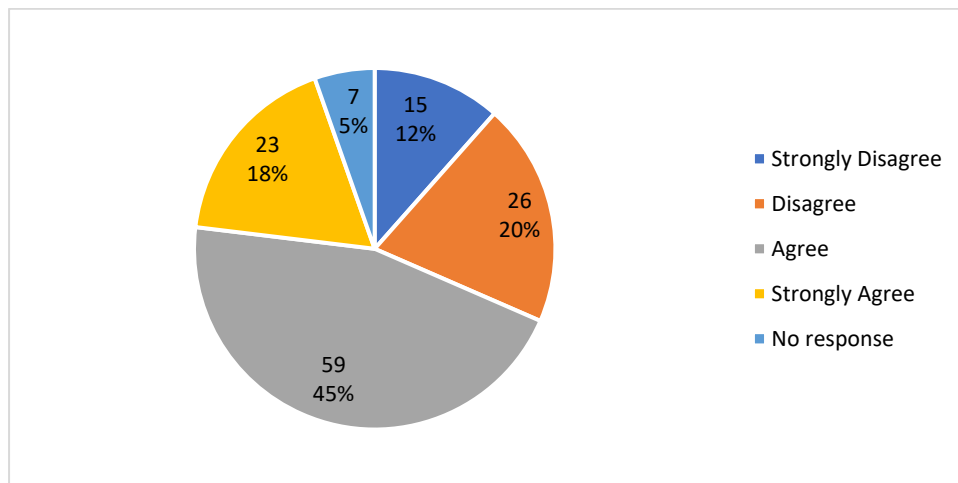
While more than half (69%) of the staff believes that department director and division manager don't respect and care about them, 26% believe that they are respected and cared for.



My Department Director and Division Manager respect and care about me.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	49	41	28	5	7	130

Q30. My Supervisor and Foreperson respect and care about me.

63% of the employees believe they respect are cared for by their Supervisor and Foreperson. There is also a third of employees who disagree.



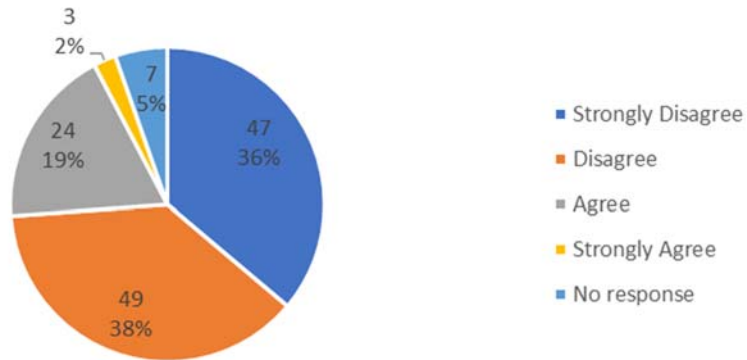
My Supervisor and Foreperson respect and care about me.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	15	26	59	23	7	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Count	15	26	59	23	7	130
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Q31. My Department Director and my Division Manager have created an open and comfortable work environment.

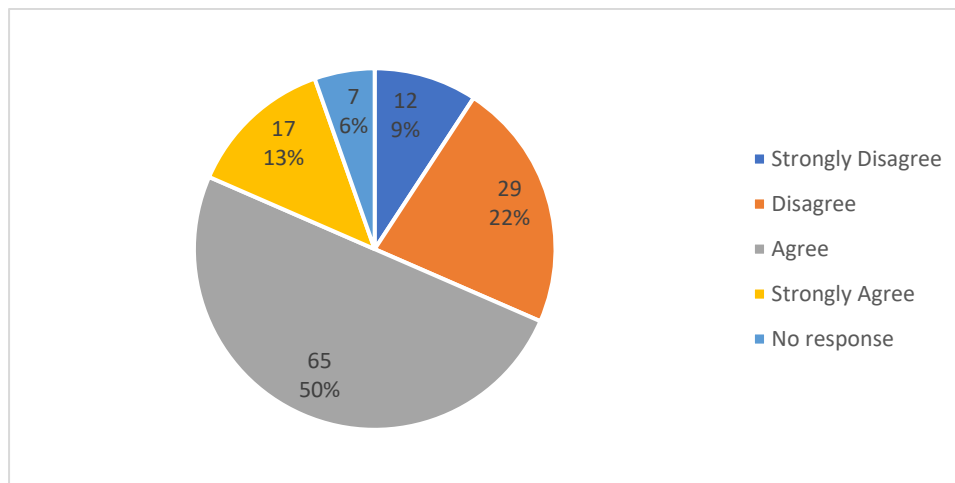
74% disagree with having an open and comfortable work environment created by the Director and Division Manager.



My Department Director and my Division Manager have created an open and comfortable work environment.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	47	49	24	3	7	130

Q32. My Supervisor and Foreperson have created an open and comfortable work environment.

Two-thirds (63%) of the population believe their supervisor or foreperson has created an open and comfortable work environment while the other one-third (31%) disagree with this statement.

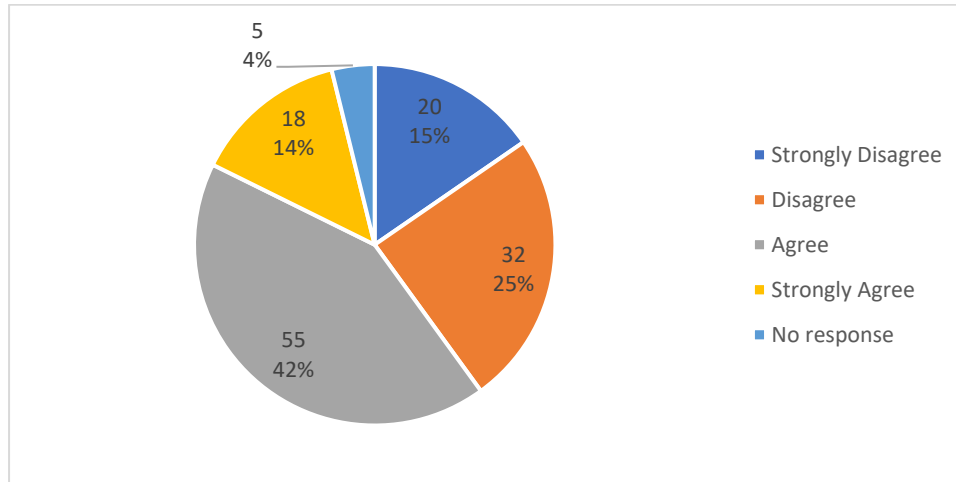


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My Supervisor and Foreperson have created an open and comfortable work environment.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	12	29	65	17	7	130

Q33. I have confidence in my Division Manager and Foreperson's ability to lead my group.

40% disagree with having confidence in their division manager and foreperson's ability.



I have confidence in my Division Manager and Foreperson's ability to lead my group.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	20	32	55	18	5	130

Q34. My direct supervisor is available to talk about job environment issues.

A majority (75%) of the employees agree with this statement, while there still are 18% who disagree with the former.

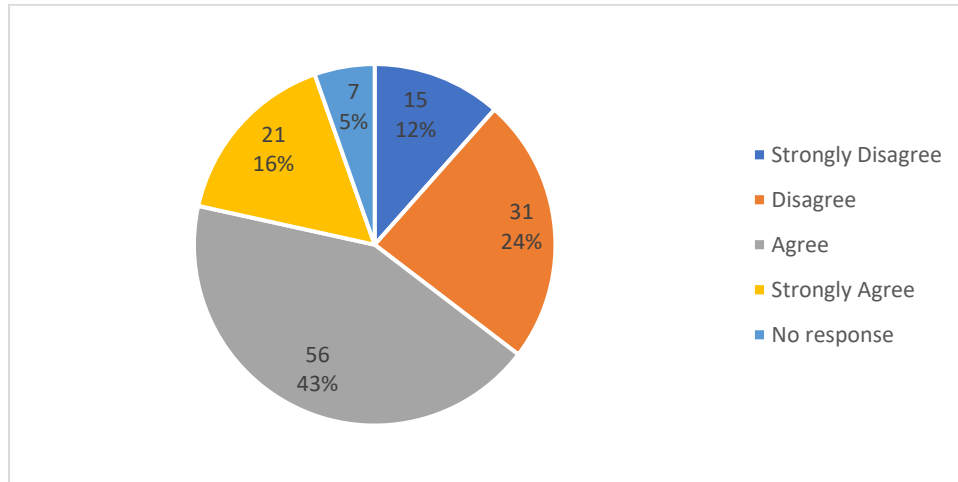


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My direct supervisor is available to talk about job environment issues.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	12	12	77	22	7	130

Q35. My direct supervisor communicates specific goals, objectives, and expectations.

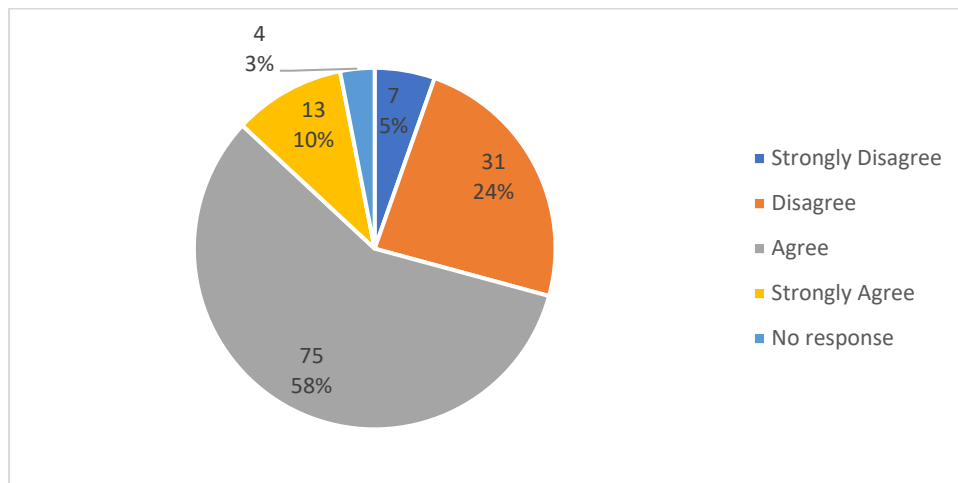
Almost 60% believe that goals, objectives, and expectations are communicated by their supervisor but there are also 36% of the employee who disagrees with this.



My direct supervisor communicates specific goals, objectives, and expectations.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	15	31	56	21	7	130

Q36. I am aware of the Department Manual.

29% are unaware of the Department Manual and 68% of the employees are aware of it.

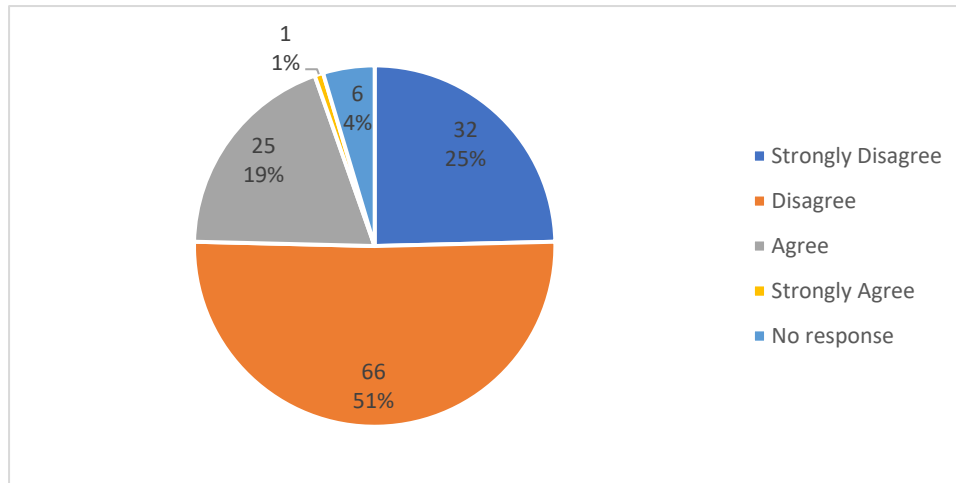


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

I am aware of the Department Manual.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	7	31	75	13	4	130

Q37. I helped and provided feedback in the creation of the Department Manual.

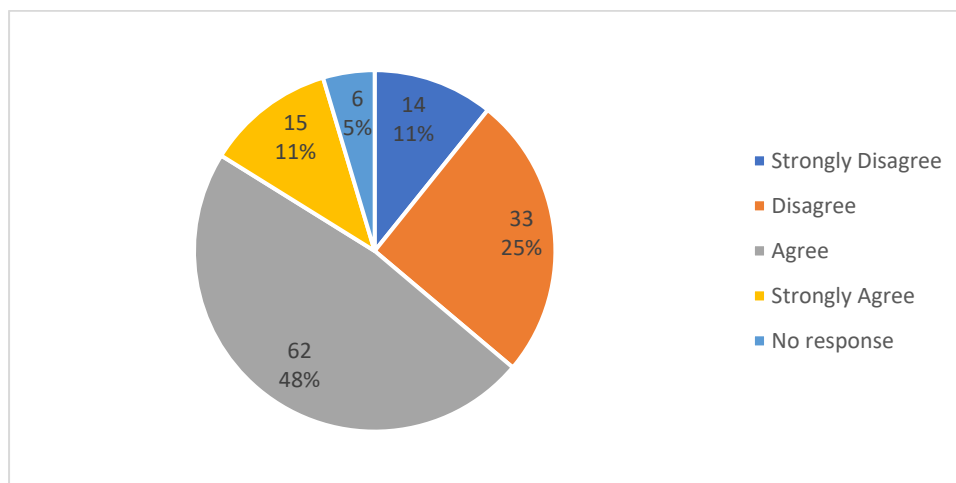
Only 20% of the employees have contributed to the creation of the Manual.



I helped and provided feedback in the creation of the Department Manual.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	32	66	25	1	6	130

Q38. I am encouraged to develop new and more efficient ways to do work.

Almost 60% believe they are encouraged to develop new and more efficient ways to do work.



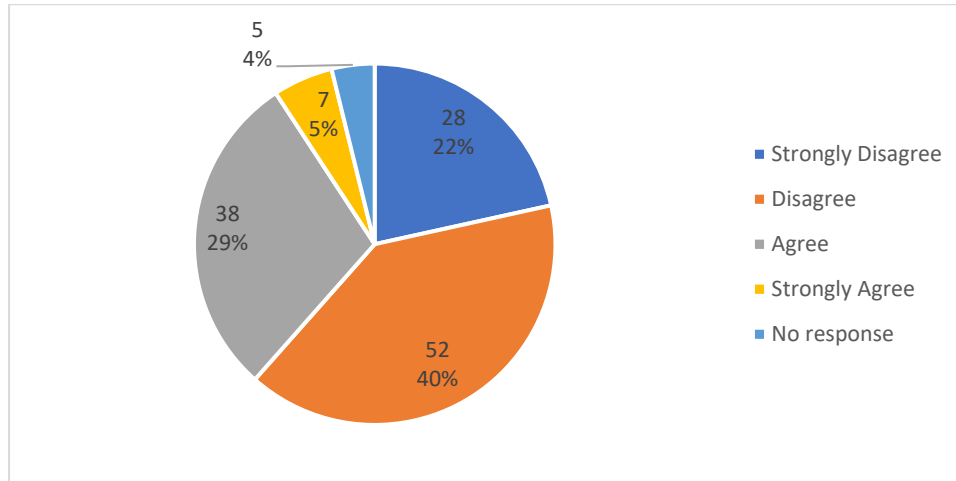
I am encouraged to develop new and more efficient ways to do work.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	6	33	62	15	14	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Count	14	33	62	15	6	130
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Q39. My manager and supervisor provide consistent coaching, counseling, and feedback related to my job performance.

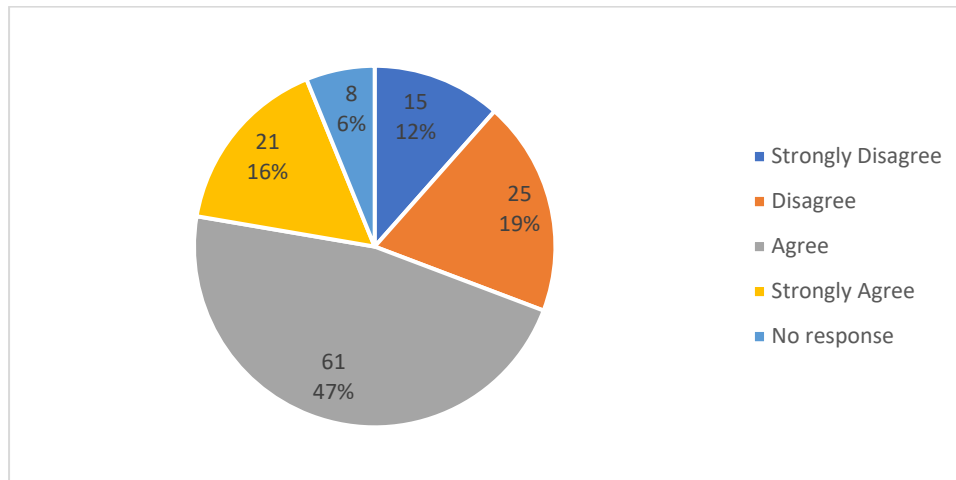
Over half (62%) of the employees disagree with this statement.



My manager and supervisor provide consistent coaching, counseling, and feedback related to my job performance.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	28	52	38	7	5	130

Q40. My foreperson and lead worker provide consistent coaching, counseling, and feedback related to my job performance.

More than half (68%) agree with the above statement.

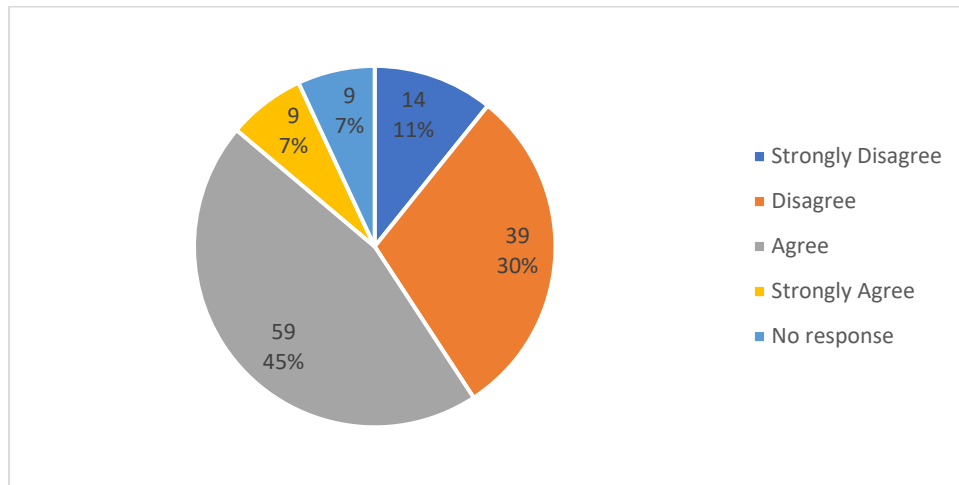


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My foreperson and lead worker provide consistent coaching, counseling, and feedback related to my job performance.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	15	25	61	21	8	130

Q41. I have seen and understand the standard operating procedures (SOP) that have been created.

More than half (52%) of the employees claim that they have not seen the SOPs while a little less than half (41%) agree that they have seen the SOPs.

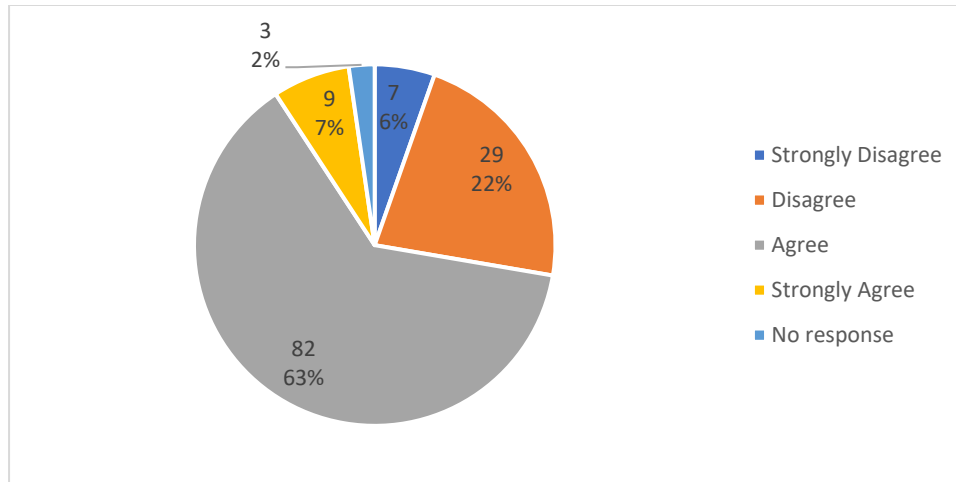


I have seen and understand the standard operating procedures (SOP) that have been created.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	14	39	59	9	9	130

Q42. The time and effort required to complete my work are manageable.

Almost a third (28%) of the employees believe they are unable to manage their work.

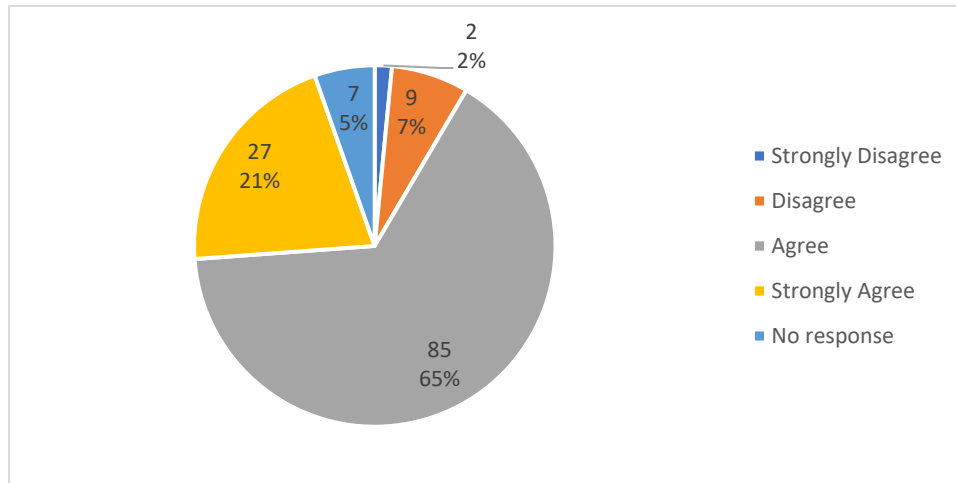
Stormwater, Pavement, and Traffic Operations Department
Management Evaluation



The time and effort required to complete my work are manageable.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	7	29	82	9	3	130

Q43. I know how to properly record and track my work activities.

Almost all (86%) agree they know how to properly record and track their work activities.

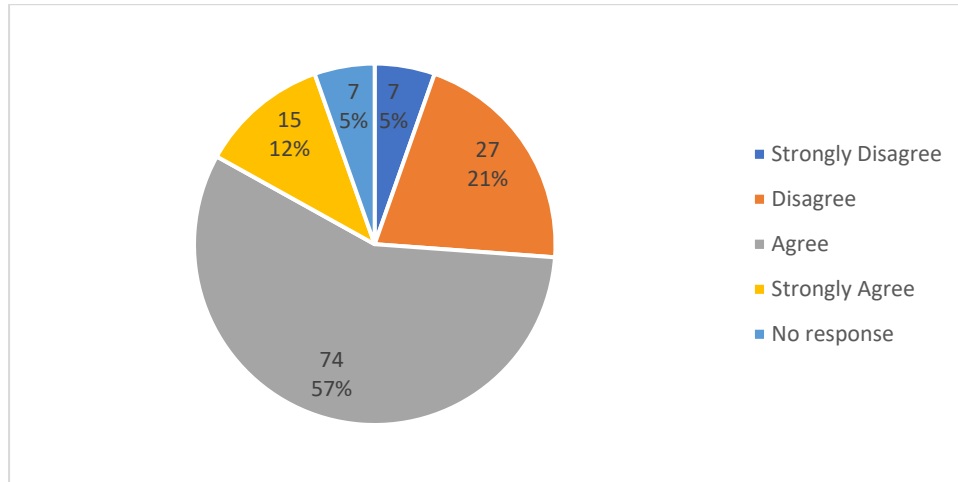


I know how to properly record and track my work activities.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	2	9	85	27	7	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q44. I am provided clear expectations by my supervisor.

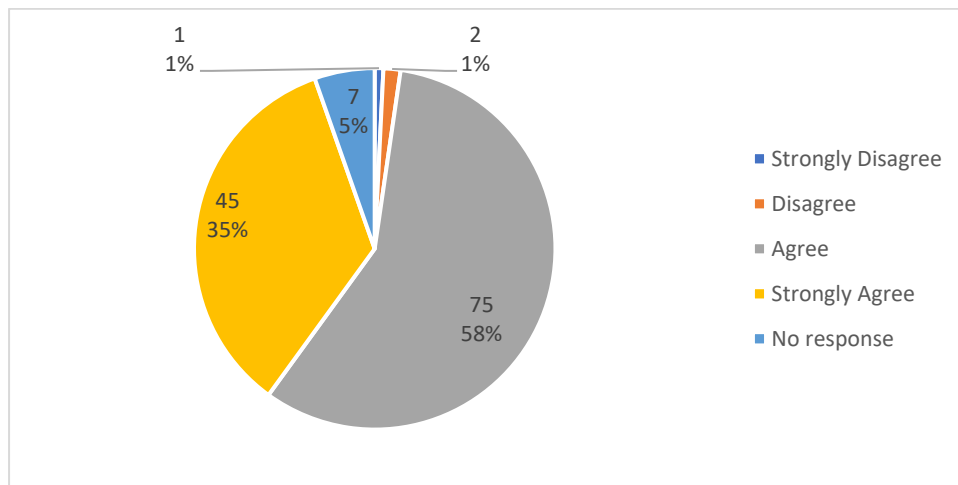
A little more than a quarter (26%) don't believe they are provided clear expectations from their supervisors.



I am provided clear expectations by my supervisor.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	7	27	74	15	7	130

Q45. I understand the importance of my job and how it affects the customers of the Department and City.

Almost all (93%) of the employees understand the importance of their work.

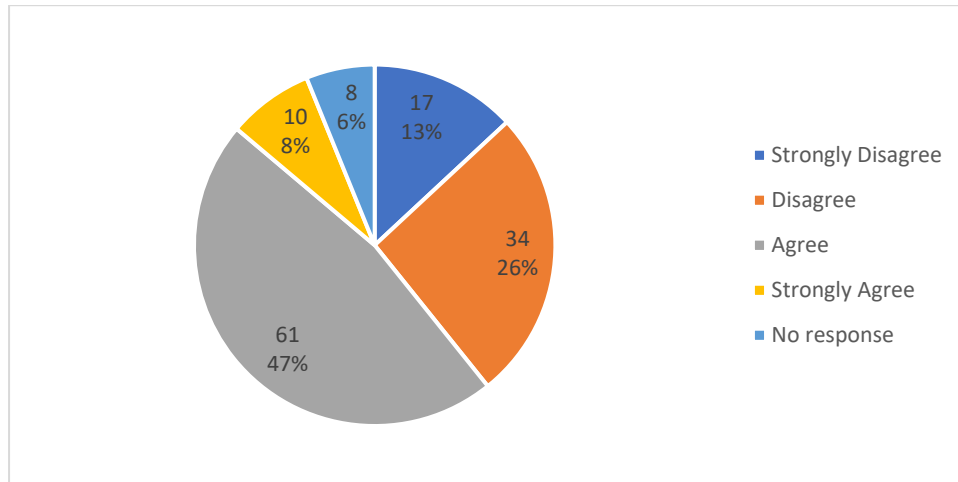


I understand the importance of my job and how it affects the customers of the Department and City.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	1	2	75	45	7	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q46. I feel like I am recognized for my customer service.

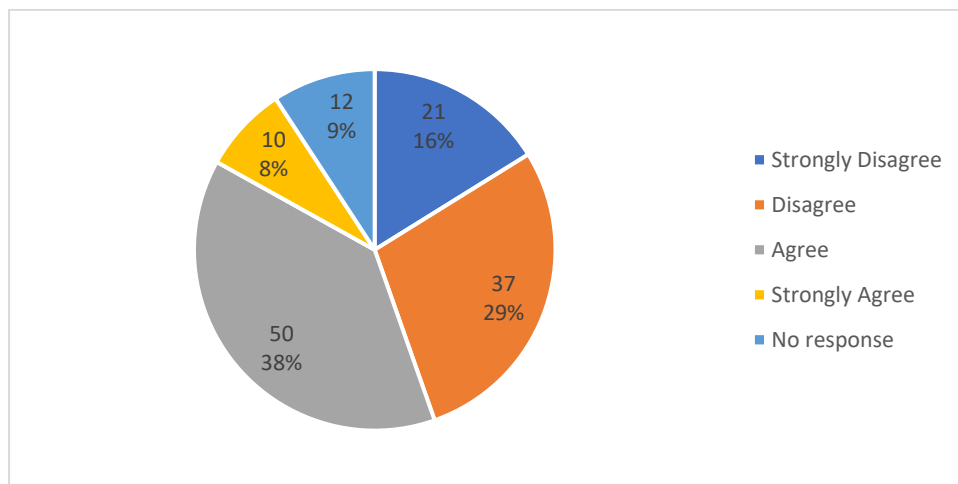
Almost 40% believe they are not recognized for their customer service.



I feel like I am recognized for my customer service.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	17	34	61	10	8	130

Q47. My manager and supervisor set an example of excellent customer service.

Over 45% don't believe their manager and supervisor set an example of excellent customer service.

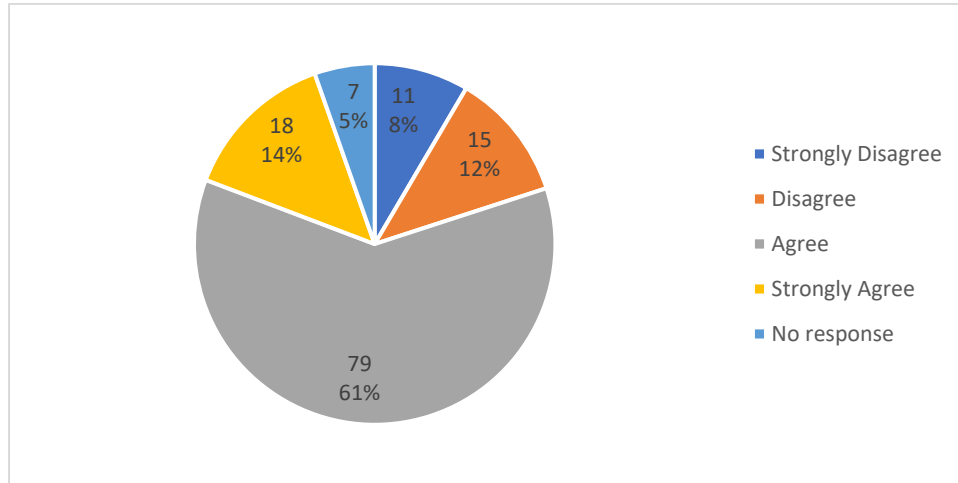


My manager and supervisor set an example of excellent customer service.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	21	37	50	10	12	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q48. My foreperson and lead worker set an example of excellent customer service.

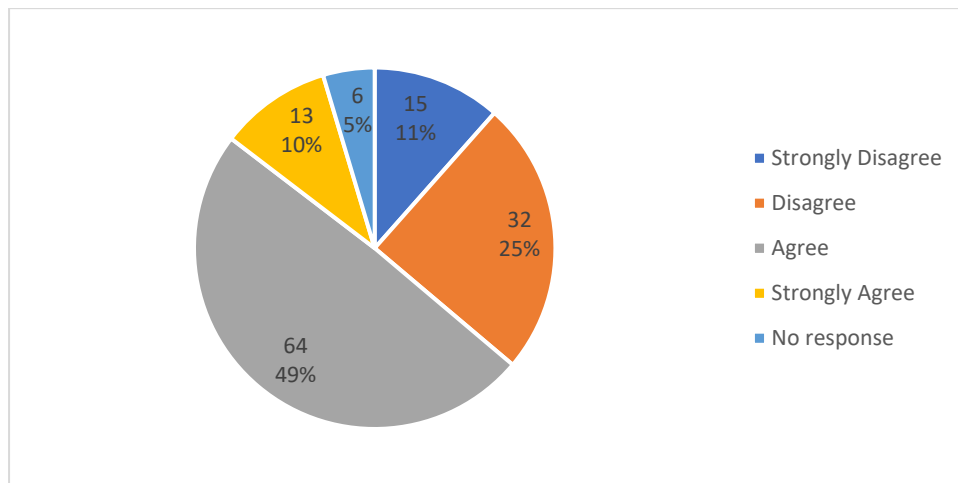
20% disagree with the above statement while almost 75% agree with it.



My foreperson and lead worker set an example of excellent customer service.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	11	15	79	18	7	130

Q49. I am satisfied with the amount of safety training and the use of safety devices used on the job site.

Almost a third (36%) disagree with the amount of safety training and use of safety devices used on the job site.



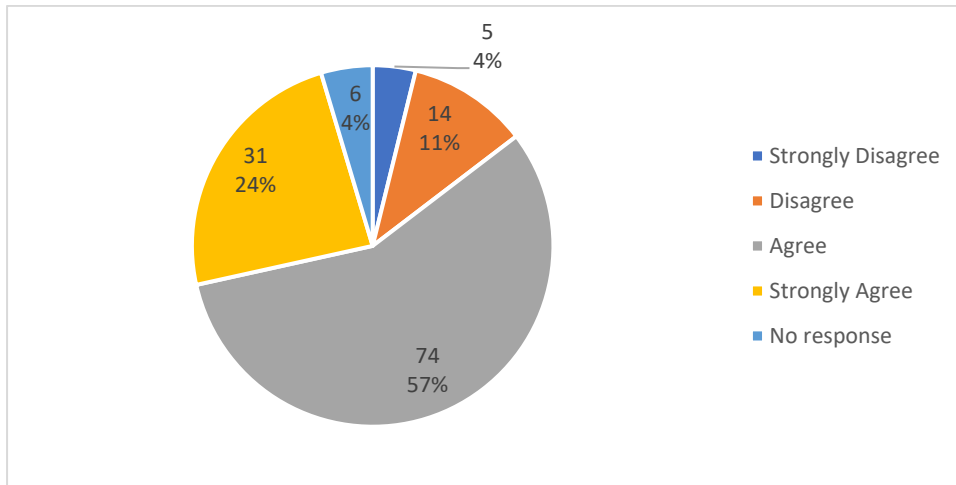
I am satisfied with the amount of safety training and the use of safety devices used on the job site.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	15	32	64	13	6	130

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Count	15	32	64	13	6	130
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Q50. I am responsible for the proper use of personal protective equipment (PPE) and/or traffic control.

