



City of Marco Island

MEMORANDUM

Date: November 26, 2024
To: City Council
Through: Michael A. McNees, City Manager
From: Justin Martin, P.E., Director, Public Works
Subject: Public Works Departmental Report – November 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 November:

West Winterberry Dr. Bridge

The bridge was closed from 11/22 through 11/25 for repairs. The asphalt on the bridge decks was removed, cracks and depressions on the top of the decks were filled with polymeric mortar, a membrane was applied to the top of the decks, the decks were repaved, and the new asphalt striping was restored. This repair provides a waterproof membrane that prevents water from seeping into the joints of the bridge decks thereby preventing corrosion of the post tension tendons and efflorescence on the bottom surface of the decks which contributes to weakening of the concrete and spalling. Other repairs such as injection of flowable fill to replace undermining in the bridge abutments, corrosion removal, and concrete patching under the bridge will continue over the next three weeks; however, these subsequent repairs will not affect vehicular or boat traffic.



W. Winterberry Bridge

Annual Christmas Street Decorations

The public works department contracted with a vendor to install the annual Christmas decorations on the city's street light poles on Collier Blvd. from the Jolley Bridge to N. Barfield Dr. The decorations consist of lighted garland wraps with red bows. Additional lighting and decorations will be added in Founders Park located at the southeast corner of the N. Collier Blvd/N. Barfield Dr. intersection.



N. Barfield Shared Path

The construction of the new shared-use path project is complete. The shared path marks a significant improvement in pedestrian and cyclist safety. This project included the widening of sidewalks from Collier Blvd to Bald Eagle Dr. In addition, exfiltration swales were constructed along the path to improve water quality. A pedestrian crosswalk was installed at the intersection of Barfield and Bald Eagle Dr., featuring a flashing beacon button activation system and signage to enhance visibility and ensure the users' safety. Final inspections and documentation are underway as the project transitions to close-out, delivering a valuable enhancement to the community's infrastructure.



Driveway Leveling

Public works contracted the adjustment of homeowner driveways that ended up being more than 1 1/2" lower than the asphalt pavement when the city repaved as part of the 2024 annual street resurfacing project. This project is now complete.

Sand Dollar Spit Sand Restoration

The contractor began the restoration of the sand that migrated during the hurricanes and tropical storms in 2024. The restoration is being done with an excavator, loader, and quarry truck and is expected to be completed prior to the commencement of the shore bird nesting season on February 15th. This is a biennial maintenance project to maintain the berm on Sand Dollar Spit which serves as a first line of defense against storm surge and as shore bird and sea turtle nesting habitat.



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. *Driveway Leveling*

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: 2 filled in month of November (149 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)	30
ROW permits (commercial)	1
SDP reviews	3
SEAW Seawall Work	8

Inspections

Type	qty
Residential	102
commercial	1

Infrastructure Maintenance Field Crew Activities

- Swept City Roadways with new street sweeper (114 lane miles swept between 10/28/2024 and 11/20/2024.
- Inspected crosswalks.
- Repaired sinkhole on Spruce Ave.
- Inspected Christmas light outlets for operation.
- Inspected traffic light complaint at W. Elkcam & Collier. Southern Signal notified for signal light control issue.
- Inspected swale complaint at 586 Elk Circle. Possible swale grading needed.
- Filled swale at Buccaneer Ct. to assist drainage. Six inches of fill added to swale.
- Repaired brick pavers at Collier & Barfield.
- Repaired outfall structure at Mackle Park and filled sinkhole at structure (storm damage).
- Inspected traffic signals at Collier & Elkcam.
- Coordinated outlet repairs with Bentley Electric for upcoming Christmas light installations.
- Inspected Caxambas bridge with consultant on City flat boat.

- Filled sinkhole at 416 Bald Eagle Dr.
- Cleaned and prepped City flat boat, new prop ordered for boat (spare emergency prop).
- Converted Silver Spray Way (alley) to one way (Silver Spray Way).
- Inspected traffic cameras on W. Elkcam (bad camera cable found and repaired).
- Conducted safety training for Public Works Staff.
- Removed P-tops from Silver Spray Way.
- Inspected traffic signal power outage at W. Elkcam Cir. Power restored at intersection.
- Removed hurricane debris from Sunflower Ct.
- Filled sinkhole at 212 Bald Eagle.
- Filled pothole at Marco Lake and Bald Eagle.
- Surveyed electrical box outlets for streetlights.
- Parged small hole at seawall outfall pipe at 569 Tigertail.
- Inspected swale complaint on Dogwood, water leak found to be causing issue.
- Repaired traffic light camera on W. Elkcam.
- Cleaned up roadkill on Shadow Ridge Ct.
- Repaired roadway on Ciller Blvd. near Kendall.
- Loaded new City trash cans into dump trailer for transport.
- Inspected Woodbine Ct. complaint for cable box top missing. Spare cable box top installed.
- Cleaned and prepped shop at south plant.
- Repaired PW 21 chassis noise issue, loose bolts on vehicle tightened.
- Reset traffic cameras on Collier & Barfield.
- Inspected Yellowbird St. tree complaint... Tree does not belong to city.
- Replaced missing cable box lid on Yellowbird with spare cable box cover.
- Formed and built concrete cable marker anchor.
- Inspected swale complaint at W. Flamingo. Water Leak found.
- Repaired two potholes on Nassau Ct.
- Replaced school bus stop ahead signs on San Marco Rd.
- Removed stop signs with stop for pedestrians at Bald Eagle and Barfield.
- Inspected storm pipe issue at Jamaica & Trinidad. Pipe needs replacement.
- Relocated signs at Barfield & Bald Eagle.
- Parged seawall on Tigertail Ct.
- Parged seawall on Hartley Ave.
- Marked out shared pathways for bollard installations.
- Filled sinkhole on Collinswood Ave. Outfall needs repair.
- Removed roadkill from Bald Eagle Dr.
- Removed roadkill from San Marco Rd.
- Replaced two 'Share the Road' signs on Kendall.



Leland Way Storm Inlet Repair



Leland Way Storm Inlet Repair



Silver Spray Way Edge of Rd Repair



Palm Tree Removal from Canal



Caxambas Ct. Bridge Inspection



N. Collier Blvd. Road Repair