



City of Marco Island

MEMORANDUM

Date: October 28, 2024
To: City Council
Through: Michael A. McNees, City Manager
From: Justin Martin, P.E., Director, Public Works
Subject: Public Works Departmental Report – October 2024

The City's public works department has 13 dedicated employees that administer, repair, and maintain the city's public infrastructure including traffic signals, streetlights, roads, sidewalks, swales, street signs, stop signs, median landscaping and irrigation, city street trees, storm sewer drainage, and bridges.

The following summarizes the department's notable activities and involvement over the month of October:

Median Landscaping

Hurricane Milton's storm surge added to the damage of the median landscaping in Marco Island. The medians had not recovered from Hurricane Ian in 2022 and have since been impacted by damage from Hurricanes Helene and Milton this year. Much of the landscaping has died off from the resulting salt spray, wind burn, and saltwater inundation. No funds have been budgeted for median landscaping restoration since critical infrastructure was prioritized over aesthetic improvements. Residents have contacted the public works department regarding the restoration of the median landscaping but have been informed that landscaping restoration has not been budgeted.

Storm surge also causes mulch to float away and end up in the City's storm sewer system. Public works has vacuumed many storm inlets and swept streets to remove the accumulated mulch which PW staff then piles, loads, and hauls to the landfill for disposal. Thus, mulch has become an expensive and resource consuming item. The city's medians used crushed shell in the past as a ground cover instead of mulch. The crushed shell does not float





away in storm surge events. Other alternatives that do not float are sod, gravel, pebbles or shredded rubber.

In the aftermath of Hurricane Irma in 2017, the city budgeted almost \$200K for median landscape restoration. Current estimates to replace the damaged median landscaping exceed \$500K.

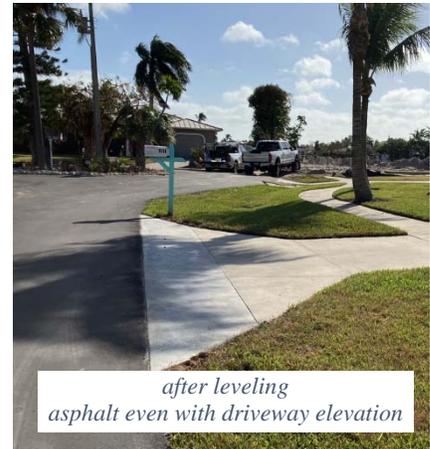
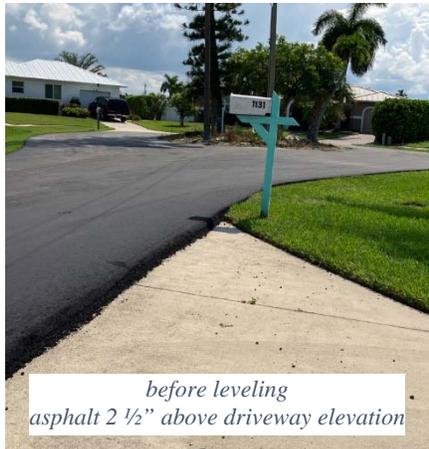
N. Barfield Shared Path

The construction of the new shared path is approaching its final stages, with the contractor currently working on the pedestrian crosswalk at the intersection of Bald Eagle Dr. and N. Barfield. This crosswalk features a flashing beacon button activation and appropriate signage to enhance pedestrian safety. Despite Hurricane Helene and Milton's delays, the contractor has demonstrated resilience and dedication, keeping the project on track for substantial completion.



Driveway Leveling

Public works contracted the adjustment of homeowner driveways that ended up being more than 1 ½” lower than the asphalt pavement when the city repaved as part of the annual street resurfacing project. This is an ongoing project that is still being contracted.



Advisory Committee Support

In addition to the above projects, PW staff attends and supports the Waterways Advisory Committee, the Beautification Advisory Committee, and the Hideaway Beach Tax District Committee, and the Bike Lane and Shared Path Ad-Hoc Committee including the preparation of meeting minutes, conducting research, updating the city website related to committee functions, coordinating among committee members, and attending additional meetings, and responding to requests.

Water Quality Action Items

The following table lists the water quality action items being considered or performed by the city. The items appearing in gray text are not recommended, not feasible, and not implemented.