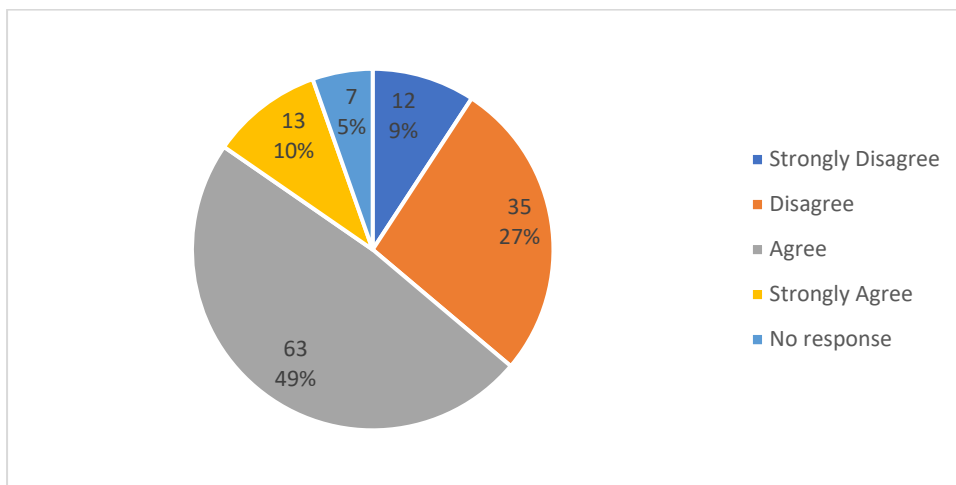
15% don't believe they are responsible for use of PPE/traffic control while the majority (81%) agree it is their responsibility.



I am responsible for the proper use of personal protective equipment (PPE) and/or traffic control.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	5	14	74	31	6	130

Q51. My job sites have the proper amount of traffic control.

More than a third (38%) disagree with the amount of traffic control on job sites, out of which 10% strongly disagree with that.

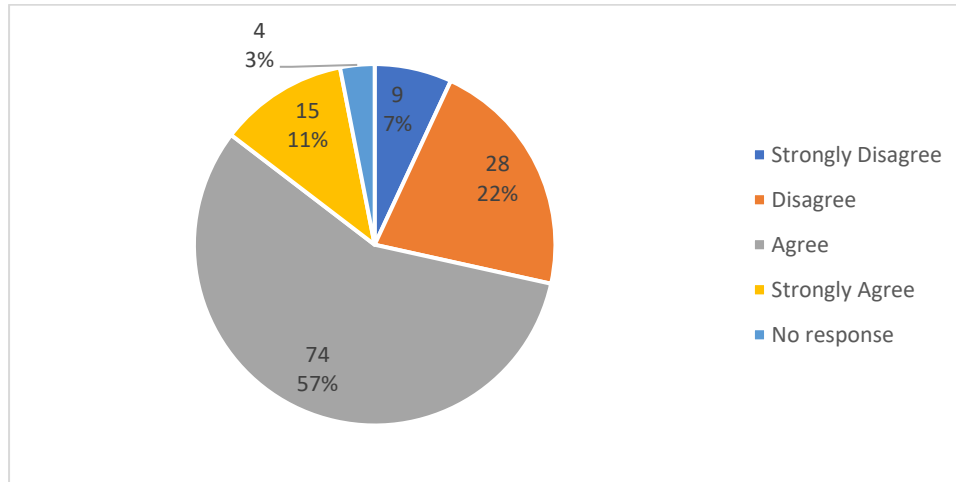


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My job sites have the proper amount of traffic control.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	12	35	63	13	7	130

Q52. I have ready access to the information, tools, and technology to perform my job.

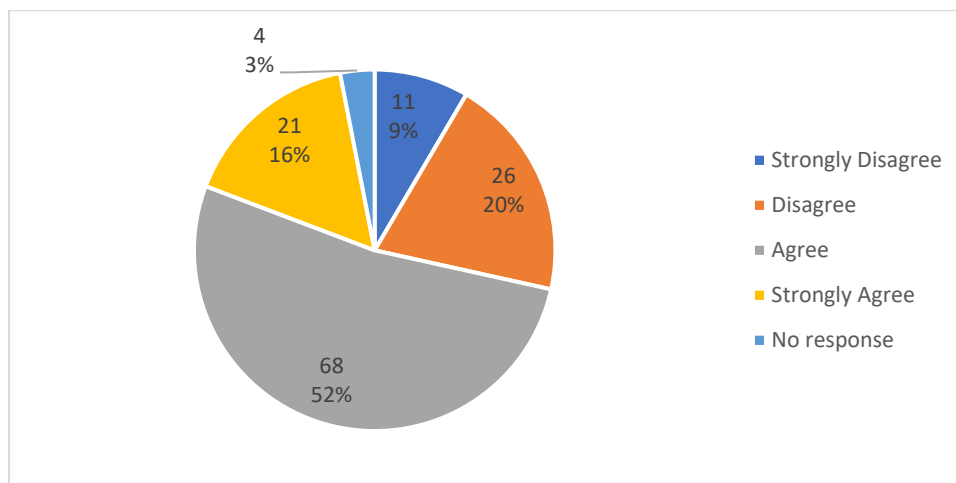
Almost 30% don't believe they have ready access to tools, information, and technology to perform their job.



I have ready access to the information, tools, and technology to perform my job.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	9	28	74	15	4	130

Q53. I have received the appropriate level of equipment training I need to do my job.

Almost 30% expressed that they don't have the appropriate level of equipment to perform their job.

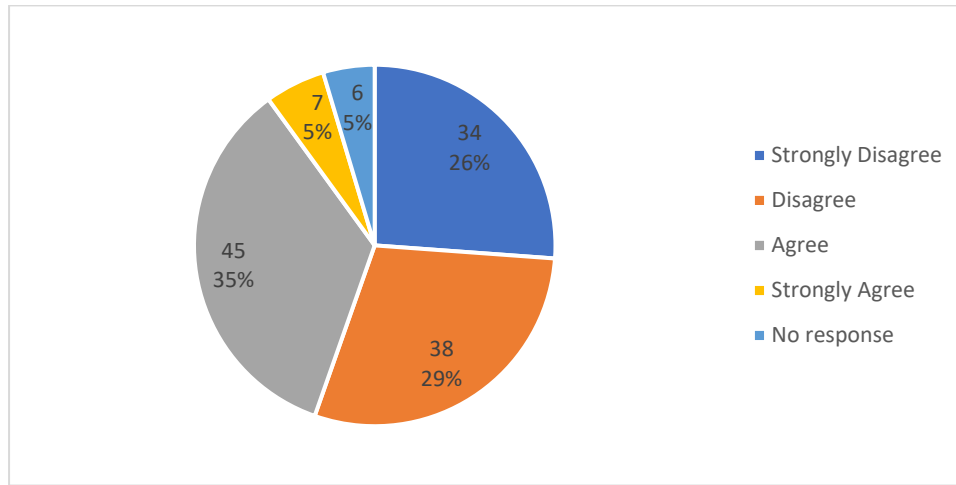


Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

I have received the appropriate level of equipment training I need to do my job.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	11	26	68	21	4	130

Q54. I see the value and advantage of having a GPS in my vehicle.

More than half (55%) of the employees don't see the value/advantage of having GPS in their vehicles.

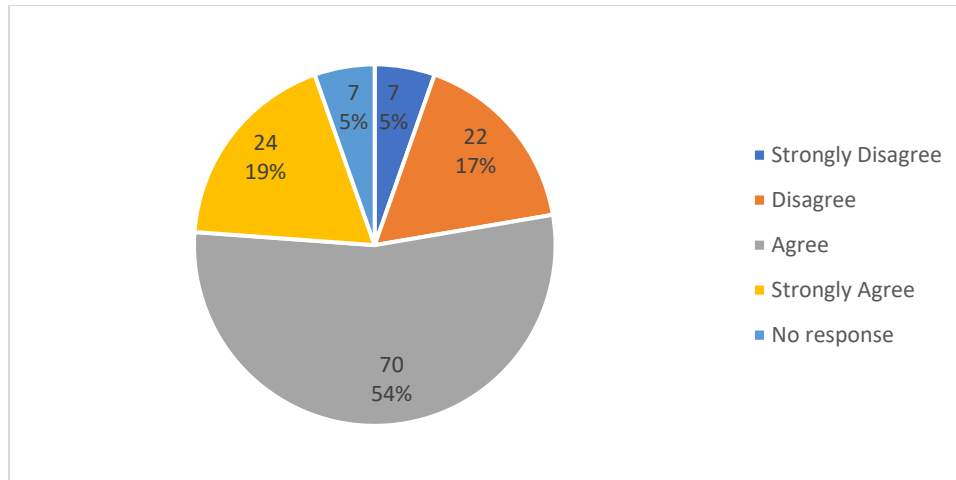


I see the value and advantage of having a GPS in my vehicle.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	34	38	45	7	6	130

Q55. My immediate supervisor understands my work and the resources needed to get my job done.

The majority of the employees (73%) agree with the above statement, there is 22% disagreement as well.

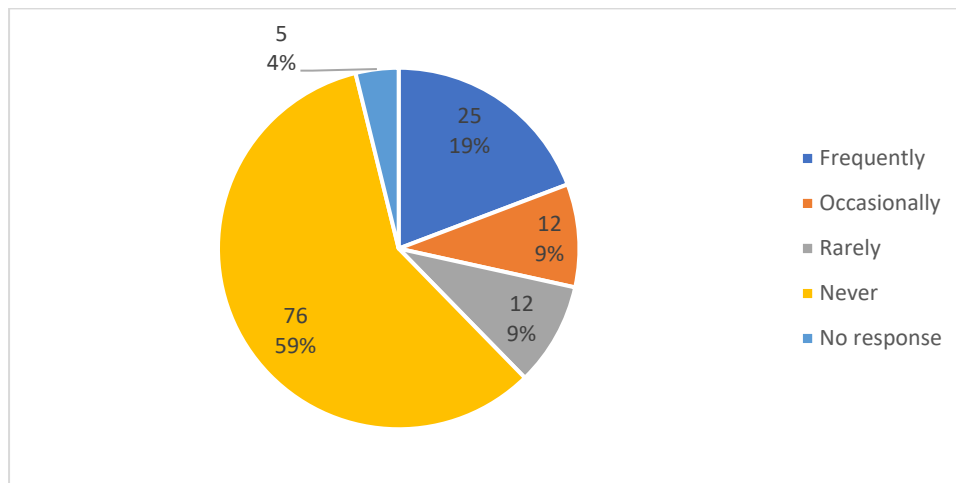
Stormwater, Pavement, and Traffic Operations Department
Management Evaluation



My immediate supervisor understands my work and the resources needed to get my job done.	Strongly Disagree	Disagree	Agree	Strongly Agree	No response	Total Responses
Count	7	22	70	24	7	130

Q56. I use a mobile (tablets and laptops) device to receive work orders and record the resources used.

68% of the employees say they never or rarely use any mobile devices to receive or record work orders while only 19% say they frequently use mobiles.

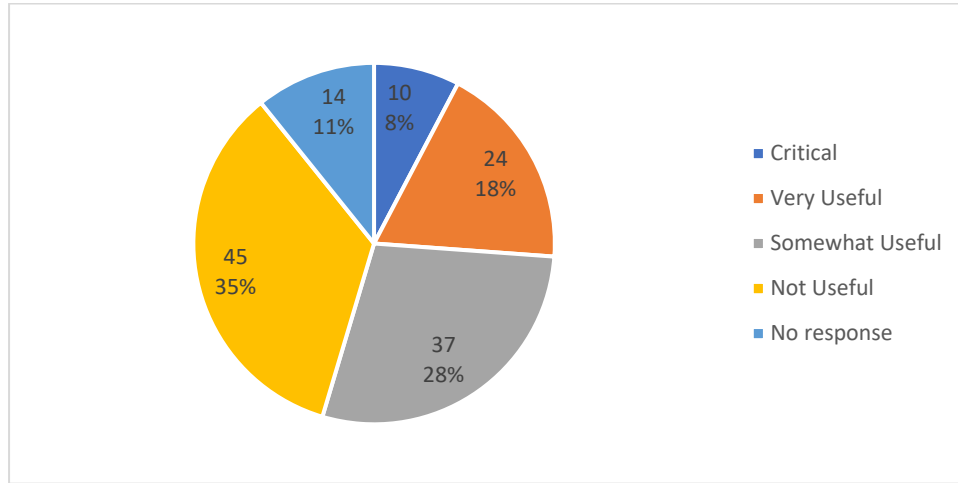


Response	Frequently	Occasionally	Rarely	Never	No response	Total Responses
Count	25	12	12	76	5	130

Q57. How useful are mobile devices (tablets and laptops) for receiving work orders and recording resources?

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

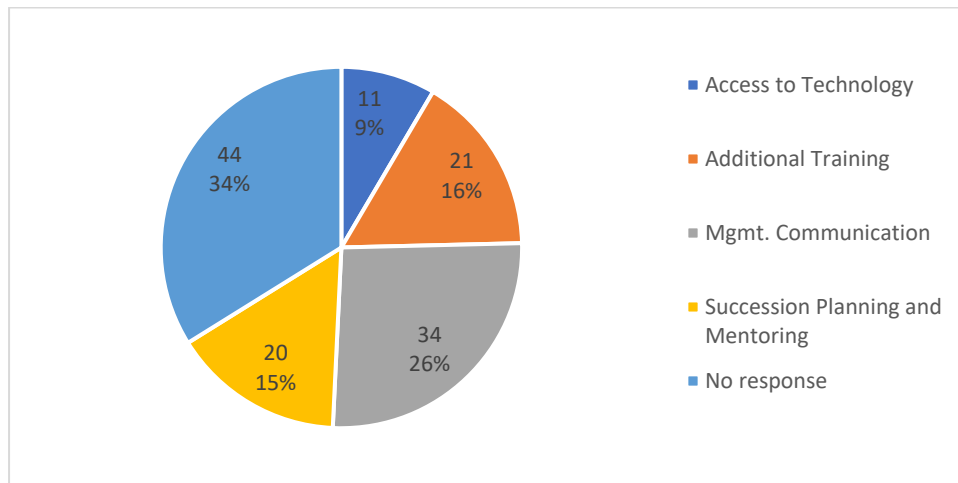
35% believe mobile devices are completely not useful for work orders while 26% believe they are very useful or even critical.



Response	Critical	Very Useful	Somewhat Useful	Not Useful	No response	Total Responses
Count	10	24	37	45	14	130

Q58. My crew could do a better job if we had more...

Almost the third of the responses could not be included in the results as they selected more than one or all given choices. From the filtered data pool, Management Communication stands out with 26% of employees, and only less than 10% believe Access to Technology would allow them to do a better job.



My crew could do a better job if we had more...	Access to Technology	Additional Training	Mgmt. Communication	Succession Planning and Mentoring	No response	Total Responses

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Count	11	21	34	20	44	130
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Q59. How can the City and Department improve the organization, other than pay?

Only 60% chose to respond to this open-ended question. A wide variety of responses were seen. Common themes included-

- Better Communication from the upper management
- More training opportunities for all
- Need for more employees to perform job duties
- Equal Opportunities for advancement in the organization
- Adjusting the schedule to allow more work during the days
- Establishing mutual respect between leadership and employees
- Concern about leadership capabilities
- More involvement by the Director
- Increasing accountability throughout the organization

A complete list of all open-ended responses is provided without any editing of words, spelling, grammar, or content by LAC.

#	Response
1	By working to hold management accountable same level as expected of the workers.
2	Provide monthly trainings and or meetings to all staff, to be sure we are all on the same page. One sound one beat!
3	There is a huge gap in communication from management to the ground workers. This leads to mistrust and very low moral. Much more but too long to write.
4	Our upper management lack communication - people skills, new management would improve the organization. I have no confidence in managements ability to improve the department.
5	Need more workers in the field. Better communication, planning.
6	Go back to 4 x 10 hour days. Get more workers more equipment. Bosses who want to listen to what we have say for training for us
7	If you don't have anything nice to say then don't say anything at all. I have nothing to say!!
8	Have a willingness to communicate, understand and respect what the workers going through.
9	Less management and more boots on the ground.
10	Less upper management + chief's and more working foreperson that care about employee's.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

11	-communicate better & more often -build on morale -rotate fore people as to not get complacent & favoritism
12	Equal opportunity across the board for advancement, "good ole boy" system is still in place
13	Cdl training
14	More young workers on the crew
15	More equipment, more leadworker training, we are workers but we have families as well.
16	Training more help equipment scheduling
17	Make things fair!
18	Working together
19	More training. Respect each other. We are not just workers.
20	By looking at us as people who are assets to the city instead of just numbers on a paper. Understanding and communication goes a long way.
21	More workers and less managers,
22	Communication better planning have concern for the actual employee because with storm fish kill now more mandatory ot is very taxing physically & mentally
23	Better communication on all levels to all levels
24	If our director and manager interacted with us more
25	Need more boots on the ground. May be too top heavy. Supervisors run the department, managers + above seem to be absent a lot.
26	Directives comes from too many directions at times, stick with chain of command
27	Getting better people to run the department. Better communication. Better organization. Better training. Be fair across the board.
28	1. Listen to blue collars ideas 2. Go back to 4 10 hr days. 3. Have a director that shows up everyday. 4. Have a director that respects the workers. 5. When its time for a promotion give it to the person that deserves it. 6. Stop the favoritism
29	Its hard to like your job where the director talks down to ever body and dislikes the department. I heard her say that she did not know i was in the room
30	I feel these are too many to write, but number one is more communication. More help/opportunity to advance in position. More help on our crew especially would help greatly; we have essentially 3-4 people doing the job of an 8-10 man crew. Help with acquiring your class A/B CDL would be extremely beneficial to other maintenance workers because it is required to advance. Better management of time, people, and resources during emergency critical situations will also be useful.
31	Find ways to encourage promotion. Help with cdl's. Train and teach about various licenses that you can aquire.
32	Being more open and upfront about issues and some concerns of others helping and motivate others so they can move up.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

33	Bring back 4 10 hr day. Mini mowing is extremely short staffed we only have 4 people for the city when we used to have 12.
34	Hire the correct amount of people needed to keep up with the work load & sustain regular work hours instead of to accommodate the work load due to the lack of proficiently trained personnel. Increase the budget for laborers instead of office personnel that all over paid for there minute work load.
35	Restore the heavy equipment crew and their foreman. Fine the upper management.
36	Sit down and talk and get feedback from the worker who are in the field. So we all can be on the same page.
37	More time to get work done, 4 -10's was the best thing that we had going for as productivity, now soon as you start it's time to pack up and go.
38	More cross training, apprentice program for all
39	More time in the day! You really only have enough time for minimal work
40	Training
41	Training. Follow through with my hire details pertaining to my employment.
42	Replace all management starting with the director. Then hire people that care about people. Hire management with people skills that can make emplaces feel wanted , thank you.
43	Faster equipment turn around at the heavy equipment shop. More heads up of changes on the horizon.
44	-time - i feel like this organization doesn't have respect for people free time . Last minute changes shouldn't happen -communication, the trickle down effect doesn't work -this isn't directly related to pay, but it this organization could a more transparent about how our pay is accumulated during storms or essential times -career track - we need a more diverse career track -the wait till then retire game is played out we have more people than positions.
45	Consult with the field workers to get a better idea of what's going on in the community!!
46	Adequate training. Better communication. Put people in position that is passionate about the job verses being passionate about the pay. The department needs to be more knowledgeable about the license they require subordinates to have verses what they should be required to have. It is factual that, use of license and documentation are misappropriated. Provide a better system tracking for record keeping as wam is a manual inputted data source that is more manipulated to obstruct what should be appropriate and reckless. Management needs more soft skills, training and job
47	- proper training for all employees within same division so that work can be completed effectively and efficiently. -cross training -weekly/bi-weekly meetings with staff from management - communication training stressing importance of customer service
48	Provide better equipment; better training and more workers to do the job better.
49	Better leadership training. More focus on safety. An understanding that it is important to give vacation time off. Also we need more accountability from the leadership group. We have followers and no tenders, create other forms of training for equipment advancement.
50	1. Go back to 4 10 hour days, it wasn't broke and didn't need to be fixed. 2. Everything is a secret (storms, fish kills, procedures, decisions. In a leadership role and literally have no say in how my crew workers, the equipment i need).

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

	<p>3. Bring back overtime.</p> <p>4. Stop being intimidated by employees just because they have better and more efficient ideas than management.</p> <p>5. Way too top heavy. Tired of having to talk to my bosses, bosses, boss for a day off. It is ridiculous.</p> <p>6. Tired of being in fear of being fired for standing up for myself and what's right because management screwed up.</p>
51	More having information and guidance to moving howards. Exceling to newer positions with the city
52	Team work is the key
53	Heavy equipment is now spread through 5 different groups in the city. With 5 different foreman, it is a nightmare to allocate equipment between 5 foreman tasked with different job duties with no communication between the 5 foreman.
54	Hire a foremen. That knows about heavy equipment and what the operators actually do. Put all the operators on and crew instead of 5.
55	New director. Delete manager. 4-10 hour days. No over time unless it is mandatory. Do sand bagging like the county drop sand and bags and go!!
56	More communication with staff
57	Create additional field worker positions, field workers are required to work too many hours during emergency situations,
58	More open talk w/foreperson about certain "ec" situation to operate more effective. Release more employees for vacation when time permits even during "hurricane seasons"
59	Listen to the employees and suggestions
60	Fire the director!
61	Get rid of dianna rawleigh
62	Communication - there is a huge disconnect between upper management to middle & laborers,
63	Approve telecommute application asap.
64	Stop abusing the emergency critical designation. Everything is not an emergency!
65	Upper management need to be change they have us feeling like we are locked in put away then want us to give 100% then walk pass us wont even speak or nothing
66	I think the city can improve by adding more classes that support the ideas of the city of st. Pete structure. The programs that are provided are really helping me see more futuristic promises. Thank for the opportunity to develop and grow.
67	Communication & understanding
68	Hire more workers, checks on their crews.
69	Good question !!!
70	The departments director needs to be present and more active in communication with the crews to actually make employees feel welcomed and happy to work here instead of feeling like we're lost at ship.
71	To promote within
72	New equipment
73	Updated tablets and vehicles

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

74	By providing us with proper tools and equipment in order to perform our job task more effectively. Settle time management tools.
75	My department is performing to the best of the abilities with the tools and training they have. I believe that more experience in the position is needed. Just don't place a body in a position to fill out the block.
76	Traffic signals technology is revolving everyday. (need more training. Safety classes on being in traffic everyday.
77	More director & upper management communication w/ actual workers that the are out doing here work.
78	We need more people.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

6.2. Leadership Survey

During the management evaluation of the Stormwater, Pavement, and Traffic Operations Department, LAC developed and conducted an online Leadership survey via an online tool (Google Survey). The 16-question survey was completely confidential and did not track any identity.

The Leadership questions focused on the operations and direction of the Department. The Managers and Supervisors did not have the option to skip questions. All questions had multiple choices outlined, except the last question which provided a freeform response. The following is a summary of the results from the survey. A total of nine (9) managers participated in the Survey.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

1. *Survey Form*

SPTO Leadership Survey

This survey is completely anonymous. All questions are required. Please select the option that most appropriately matches with your answer to each question.

* Required



How many years have you been in your current position? *

- 0-2
- 3-5
- 6-9
- 10-15
- 15+

I have seen and understand the mission statement. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My responsibilities and work contribution matches the mission of the Department. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The WAM system is useful to me for planning and scheduling work *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I review a WAM output report every _____ to help me make better work decisions. *

- Week
- Month
- Year
- Never



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My opinions are important and considered by my supervisor. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I am assigned the correct number of employees for the work I am responsible. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

My employees are fully capable of doing work assigned. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

My supervisor provides me adequate direction and guidance to perform my job.

*

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I am fully involved in the decision-making that impacts my job and understand the conclusions that are made. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

I am fully trained and educated to my management/leadership position. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

We do share work and responsibilities between different groups. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The executive leadership understands our needs. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Our elected leaders understand our needs. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Our organization operates efficiently. *

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

How can the Department and City improve my contribution to the Department's mission? *

Your answer

Submit

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Google Forms



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

2. *Survey Form Result Summary*

All Managers and Supervisors have been in their current position for less than 5 years, out of which 80% have been in their position less than 2 years.

The following is a summary of the patterns seen throughout the Leadership Survey responses after completing the analysis of data received.

There was a wide array of responses regarding the effectiveness and utilization of the WAMS software. The majority do not believe in the usefulness of the WAMS software even though the majority of the leadership use WAMS weekly for running reports.

More than half of the Leadership believe that they are understaffed and do not have the correct number of employees to perform their assigned tasks.

The majority of managers have high confidence in the employee's capability to perform their assigned work, which echoes that of the employee survey results as well(Q 26). But a portion still believes that some employees are lacking skills.

At the same time, not many seemed to believe that the leadership above them (Executive Leaders and Elective leaders) do not care about them.

Almost 90% of Managers and Supervisors disagreed with the organization being operated efficiently.

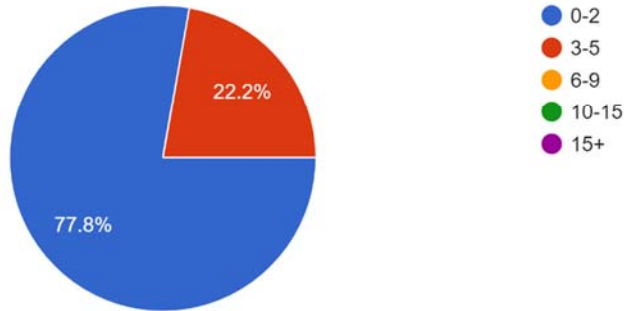
When asked in an open-ended/freeform response format about how the Department could be further improved (Q 16), common themes included increased communication from the top-down, more training opportunities for all, and demand for better tools to perform job duties.

Stormwater, Pavement, and Traffic Operations Department Management Evaluation

3. Survey Form Results

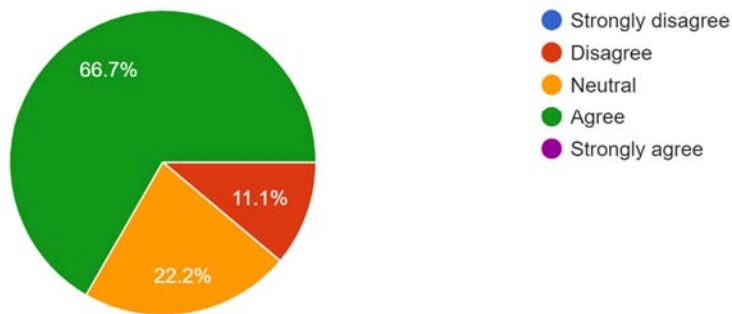
Q1. How many years have you been in your current position?

9 responses



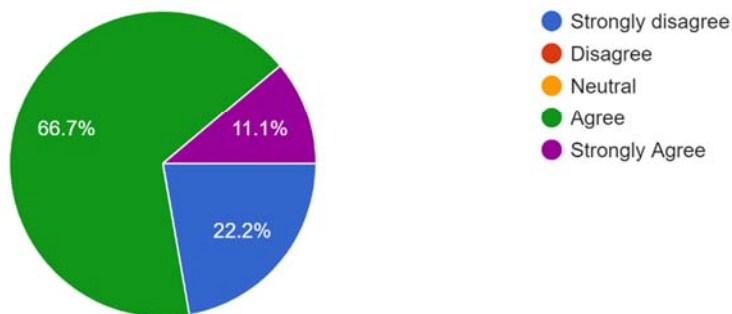
Q2. I have seen and understand the mission statement.

9 responses



Q3. My responsibilities and work contribution matches the mission of the Department.

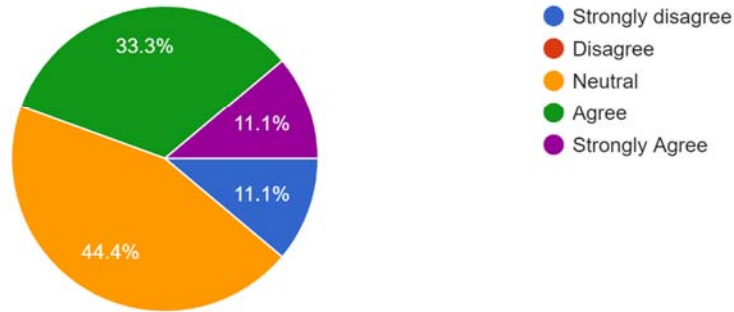
9 responses



Stormwater, Pavement, and Traffic Operations Department Management Evaluation

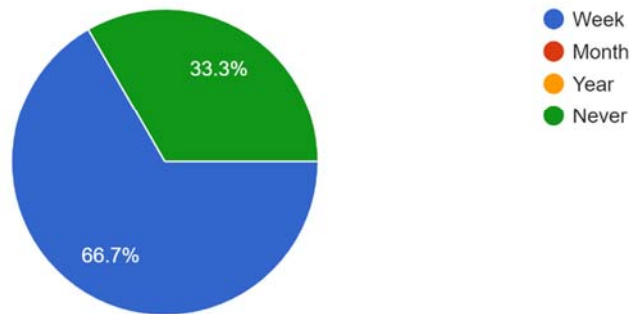
Q4. The WAM system is useful to me for planning and scheduling work

9 responses



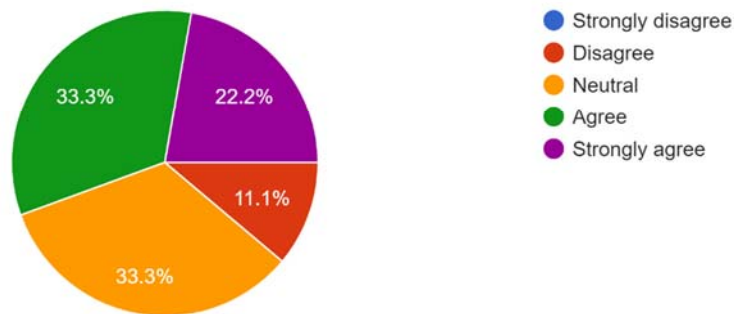
Q5. I review a WAM output report every _____ to help me make better work decisions.

9 responses



Q6. My opinions are important and considered by my supervisor.

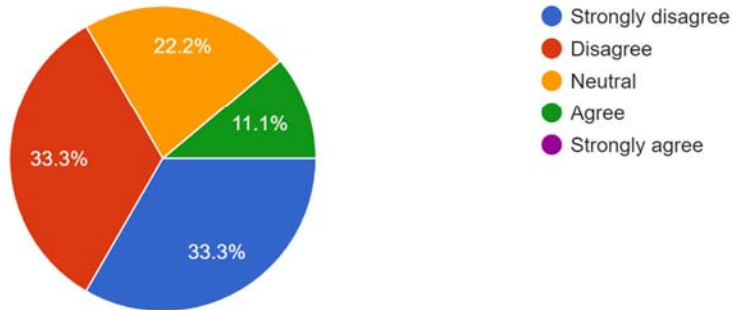
9 responses



Stormwater, Pavement, and Traffic Operations Department Management Evaluation

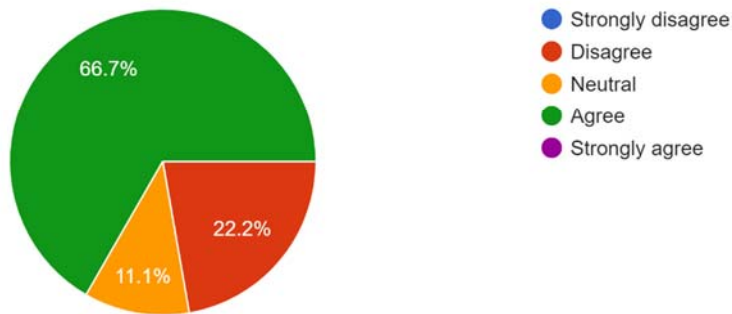
Q7. I am assigned the correct number of employees for the work I am responsible.

9 responses



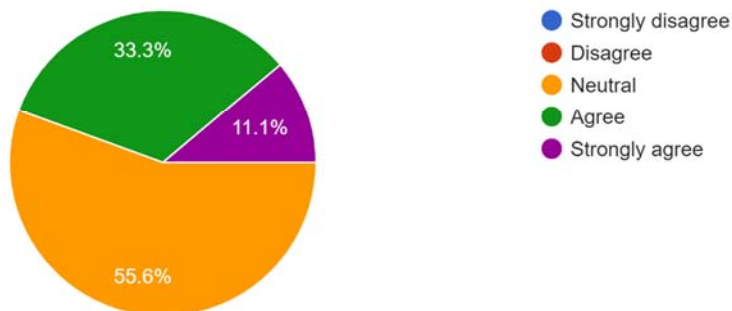
Q8. My employees are fully capable of doing work assigned.

9 responses



Q9. My supervisor provides me adequate direction and guidance to perform my job.

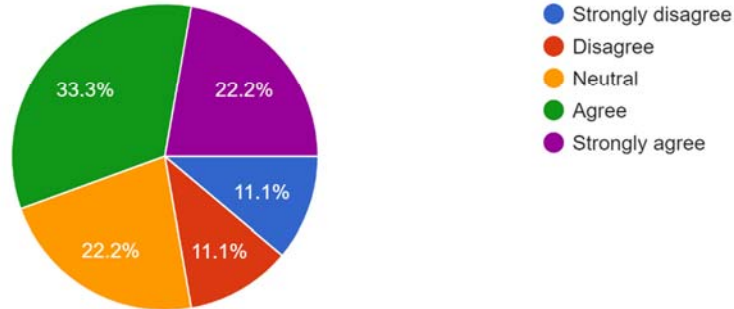
9 responses



Stormwater, Pavement, and Traffic Operations Department Management Evaluation

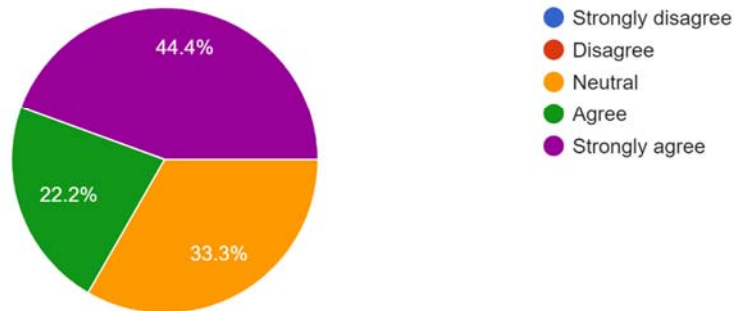
Q10. I am fully involved in the decision-making that impacts my job and understand the conclusions that are made.

9 responses



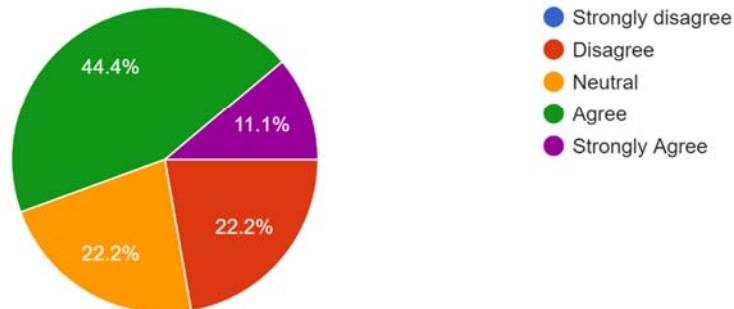
Q11. I am fully trained and educated to my management/leadership position.

9 responses



Q12. We do share work and responsibilities between different groups.

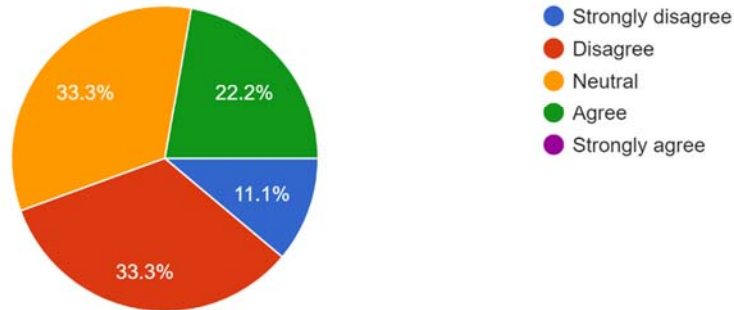
9 responses



Stormwater, Pavement, and Traffic Operations Department Management Evaluation

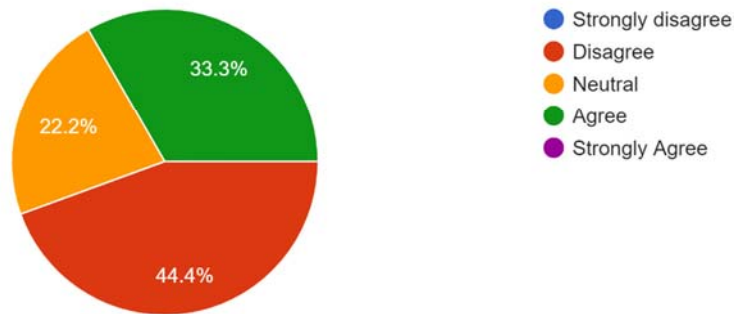
Q13. The executive leadership understands our needs.

9 responses



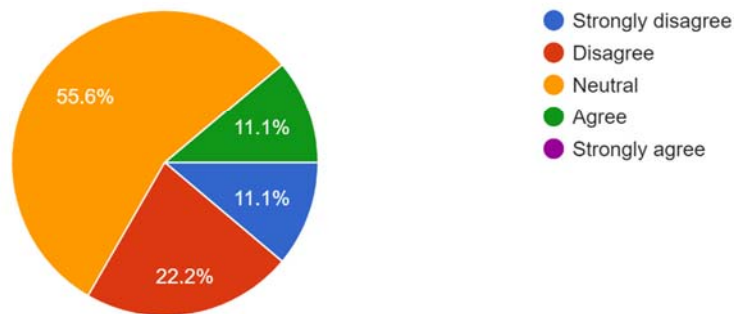
Q14. Our elected leaders understand our needs.

9 responses



Q15. Our organization operates efficiently.

9 responses



Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Q16. How can the Department and City improve my contribution to the Department's mission?

9 responses

#	Responses
1	Communicate better
2	Provide me with better tools
3	Continue to equip me with the proper tools to assist
4	Starting by educating our patrons.
5	More trainings
6	More training for current staff. More accountability for work and performance. More leadership positions.
7	Better communication. All employees have a clear understanding what their goals and objectives are.
8	Not sure
9	I had more employees

SECTION 7- LEVEL OF SERVICE STUDY

LA Consulting, Inc. (LAC) was retained by the City to perform a management review of the SPTO Department as well as to conduct a stormwater maintenance Level of Service (“LOS”) study for the stormwater maintenance activities performed by the Department.

A baseline of service was developed by documenting stormwater activities performed by the department and their estimated individual LOS. This was achieved by analyzing and reviewing available maintenance management data, field observations, interviews, and LAC’s experience.

The study further offers four (4) LOS options, including estimated incremental and total costs for each recommended option. After the offering of these findings, offer five (5) maintenance and operational recommendations to specific stormwater activities, as well as the maintenance of eight (8) others.

Levels of Service and Background

The City of St. Petersburg, like many agencies, seeks to develop a sound level of service (LOS) for the operation and maintenance of their stormwater systems and infrastructure that are responsible for the treatment, conveyance, and outfall of stormwater. Stormwater LOS is primarily based on the capacity of the system to meet a given demand.

The greatest challenge for agencies is to define appropriate parameters for a LOS evaluation. Unfortunately, standards and benchmarks for maintenance and operations are still extremely limited in the industry.

Stormwater management typically includes flood risk reduction and water quality improvement. Though the objectives of water quantity and water quality are linked, LOS criteria have often been considered separately.

LAC has utilized some of the concepts of the LOS service classifications of service classes A through D in this study of the maintenance and operational activities by Gregory et. al (2003). These general concepts are outlined and described below.

- **“Service Class” LOS A** – A provides the highest level of flood protection for roads and buildings where all flows are contained with the underground collection system. The street surface remains dry during and after the storm, all traffic lanes are open, and the maximum hydraulic grade line is generally at or below the inlet throat elevation.
- **“Service Class” LOS B** – is the next level of protection and allows minimal street flooding, which is often limited to the outer travel lanes. The road crown remains dry to allow safe passage of vehicular traffic and there is no flooding of buildings. Level of service criteria might specify a minimum width of dry roadway surface (e.g. 12ft (3.7 m) for normal traffic flow on local roads and 24ft (7.3 m) on collector, arterial and highway routes to allow travel in both directions).
- **“Service Class” LOS C** – is a lower level of flood protection that allows the entire roadway surface to be inundated. Although the road crown is flooded, it is still deemed passable and does not prevent emergency ingress or egress (e.g. hurricane evacuation). There is no flooding of buildings.

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

- **“Service Class” LOS D** – is the minimum level of flood protection for buildings. Roads are generally not passable, and property is threatened but buildings are not flooded at any time during and after the storm.

This study while using some of Gregory et. al’s (2003) concepts considers both the quality and quantity of stormwater.

Baseline

The SPTO Department is responsible for the maintenance of stormwater infrastructure that manages stormwater runoff and helps prevent localized flooding of roads, sidewalks, and properties. Stormwater crews work to mitigate flooding, maintain environmental water quality, and safety for residents, business owners, and visitors to St. Petersburg. The City’s storm drains and stormwater infrastructure is not connected to its sanitary sewer systems or wastewater treatment plants, thus rainfall flows often directly from storm drains into nearby creeks, lakes, Tampa Bay, and the Gulf of Mexico. The group is largely responsible for the storm drainage system, retention ponds, lakes, ditches, and landscaping maintenance, and street sweeping throughout the city.

The Stormwater Operations Division is the largest division of the Department. The Division has 124 full-time equivalents (FTEs) and is led by the Stormwater Operations Manager. The Division is further subdivided into Stormwater Operations and Stormwater Quality. The Stormwater Quality Division was renamed from the Streetscape Maintenance Division in FY2021. Together, they are responsible for the repair and maintenance of 17,900 stormwater inlets, 704 acres of mowing areas, 525 miles of stormwater pipes, 100 miles of seawalls, 83 retention ponds, and 59 stormwater vaults, 1,397 box culverts, and 20 baffle boxes.

The Stormwater Utility Operating Funds budget is \$22.54 million. A tiered rate billing structure program was adopted by City Council on October 1, 2019. The rate structure is reported to be revenue-neutral, meaning the City did not modify the rate structure to receive additional revenues through this new fee structure, but it allowed for the distribution of costs to single-family residential parcels based on the number of square feet of impervious surface area on their property.

Stormwater revenue is derived almost exclusively from stormwater fees. City Council approved a change to the ordinance in FY 2009 that allowed City Council to vote on the potential annual Stormwater fee increase, using the Consumer Price Index (CPI) as a guide, but also taking into consideration other factors such as fund balance and current operating requirements.

Maintenance and Operational Activities

The following maintenance activities are performed by the Department.

- Chemical Vegetation Control (Pond/Water Body)
- Mechanical Vegetation Control (Pond/Water Body)
- Litter & Debris Collection
- Roadway Sweeping

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

- Stormwater Culvert Cleaning
- Urban Line Clearing
- Hand Ditch Maintenance
- Mechanical Roadside Ditch Cleaning
- Slope Mowing
- Mechanical Canal Cleaning
- Mechanical Catch Basins Cleaning
- Stormwater Vault Cleaning
- Baffle Box Cleaning

The Department has prepared and uses several Standard Operating Procedures (SOP) documents for their work activities. These SOPs give some basic descriptions of the type of work performed, why and when it is performed, and resources used. SOPs exist for the following activities related to stormwater activities.

- Catch basin inlet maintenance
- Closed drainage system maintenance
- Stormwater culvert installation
- Stormwater vault maintenance
- Chemical vegetation management
- Landscape maintenance
- Litter and debris collection
- Street sweeping operations

Findings and LOS Options

LOS and routines exist for many operational and preventive stormwater maintenance activities. These proactive efforts are performed to protect the City's assets, ensure proper operation, optimize asset life cycles, and increase longevity. This evaluation defines the current level of service in the four categories from A to D. LAC then estimates the effort required to increase the level of service to the next category and finally to a level A.

Based on observations, interviews, and experience, LAC also makes a recommendation for each activity on the level of service on whether to maintain, increase or lower from current operations. Finally, a summary is provided, with four (4) of the activities in the C category, three (3) in the B category, and six (6) in the A. After the summary, each activity is described with cost to increase service level along with LAC recommendations.

Current LOS and LOS options

Stormwater, Pavement, and Traffic Operations Department
Management Evaluation

Maintenance Activities	City's LOS	LOS A	LOS B	LOS C	LOS D
Chemical Vegetation Control (Pond/Water Body)	B	Monthly Routine	Monthly Inspection	Annual Inspection	Annual Request Only
Mechanical Vegetation Control Pond/Water Body)	B	Monthly Routine	Monthly Inspection	Annual Inspection	Annual Request Only
Litter & Debris Collection	A	Daily	Weekly Route	Monthly Routes	Request Only
Roadway Sweeping	B	Weekly	Monthly	Annually	Request Only
Stormwater Culvert Cleaning	C	Bi-Annually Routine	Annually Routine	Inspection/Work Order Driven	Request Only
Urban Line Clearing	C	2- Years	3- Years	Inspection/Work Order Driven	Request Only
Hand Ditch Maintenance	A	Twice a Year	Annually	Inspection/Work Order Driven	Annual Request Only
Mechanical Roadside Ditch Cleaning	C	2- Years	5- Years	Inspection/Work Order Driven	Annual Request Only
Slope Mowing	A	4-times Annually	Twice a Year	Inspection/Work Order Driven	Annual Request Only
Mechanical Canal Cleaning	A	Twice a Year	Yearly	Inspection/Work Order Driven	Annual Request Only
Mechanical Catch Basins Cleaning	C	Yearly	2- Years	Inspection/Work Order Driven	Annual Request Only
Stormwater Vault Cleaning	C	Yearly	2- Years	Inspection/Work Order Driven	Annual Request/Emergency
Baffle Box Cleaning	A	Twice a Year	Yearly	Inspection/Work Order Driven	Annual Request Only

Recommendations

Based on the information provided by the City and the findings developed on the previous page, LAC offers the following recommendations by activity along with additional cost estimates.

Chemical Weed Control

This work uses chemicals to control some vegetation from blocking and disturbing the natural stormwater flow. The current effort is estimated at a level of service of B, which includes monthly inspection. LAC observation believes the existing application is adequate and cost-effective with first having an inspection then applying an effective solution to control the natural stormwater flow adequately. A higher level of service (A) would be the effort to automatically apply treatments monthly regardless of the inspection at an increased cost of \$24,800 yet with most likely minimal benefit.

Mechanical Vegetation Control

A mechanical method of removing some vegetation work is to prevent blocking and disturbing the natural stormwater flow of a canal, ditch, or other water body. The current effort is estimated at a level of service of B, which includes monthly inspection. LAC observation believes the method of performance is adequate and cost-effective with the inspection then apply to be a more effective solution and adequately controlling the natural stormwater flow and storage. A higher level of service (A) could be the effort to automatically mechanically clean monthly, regardless of the inspection, at an increased cost of \$55,600.

Litter & Debris Collection

This activity concentrates on the manual collection of litter and debris on designated routes established by the Department. A portion of the purpose of this activity is to attempt to interrupt the debris flow of litter into the City's waterbodies. With the complete application and adherence to the SOP and collection routines, LAC believes the current effort of this activity is adequate and cost-effective for debris flow interruption. The recent effort is estimated at a level of service of A and should be maintained at this level.

Roadway Sweeping

Sweeping is performed using specialty equipment to mechanically sweep roadways. The purpose of this effort is to reduce debris and sediment from blocking and disturbing the natural stormwater flow and reducing downflow sediment. The current effort is estimated at a level of service of B, or perform all routes monthly. LAC observation believes the current application is adequate and cost-effective, as well as reducing debris and sediment along the specific routes and in specific areas. A higher level of service (A) could be achieved by increasing the sweeping frequency to weekly at a cost of approximately \$972,700 more yet stormwater benefit may not be that effective or justified.

Stormwater Culvert Cleaning

This work is performed using specialty equipment to mechanically clean the City's stormwater culverts. The purpose of this effort is to reduce debris and sediment from blocking and disturbing the natural stormwater flow and reducing downflow sediment. The current effort is estimated at a

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Management Evaluation

level of service of C and is driven by inspection and work orders. LAC observation believes the current application should be increased to a service level of a B or utilize cleaning annually. This would cost approximately \$49,200 more than the current work. If the City desires to increase the LOS to an A, or bi-annually, this level would cost an additional \$98,400, or the increase of level B yet was not believed to be cost-effective.

Urban Line Clearing

Line cleaning is performed using specialty equipment to mechanically clean the City's urban stormwater lines. The purpose of this effort is to reduce debris and sediment from blocking and disturbing the natural stormwater flow and reducing downflow sediment in the urban areas of the City. The current effort is estimated at a level of service of C and is driven by inspection and work orders. LAC observation believes the current application should be increased to a service level of a B, or on a three-year cleaning cycle. This would cost approximately \$68,900 more than the level of service C. If the City desires to further increase the LOS to an A or a two-year cycle. An A service level would cost an additional \$42,700 over the B level with questionable benefits for stormwater.

Hand Ditch Maintenance

This activity concentrates on the maintenance of the ditches under the responsibility of the City. The activity uses department staff to manually clean and maintains ditches using designated routes established by the Department. With the full application and adherence to the SOP and maintenance routines, LAC believes the current effort of this activity is adequate and cost-effective to maintain or preserve water flow. The current effort is estimated at a level of service of A and should be maintained at this level.

Mechanical Roadside Ditch Cleaning

Ditch cleaning is performed using equipment to mechanically clean the City's roadside ditches. The purpose of this effort is to reduce debris, unwanted vegetation, and sediment from blocking and disturbing the natural stormwater flow and reducing downflow sediment. The current effort is estimated at a level of service of C and is driven by inspection and generated work orders. LAC observation believes the current application should be increased to a service level of a B, or every ditch cleaned every five years at an additional cost of \$16,300. If the City desires to increase the LOS to an A, or every two years, this level would cost an extra \$27,000 but LAC did not see the benefit to warrant this level.

Slope Mowing

Slope mowing uses specialized equipment to mow the slopes and banks of the City canals, retention ponds, and other water bodies. The purpose of this activity is to mechanically maintain specific slopes of the City's stormwater infrastructure. With the full application and adherence to the SOP and mowing routines, LAC believes the current effort of this activity is adequate and cost-effective for the activity's purpose. The current effort is estimated at a level of service of A and should be maintained at this level.

Mechanical Canal Cleaning

This type of cleaning uses specialized equipment to mechanically clear the City's canals of debris and sediment. The purpose of this activity is to remove debris and sediment from blocking and disturbing the natural stormwater flow. With the full application and adherence to the SOP and mowing routines, LAC believes the current effort of this activity is adequate and cost-effective for the activity's purpose. The current effort is estimated at a level of service of A and should be maintained at this level.

Mechanical Catch Basins Cleaning

This effort is performed using equipment to mechanically clean the City's stormwater catch basins. The purpose of this effort is to reduce debris and sediment from blocking and disturbing the natural stormwater flow and reducing downflow sediment, as well as stormwater capacity in the system. The current effort is estimated at a level of service of C and is driven by inspection and creating related work orders. LAC observation believes the current application should be increased to a service level of a B or cleaning every two years. This would cost approximately \$134,200 over the existing service. If the City desires to increase the LOS to an A, or yearly cleaning, this level would cost an additional \$76,100 over the level of service B.

Stormwater Vault Cleaning

This work is performed using equipment to clean the City's stormwater vaults mechanically. The purpose of this effort is to reduce debris and sediment from blocking and disturbing the natural stormwater flow and reducing downflow sediment and stormwater capacity in the system. The current effort is estimated at a level of service of C and is driven by inspection and then generating work orders. LAC observation believes the existing application should be increased to a service level of a B or cleaning every two years. This would cost approximately \$153,600 over current work. If the City desires to increase the LOS to an A, or yearly cleaning, this level would cost an additional \$76,800 though not recommended.

Baffle Box Cleaning

Stormwater uses specialized equipment to mechanically clean the City's baffle boxes of sediment and debris. This activity aims to prevent debris and sediment from blocking and disturbing the natural stormwater flow and impeding movement. With the complete application and adherence to the SOP and cleaning routines, LAC believes the current effort of this activity is adequate and cost-effective for the activity's purpose. The recent effort is estimated at a level of service of A and should be maintained at this level.

Summary

The City's existing stormwater LOS appears in most cases to be effective and meet the needs of the maintenance of stormwater flow and quality. Several of the thirteen (13) were suggested to be enhanced at the cost of \$418,600. Most of the service levels recommended are now an A or B and appeared to be adequate; with the suggested changes, the overall level of service would be a high B+ up from the current B-.

SECTION 8- ACRONYMS

ACFR- Annual Comprehensive Financial Report
ATMS – Advanced Traffic Management System
BF&T – Budget, Finance, and Taxation Committee
CAMP – Capital Asset Management Program
CIP – Capital Improvement Plan
CMMS / MMS – Computerized Maintenance Management System
CPI – Consumer Price Index
CRM – Customer Relationship Management
CY – Calendar Year / Cubic Yard
DROP – Deferred Retirement Option Program
ESRI – software vendor for Geographic Information System
FDEP – Florida Department of Environmental Protection
FMLA – Family Medical Leave Act
FPSU – Florida Public Services Union
FTE – full-time equivalent (employee)
FY – Fiscal Year (period starting October 1 and ending September 30 in the following year)
GASB – Governmental Accounting Standards Board
GIS – Geographic Information System
HPO – High-Performance Organization
IGWO – Intergovernmental Work Orders
IWRMP – Integrated Water Resources Master Plan
LAC – LA Consulting, Inc.
LOS – Level of Service
MBWA – Management by Walking Around
NACE – National Association of County Engineers
NAFA – National Association of Fleet Administrators
PCI – Pavement Condition Index
PDF – Portable Document Format
PIT- Process Improvement Team
PM – Preventive Maintenance

Stormwater, Pavement, and Traffic Operations Department
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QA/QC – Quality Assurance / Quality Control

ROI – Return on Investment

SEIU – Service Employees International Union

SOP – Standard Operating Procedure

SPTO – Stormwater, Pavement, and Traffic Operations

WAM/WAMS – Work and Asset Management System

WRD – Water Resources Department

SECTION 9- REFERENCES

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Initial Recommendations for the City of St. Petersburg Stormwater, Pavement, and Traffic Operations Department



- 1. Who is LA Consulting?*
- 2. Review Approach*
- 3. Recommendations with Support Information*

October 28, 2021

Harry Lorick, PE, PTOE, PWLF
Jeff Thurman, MBA, CPM



Consulting, Inc.
We Help Public Works Work!



***We have one focus...
assisting agencies to improve operations!***

**FIRM FOUNDED
IN 1993**

**MANAGEMENT &
INFRASTRUCTURE**

**NATIONAL APWA
PRESENTER 55
TIMES**

**OVER 86 AGENCIES
REVIEWED AND
OVER 200 SYSTEM
IMPLEMENTATIONS**

**DOCUMENTED
IMPROVEMENT**

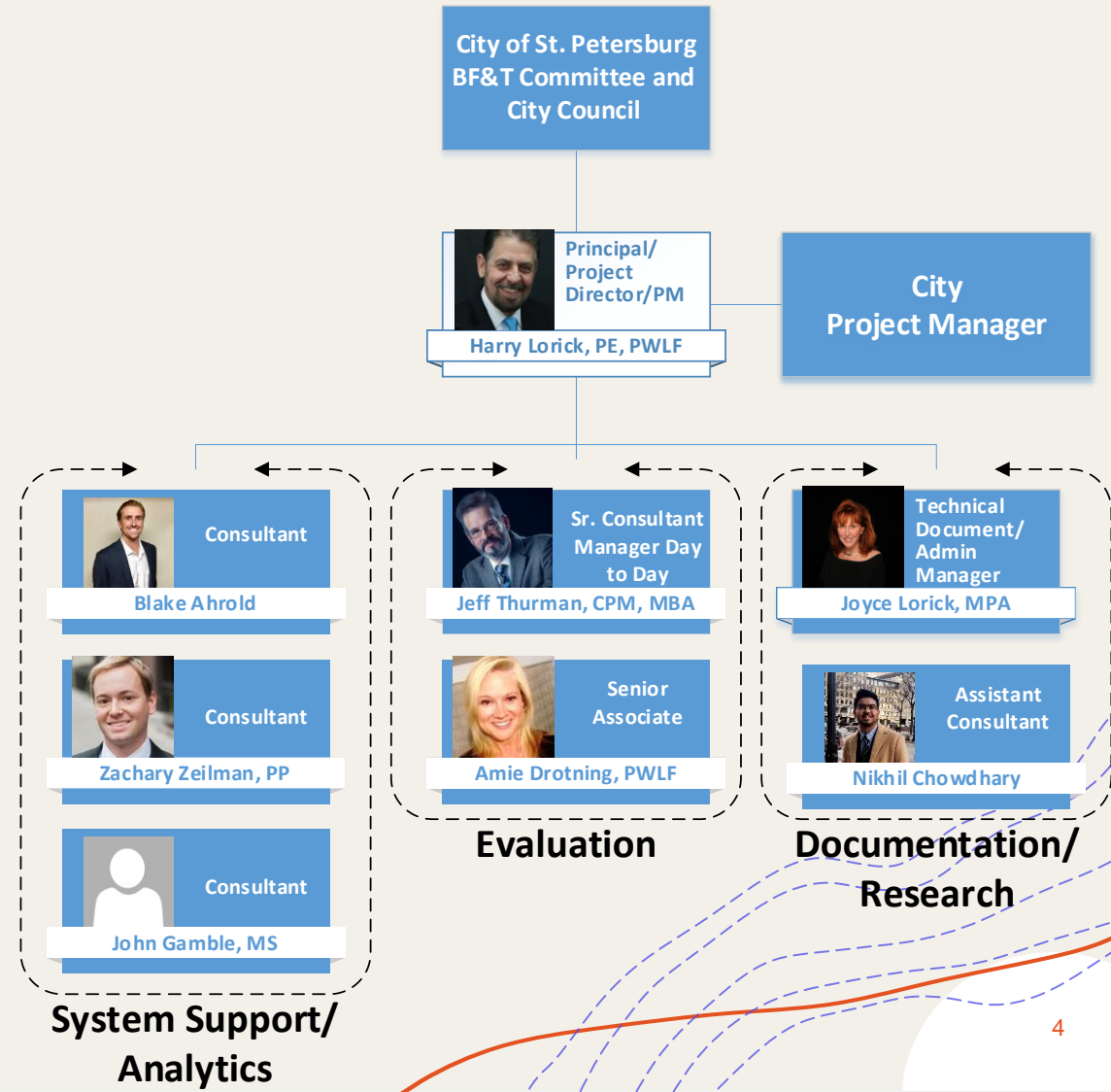
**HANDS-ON
IMPLEMENTATION**


- 
- + We have the background, skill, staff and direct related experience to ensure your success.
 - + We have staffed offices in Manhattan Beach (CA) and Debarry (FL).



LA Consulting Staff for Your Project

- + All have worked in Maintenance & Operations
- + Evaluated Counties, Cities and Special Districts
- + Two PWLFs
- + Senior staff members averaging over 25 years of direct applicable experience





Why? To evaluate operations for efficiency and identify opportunities by...

- + Documenting & mapping current operations and processes
- + Identifying areas of strengths and weakness for improvement
- + Recommending an action plan for improvement
- + Outlining a “business-like” approach to better manage the SPTO Department operations

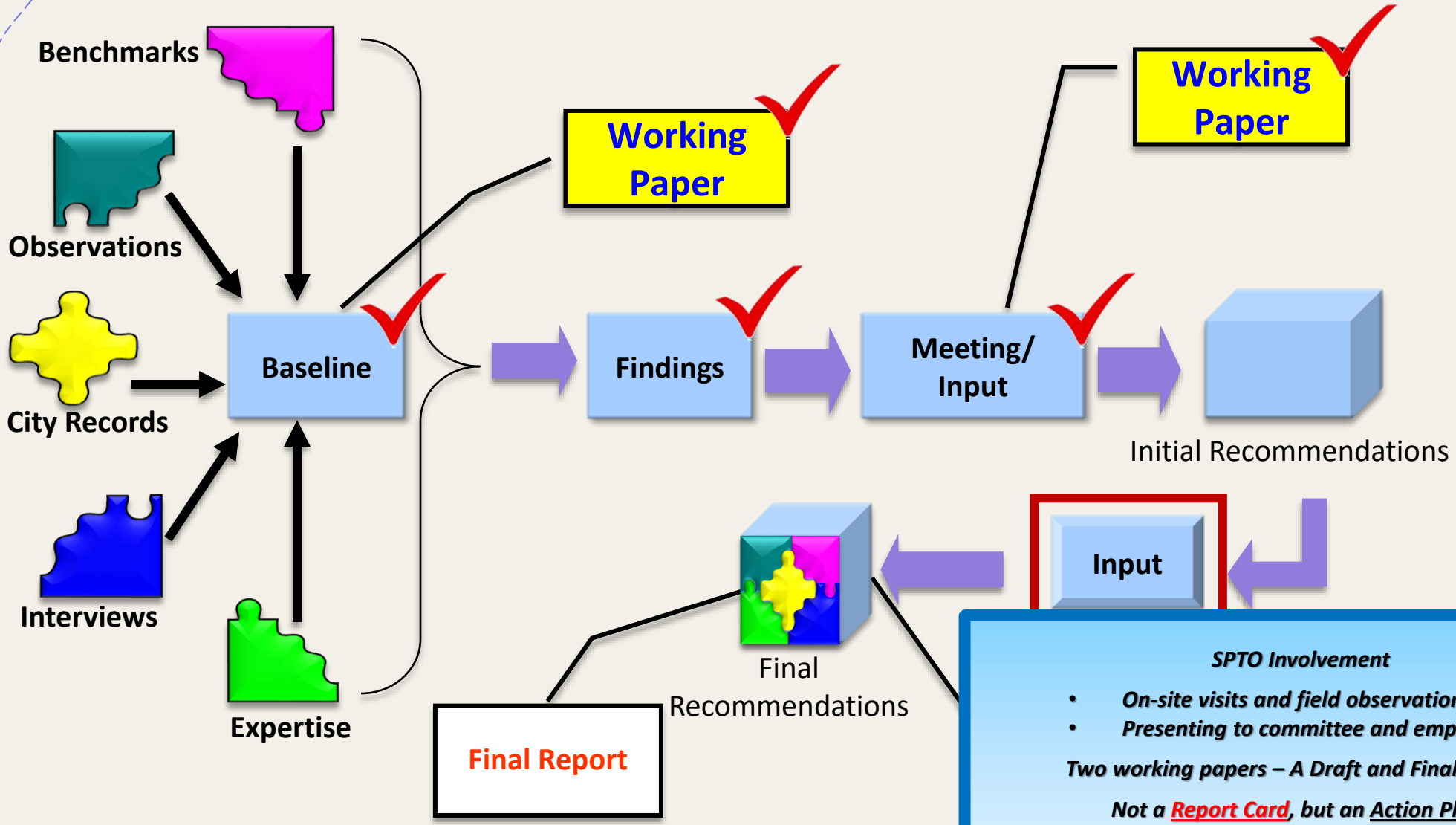
Project goals are to identify opportunities to improve using best management practices

St. Petersburg Stormwater, Pavement & Traffic Operations Department		MONTHS					
Task No.	Task Description	1	2	3	4	5	6
Phase A. Management Evaluation							
Task 1	Project Initiation	█					
Task 2	Examination of Services and Field Review	█	█				
Task 3	Evaluate Opportunities for Improvement		█				
Task 4	Document and Present Findings			█			
Task 5	Document and Present Draft Recommendations			█	█		
Task 6	Prepare Final Report				█	█	
Task 7	Monthly Status And Quality Control	█	█	█	█	█	█
Phase B. Alternative Tasks							
Task 8	Alternative Task 1- Confidential Employee Survey		█	█			
Task 9	Alternative Task 2- Department Level Of Service Study			█	█	█	█

*This is **not an audit**, but an emphasis on optimizing performance and improving productivity.*

- + Complete evaluation, with specific recommendations for improvement.
- + This effort has an emphasis on optimizing performance and improving productivity.

Evaluation Process



SPTO Involvement

- *On-site visits and field observations*
- *Presenting to committee and employees*

Two working papers – A Draft and Final Report.

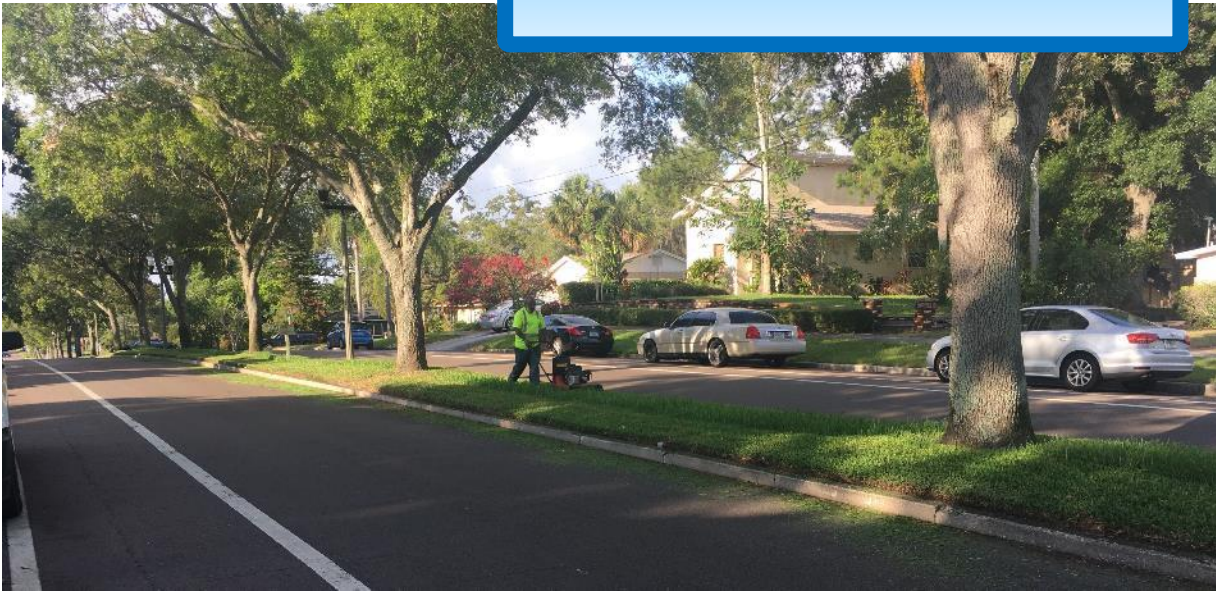
Not a Report Card, but an Action Plan!



LAC has observed work and results.



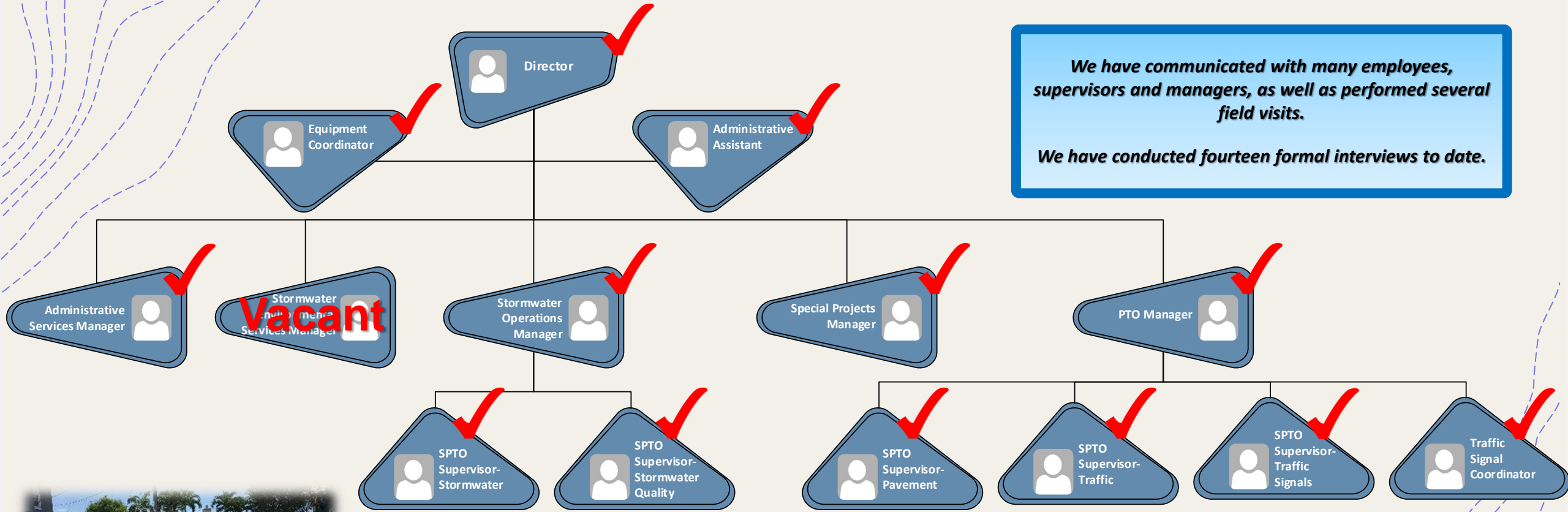
"We have been getting ideas from employees at all levels."



Interviews and Field Reviews

We have communicated with many employees, supervisors and managers, as well as performed several field visits.

We have conducted fourteen formal interviews to date.



- ✓ + Council Chair and BF&T Chair, Ed Montanari
- ✓ + City Auditor, Boriana Pollard
- ✓ + Public Works Administrator, Claude Tankersley

Employee and Leadership Surveys

+ Paper Employee Survey conducted during findings presentations and during a follow up visit

+ 59 question

+ 130 responses

+ Managers' electronic survey conducted using Google Forms

+ Both 100% confidential

What is your Division? *(Please cross one)*

Administrative Services Stormwater Operations
 Special Projects Pavement & Traffic

What is your Section or Group?

What is your job title?