WQ Action Item	Cost	Status
dredging	\$30M (\$6M/yr x 5yrs)	coordinated permitting feasibility with FDEP. A pilot program will be presented to council in the FY 26 proposed budget. A company presented a public-private partnership concept for dredging to city council in September for consideration.
inlet side slot filling	\$300/inlet	ongoing: 0 filled in month of October (147 total to date)
Exfiltration swales	\$12M	There are 120 miles of swales in Marco Island. \$1.5M in grant funding has been approved with a 50% city matching funds. New exfiltration swales will be constructed as part of the N. Barfield Shared Path project. Construction plans underway for exfiltration swales on S. Collier Blvd. from Huron Ct. to the end of Collier Ct. More exfiltration swale project designs are on the way in FY25. The right of way construction standards manual was revised to require that exfiltration swales be constructed as part of the right of way permitting process.

inlet screens	\$600 ea	ongoing: 222 installed to date. Four were installed with the recently completed Barfield drainage project. More will be installed as part of the N. Collier Blvd./N. Barfield Dr. intersection improvements project.
rain barrels/gardens	borne by homeowner	add to education campaign for homeowner implementation
seawall denitrification beds	borne by homeowner	not recommended - media can migrate into canals (unintended consequence)
reuse disposal alternatives	\$5M+	not feasible - FDEP will not permit the discarding of reuse water into deep injection well. Defeats the purpose of re-using treated water.
reuse irrigation inspections	included in operating budget	ongoing: city-owned irrigation inspected and repaired by city landscape contractor. Condo HOA's and hotels inspect and repair their systems
reuse educational program	included in operating budget	W&S dept prepared and distributed educational material. Follow up with HOA's annually
golf course irrigation	borne by golf courses	W&S dept coordinated with golf courses regarding irrigation rates. Golf courses effectively manage their irrigation
golf course interconnecting culverts	borne by golf courses	golf course water management systems detain stormwater and irrigation runoff onsite. Discharge to offsite is through outfall weirs. Interconnecting culverts are internal to golf course SWM systems.
Hydrodynamic study for dead-end canal circulation	\$50k	completed in Dec 2023 and presented to council in Jan 2024
Dead-end canal interconnects	\$6M	state legislative appropriation approvals obtained. The first interconnect project has been designed, and bids opened on 8/5/24. The City will seek additional state funding in FY25 so that this project can be constructed.
Street sweeper	\$380k	street sweeping program underway
fertilizer education campaign	low	city environmental staff coordinating
fertilizer enforcement	low	ongoing - city code enforcement
fertilizer ordinance revision	low	not recommended - unenforceable
stormwater utility	property owner assessments	requires stormwater system inventory, master plan update, and rate study by consultant. Staff has not received direction from city council to proceed with this.
Alternate water quality plan (4e)	\$50k	Approved by FDEP in Sept 2023. City is proceeding with projects in the plan as indicated in this table.
WQ testing	\$86k/yr	Ongoing. Quarterly testing of PTOX algae added in FY25.
WQ monitoring evaluation	\$10k/yr	evaluation being conducted as part of the MS4 permit. PW staff submitted the NPDES Annual Report for the Phase II MS4 permit for year 2 on 2/28/24. FDEP approved the annual report in August 2024.

Permitting Functions

Public works staff also reviews development and right-of-way permit applications and conducts inspections of the active right-of-way, SDP, and Seawall permits. The reviews and inspections are summarized below.

Reviews

Permit Type	qty
ROW permits (residential)	24
ROW permits (commercial)	4
SDP reviews	2
SEAW Seawall Work	12

Inspections

Type	qty
Residential	131
commercial	0

Infrastructure Maintenance Field Crew Activities

- Swept City Roadways with new street sweeper (178 lane miles swept between 9/26/2024 and 10/25/2024).
- Inspected crosswalks.
- Discussed drainage issue with management at Royal Seafarer.
- Lay out bollard installation crosswalk at San Marco and Sand Hill.
- Prepared for Hurricane Helene / Milton.
- Placed roadway under water signs for Hurricane Helene / Milton.
- Removed debris from roadway (Hurricane Helene / Milton).
- Leveled and repaired signs (Hurricane Helene / Milton).
- Repaired crossover pipe at treasure Ct. (temporary repair).
- Removed roadkill from S. Heathwood.
- Inspected swale complaint at Mcllvaine Ct.
- Inspected N. Barfield sinkhole complaint (found fiber line penetrating sewer lateral).
- Repaired Cushing Ln. PED crosswalk button.
- Inspected traffic light complaint at San Marco and S. Barfield (found bad video card).
- Inspected numerous swale complaints after hurricane (water and swale complaints).
- Ordered spare parts for generators (hurricane preparations).
- Inspected sinkhole at Kendall Dr. (fiber line penetrating outfall pipe).
- Repaired swale at N. Bahama Ave.
- Repaired battery backup system and remote camera software at Winterberry and Collier Blvd.
- Filled sinkhole at Admiralty Ct.
- Assisted engineers inspecting storm drains Echo Cir. pending stormwater work (pulled grates for engineers).
- Inspected swale complaint at 263 Meadowlark (address placed on future swale grading list).
- Removed fallen trees from shared pathway on San Marao Rd.
- Repaired shared pathway on S. Collier.
- Formed and poured concrete curb near catch basin on Collier Blvd. (sidewalk safety protection).
- Sign repaired at Kirkwood and Trinidad.

Sinkhole repair on Kendall Dr.



San Marco Rd. tree removal



Swale grading at N. Bahama



Old driveway pipe removed at Meadowlark Ct.



Floating debris removed from waterway