What is your primary function? *(Please cross one)*

Field Office
 Leadwork/Foreperson Supervisor/Manager

What is your race? *(Please cross one)*

White or Caucasian Hispanic or Latino
 Black or African American Native American or American Indian
 Asian / Pacific Islander Other

What is your gender? *(Please cross one)*

Male Female Other

How many years have you worked for the City? *(Please cross one)*

0-1 1-5 6-9 10-15 15+

How many years have you worked for the Department? *(Please cross one)*

0-1 1-5 6-9 10-15 15+

Which best describes your work schedule? *(Please cross one)*

4 x 10 hour days 5 x 8 hour days Other Schedule

Have you seen or heard this mission statement? "We will achieve our mission by driving collaboration between employees and citizens with a spirit of partnership and pragmatism. Understanding what matters, bringing new ideas, and creating a positive impact!" *(Please cross one)*

Yes No

(If Yes above, please answer) This statement directly relates to my job or assignments. *(Please cross one)*




Strongly Disagree Disagree Agree Strongly Agree

I know my job requirements and what is expected of me. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

My Division (Stormwater or Pavement and Traffic) works well together to solve problems and get the job done. *(Please cross one)*

Strongly Disagree Disagree Agree Strongly Agree

 To respond: or  

Baseline

Finding- An observation, comparison and/or opportunity.

Recommendation- An action to improve work, process, or resource availability for both efficiency and effectiveness.

*Number of employees,
Number of Equipment,
Work Processes, Systems, and Asset
Inventories*

You will also have an opportunity to provide additional feedback on the project's draft final report.

Initial Opportunities Found in...

- + Systems and Integration
- + Accountability
- + Organization
- + Processes
- + Staffing and Resources



54 Initial recommendations have been identified in these categories

- ✓ General Facts
- ✓ Planning and Budgets
- ✓ Resources & Organization
- ✓ Directing and Scheduling
- ✓ Work Tracking & Control



Some of the Many Good Practices and Innovative Ideas

- + APWA Accredited
- + Developed new SPTO manual and SOPs
- + Use of GIS support
- + Beginning to track work in WAMS
- + Mobile technology of some field crews
- + Establishment of a centralized warehouse
- + Several methods used for receiving requests
- + Some short-term scheduling exist
- + Established PMs in traffic signals and other groups
- + Emphasis on the use of mechanical vegetation removal
- + Manufacture and purchase signs
- + Staff development using Pinellas Technical College programs
- + Employee onboarding process
- + Identified Department goals
- + Provide contact support for others



The Department is already performing many good and innovative practices, which demonstrates a philosophy of change and capability for continuous improvement.

Recommendation 1- Establish employee teams to review various improvement opportunities. Utilize the teams on an annual basis to assist in the review of work guidelines and methods, levels of effort, quality controls, as well as annual performance planning.

EMPLOYEE SPOTLIGHT

SPTO

Department Mission Statement

“Budget performance metrics”

+ “The mission of the Stormwater, Pavement and Traffic Operations Department is to deliver cost effective services to the community and to enhance the environment through innovative customer stewardship, moving forward in operating and maintaining the city's stormwater, pedestrian, and roadway systems.”

The Department’s mission statement supports the City’s mission statement and is focused on effective service and innovation. Yet efficiency linkages are lacking between performance measures and budget.

Effectiveness and efficiency are often joint goals for high-performance organizations.

It appears that only a portion staff are aware of the Department’s mission statement or contributed to its creation.

Recommendation 2- Re-create mission statement to include elements focused on efficiencies and effectiveness as primary goals. Obtain buy-in from all levels of the organization.

Stormwater, Pavement, and Traffic Operations(SPTO) Department General Facts

- + Led by a Department Director
- + Five Managers
 - + *Administrative Services*
 - + *Stormwater Environmental Services*
 - + *Stormwater Operations*
 - + *Special Projects*
 - + *Pavement and Traffic Operations*
- + *Dedicated Equipment Coordinator*
- + *Two physical locations*
- + **200 budgeted positions**

The Department is a full-service organization focused on stormwater, roads, and traffic maintenance and operations.

Department Services

- + Line Clearing & Aquatics
- + Deep & Shallow Construction
- + Ditch Maintenance Program
- + Street Sweeping
- + Equipment Services
- + Stormwater Quality Maintenance
- + FDOT Landscape/Litter
- + Asphalt
- + Curb/Concrete/Projects
- + Sidewalks
- + Alley & Bricks
- + Signs & Markings
- + Traffic Signals
- + Administrative Services



Previous Reports and Studies

- + **Integrated Water Resources Master Plan**
- + Result of Consent Order by FDEP July 25, 2017
- + Jacobs Engineering – developed 33 scenarios in seven categories
- + Stormwater is one of the seven. (Section 8. Stormwater Integration Planning)



REGULATORY SUBMITTAL

CITY OF ST. PETERSBURG
**INTEGRATED
WATER RESOURCES
MASTER PLAN**

DECEMBER 2019

Prepared by

JACOBS

Integrated Water Resources Master Plan

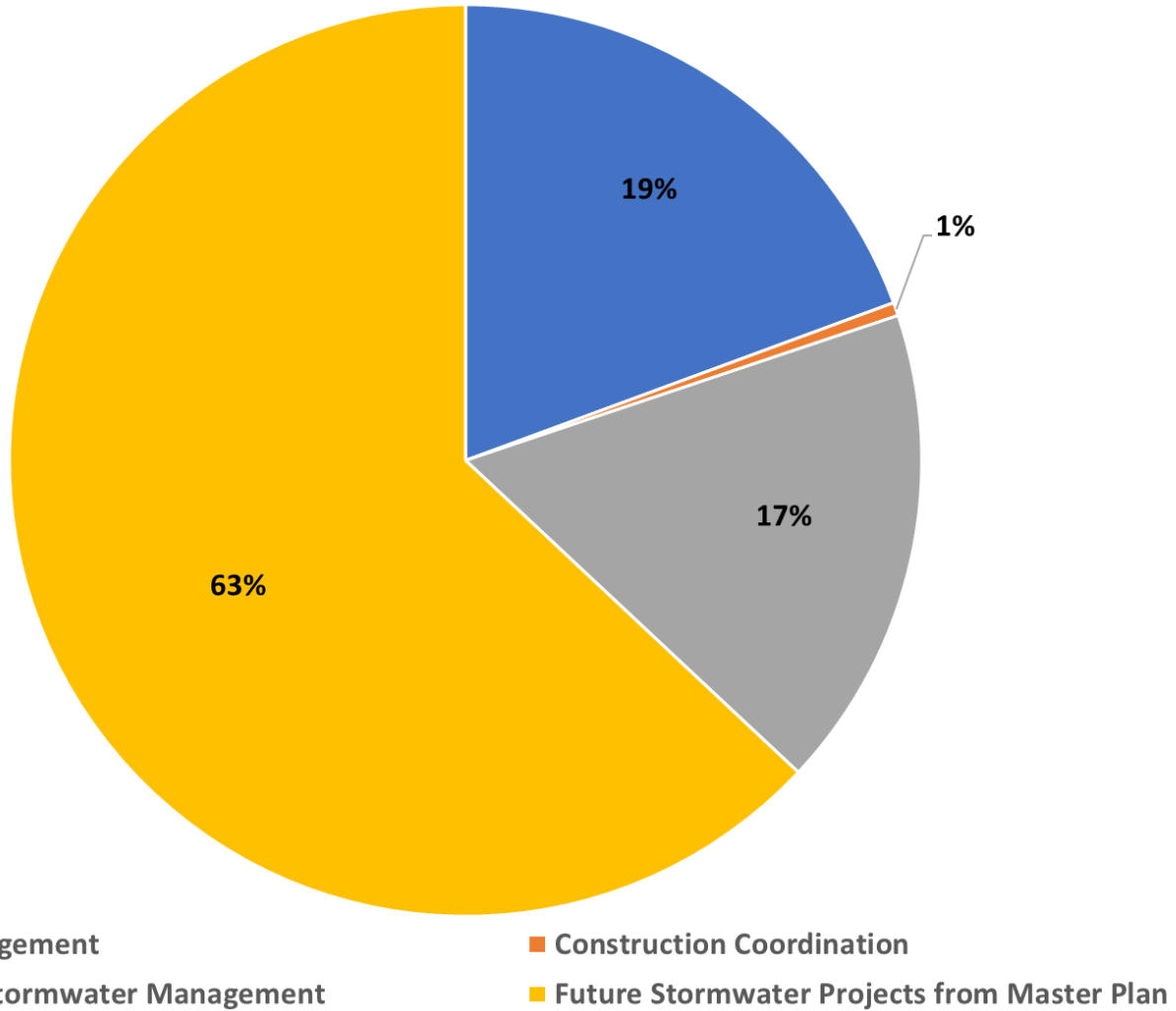
Scenario Category	Number of Scenarios Considered	IWRMP Report Section	Type of Scenarios Considered
Potable Water System	6	4	Continue using Cosme Water Treatment Plant (WTP); new technology at Cosme; new WTP(s) located within the City limits of varying technologies and locations
Wastewater Collection	5	5	Store peak flows within the collection system or at new tanks at the WRFs; express sewers connecting WRFs, offload flow from system; smart sewer technology
Wastewater Treatment	8	6	Flows needed for 2040 demands; nutrient removal technologies; peak flow management options
Reclaimed Water Distribution	6	7	New retail customers; potential large wholesale customer; interconnect with Pinellas County; storage options for reclaimed water; treatment wetland park
Stormwater Management	5	8	Drainage improvements for Basin C; stormwater management at WRFs, flood protection wall, policy revisions.
Natural Resources	1	9	Floating wetland islands (FWIs) for improved surface water quality
Sustainable Options	2	8, 10	Photovoltaic systems at treatment facilities, resiliency policy changes

Goal: Improve Star rating system for sustainability.

Stormwater Options

Potential Option	Purpose	Merits	Demerits	Description	Cost Estimate (\$)	
Manage Stormwater	SW-1 Early Action Projects - Basin C	Enhance conveyance, pump station before outfall, secondary outfall off Salt Creek	<ul style="list-style-type: none"> Addresses one area of highest concern for the City for flooding. Alternative can be phased over time. Improves lake storage and conveyance capacity. Completes neighborhood storm sewer improvements. Basin separate from impacts of tidal influences. Increased pumping capacity for operational flexibility. 	<ul style="list-style-type: none"> High capital investment \$53 million. Likely to require easements and property acquisition. Construction within urban corridors is expensive and causes disruptions. Changes nature of Salt Creek from brackish to fresh water - impacting environmental conditions. More energy costs for pumping. Potential for environmental mitigation. 	This alternative would construct stormwater management improvements in Basin C.	Technology Cost: \$53M Implementation Cost: \$53M
	SW-2 Replace Stormwater Management Systems at WRFs	Improve stormwater management	<ul style="list-style-type: none"> Clean out silt from the existing storm system and improve grates. Install curbing to stop dirt from entering the stormwater system. Low-lying slabs can be raised while system is under construction. Improved internal access to treatment units for City staff during wet weather. 	<ul style="list-style-type: none"> Tidal gates may be needed for the stormwater points of discharge. Construction required throughout entire WRF sites. 	This alternative would replace the on-site stormwater management systems at the WRFs.	Technology Cost: \$3M Implementation Cost: \$3M
	SW-3 Construct Seawall at Northeast WRF	Long-term strategy for mitigating localized sea level rise	<ul style="list-style-type: none"> Phased approach viable - could defend perimeter with short seawall to start with future flood barriers on top of the walls. Eco-engineered seawall can improve marine habitat and levels of biodiversity. Opportunity for local beautification/public art project. 	<ul style="list-style-type: none"> Stormwater pump station required with a seawall. Requires long-term maintenance by the City. 	This alternative would construct a seawall barrier in the future to mitigate sea level rise at the Northeast WRF.	Technology Cost: \$5.6M Implementation Cost: \$5.6M
Utilize Stormwater	SW-4 Construct Stormwater ASR Wellfield	Utilize stormwater as a resource for water supply	<ul style="list-style-type: none"> Provides means for storing and conserving large volumes of stormwater. FDEP has permitted stormwater ASR wells (Peace River ASR). Stormwater ASRs are advocated by the SWFWMD. Potential funding from FDEP and SWFWMD. 	<ul style="list-style-type: none"> General concern with arsenic groundwater contamination for ASR wells. Uncertain of requirements for treatment prior to injection into ASR wells High cost of pumping 	This alternative would construct an ASR wellfield to store stormwater.	\$5M (per well)
Policy Revisions	SW-5 Revise City Policy	Require owners to raise elevation for new and retrofit construction	<ul style="list-style-type: none"> Potential to establish a future marine conservation area in low lying coastal areas Minimizes the City's risk for mitigating flood impacts to residences at/below the base flood elevation. Educates the public regarding the risks associated with living in coastal areas. 	<ul style="list-style-type: none"> Property owners not allowed to build/rebuild to current elevations because it is more expensive. Potentially controversial subject for local property owners. May be a challenge to apply policy uniformly. Areas such as policy may apply will continue to expand over time if SLR propagates. 	This alternative recommends policy revisions related to stormwater management.	NA

Integrated Water Resources Master Plan



The Stormwater Management portion of the Integrated Water Resources Master Plan is 20% of the estimated ~\$3.1 billion of CIP recommendations over 20 years.

Projects classified as 'Future Stormwater Projects' comprise 63% of the Stormwater Management section of the IWRMP.

Recommendation 3- The stormwater aspects of the Integrated Water Resources Master Plan (IWRMP) should be clearly identified in the short term, with the potential benefits.
City staff should relate the plan to improvements with the availability of existing fundings CIP resources.



Previous Reports and Studies

Stormwater Operations
Audit- Audit Project No. 18-
04 - Office of the City
Auditor

13 Sep. 18

8 Jan. 19

PTO Complaint Review-
Audit Project No. 19-07-
Office of the City Auditor

Pavement & Traffic
Operations Audit- Audit
Project No. 18-15- Office of
the City Auditor

22 May 19

Follow-up Stormwater
Operations Audit- Audit
Project No. 18-04F - Office
of the City Auditor

31 Dec. 19

Follow-up Pavement &
Traffic Operations Audit-
Audit Project No. 18-15F-
Office of the City Auditor

18 Feb. 20

Audit Project No. 18-04F

Follow-up

Two items completed and accepted

Several items not completed

- Core processes not documented- manual started.
- Lack of documentation on WO.
- Overhead not finalized – review underway.
- Internal Controls for Naviline – process revision underway.

Audit Project No. 18-15F

Follow-up

Nine items completed and accepted

Several items not completed

- Core processes not documented- manual started
- PMS not implemented- retained Trans map to complete
- Overhead not finalized – review underway

The Department has undergone several internal reviews and follow-ups by the Office of the City Auditor.

Each review has resulted in numerous recommendations, of which some were found to be outstanding.

Recommendation 4- Formally review and report the progress and accomplishments of fulfilling the recommendations of the audit projects to the City Auditor quarterly.

Set a goal of completion for all goals by October 1, 2022.

Department Manual

Section 1. Introduction

Section 2. Department Polices and Programs

Section 3. Standard Operating Procedures

Section 4. Emergency Operations

Section 5. Appendices

The Department created and published a Department Manual in 2021. It appears that many work process forms were created as the result of APWA self-accreditation yet have not been fully implemented.

Many managers and leaders are unaware of its content.

The current organizational chart is different than the organizational chart in the Department Manual.

ST. PETERSBURG, FL

STORMWATER,
PAVEMENT AND TRAFFIC
OPERATIONS

DEPARTMENT MANUAL

EFFECTIVE 2021

Recommendation 5- Formally review and update the Department Manual annually, using input from all levels of the organization and any other needed City external resources.

FY2021 Departmental Goals and Objectives

SWOT analysis

Process Improvement Team (PIT)

Improve Apprentice/Technician Program

Cross Training Rotation Program

Customer Service Standards

Operator Training Plan

Striping Plan

Mowing Plan

Sidewalk Plan

Alley Plan

Webpage Creation

Operations and Maintenance Plan for Lake Maggiore

The Department has published an aggressive set of goals and objectives to be accomplished in FY2021, with many outstanding.

Recommendation 6- Report the progress and accomplishments of the Department's goals and objectives in the annual "State of Maintenance and Operations Report" provided to the Public Works Administrator, Mayor, and City Council.

A series of systems are used independently for many management processes along with MS programs and manual files

Oracle/WAM

BPM

SeeClickFix

M5/Fleet Focus

Kronos

Paymentnet

Govmax

Adobe

Sunpass Online Database

TreePlotter

Centracs

GIS

Work Management



SeeClickFix – Citywide Application, citizen request and complaint web application



M5/Fleet Focus – City Fleet system to plan, schedule and monitor equipment maintenance



Kronos – Citywide payroll and time keeping



Oracle/WAM – Record keeping and accounting

WAMS

Work & Asset Management System (WAMS)

- + Service requests and work orders
- + Some field capabilities using tablets and laptops
- + Able to attached pictures to work orders in the field
- + Accomplishment is tracked in notes and some cases an established field

WAMS lacks configuration for Public Works' operations and has been set up primarily for water and sewer utilities.

Use of the WAMS varies between groups for scheduling and tracking work. Some system capabilities for productivity and accomplishment are underutilized.

Recommendation 7- Fully configure the WAMS/WACS databases to the needs of the SPTO Department, including the subgroups of their divisions.

Include direct input for the sub-groups of stormwater, pavement, and traffic.

Recommendation 8- Fully implement the WAMS/WACS and related system management tools, allowing all levels assess to the system.

Use WAMS/WACS data for work management, which includes the ability to plan, organize, schedule, monitor, and improve operations.



GIS and Mapping

Detailed GIS Database Layers specific to SPTO

- Stormwater Basins
- Stormwater Vaults
- Stormwater Pump Stations
- Stormwater Culverts
- Sea Walls
- Pedestrian Bridges
- Catch Basins
- Stormwater Alum Stations
- Stormwater Ditches
- Street Sweeping Zones
- Asphalt Roadways
- Brick Roadways
- Bridges
- Sidewalks
- Hex block Sidewalks
- Traffic Signals
- Stormwater Catch Basins
- Alleys

The Department is supported for GIS administration and mapping through other departments such as Water Resources, Technology Services, and Engineering.

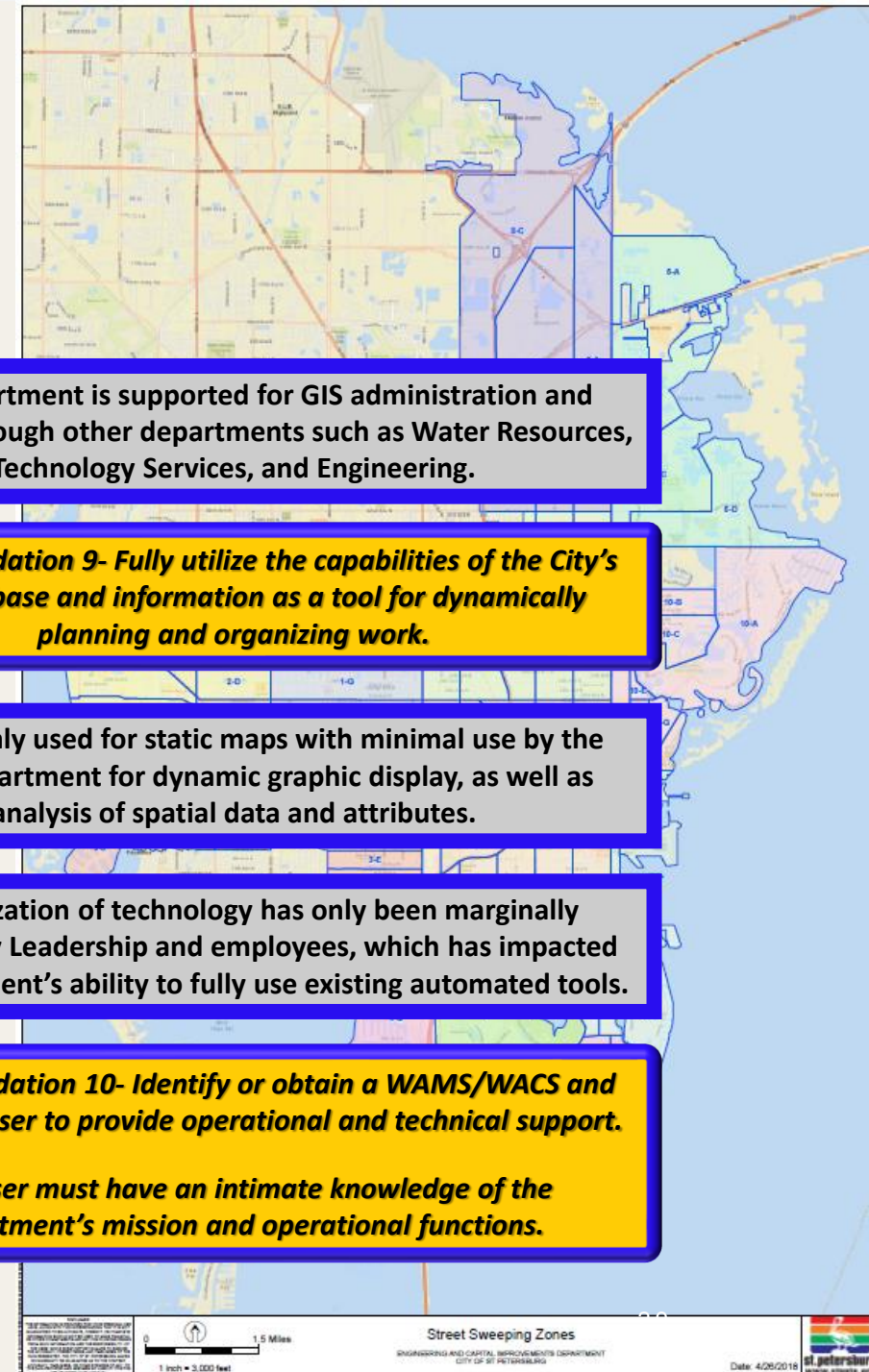
Recommendation 9- Fully utilize the capabilities of the City's GIS database and information as a tool for dynamically planning and organizing work.

GIS is mainly used for static maps with minimal use by the SPTO Department for dynamic graphic display, as well as analysis of spatial data and attributes.

The utilization of technology has only been marginally accepted by Leadership and employees, which has impacted the Department's ability to fully use existing automated tools.

Recommendation 10- Identify or obtain a WAMS/WACS and GIS power user to provide operational and technical support.

This user must have an intimate knowledge of the department's mission and operational functions.





Work Planning and Budgets

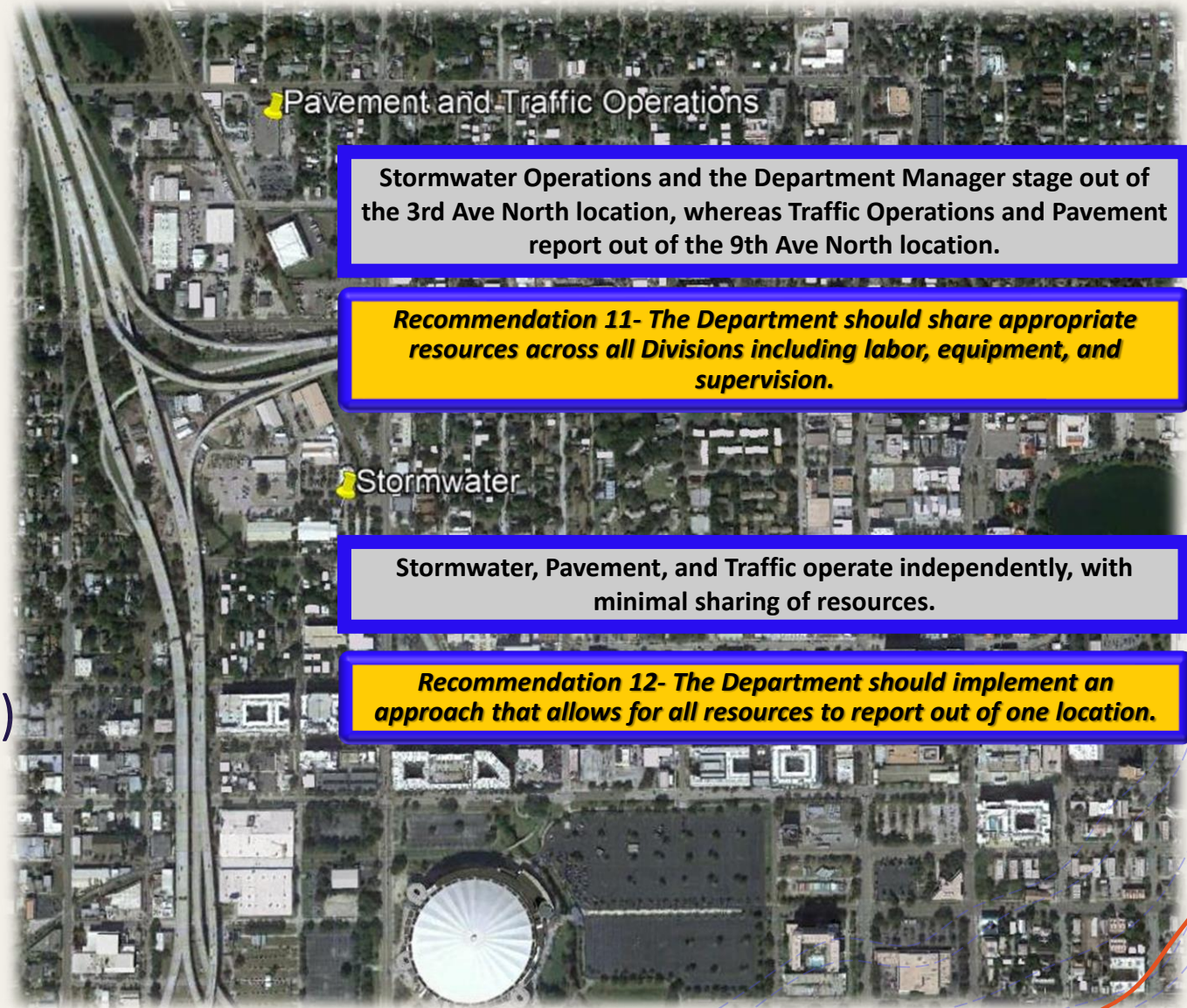
- ✓ Assets
- ✓ Activities
- ✓ Budgets
- ✓ Performance Measures

Primary Work Locations

- + 1650 3rd Ave North St. Petersburg, Fl 33713 (Stormwater)
- + 1744 9th Ave North St. Petersburg, Fl 33713 (Pavement and Traffic Operations)

Stormwater = 120 staff

Pavement & Traffic Operations = 58 staff



Stormwater Operations and the Department Manager stage out of the 3rd Ave North location, whereas Traffic Operations and Pavement report out of the 9th Ave North location.

Recommendation 11- The Department should share appropriate resources across all Divisions including labor, equipment, and supervision.

Stormwater, Pavement, and Traffic operate independently, with minimal sharing of resources.

Recommendation 12- The Department should implement an approach that allows for all resources to report out of one location.

Asset History- Annual Comprehensive Financial Report

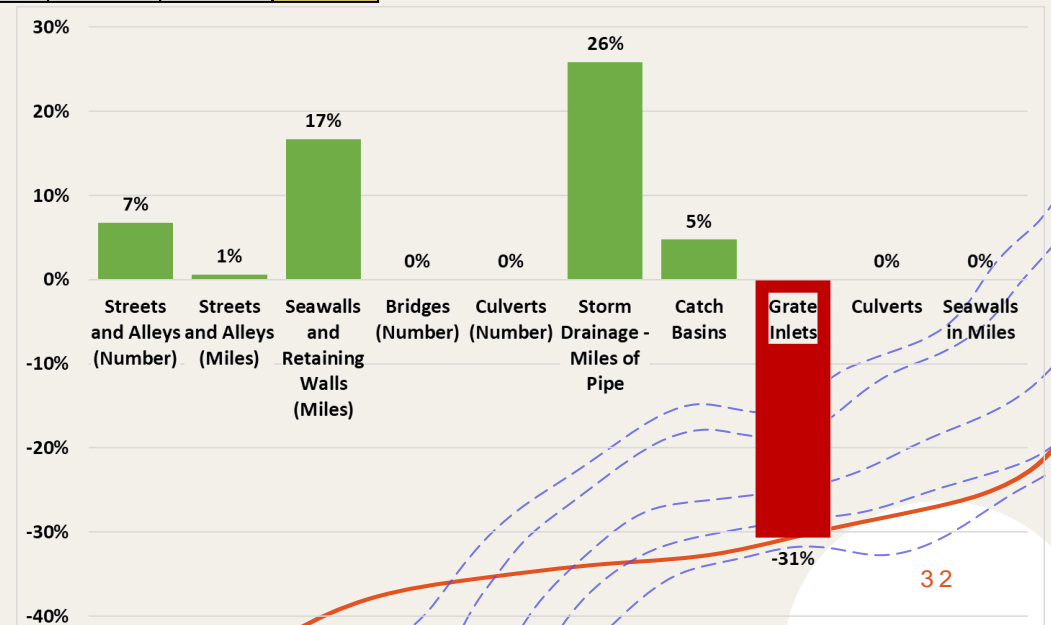
Function/Program	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change
Streets and Alleys (Number)	13,849	13,849	13,849	13,849	13,849	13,849	11,935	14,727	14,780	14,780	7%
Streets and Alleys (Miles)	1,198	1,187	1,187	1,187	1,187	1,187	985	1,201	1,205	1,205	1%
Seawalls and Retaining Walls (Miles)	12	12	12	12	12	12	14	14	14	14	17%
Bridges (Number)	82	82	81	81	81	81	80	82	82	82	0%
Culverts (Number)	185	185	185	185	185	185	185	185	185	185	0%
Storm Drainage - Miles of Pipe	483	483	484	484	484	484	484	555	608	608	26%
Catch Basins	13,942	13,942	13,942	13,942	13,942	13,942	13,948	13,948	14,602	14,602	5%
Grate Inlets	4,686	4,686	4,686	4,686	4,686	4,686	4,690	4,690	3,247	3,247	-31%
Culverts	185	185	185	185	185	185	185	185	185	185	0%
Seawalls in Miles	12	12	12	12	12	12	12	12	12	12	0%

Assets and customers have increased significantly over the last ten years, except for Grate Inlets, which has decreased 31% over the period.

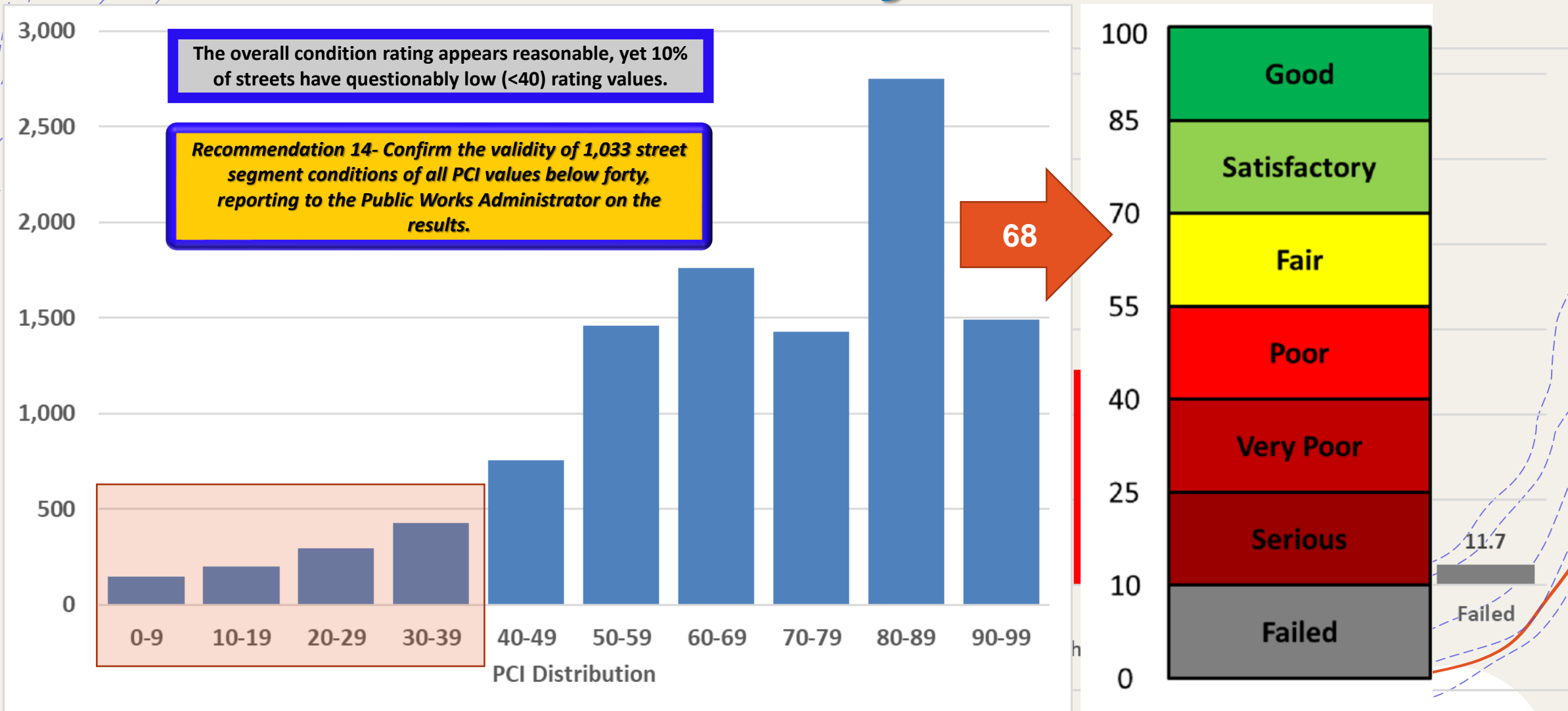
The City's Annual Comprehensive Financial Reports (ACFR) provide statistical data of asset inventories, which come from many sources and do not match some department data.

Recommendation 13- Establish a process along with responsibilities for consistent and accurate asset inventory updates to compile and summarize data for functional application.

Identify a process and departmental point of contact that verifies the values provided to produce the City's Annual Comprehensive Financial Reports (ACFR) and any other published documents, to promote consistency and accuracy.

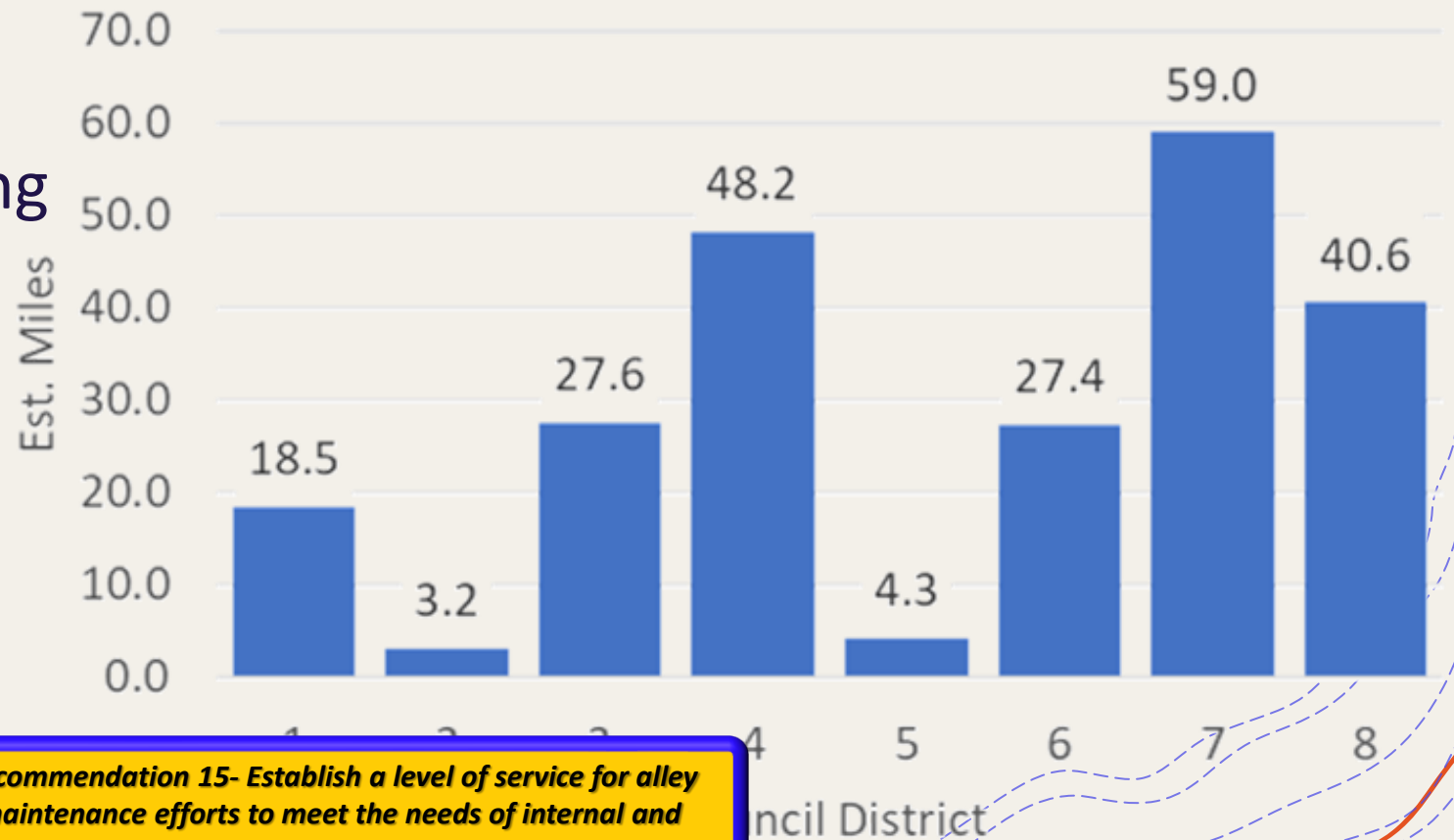


Street Inventory and Condition



Alley Inventory

- + Approximately 228.8 Miles
- + Most 12 ' Width
- + ~81% have Sanitation routing
- + Base Type
 - + Brick- 4%
 - + Millings- >1%
 - + Shell- >1%
 - + Unknown- <95%



Alley inventory is located in the more established neighborhoods and varies between council districts.

The Sanitation Department is also a significant stakeholder as 81% of alleys have a portion of a sanitation route.

Recommendation 15- Establish a level of service for alley maintenance efforts to meet the needs of internal and external stakeholders using available resources.

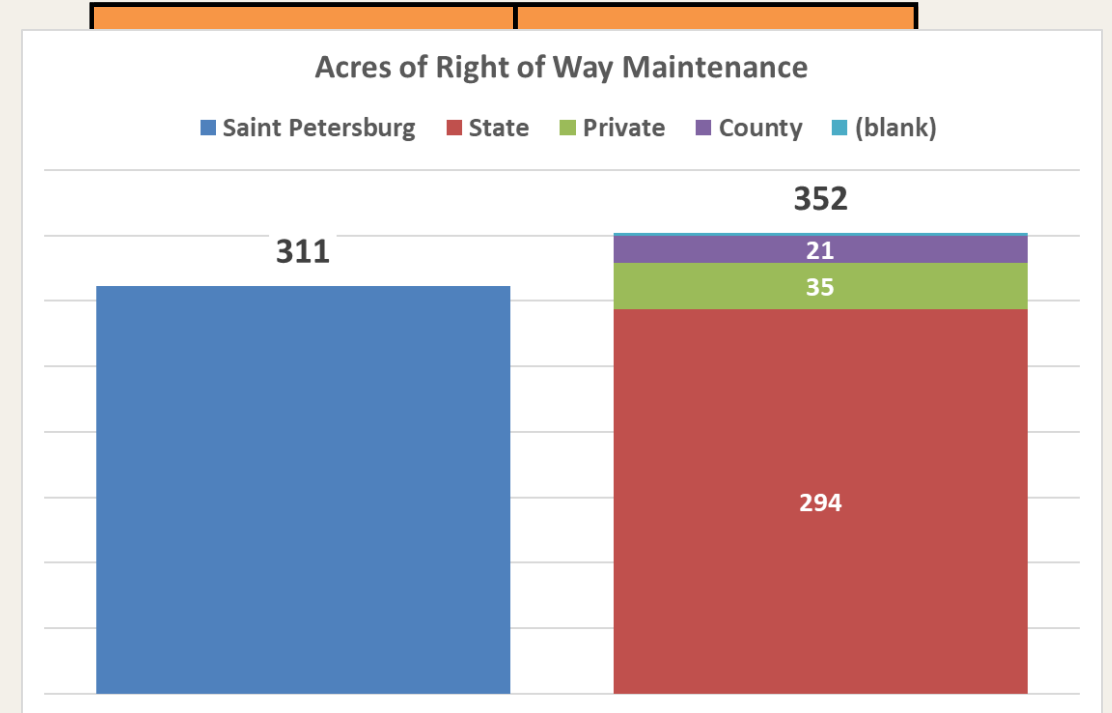
Stakeholder input from the Sanitation Department and alley adjacent homeowners should be considered.

The majority of City ROW maintenance areas (53%) are owned by the state, private, and county entities.

ROW Maintenance Areas

- + Approximately 663 acres maintained*
- + County 21 acres ~3% of total
- + Private 35 acres ~5% of total
- + City 311 acres ~47% of total
- + State 294 acres ~44% of total
- + Undeclared 2 acres <1% of total

It appears the cost of service exceeds the revenue generated.



Recommendation 16- Fully evaluate the complete cost of providing ROW maintenance. Determine the total and unit cost, use all labor with an applied avoidable overhead, equipment, and material costs and apply to all properties.

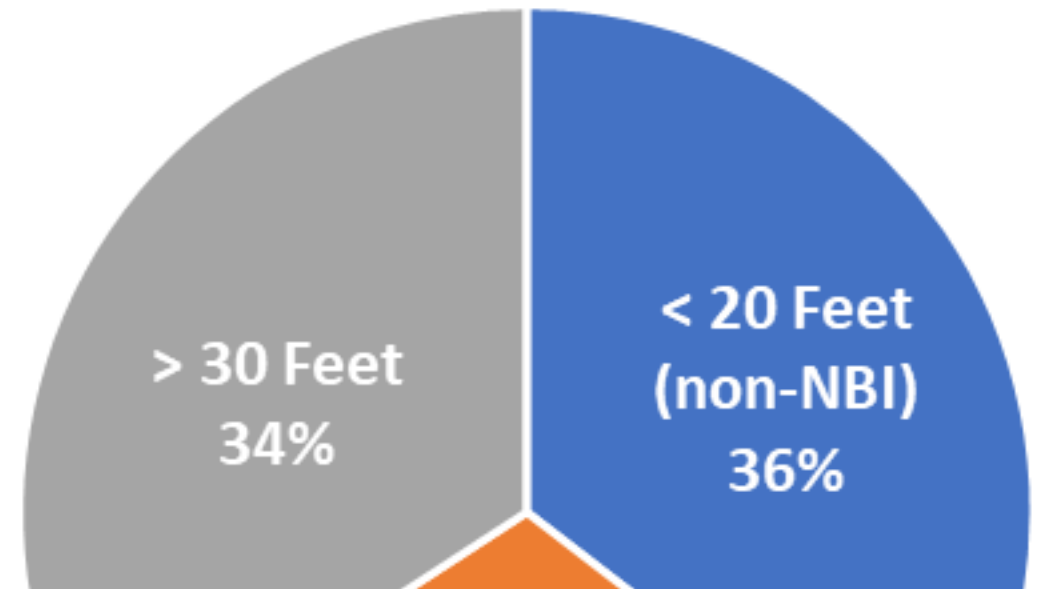
Recommendation 17- Compare the cost of service to the revenue received from performing ROW maintenance for others. If the cost substantially exceeds the revenue, a determination should be made in obtaining additional revenue and or reducing service.

Provide results to executive leadership to ensure that these contracts are acceptable.

*Detail Crew, Flat Mow- Mower, Flat Mow- Tractor, Landscape, Slope Mow

Bridge Inventory

- + 84 Owned by the City
- + Older bridge built in 1920
- + Life expectancy ~25.9 years
- + Average daily Traffic 5,106 trips
- + Average Sufficiency Rating 79.4
- + Average NBI Ratings on a scale of 0 to 9-
 - + Performance 2.3
 - + Deck 6.71
 - + Superstructure 6.58
 - + Substructure 6.55
 - + Channel 7.16



Twenty-eight, or 35%, of the structures in the bridge inventory, are non-national bridge inventory (NBI) structures that are the City's responsibility for inspection.

Recommendation 18- Perform National Bridge Inventory (NBI) level structural inspections on the same frequency to all non-NBI structures in the City's bridge inventory.

Standard Operating Procedures

24 SOPs with the following sections-

- + Purpose
- + References
- + Record of Revision
- + Applicability
- + Location
- + Summary of Method
- + Terms & Definitions
- + Personnel Qualifications
- + Procedural Steps
- + Records Management
- + Quality Assurance/Quality Control



SPTOP500-006

Stormwater Vault Maintenance

Revision Number: 01

Effective Date: 20 January 2021

PURPOSE

The purpose of this document is to establish a procedure for the maintenance of stormwater vaults.

REFERENCES

- SPTO/ECID – engineering standards
- Stormwater 360 – Storm filter inspection and maintenance procedures

RECORD OF REVISION

REVISION	DATE	RESPONSIBLE PERSON	DESCRIPTION
00	18 Feb 2020	Christopher Allen	Vault Maintenance
01	20 Jan 2021	Christopher Drummond	Edited for content and distribution
02			
03			

Author: Christopher Allen Supervisor, Stormwater Maintenance 18 Feb 20
Name Title Date

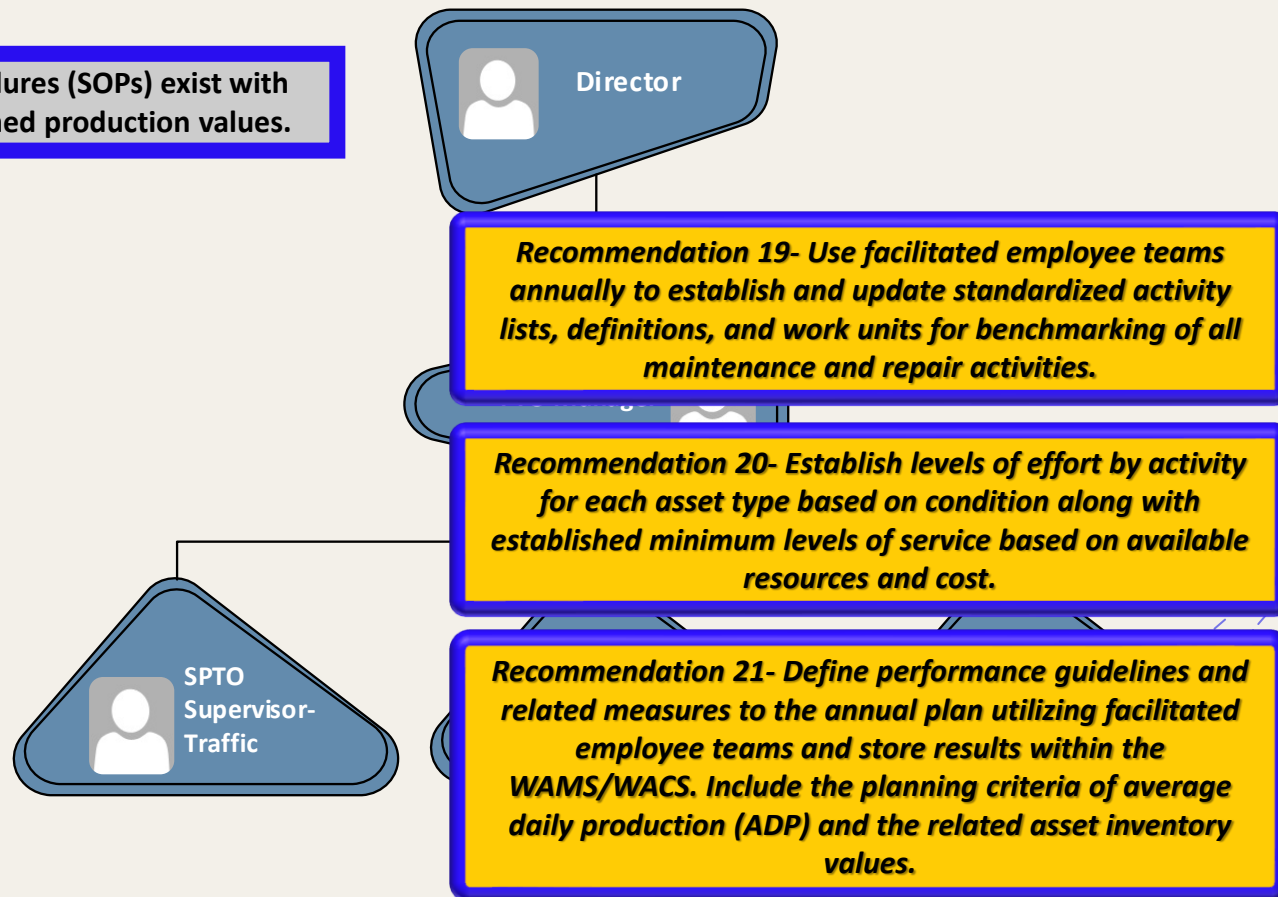
Reviewer: Christopher P. Drummond Administrative Assistant, SPTO 20 Jan 2021
Name Title Date

Approver: Dianna L. Rawleigh Director, SPTO 20 Jan 2021
Name Title Date

Functions/Activities Performed – Traffic and Traffic Signals

- + Sign Installation
- + Sign Replacement
- + Sign Fabrication
- + Pavement Marking
- + School Zone Marking Management*
- + Traffic Control Signals Maintenance*
- + Railroad Marking Installation and Maintenance*
- + Sign Visibility Maintenance*
- + Thermoplastic Application and Maintenance*

Some standard operating procedures (SOPs) exist with many components yet lack planned production values.



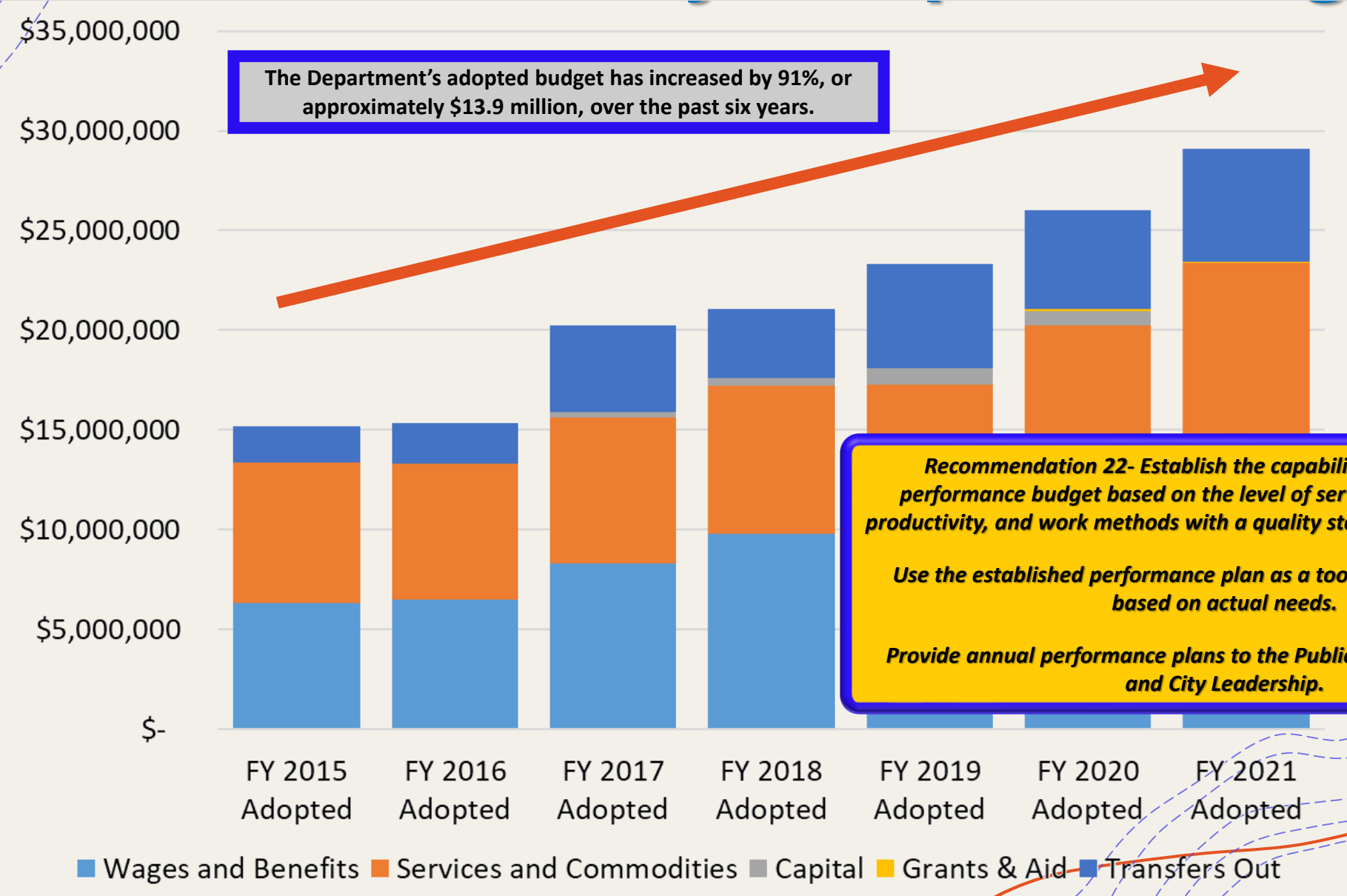
* Developed SOP

Budget

- + Line item-based system
- + Performance measures are included
- + Performance measures are indirectly dependent on budgeted amounts
- + Two primary funds
 - + Fund 0001
 - + Fund 4011



Historically Adopted Budgets



Budget Performance Metrics- FDOT Roadway Sweeping and Mowing Maintenance

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Roadway Miles Swept - Stormwater	#	4,659	4,659	4,659	4,700

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Erosion Control of Lakes and Slopes (Miles)	#	1,136	1,241	1,241	1,241

Budget Performance Metrics- Pavement Maintenance and Pavement Markings

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Actual	FY2021 Estimate/Adopted
Alley Blading/Smoothing Work Orders (Locations)	#	450	400	400	400
Pavement Repair Response Time (Days)	#	25	23	23	23
Pothole/Road Surface Work Orders (Locations)	#	1,257	1,457	1,700	1,700
Sidewalk Repair Response Time (Months)	#	2.5	2	2	6
Sidewalk/Curb Repair Work Orders (Locations)	#	1,018	1,195	1,000	1,000

Objective	Unit of Measure	FY 2020 Actual	FY2021 Target
Number of Symbols	#	150.00	200.00
Lines Painted (Feet)	#	99,499.00	99,499.00
Lines in Thermoplastic (Feet)	#	17,717.00	17,717.00

Budget Performance Metrics- Traffic Signals and Compliance with NPDES Permit

Objective/Performance Measure	Unit of Measure	FY 2018	FY 2019	FY 2020	FY2021 Estimate/
Traffic Signal Calls Responded to in 30 Minutes	#				
Number of Signal Intersections Maintained	#				
Work Order, En-Route, and Trouble Calls	#				
Number of Resident Phone Calls for Service	#				

The identified performance metrics appear appropriate for linking to the City's goals, yet the values are questionable.

The WAMS tracking of data lacks linkage with the Department's Budget Performance Metrics. These datasets are tracked independently through manual processes.

There is a lack of supporting data for the Department's Budget Performance Metrics.

Recommendation 23- Use facilitated employee teams to develop specific goals and objectives for each sub-group, which include quantifiable performance measures and links to the Department's guiding principles.

Recommendation 24- Link work recorded in the WAMS/WACS to the Department's Budget Performance Metrics. Report the status and progress in achieving production goals monthly to the Public Works Administrator.

Act as the primary source of information to be provided to those who prepare the annual budget documents reporting metric values.

Objective/Performance Measure	FY 2018	FY 2019	FY 2020	FY2021 Estimate/
Roadways – Estimated Quantity of Sweeping Material Collected (Cubic Yards)	1,100	250	250	250
Roadways – Litter Removal Street Program Estimated Amount of Litter Collected (Cubic Yards)				
Roadways – Litter Removal Street Program Total Miles Cleaned				
Roadway – Total Miles Swept	27,001	40,000	40,000	40,000

Budget Performance Metrics- Sign Fabrication, Installation, and Maintenance

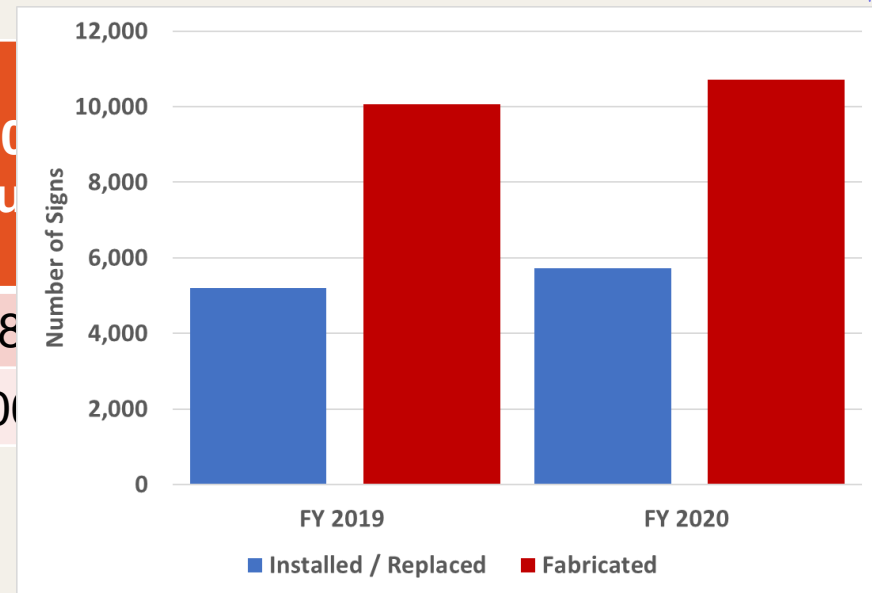
- + Traffic Sign Fabrication and Traffic Sign Installation Divisions is to inform motorists and pedestrians of traffic regulations or information by sign installation and maintenance.
- + This objective fulfills the city values of Accountable Servant Leadership, Empowerment, Transparent Access, Diversity, Inclusiveness, and Responsiveness.

Objective/Performance Measure	Unit of Measure	FY 2018 Actual	FY 2019 Actual
Only half of the signs fabricated appear to be used for Traffic's sign install/replacement.	#	9,000	5,180
	#	9,000	10,000

Only half of the signs fabricated appear to be used for Traffic's sign install/replacement.

Recommendation 25- Determine the need for providing non-traffic sign fabrication services and ensure all costs for that service are recovered, including labor and overhead, equipment, materials, and storage.

Consider discontinuing this non-traffic and departmental support unless full cost recovery occurs.



FEDERAL EMERGENCY MANAGEMENT AGENCY
APPLICANT'S BENEFITS CALCULATION WORKSHEET

APPLICANT	PW REF NO.	CATEGORY	DISASTER
City of St. Petersburg	Stormwater, Traffic & Pavement		DR-4337

ENTER TOTAL ANNUAL PAYROLL
 \$ 8,123,028.41

	REGULAR TIME %	OVERTIME %
Holidays	3.85%	
Vacation Leave	7.89%	
Sick Leave	6.25%	
* Social Security	6.20%	6.20%
* Medicare	1.45%	1.45%
* Unemployment	0.00%	
* Worker's Comp	8.24%	8.24%
** Retirement	9.96%	
Health Benefits	21.30%	
Life Insurance Benefits	0.04%	
Other (describe here)	0.00%	
Total (in % of annual salary)	64.99%	15.89%

COMMENTS:

I CERTIFY THAT THE INFORMATION ABOVE WAS TRANSCRIBED FROM PAYROLL RECORDS OR OTHER DOCUMENTS WHICH ARE AVAILABLE FOR AUDIT.

CERTIFIED: Boriana Pollard

DATE: 7/15/2020

* Only categories for overtime fringe benefits.
 ** Only an overtime fringe benefit when supported by employee contract.

FY20 Burden Rate Calculation

	October 2019 Baseline Reporting	
	Fund 4011	Fund 0001.400
Labor	Total Obligations	Total Obligations
5110110	\$ 5,400,015.00	\$ 3,074,751.00
5120110	\$ -	\$ -
5130110	\$ 16,300.00	\$ 16,350.00
5140110	\$ 371,804.00	\$ 256,500.00
5150110	\$ 69,000.00	\$ 10,000.00
5190130	\$ (316,584.00)	\$ (400,000.00)
5199000	\$ (20,823.00)	\$ (82,212.00)
5199990	\$ (48,849.00)	\$ (524,000.00)
Total Labor	\$ 5,470,863.00	\$ 2,351,389.00
Benefits		
5210110	\$ 333,943.00	\$ 190,633.00
5210120	\$ 75,222.00	\$ 42,644.00
5220110	\$ 10,096.00	\$ 3,254.00
5220120	\$ 526,246.00	\$ 384,817.00
5220190	\$ -	\$ -
5230111	\$ 1,221,734.00	\$ 748,336.00
5230115	\$ 209.00	\$ 83.00
5230121	\$ 3,267.00	\$ 1,918.00
5240111	\$ 174,668.00	\$ 231,133.00
5240120	\$ 193,368.00	\$ 222,276.00
5299000	\$ (86,860.00)	\$ (98,369.00)
5299990	\$ 50,443.00	\$ -
Total Benefits	\$ 2,502,336.00	\$ 1,726,725.00
Sum of Burden Percentage	46%	59%

+ Spreadsheets calculate benefits (overhead) for declared disasters

+ Last calculated for COVID-19 (DR-4337)

+ Calculates 64.99% for

The applied overhead rate for FEMA is estimated at 64.99%. Two previous reviews by the Office of the City Auditor made recommendations to formalize the Department's overhead rate calculation.

Recommendation 26- Determine and use avoidable overhead in the WAMS/WACS for work costing and outsourcing consideration.

A full overhead rate should be used for external billing and reimbursement. Further, develop an annual process to update the rates and educate management and leadership of their application.

+ Fund 0001.400 59% (FY20)

Overhead Rates

Organization

- + Structure and Staffing
- + Hours
- + Certifications
- + Equipment



Organizational Structure of Department



Administrative Services



Stormwater Environmental Services



Stormwater Operations



Special Projects



Pavement & Traffic



Director



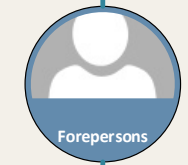
Managers

1



Superiors

2



Forepersons

3



Lead workers

4

reporting employees

There are four levels of leadership below the Director, which increases the difficulty in communicating.

The Department has recently undergone reorganization efforts, with many new supervisors selected in the past two years.

Employees believe that they have good working relationships with coworkers and understand their responsibilities, as well as what is required of them.

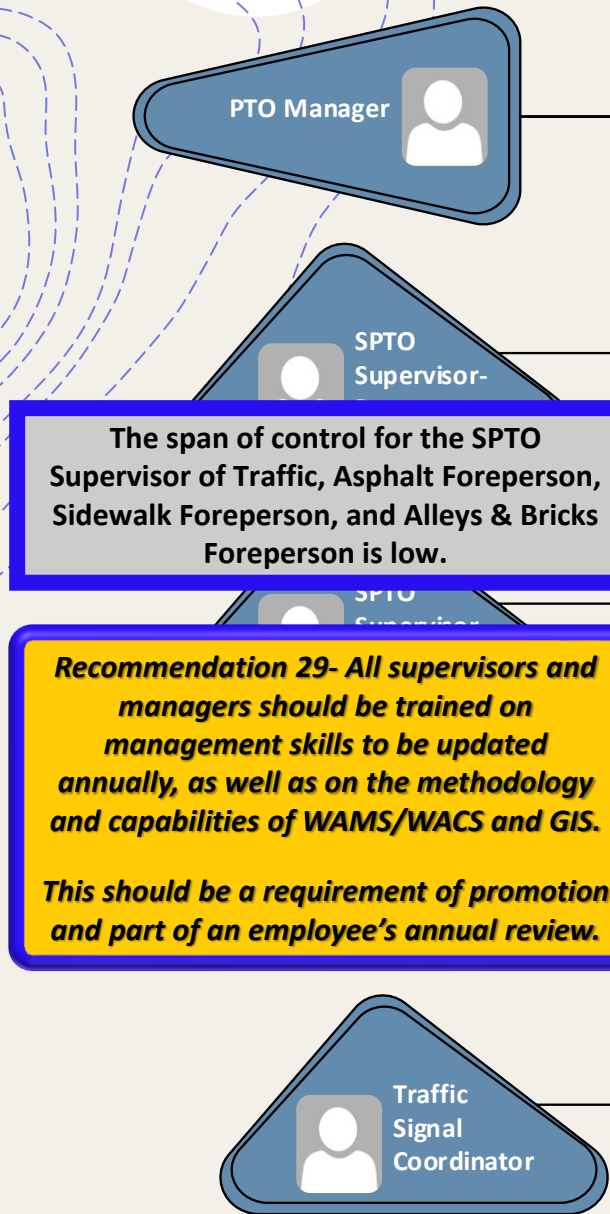
Recommendation 27- Establish a goal of each Manager being credentialed as a Certified Public Works Professional-Manager (CPWP-M) and each Supervisor credentialed as a Certified Public Works Professional-Supervision (CPWP-S) through the American Public Works Association (APWA).

Establish these goals to be completed by October 1, 2022.

Recommendation 28- Conduct annual independent review (City Auditor or Human Resources) and or survey of interactions, communication, and feedback between the SPTO Director, senior leadership, and all levels of the organization.

With the results, the Director should compile an action plan to address any concerns and submit it to the Public Works Administrator.

Span of Control Pavement & Traffic



58 Positions

- + Pavement-
- + Traffic Signs-
- + Traffic Signals-
- + Signal Coordinator-

35 FTEs
13 FTEs
8 FTEs
1 FTE

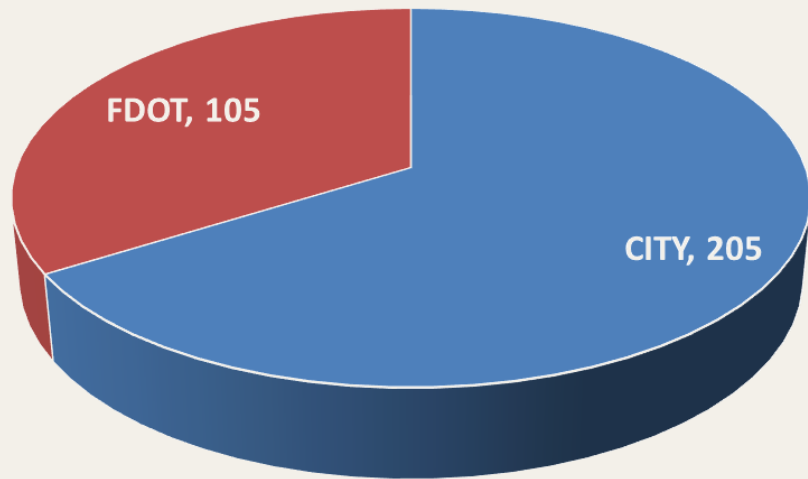
Span of Control

- + PTO Manager
- + SPTO Supervisor (Pavement)
- + SPTO Supervisor (Traffic)
- + SPTO Supervisor (Traffic Signals)
- + Foreperson (Asphalt)
- + Foreperson (Curbs/Concrete/Projects)
- + Foreperson (Sidewalks)
- + Foreperson (Alleys & Bricks)
- + Foreperson (Signs & Markings)
- + Lead worker (Pavement Maintenance)
- + Lead worker (Curbs/Concrete/Projects)
- + Lead worker (Sidewalks)
- + Lead worker (Alleys & Bricks)
- + Lead workers (Signs & Markings)

1:4
1:4
1:1
1:7
1:1
1:1
1:1
1:1
1:1
1:4
1:7
1:6
1:6
1:8
1:3

Signalized Intersection Inventory

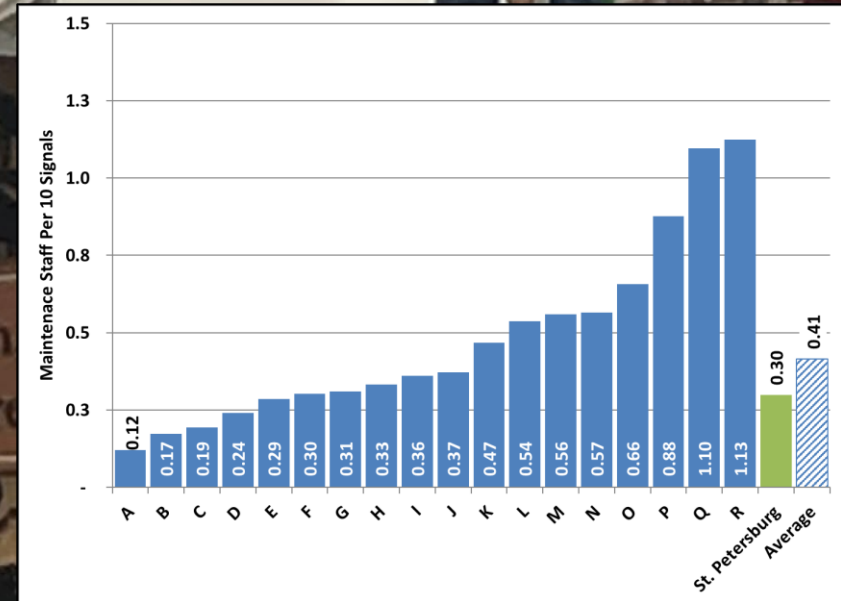
+310 Signals



+Majority LED

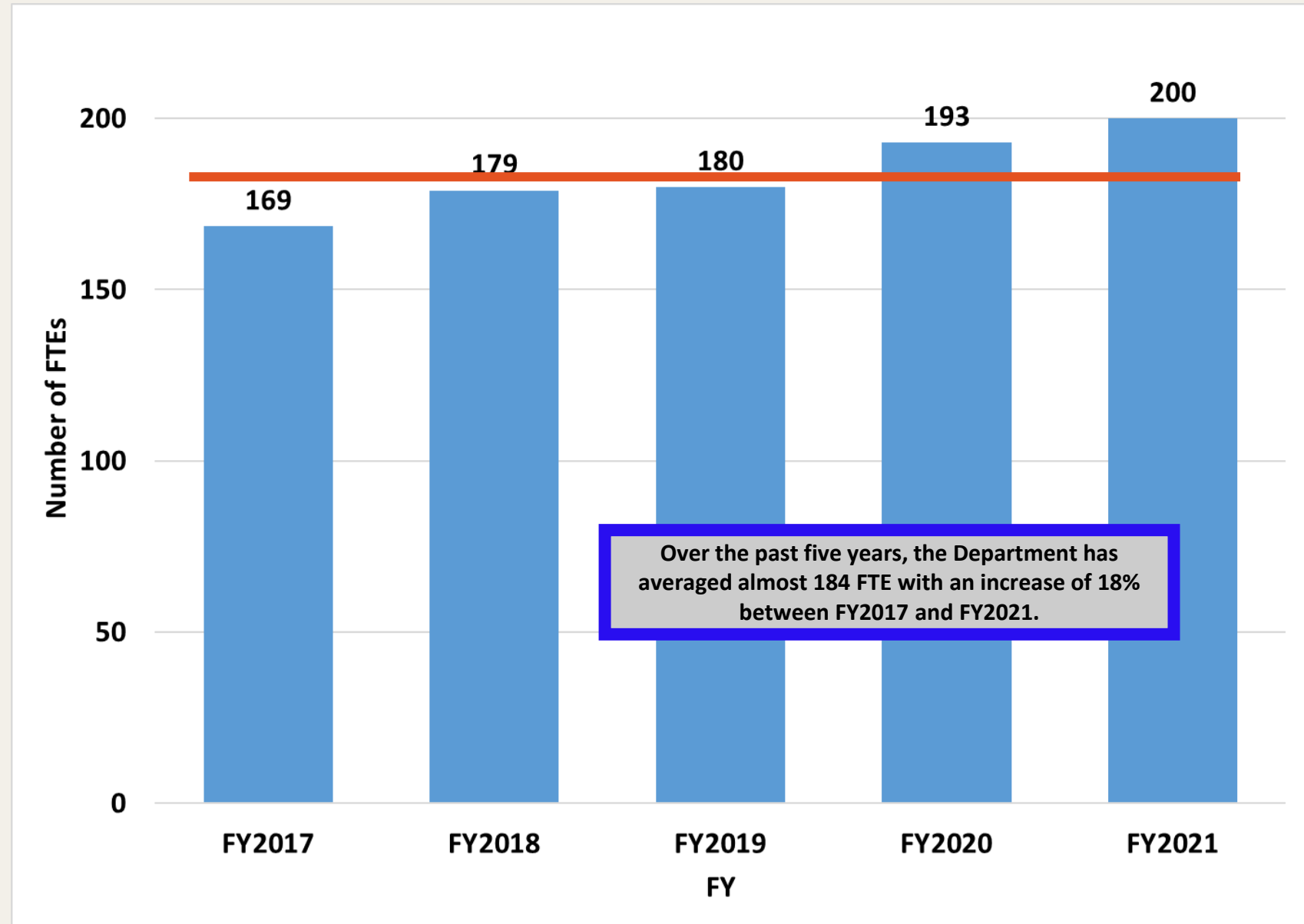
The benchmark of maintenance staff per 10 signals is lower than LAC's benchmark average.

Recommendation 30- Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented, and all traffic staff time is being recorded by activity.



Historical Staffing

The Department has averaged over 184 FTEs over the past five years and current has 200 budgeted positions.



Span of Control Stormwater Operations

Stormwater Operations- Span of Control

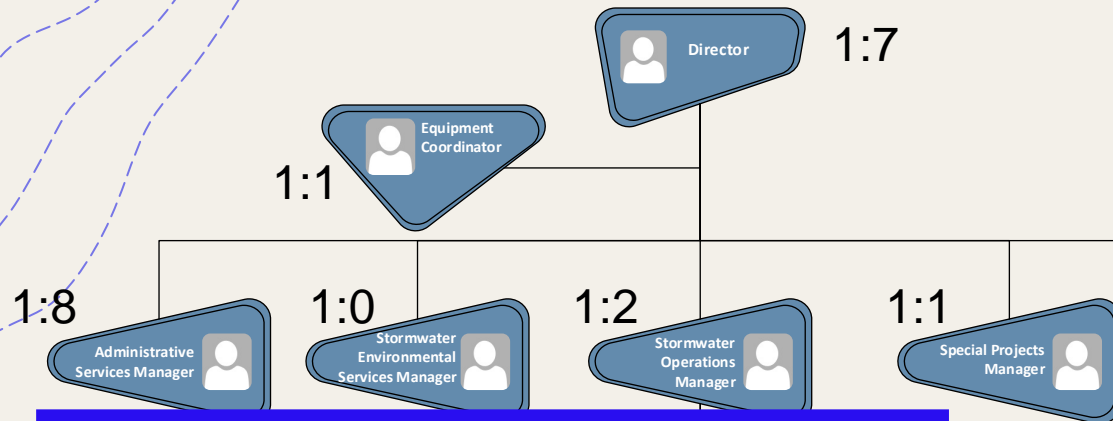
88 FTEs

+ SPTO Supervisor	1:3 and <u>1:2</u>
+ Foreperson (Line Clearing & Aquatics)	<u>1:1</u>
+ Foreperson (Shallow & Deep Construction)	<u>1:1</u>
+ Foreperson (Ditch Maintenance Program)	<u>1:1</u>
+ Foreperson (Street Sweeping & FDOT Sweeping)	1:15
+ Foreperson (Equipment Services)	1:6
+ Foreperson (Stormwater Quality Maintenance)	<u>1:1</u>
+ Foreperson (FDOT Landscape/Litter & Debris)	<u>1:2</u>
+ Lead worker [1] (Line Clearing & Aquatics)	1:5
+ Lead workers [2] (Shallow & Deep Construction)	1:4
+ Lead workers [3] (Ditch Maintenance Program)	1:5

The span of control varies within the Stormwater Operations group. Several Forepersons have low spans of control. The Foreperson of Street Sweeping and FDOT Sweeping has a high span of control yet appears adequate.

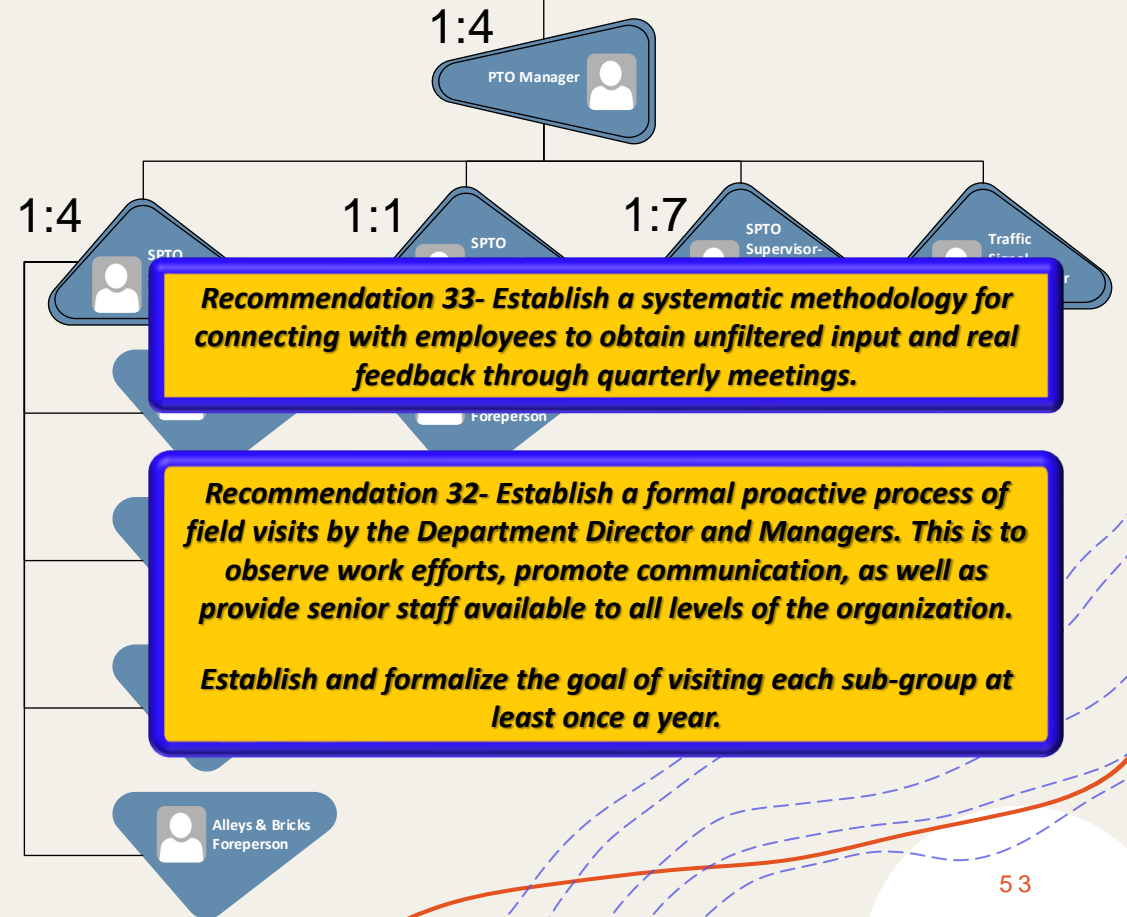
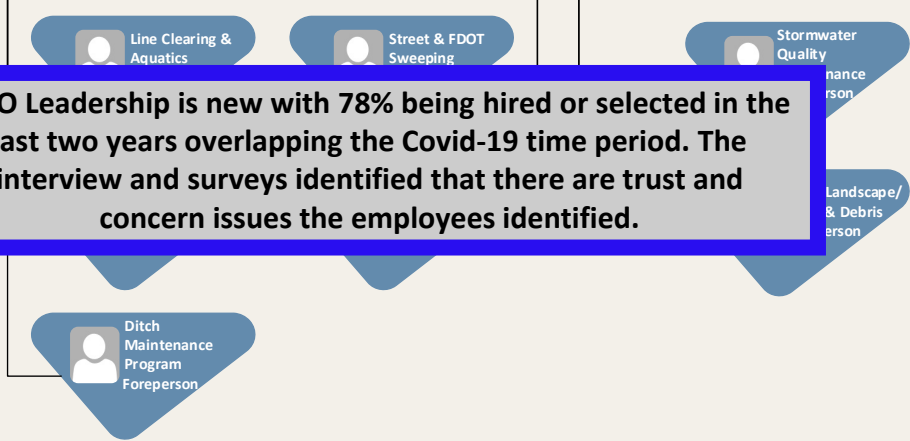
Recommendation 31- Managers and Forepersons should have three (3) or more direct reports or provide a documented justification for a lower span of control ratio, approved by the SPTO Director.

Departmental Leadership and Support



The span of control for some managers and supervisors appears low, such as the Stormwater Environmental Services Manager, Stormwater Operations Manager, Special Project's Manager, and SPTO Supervisor Traffic.

SPTO Leadership is new with 78% being hired or selected in the last two years overlapping the Covid-19 time period. The interview and surveys identified that there are trust and concern issues the employees identified.



Recommendation 33- Establish a systematic methodology for connecting with employees to obtain unfiltered input and real feedback through quarterly meetings.

Recommendation 32- Establish a formal proactive process of field visits by the Department Director and Managers. This is to observe work efforts, promote communication, as well as provide senior staff available to all levels of the organization. Establish and formalize the goal of visiting each sub-group at least once a year.

Signs

+60,900 signs

+12 MUTCD Categories

+9,512 Stop Signs or 16% of the total



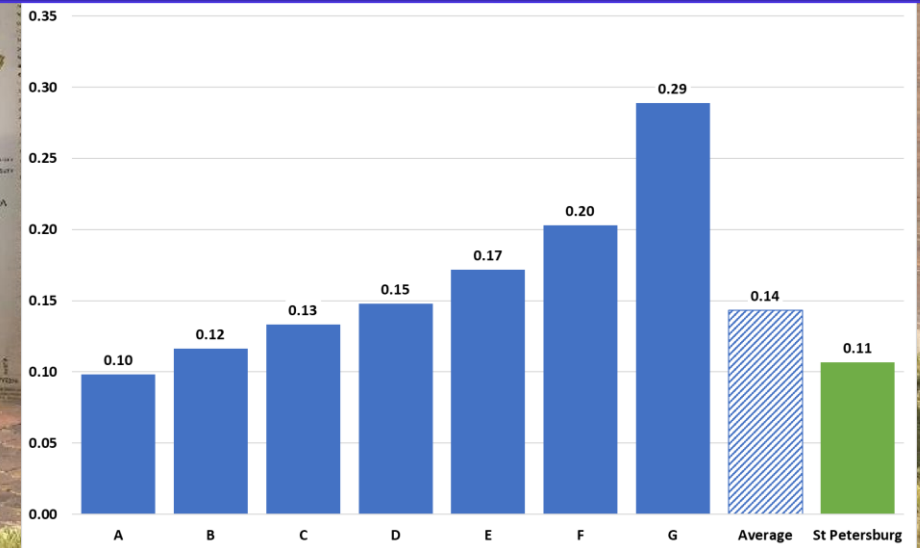
Benchmark sign staff per 1,000 signs appears slightly lower than LAC's benchmark average.

Sign reflectivity inspections and replacements are minimally conducted and lack adherence to State and Federal guidelines.

Recommendation 35- Perform a staffing analysis after the WAMS system is populated and again when the WACS upgrade is fully implemented and all signs and marking staff time are being recorded by activity.

Recommendation 34- Develop and implement a sign reflectivity inspection program and replacement process to meet FHWA design to maintain traffic sign retro-reflectivity at or above the established minimum levels.

Systematically report inspection program progress and results to the Department Director, Public Works Administrator, and through the Department's annual "State of Maintenance and Operations Report."

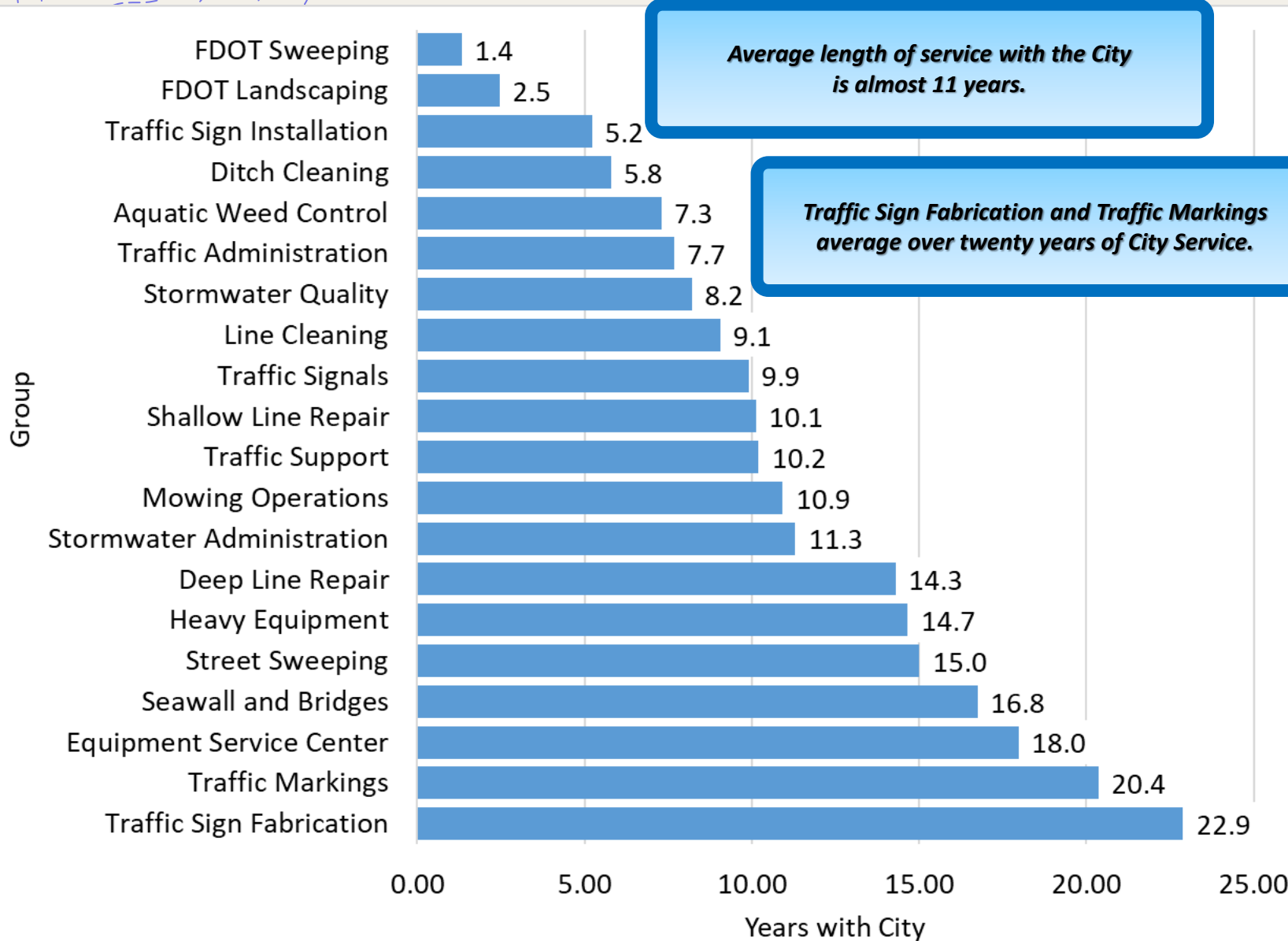


EMPLOYEE SPOTLIGHT

Labor

- + 120 report out of the 3rd Ave North location
- + 58 report out of the 9th Ave North location
- + Director, Managers, and Foreperson are provided cell phone stipends
- + Leadworks use radios for communication
- + Some employees are using their personal cell phones for communication

Length of Service by Division



Average length of service with the City is almost 11 years.

Traffic Sign Fabrication and Traffic Markings average over twenty years of City Service.

Employees and leadership both indicate a lack of available staff to complete their work yet do not use the existing tools to determine resource needs.

The average length of service is similar to other LAC benchmark agencies.

In response to COVID-19 and to address the operational needs of the Department, twenty (20) different schedules were established, which could have potentially impacted work monitoring.

Recommendation 36- Work shifts should be established based on specific work needs. The number of shifts should be standardized.

An external evaluation on the benefits to the City should be conducted with employee team involvement, documenting the negative and positive benefits.

The Department Director should review and approve all schedules and shifts.

Traffic Signals' Shifts

- + Monday-Friday, 7:00 AM - 3:30 PM
- + Monday-Friday, 3:30 PM - 11:30 PM
- + Monday-Friday, 11:30 PM - 7:30 AM

The use of three traffic signal shifts is different than that of LAC's benchmarks. The rationale for the second and third shifts lack documentation.

Recommendation 37- The Traffic Signals group should use a single shift or provide economic justification for a second shift. The third shift should be eliminated.

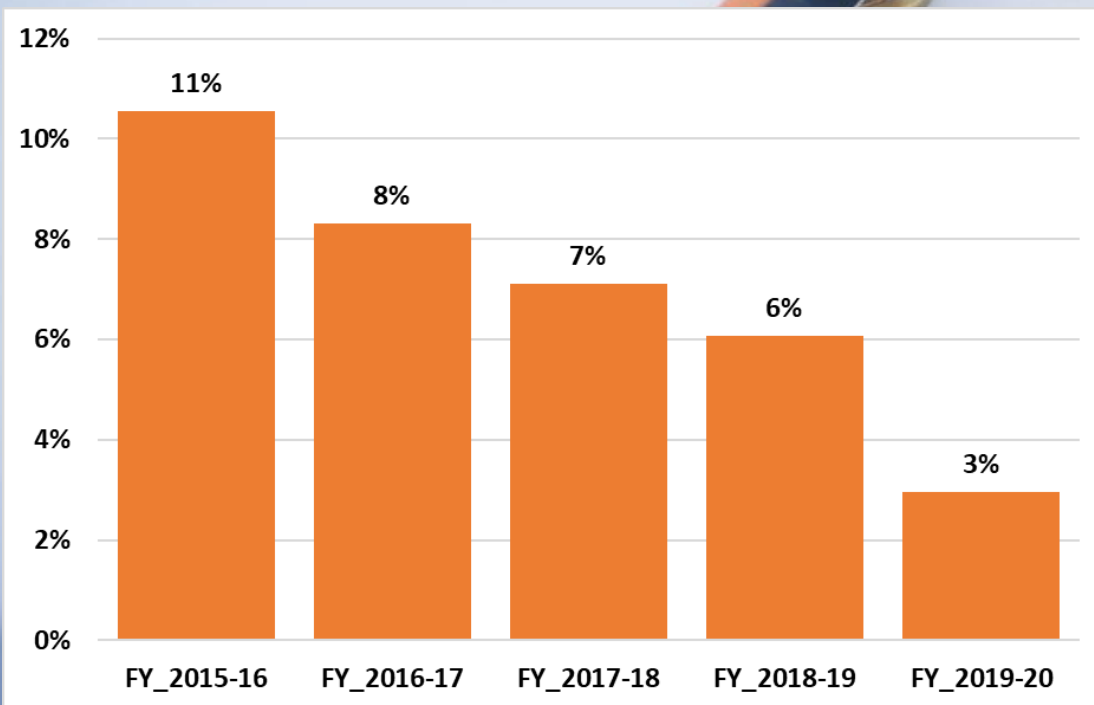
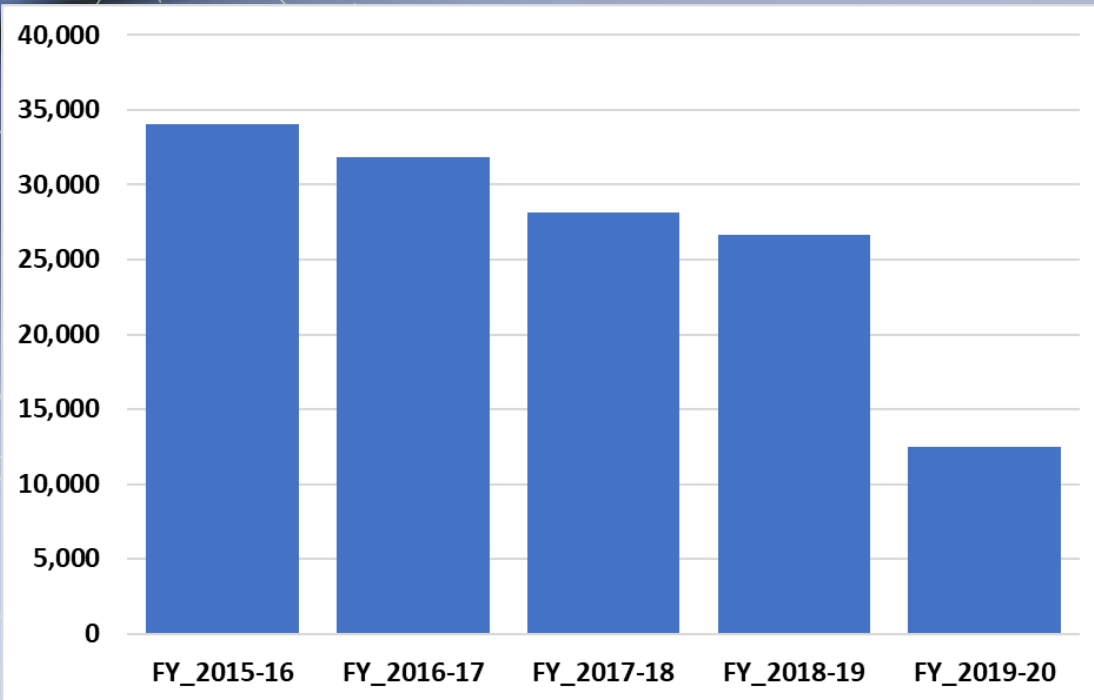
The Department Director should review and approve all schedules and shifts.

7:00 AM	7:30 AM	8:00 AM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	10:30 PM	11:00 PM	11:30 PM	12:00 AM	12:30 AM	6:30 AM
First Shift													
					Second Shift								
Third Shift										Third Shift			

- + First Shift- Response and PMs.
- + Second Shift- YFI 100, locates, luminated streets signs senior technician.
- + Third Shift- Conflict monitor, YFI-100 , -in August.

Historical Overtime Hours

- + Overtime hours have reduced by 2/3 in the last five years.
- + % of overtime has gone in 5 years from 11% to 3% of total paid hours.

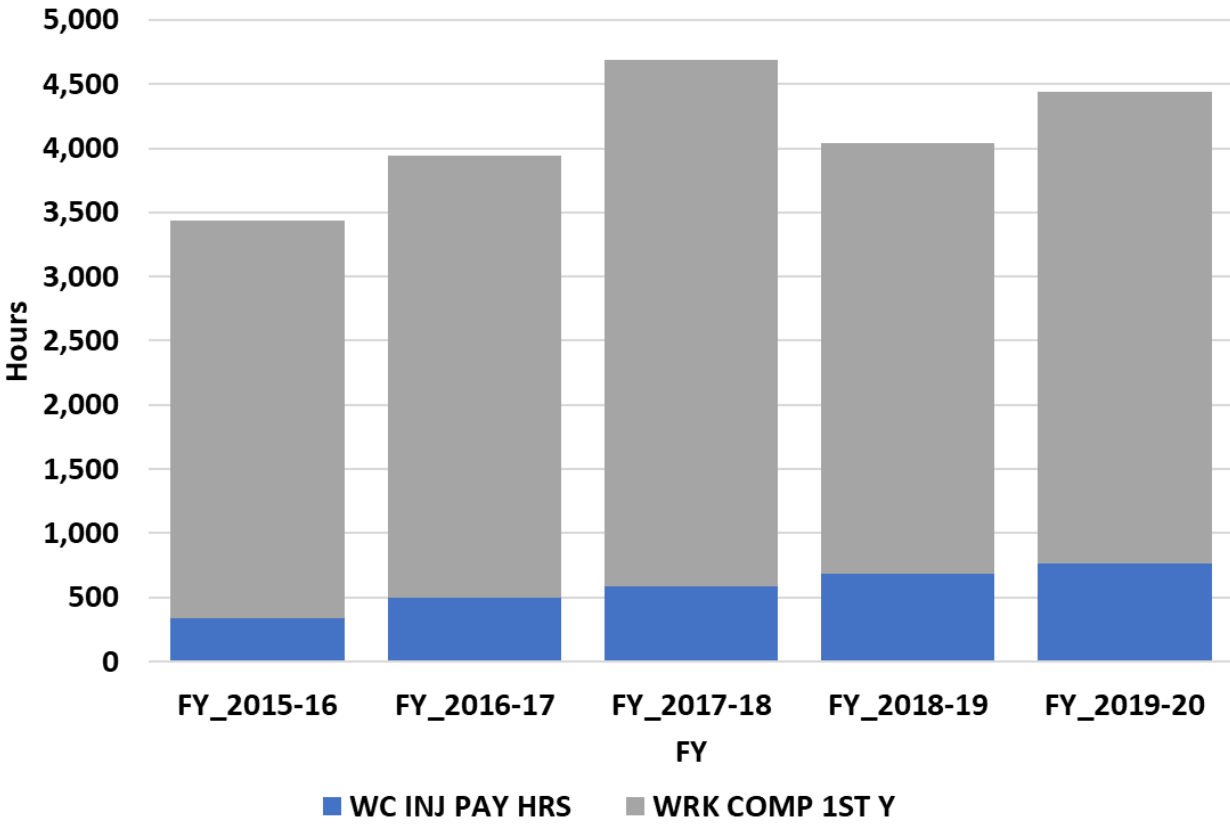


The Department's overtime percentages are less than LAC's database average and lower than other departments in the City.

The average has also decreased 8% over the past five years.

Historical Workers Compensation

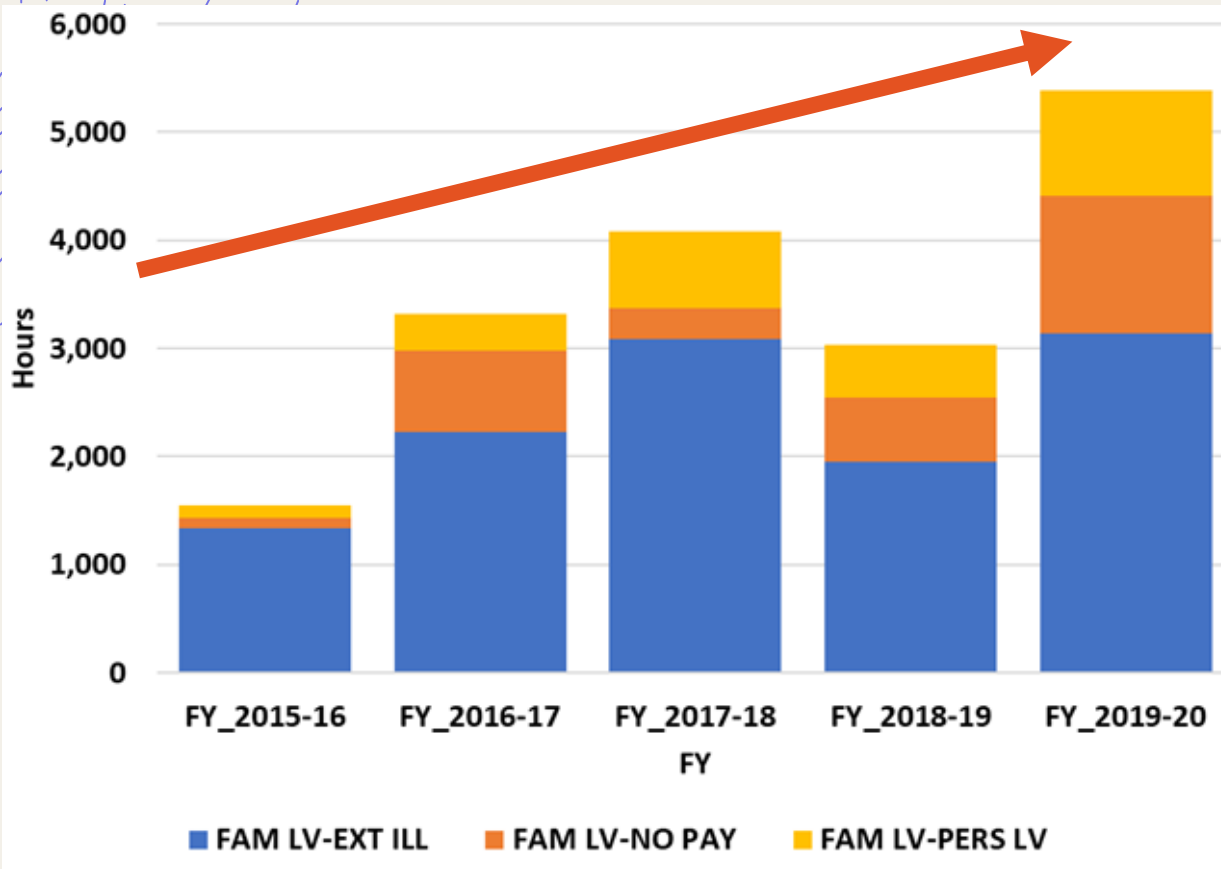
+ Workers Compensation hours has averaged just under 2 FTEs annually



Workers' compensation hours have remained relatively consistent and are less than 2% of the total hours reported for FY2019-20. This is similar to other LAC benchmark agencies, and departments in the City.

FMLA hours in FY2019-20 are higher than any of the previous four years and increased 250% over the period. This is equivalent to over two (2) full-time employees.

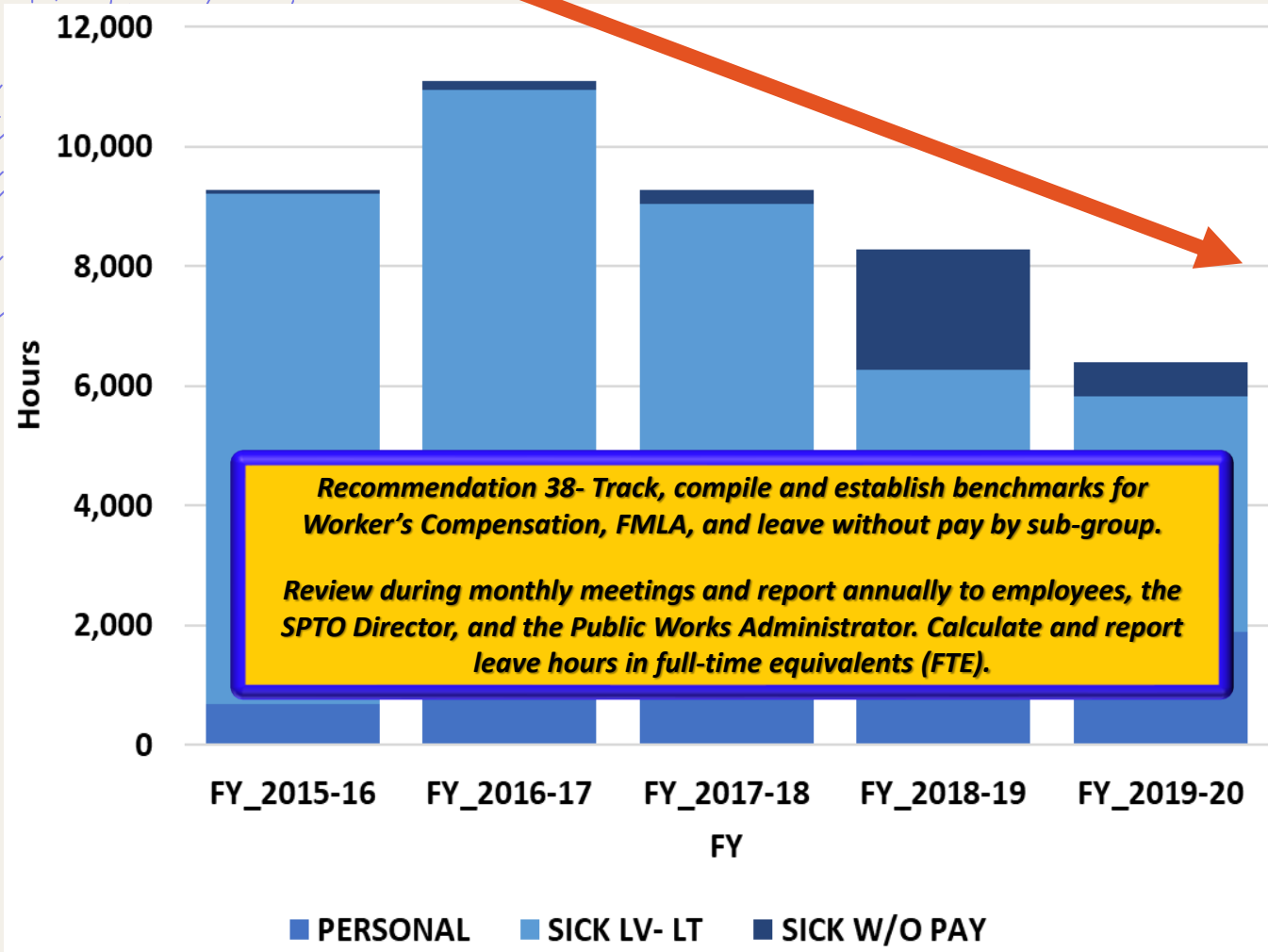
Historical FMLA Hours



- + Family Leave- Extended Illness has averaged just over 1 FTE annually
- + Family Leave- Non-Pay has averaged under 1 FTE annually
- + Family Leave- Personal Leave also has averaged under 1 FTE annually
- + Together FMLA has averaged just over 2 FTEs annually
- + Increased by 250% in five years

Historical Sick and Personal Leave Hours

Reported sick and personal leave hours have been reduced over the past four years, with Paid Sick Leave- Limited-Time reducing by more than half. The total hours have averaged four FTEs.



- + Personal Leave has averaged less than 1 FTE annually
- + Sick Leave- Limited Time has averaged over 3 FTE annually
- + Sick Leave Without Pay has averaged under 1 FTE annually
- + Total has averaged over 4 FTE annually
- + Paid Sick Leave- Limited Time has reduced by more than half over the past five years

Work Methods

- + Some SOPs established.
- + Other work based on employee and supervisor experience.
- + Traffic control determined and established by location.



Some traffic control methods are used minimally, despite being referenced in the SOPs and the existence of Traffic and Safety Technician.



Recommendation 39- Utilize the Department's Safety Officer to systematically monitor and report the application of traffic control devices by field staff. Include non-compliance reporting to the SPTO Director.

Charge the Safety Officer with tracking and monitoring of all safety-related training, providing data to be reported monthly and in the Department's annual "State of Maintenance and Operations Report."

FDOT Traffic Signal Maintenance

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MAINTENANCE AND COMPENSATION AGREEMENT

341 (01-75)
TRAFFIC
SIGNALS
SECTION
341.5
Page 1 of 3

CONTRACT NO. ARK92
FINANCIAL PROJECT NO. 4059 2068802
F.E.I.D. NO. 4596 000474001

THIS TRAFFIC SIGNAL MAINTENANCE AND COMPENSATION AGREEMENT ("Agreement"), is entered into this 28th day of August 2015 between the Florida Department of Transportation, an agency of the State of Florida, herein called the "Department"; and St. Petersburg, Florida, ("Maintaining Agency").

WITNESSETH:

- A. The Department is authorized under Section 335.055, Florida Statutes, to enter into this Agreement.
- B. The Maintaining Agency is authorized under St. Petersburg City Council to enter into this Agreement and has authorized its undersigned representative to enter into and execute this Agreement on behalf of the Maintaining Agency.

NOW, THEREFORE, in consideration of the mutual covenants contained in the Agreement, the sufficiency of which is acknowledged, the parties mutually agree and covenant as follows:

1. The Maintaining Agency shall be responsible for the maintenance and continuous operation of the traffic signals, interconnected and monitored traffic signals (IMTS) (defined as signals that are interconnected with telecommunications and are monitored at a central location), traffic signal systems (defined as central computer, cameras, message signs, communications devices, interconnect/network vehicle, bicycle & pedestrian detection devices, traffic signal hardware and software, preemption devices, and uninterruptible power supplies ("UPS")), control devices (defined as intersection control hardware, traffic warning beacons, illuminated streetmatic signs, pedestrian flashing beacons (i.e., school zone flashing beacons, pedestrian crossing beacons, and Redundant Rapid Flashing Beacons)), and emergency fire department signals and speed activated warning displays. The Maintaining Agency shall be responsible for the payment of electricity and electrical charges incurred in connection with operation of such traffic signals and signal systems and devices upon completion of installation of each signal or device. All traffic signals and control devices mentioned in this paragraph are referred to in this Agreement as "Traffic Signals and Devices".
2. The Department agrees to pay the Maintaining Agency an annual compensation amount based on the Department's fiscal year. The compensation amount consists of the cost of the maintenance and continuous operation of the Traffic Signals and Devices as identified in Exhibit A. Payments by the Department will be made in accordance with Exhibit B. In the case of construction contracts, the Maintaining Agency shall be responsible for the payment of electricity and electrical charges incurred in connection with the operation of the Traffic Signals and Devices and shall undertake the maintenance and continuous operation of these Traffic Signals and Devices upon final acceptance of the installation by the Department. Prior to any final acceptance of the installation by the Department, the Maintaining Agency will have the opportunity to inspect and request modifications or corrections to the installation(s) and the Department agrees to undertake those modifications or corrections prior to final acceptance so long as the modifications or corrections comply with the Agreement, signal plans, and specifications previously approved by both the Department and Maintaining Agency. Reports of responsibility and cost responsibility of the installation contractor and the Department, during construction, are contained in the Department's Standard Specifications for Road and Bridge Construction.

- + Preventive maintenance for specific signalized structures
- + City does annual PM
- + Periodic maintenance of structures
- + Damage repair or replacement of structures
- + Checklist for signals in agreement
 - + 104 Traffic Signal Interconnected & Monitored (IMTS)
 - + 12 Pedestrian Flashing Beacon (PFB)
 - + 1 Emergency Fire Department Signal (FDS)
 - + 2 Travel Time Detector (TTD)
 - + 84 Uninterruptible Power Supplies (UPS)

Annual total lump sum amount \$554,289

The Traffic Signals group provides preventive maintenance service to 94 FDOT signals with an annual lump sum revenue of \$554k or ~\$5.9k per signal.

Recommendation 40- Track and monitor all traffic signal maintenance costs and productivity. Calculate and report the unit cost of each preventive maintenance routine performed and compare against an established benchmark.

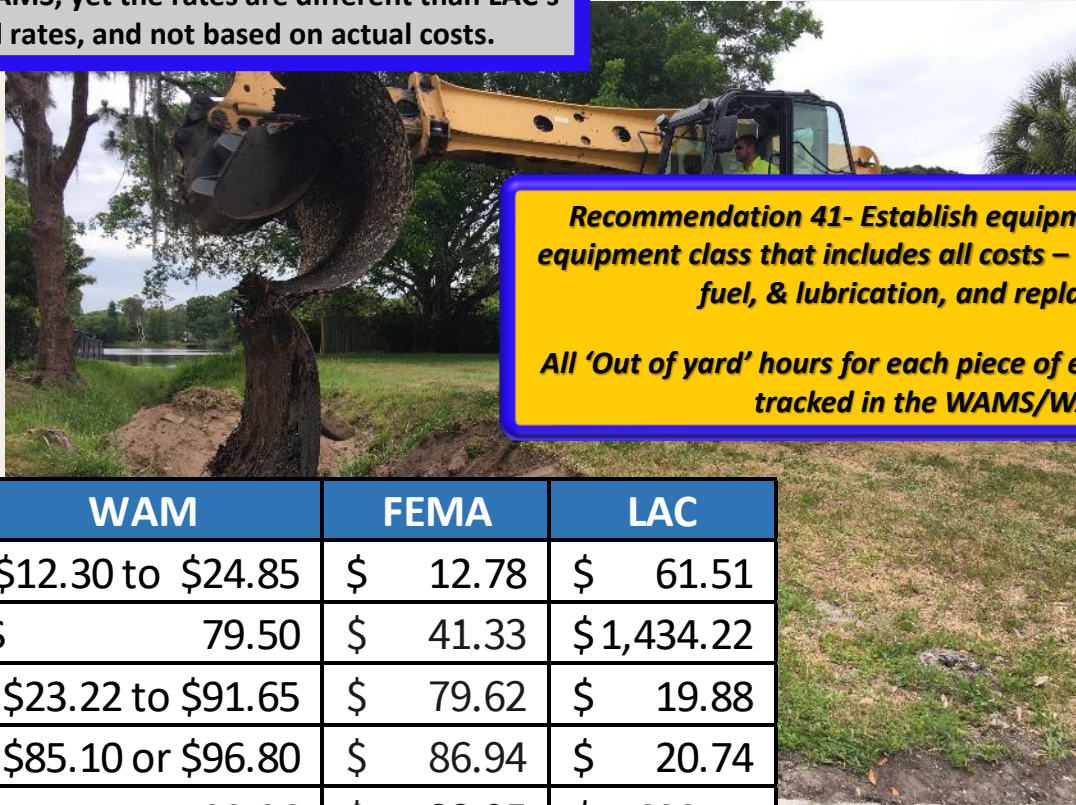
Determine if the total FDOT reimbursement covers the Department's resource costs to perform maintenance.

Rolling Stock Estimated Equipment Rates

It has been reported that the Department uses FEMA rates in the WAMS, yet the rates are different than LAC's estimated rates, and not based on actual costs.

Recommendation 41- Establish equipment rates for each equipment class that includes all costs – repair, maintenance, fuel, & lubrication, and replacement.

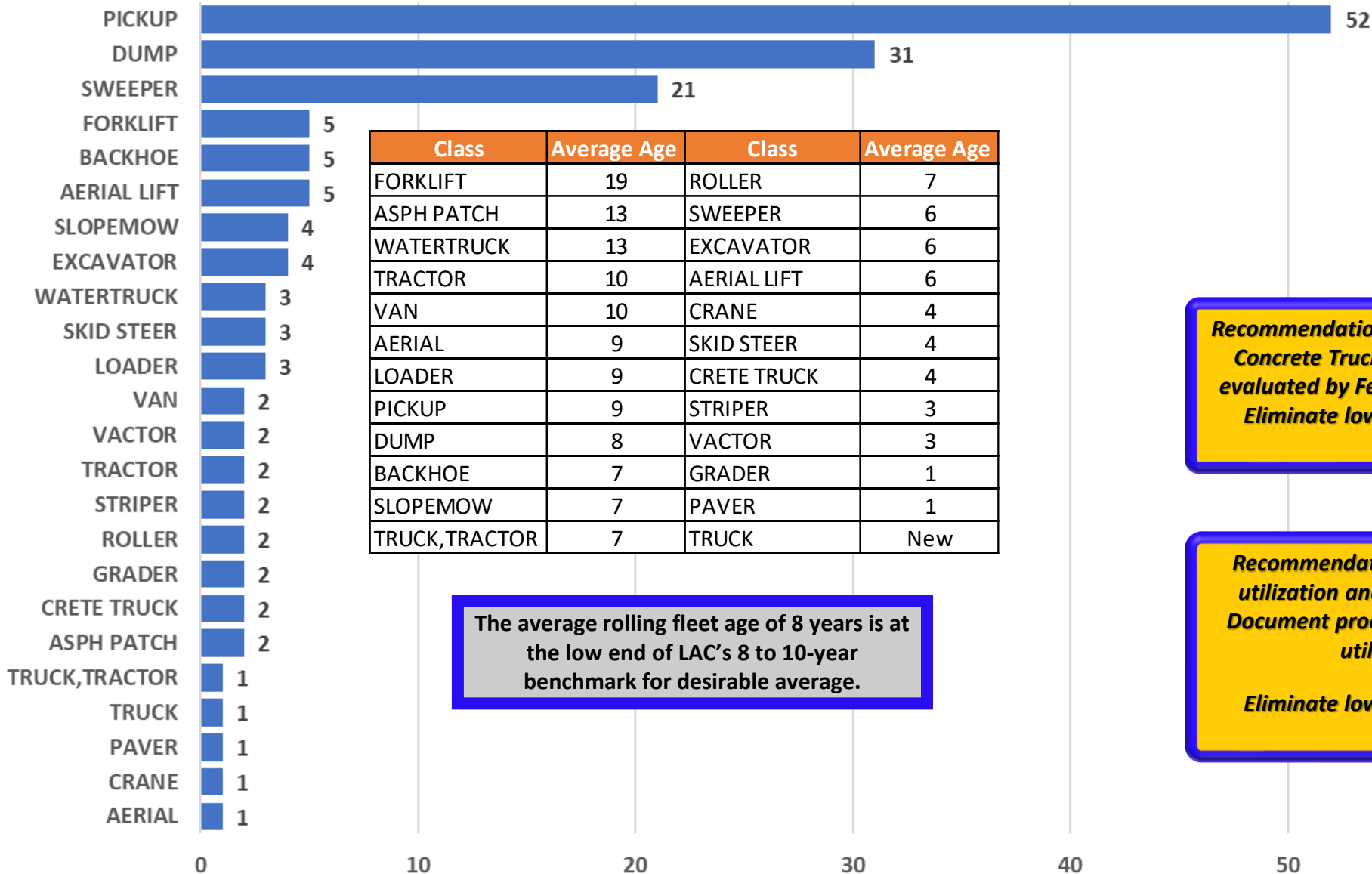
All 'Out of yard' hours for each piece of equipment should be tracked in the WAMS/WACS.



CLASS	WAM	FEMA	LAC
PICKUP	\$12.30 to \$24.85	\$ 12.78	\$ 61.51
LOADER	\$ 79.50	\$ 41.33	\$ 1,434.22
DUMP	\$23.22 to \$91.65	\$ 79.62	\$ 19.88
VACTOR	\$85.10 or \$96.80	\$ 86.94	\$ 20.74
BACKHOE	\$ 33.36	\$ 23.95	\$ 609.54
SWEEPER	\$78.70 or 102.03	\$ 102.03	\$ 31.90

Class	Est. Cost Per Hour
CRANE	\$ 6.68
STRIPER	\$ 7.70
VAN	\$ 11.69
AERIAL LIFT	\$ 14.84
DUMP	\$ 19.88
VACTOR	\$ 20.74
SWEEPER	\$ 31.90
ASPH PATCH	\$ 37.50
PICKUP	\$ 61.51
AERIAL	\$ 178.87
WATERTRUCK	\$ 186.69
FORKLIFT	\$ 222.48
EXCAVATOR	\$ 306.29
SLOPEMOW	\$ 365.75
TRUCK, TRACTOR	\$ 464.27
BACKHOE	\$ 609.54
SKID STEER	\$ 733.25
ROLLER	\$ 775.47
PAVER	\$ 955.70
LOADER	\$ 1,434.22
CRETE TRUCK	\$ 1,592.61

Rolling Stock Vehicles and Equipment



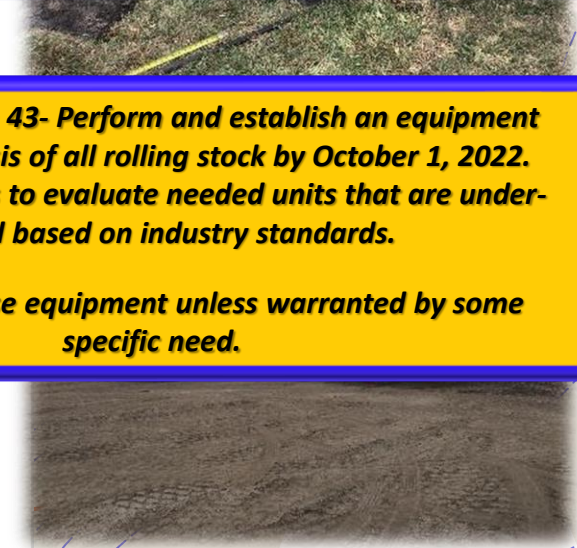
Class	Average Age	Class	Average Age
FORKLIFT	19	ROLLER	7
ASPH PATCH	13	SWEEPER	6
WATERTRUCK	13	EXCAVATOR	6
TRACTOR	10	AERIAL LIFT	6
VAN	10	CRANE	4
AERIAL	9	SKID STEER	4
LOADER	9	CRETE TRUCK	4
PICKUP	9	STRIPER	3
DUMP	8	VACTOR	3
BACKHOE	7	GRADER	1
SLOPEMOW	7	PAVER	1
TRUCK,TRACTOR	7	TRUCK	New

The average rolling fleet age of 8 years is at the low end of LAC's 8 to 10-year benchmark for desirable average.



Recommendation 42- Some equipment including the classes of Concrete Truck, Loader, Skid Steer, and Backhoe should be evaluated by February 1, 2022, as they appear to be low use. Eliminate low-use equipment unless warranted by some specific need.

Recommendation 43- Perform and establish an equipment utilization analysis of all rolling stock by October 1, 2022. Document process to evaluate needed units that are under-utilized based on industry standards. Eliminate low-use equipment unless warranted by some specific need.



Directing/Scheduling

- ✓ Work Identification
- ✓ Routines and Scheduling



Work Identification



Phone Calls



Observation



Backlog



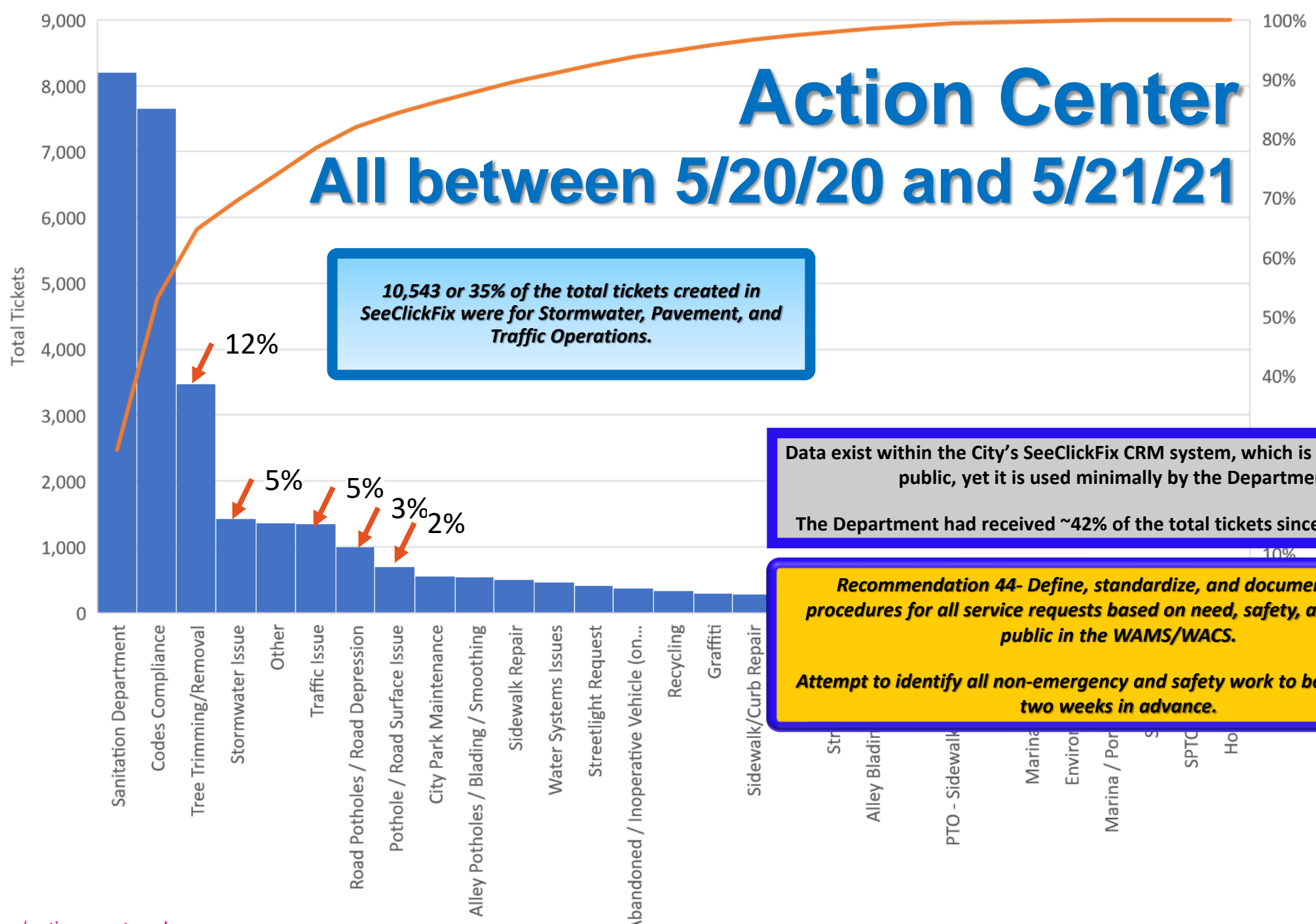
Preventative and Routine Maintenance

Combination of several methods are used.

Primarily response based, with some routines.

Action Center

All between 5/20/20 and 5/21/21



10,543 or 35% of the total tickets created in SeeClickFix were for Stormwater, Pavement, and Traffic Operations.

Data exist within the City's SeeClickFix CRM system, which is available to the public, yet it is used minimally by the Department.

The Department had received ~42% of the total tickets since June of 2014.

Recommendation 44- Define, standardize, and document priority procedures for all service requests based on need, safety, and risk to the public in the WAMS/WACS.

Attempt to identify all non-emergency and safety work to be done at least two weeks in advance.

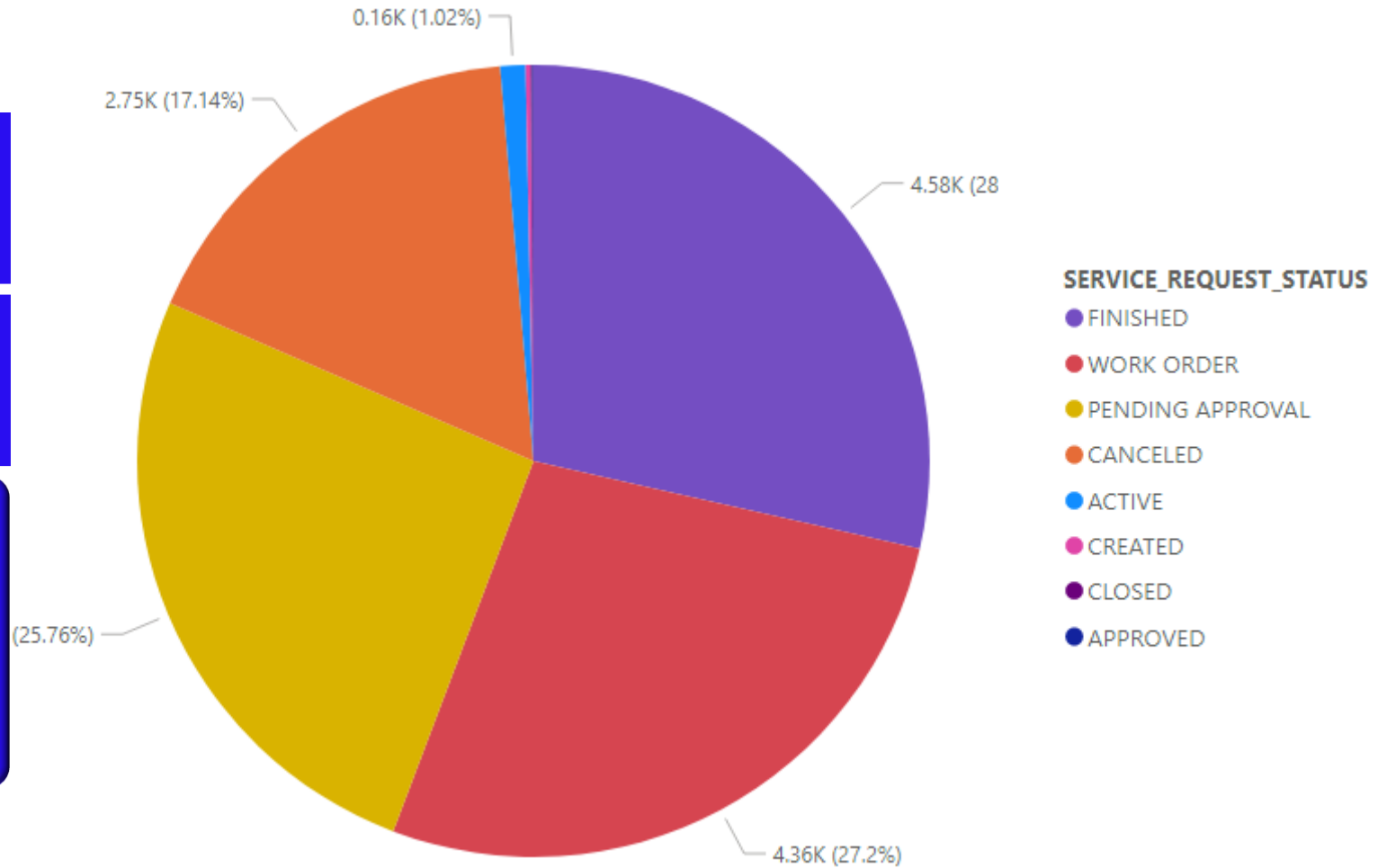
Service Requests in WAMS

The process for receiving a request through the CRM system is complicated and cumbersome with many steps and a human interface between two systems is required.

Over 25% of the service request statuses found in the WAMS database are in a Pending Approval status, which appears to be a high value.

Recommendation 45- Monitor, assign and reduce the number of service requests in the status of Pending Approval, found in the WAMS database.

Clearly define, use, and communicate the service requests statuses of the WAMS/WACS database.



Inspection and work ID

- Forepersons and technical staff evaluation requests to determine if work requests are converted into work orders.
- Forepersons and above receive cell phone stipend.
- Leadworks use City radios for communication.
- Several manual forms are used for recording inspections.

MILLING ALLEY INSPECTION SHEET DATE LOCATION

st. petersburg
www.stpete.org

YES	NO	ALLEYWAY CONDITION	YES	NO	ALLEY FENCE LINE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE ANY VISIBLE POTHOLE PRESENT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE ANY DEBRIS ALONG FENCE LINE?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE ANY VISIBLE RUTS PRESENT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE OVERGROWN GRASS?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ANY MATERIAL WASHING OUT IN THE ROADWAY?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ARE THERE TREE LIMBS OBSTRUCTING PATHWAY?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ANY MANHOLES PRESENT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE ANY DRIVEWAYS CONNECTED TO ALLEY?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	DO THE MANHOLES NEEDS TO BE LOWER OR (RAISE)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE LOW HANGING TREE BRANCHES?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ANY EXCESSIVE AMOUNTS OF GRASS PRESENT?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LOW HANGING COMMUNICATION LINES PRESENT?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	DO ALLEYWAY NEEDS TO BE CUT DOWN?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE OBSTACLES THAT WILL PREVENT REPAIR?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	DO ALLEYWAY NEEDS RECONSTRUCTION?			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THE ALLEYWAY HOLDING WATER?			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THE ALLEY HIGHER THAN SURROUNDING YARDS?			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE ADEQUATE SPACE FOR EQUIPMENT?			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	IS THERE ANY OBSTACLES PRESENTING REPAIR?			

between interstate and 33 St SW

Rev A 2/21/2019

FDOT Intersection PM List

Cabinet ID	Location	Date	Date	Date	Date
45	(SR 600) Brighton Bay & Gandy	7/17/19	5/13/19	4-21-20	4-7-21
106	(SR 595) 3 St & 5 Av N	3/7/19	4-26-19	4-16-20	2-20-21
107	(SR 693) 3 St & 4 Av N	3/7/19	4-26-19	4-16-20	5-24-21
108	(SR 693) 3 St & 3 Av N	11/12/18	1-27-19	1-27-20	1-27-21

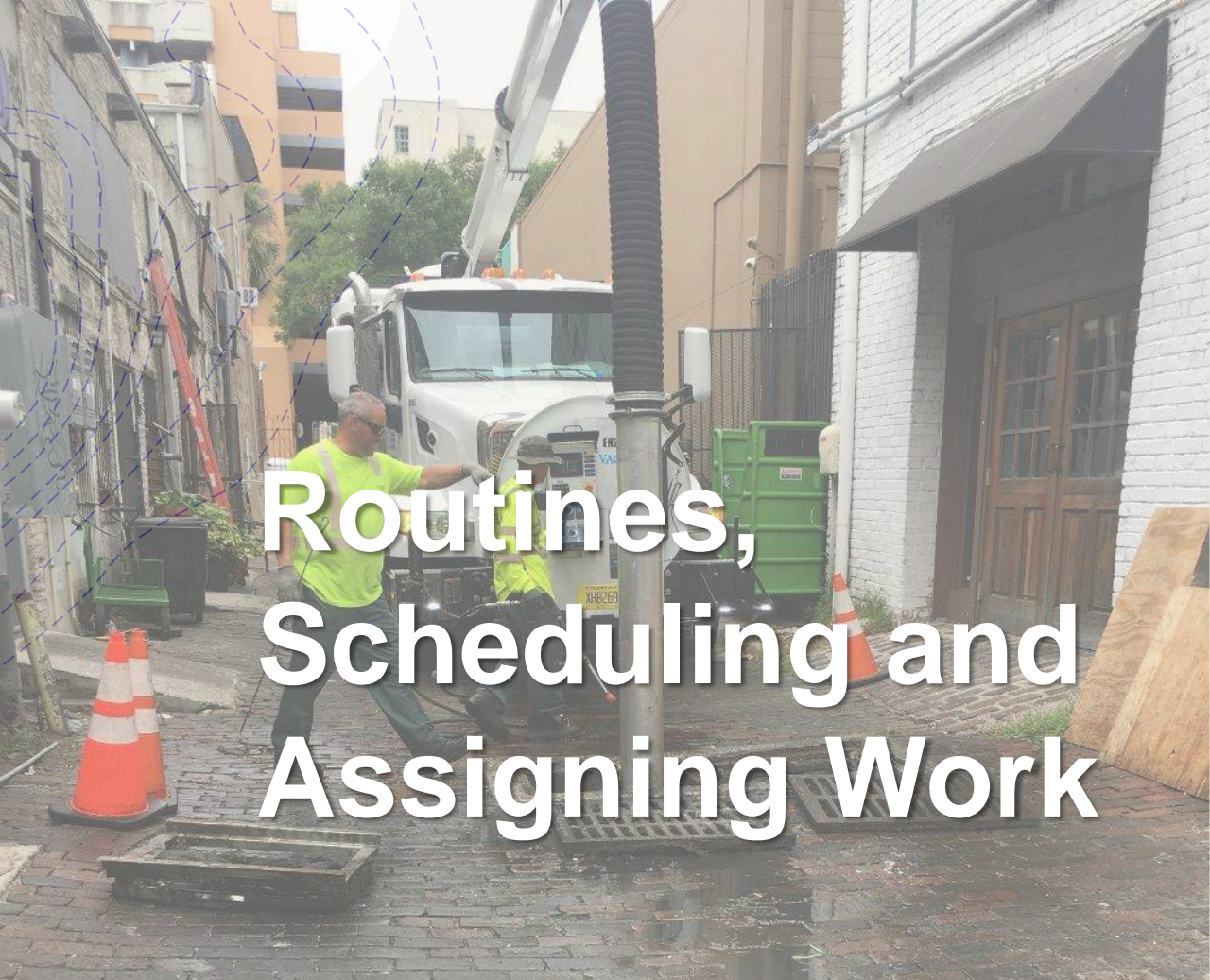
Some preventive maintenance routines and cycles are planned using manual databases, while others are planned to use WAMS.

Paper maps and spreadsheets are used for tracking and performing such routine preventive maintenance procedures as street sweeping, traffic signal maintenance, and line clearing.

Recommendation 46 Develop documented routine programs linked to GIS assets by key activities that are used for cyclical work and routines in support of stormwater operations, pavement, and traffic operations.

165	4 St & 22 Av N	1/11/19	2/2/19	3-20	2-9-21
172	4 St & 9 Av N	1/11/19	1-7-19	1-25-20	11-21-20
176	16 St & 5 Av N	12/11/18	1-27-19	1-27-20	1-27-21

Page 1 of 3



Routines, Scheduling and Assigning Work



- + Debris Pickup
- + Line Cleaning
- + Mechanical Weed Control
- + Street Sweeping



- + Mini-Mowing and Slope Mowing
- + Hand Ditch Cleaning
- + Traffic Signals

During the last year of change, communications, availability, and direction of work provided by Leadership is a survey concern for employees.

Scheduling for all groups is primarily a daily assignment process with minimal use of systematic short-range planning.

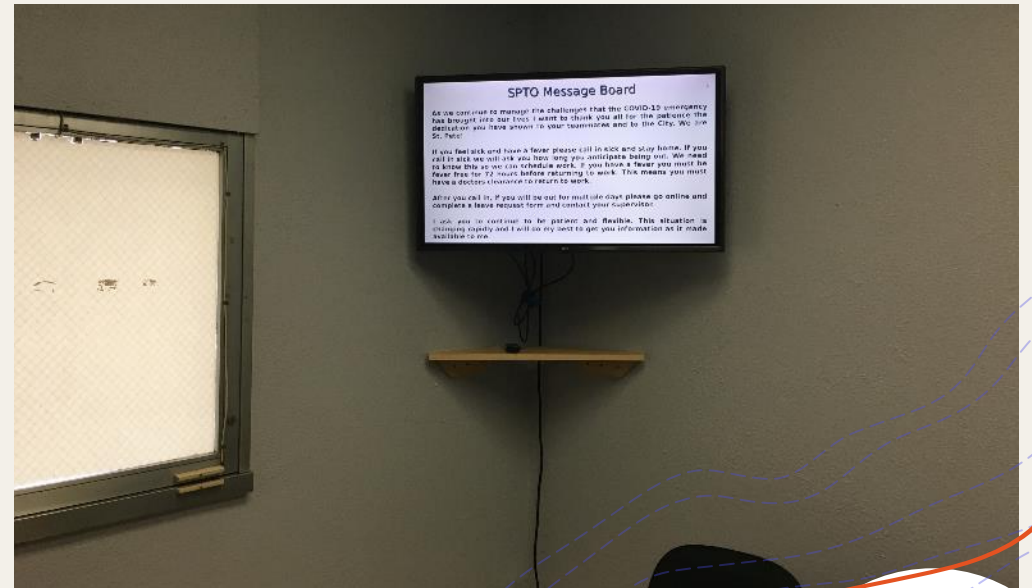
Each operational group utilizes an undocumented workflow using a combination of manual processes.

Recommendation 47- Fully develop a two-week schedule procedure for all staff and equipment, relating schedules to annual work plans and routine processes.

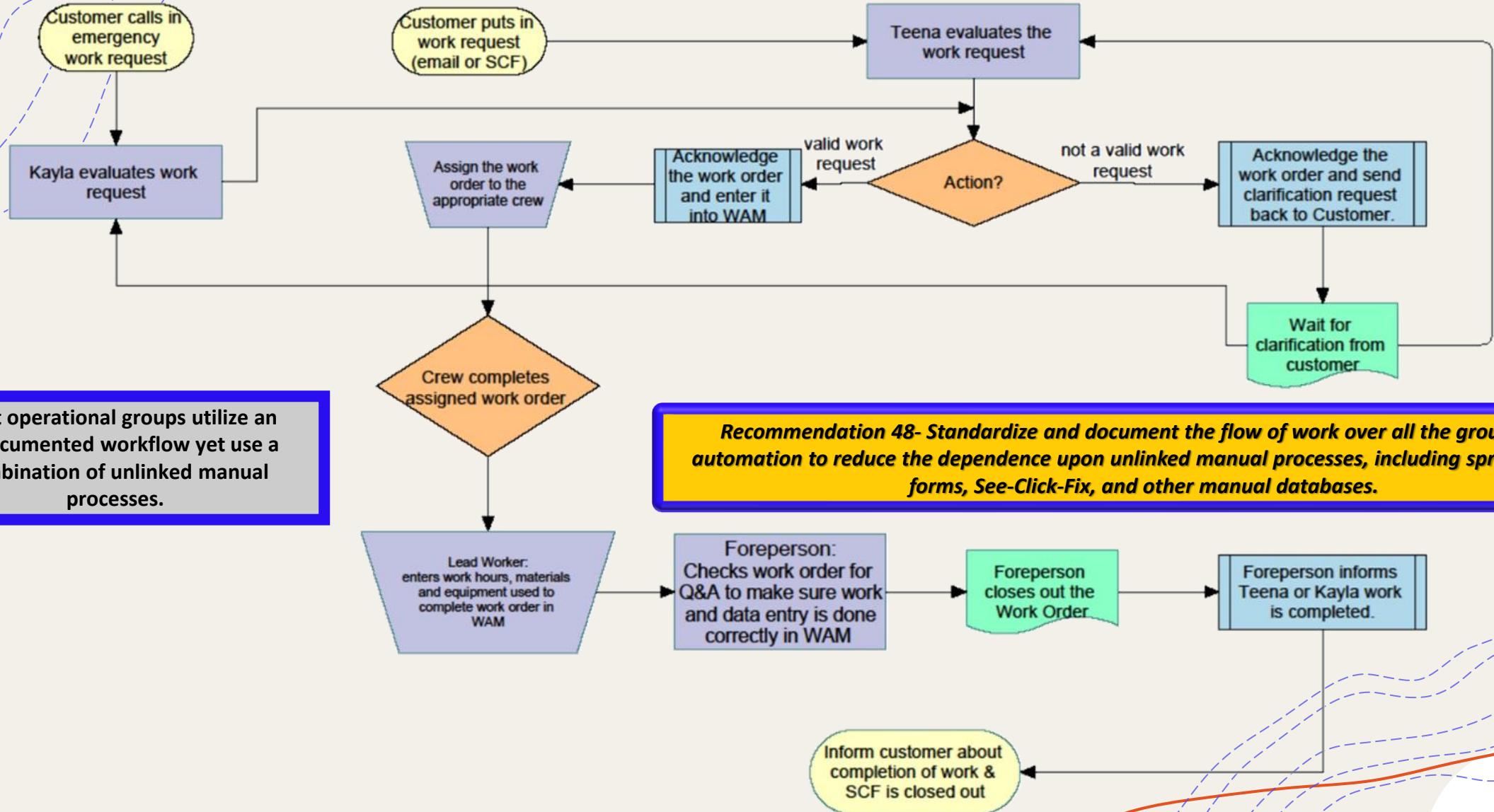
Charge and hold accountable the Department's Forepersons and Supervisors with the responsibility of communicating short-term work schedules and plans to field staff.

Control/Improving

- ✓ Workflow
- ✓ Work Tracking
- ✓ System Monitoring
- ✓ Data Compilation
- ✓ Continuous Improvement Process



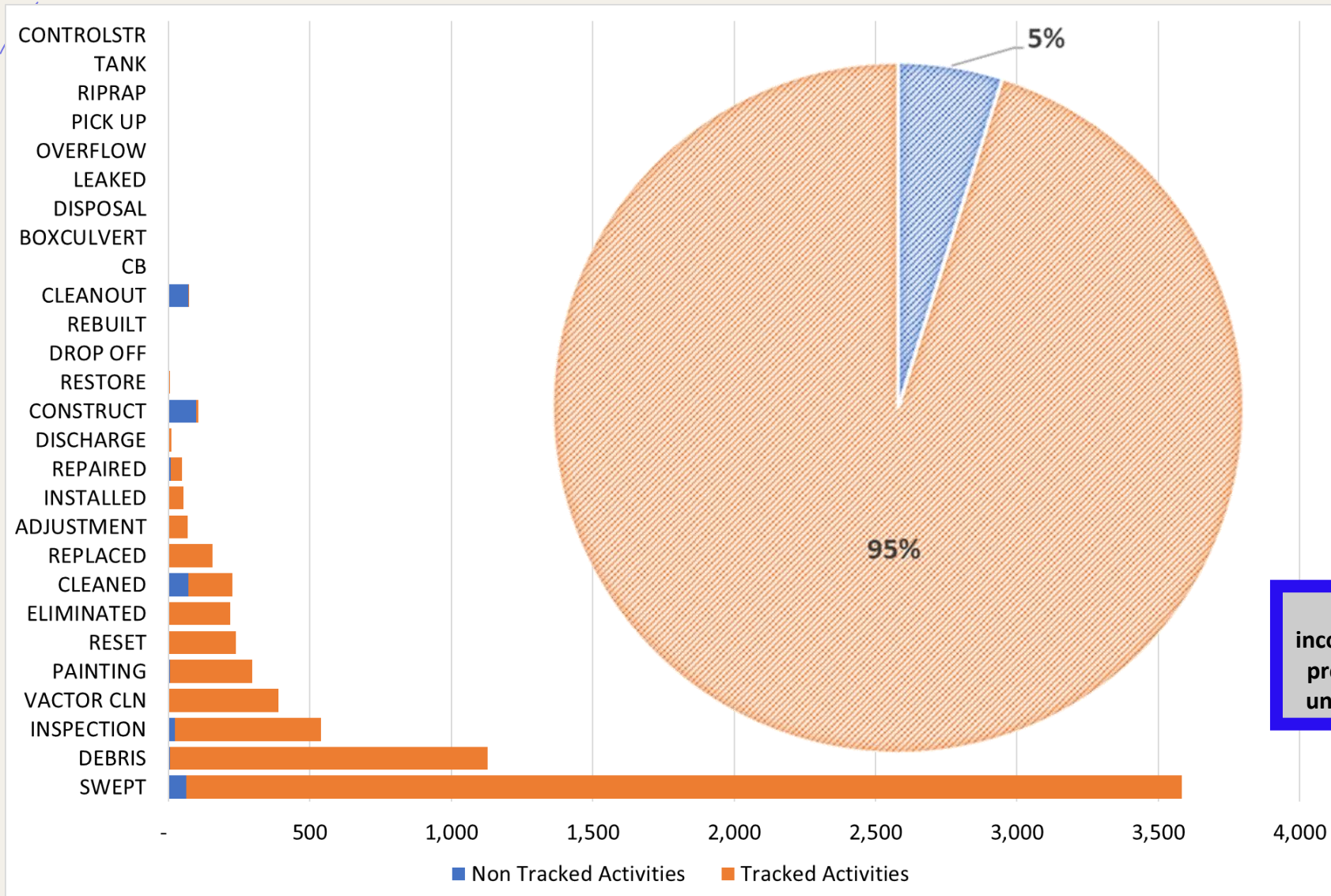
Workflow for Traffic Signs & Markings



Most operational groups utilize an undocumented workflow yet use a combination of unlinked manual processes.

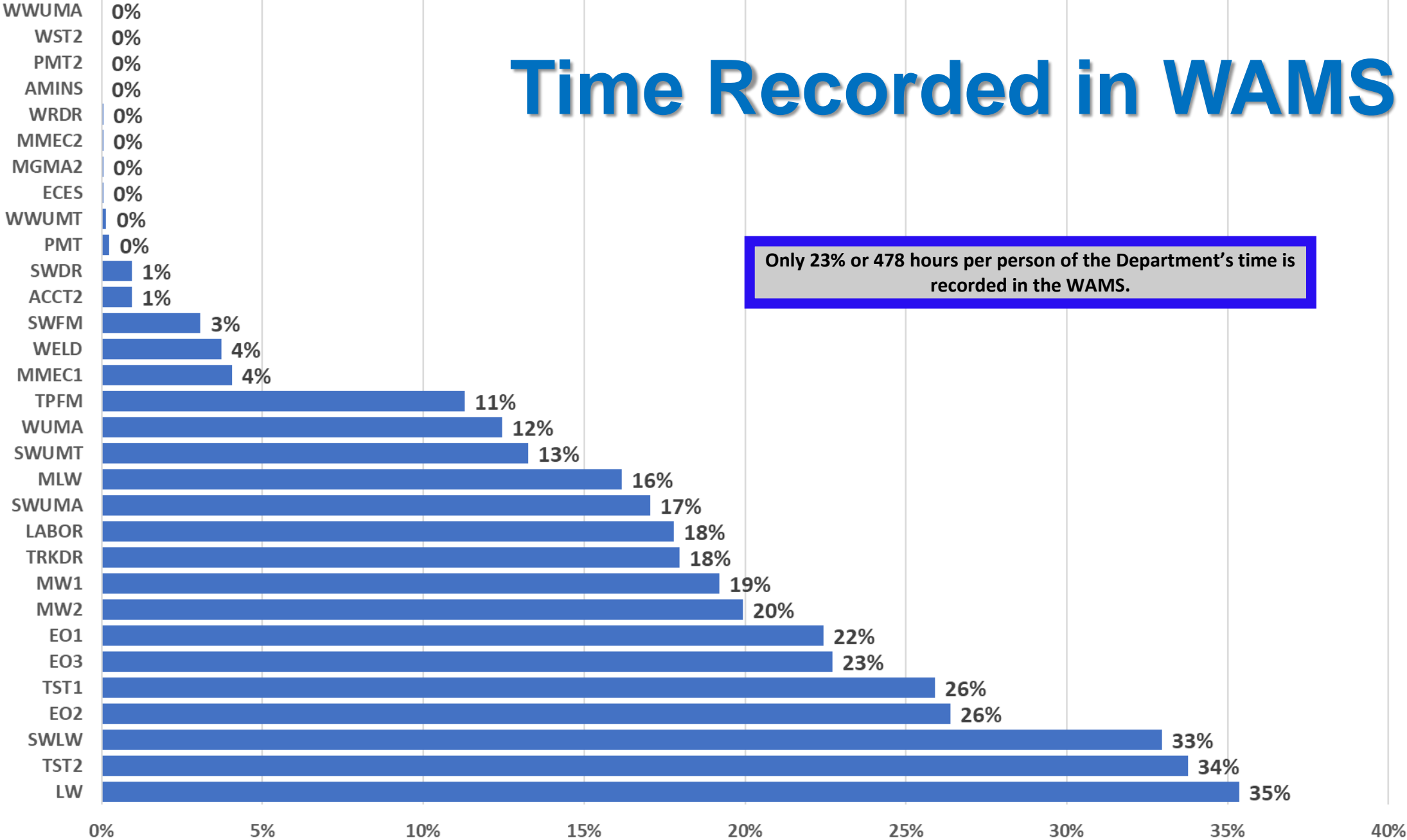
Recommendation 48- Standardize and document the flow of work over all the groups. Use automation to reduce the dependence upon unlinked manual processes, including spreadsheets, forms, See-Click-Fix, and other manual databases.

Activities Tracking



The activities tracked are inconsistent without key attributes preventing the ability to produce unit cost or productivity analysis.

Time Recorded in WAMS



Only 23% or 478 hours per person of the Department's time is recorded in the WAMS.

Reporting by Various Groups

- + Goal of 100% of staff time tracking in the WAMS.
- + Forepersons enter data and close out work orders.
- + Forepersons QA/QC before closing work orders.
- + Limited use of work accomplishment in the WAMS.

Some laptops and tables are used in the field, others use hardcopies of work orders.

Employee #	Last Name	Date	Reg Hrs	OT Hrs	Hazard Pay Y/N	Equipment #	Date/Hours

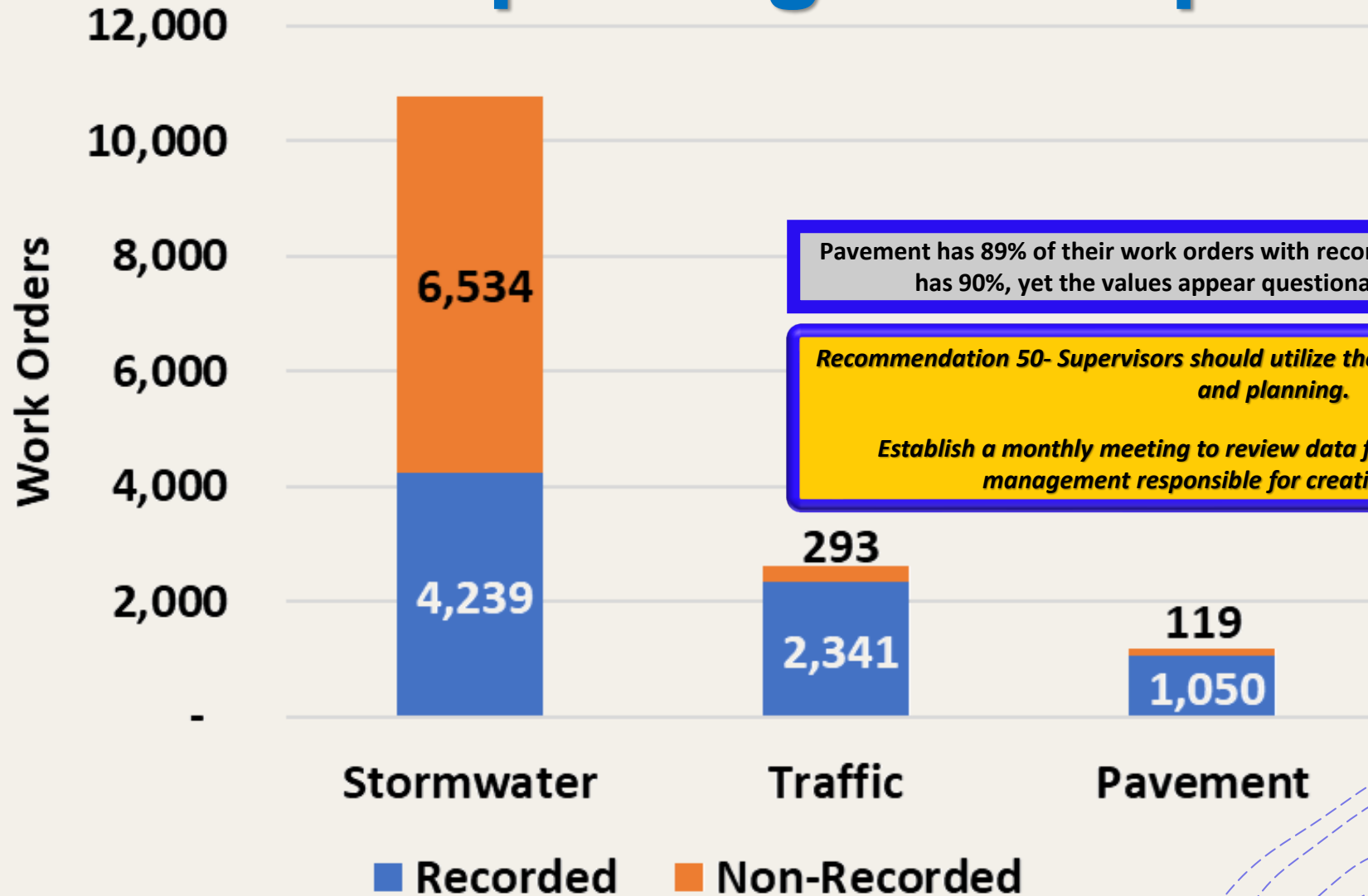
Work requests and work orders are managed differently within the Department, with some crews utilizing laptops and tablets, whereas others use manual forms.

Recommendation 49- Standardize work reporting, with resources used (labor, equipment, and materials), accomplishments and locations documented.

Track and link all time to activities, including travel and preparatory effort. Account for one hundred percent (100%) of employee time in the WAMS/WACS.



Activities Reporting Accomplishment



Pavement has 89% of their work orders with recorded accomplishment and Traffic has 90%, yet the values appear questionable with different units.

Recommendation 50- Supervisors should utilize the WAMS/WACS for work tracking and planning.

Establish a monthly meeting to review data from the WAMS/WACS with management responsible for creating accountability.

Work Orders

- + Work order processes vary between groups.
- + Some receive work orders remote on the field.
- + Forepersons enter data and update work orders.
- + Some enter resources and work accomplishment in the field electronically.

WORK ORDER REPORT 06/17/21 13:53

Work Type: Regular Est. Start Date: Required: 21-MAY-21 Crew: TRA4 Task Desc.: PROJECT SCF # 9965023 TPD REQUEST: 30TH AVENUE & COFFEE POT BLVD NE CHARGE TO: 17937 / 81652 / 2138585-01 / 0001 RE-PAINT CENTERLINE PAVEMENT MARKINGS FOR THIS CURVE DOWNS CHARGE.	Priority: 0 Job Number: Task Status: FINISHED Assigned To: RLEADS	Work Order *2138585* 2138585 Task *01* 01
--	--	--

Page: 1

Asset: F / 00052 - MARKINGS
Component ID: Description
Department: TRAFFIC Area: MARKINGS
Task Note Type: Notes
FINISHINGNOTES: Complete - MLWOODLE 06/07/21 Traffic markings crew refresh markings

RESOURCES:
Employee
33703
46938
35265
32916
46938

MATERIALS:
Store Primary Bin

OTHER REQUIREMENTS:
Requirement
E7724.8184
E405.8804
EB51.8442
E200018804

COMPLETION CODE
Traffic markings crew refresh marking

Work Type	Work Order No	Work Status	Work Desc	Asset Desc	Work Class	Asset Record Type	Asset ID	Task Priority Default	Work Required Date	Lead Crew	Routing List ID
R	2140771	ACTIVE	Various Locations, Monitor PM	ECONOLITE	TRAFFIC	F	TRSIG0000170	5	17-Jun-21	TRA5	
R	2140770	ACTIVE	Various Locations, return tested monitors to previous locations	TRAFFIC SIGNAL, SIGNAL ID: 66, INTERSECTION: 1st St N AND, LED: 22nd Ave N, LED: Y, SUPPORT: SPAN(S), CONTROLLER: ECONOLITE	TRAFFIC	F	TRSIG0000174	5	17-Jun-21	TRA5	
R	2140769	ACTIVE	1744 9 Ave N, test spare monitors	SIGNALS	TRAFFIC	F	53	5	17-Jun-21	TRA5	
R	2140741	FINISHED	Overhead lighted street signs	SIGNALS	TRAFFIC	F	53	6	16-Jun-21	TRA5	
R	2140740	FINISHED	Locates	SIGNALS	TRAFFIC	F	53	6	16-Jun-21	TRA5	
R	2140700	FINISHED	28ST AND 13 AVE. N.- NORTHBOUND SPAN NEEDS RAISING	TRAFFIC SIGNAL, SIGNAL ID: 565, INTERSECTION: 28th St N AND, LED: 13th Ave N, LED: Y, SUPPORT: SPAN(S), CONTROLLER: ECONOLITE	TRAFFIC	F	TRSIG0000076	5	16-Jun-21	TRA5	
R	2140679	ACTIVE	13 AV N BYW 38 ST 34 ST N REPAIRY BIKE LANE	MARKINGS	TRAFFIC	F	53	5	16-Jun-21	TRA4	
R	2140678	ACTIVE	12 AV S 19 ST S S L-1 AHEAD	SIGNS	SIGN	F	55	5	16-Jun-21	TRA3	
R	2140677	ACTIVE	DARTMOUTH AV N S8 ST N 2 R1-1 IDS	SIGNS	SIGN	F	55	5	16-Jun-21	TRA2	
R	2140676	ACTIVE	72 AV N 4 ST N RS-2	SIGNS	SIGN	F	55	5	16-Jun-21	TRA2	
R	2140674	ACTIVE	FARRAND AV N MYSTIC LAKE DR N R1-1 IDS	SIGNS	SIGN	F	55	5	16-Jun-21	TRA2	
R	2140673	ACTIVE	2 ST N MYSTIC LAKE DR N R1-1 IDS	SIGNS	SIGN	F	55	5	16-Jun-21	TRA3	
R	2140671	ACTIVE	81 31 N 35 AV N IDS R1-1	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140670	ACTIVE	100 72 AV N SL 50 RD OUTLET	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140669	ACTIVE	85 AV N 4 ST N SL 35	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140668	ACTIVE	6770 DARTMOUTH AV N SL 25	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140666	ACTIVE	5825 DARTMOUTH AV N SL 25 2 NPTSS	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140665	ACTIVE	60001 DARTMOUTH AV N SL 25	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140664	ACTIVE	5951 DARTMOUTH AV N SL 25 NPAT --- NPAT --- NPAT --- NPFC ---	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	
R	2140664	ACTIVE	5908 5 AV N NPFC --- 4 NPAT --- 3	SIGNFAB	SIGN	F	54	5	16-Jun-21	TRA1	

Submitted by: AFSM

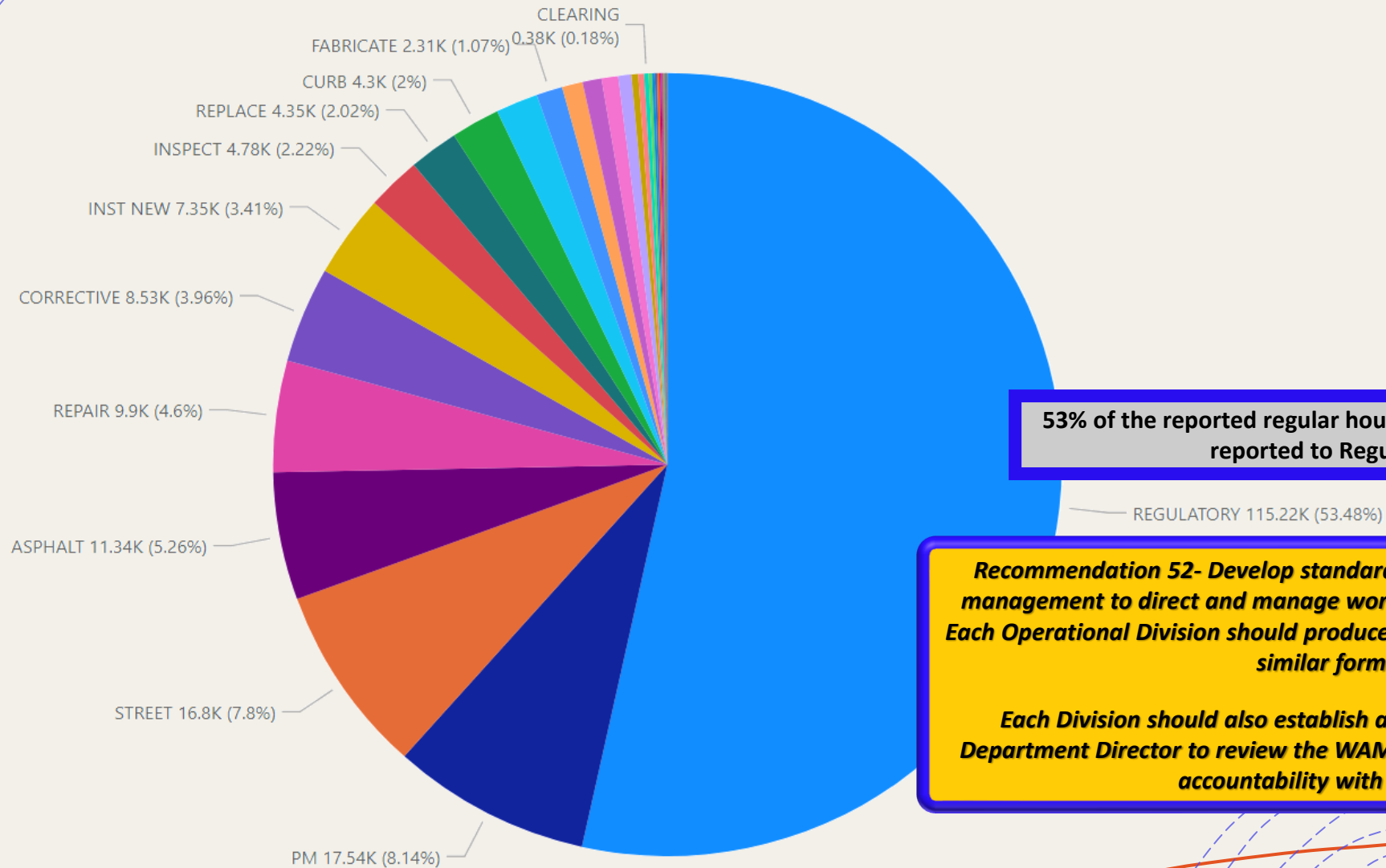
Though many tools are used, many redundant manual and independent processes occur with quality control difficult to achieve.

Performance plans and accountability are lacking in the current system and business processes. The Department has some effectiveness measures yet lacks any efficiency measures.

Good business practice suggests utilizing and relating measures to the work budget.

Recommendation 51- Cross-train Forepersons and Supervisors to produce and interpret management system outputs for decision making, as well as promote accountability.

Reported WAMS Data

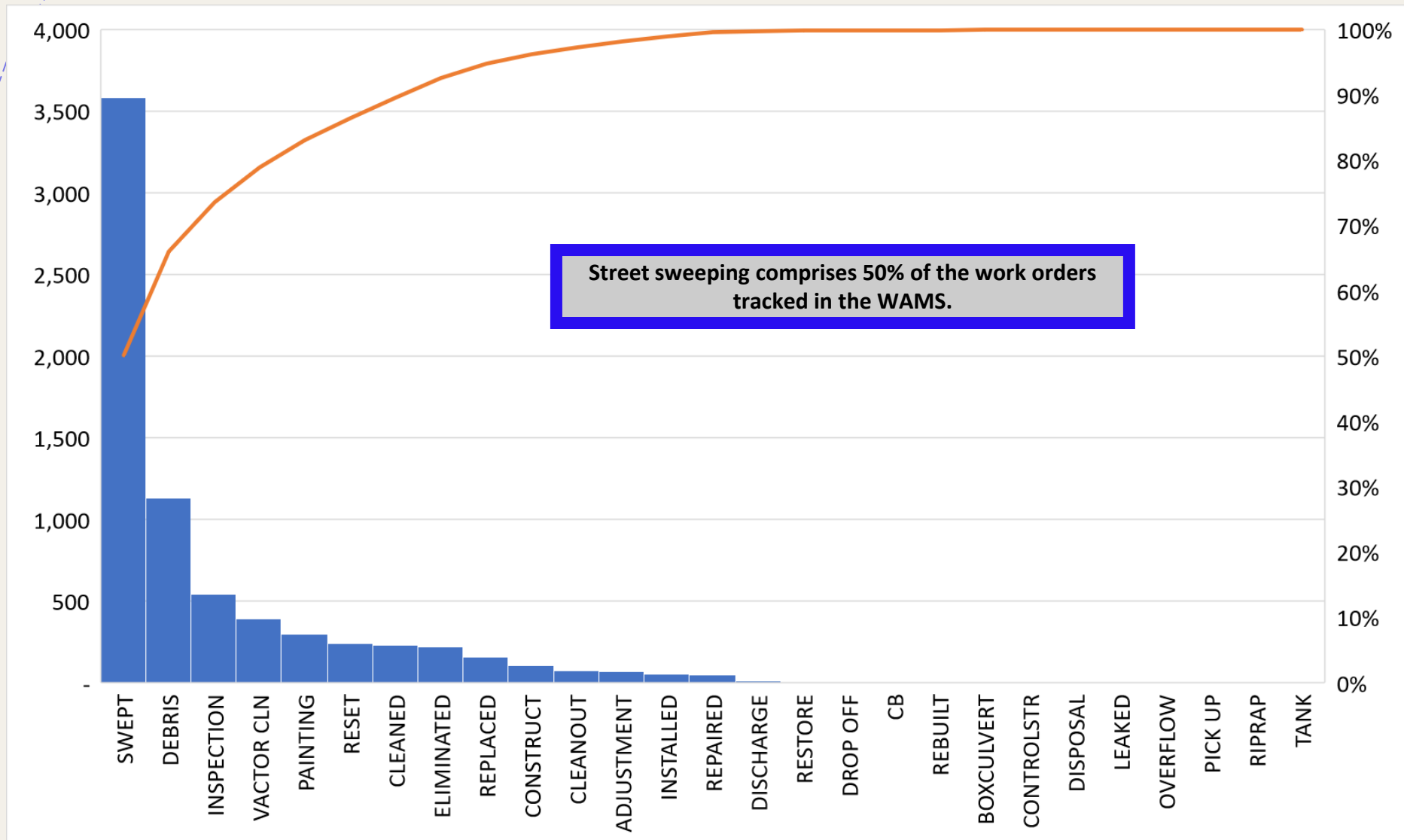


53% of the reported regular hours data in the WAMS is reported to Regulatory.

Recommendation 52- Develop standard outputs that can be used by management to direct and manage work, schedules, and data quality. Each Operational Division should produce a monthly report prepared in a similar format.

Each Division should also establish a monthly meeting with the Department Director to review the WAMS/WACS data, for establishing accountability with all teams.

Activities Tracked



Utilize Spreadsheets for accomplishment tracking

Storm Water
 Pavement
 Signs
 Markings – Stores in WAMs
 Traffic –stores manual forms

Some accomplishment units are stored in notes in WAM.

Stormwater Quality Maintenance Metrics	
Miles of Medians Mowed/Detailed	116.4
Acres of Medians Sprayed	26
Litter/Debris Removal/Bag Count	4000
Number of Trees Planted	5
Number of New Plantings Installed	1504
Number of Locations/Forestry	24
Litter Removed from Lakes/Bag Count	351
Number of Trees Trimmed/Pruned	215
Number of Tree Removed	220
Stormwater Maintenance Metrics	
Acres of Easements Mowed/Detailed	120200
Number of Ponds Mowed/Detailed	124
Miles of Roadway Swept	13,151
Grit/debris collected from sweeping	7,769
Seawall Installed	0
Seawall Repaired	1
Channel Markers Installed	20
Pylon Installed/Replaced	1
Catch Basin Lids Reset	126
Catch Basin Lids Replaced	37
Catch Basins Repaired	12
Catch Basins Vactored	131

Complete activity reporting varies and only a portion of time is tracked without accomplishment, contributing to a lack of adequate data for productivity determination and unit costing.

The outputs from the WAMS are primarily used for after-the-fact responses to inquiries.

Alum Stations Pump Maintenance	
Number of Pipes Installed (Feet)	78 ft
Number of Pipes Repaired	55
Number of Ditches/Swales Cleaned	83
Linear Feet of Ditches/Swales Mowed	37800

Summary of Quarterly Report for January 1, 2021 - March 31, 2021

System Monitoring and Data Compilation

- + Used for after fact research and accounting for past occurrences.
- + Work accomplishment is limited in the WAMS yet is tracked in separate spreadsheets and in work order notes.
- + Performance measurement and costing is done on “case by case” basis.
- + Data and result are rarely consistently communicated to lower levels in the organization.
- + Stormwater Quality produces quarterly production report of accomplished units.

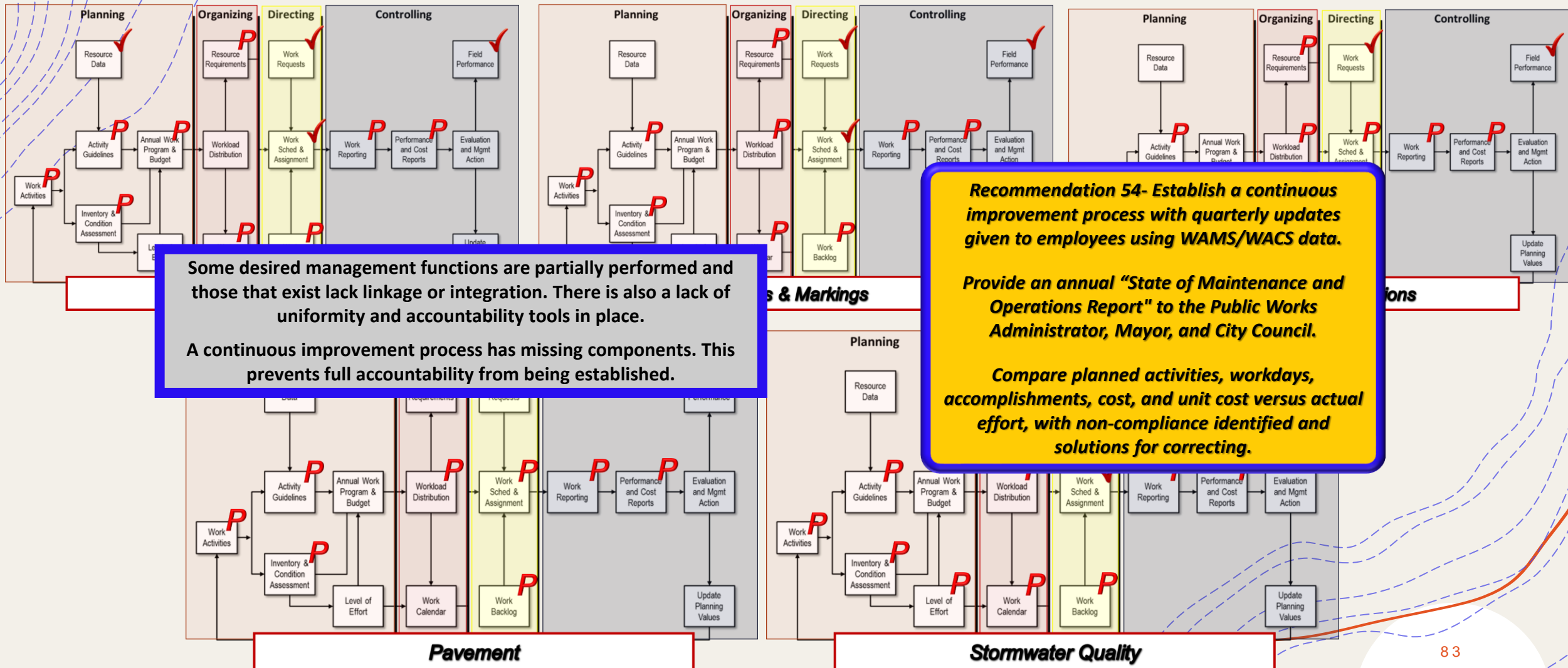
The screenshot shows a 'Work Order - 01 WAMPDOD' interface. At the top, there is a table with columns: Work Type, Work Order No., Work Status, Work Desc, Asset Desc, Work Class, Asset Record Type, Asset Id, Task Priority Default, Work Required Date, Lead Crew, and Routing List No. Below this, there are several summary sections: 'Cost and Closeout', 'Work Order Information', 'Timekeeping Summary', 'Direct Charges Summary', 'Materials Used Summary', 'Service History Summary', 'Task Progress Summary', and 'Activity Tracking Summary'. Three callout boxes are overlaid on the screenshot:

- Blue box (top):** Data is collected and reported through various methods yet is only used on a limited basis for management decisions.
- Blue box (middle):** There appears to be a lack of standardized management reports used for control, accountability, and production.
- Yellow box (bottom):** Recommendation 53- Provide training to Managers and Supervisors in using WAMS/WACS data for developing operational alternatives and making management decisions to improve the efficiency and effectiveness of resource utilization. Utilize data from the WAMS/WACS to compare both effective and efficiency benchmark parameters to other agencies and industry standards.

Some monitoring of work processes are being performed on a case-by-case basis.

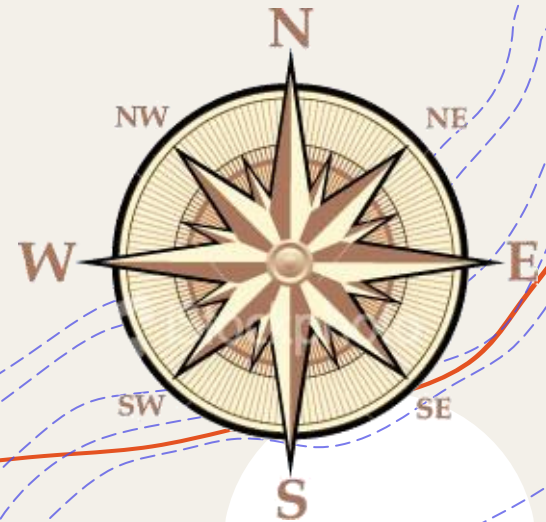


The ideal management of maintenance follows four general phases: planning, organizing, directing and controlling. This model is used as a basis for most of our observations. Check marks "✓" indicates achievement and "P" partial processes.



Where do we go from here?

- ✓ Submit draft report for review and feedback
- ✓ Receive comments to finalize
- ✓ Finalize and submit final report



Questions?



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