



Memorandum

Memorandum No: 24-161

Date: November 20, 2024

To: Honorable Mayor, Vice Mayor, and Commissioners

From: Susan Grant, Acting City Manager *Susan Grant*

Re: Seawall Replacement Program

This memorandum provides an update to the Commission on the City's seawall replacement program. The majority of the City's seawalls are stable but exhibiting deficiencies typical of concrete structures in a corrosive environment and nearing the end of their design life. These deficiencies have led to saltwater flooding of public Rights-of-Way (RoW), causing infrastructure damage, harm to landscaping, and disruptions to pedestrian and vehicular traffic in the surrounding neighborhoods. When seawalls are replaced, they are constructed to comply with standards identified in the Unified Land Development Code, section 47-19.3 that ensure seawalls contribute to coastal resilience and mitigate the effects of tidal flooding and sea level rise. The Seawall Master Plan was completed in February 2018, prioritizing 35 seawalls along the RoW for replacement based on the extent of structural damage and frequency of tidal overtopping events. Since 2018, the City has replaced ten (10) seawalls, with a combined length of 4,300 feet and total cost of \$13,244,352. The City is currently updating the Seawall Master Plan, to include an assessment of all seawalls within Parks properties, which is scheduled for completion in December 2024.

The following five (5) seawalls have been prioritized for replacement next, based on current condition and flooding impacts currently being experienced within the neighborhoods.

Sebastian and Seville Seawalls:

These two (2) seawalls, each measuring 50 feet in length, are located within the Central Beach Alliance and serve as the termination points for the Seville and Sebastian roadways. Both structures are functionally obsolete and suffer from severe structural integrity issues, jeopardizing the stability of the roadway infrastructure and access to several high-rise residential buildings. Tidal excursions over and through the seawall at Seville (a Water Taxi stop for the barrier island) is causing ponding on Birch Road, a commuter roadway.

Status: Final design and permitting will be completed in early Spring 2025, with construction expected to begin in Summer 2025, and will take approximately 12 months to complete. The estimated combined construction cost for the two (2) seawalls is approximately \$2 million.

Seven Isles Drive at Del Mar Place Seawall:

The 291-foot seawall along Seven Isles Drive at Del Mar Place, located within the Seven Isles HOA, has been deemed functionally obsolete due to tidal overtopping and structural deficiencies. The current seawall's elevation is below the high tide level, resulting in frequent flooding – more than ten (10) times annually – along Seven Isles Drive. This roadway is the sole access point to the 300+ homes in the Seven Isles neighborhood, and the flooding significantly disrupts vehicular and pedestrian access. The proposed replacement will feature a structurally sound seawall with a cap elevation of five (5) feet NAVD (North American Vertical Datum), designed to protect the roadway, preserve access to the neighborhood during high tide events, and enhance the area's resilience for decades.

Status: Final design and permitting for this seawall are anticipated to be completed by early 2026, contingent upon funding availability, with an estimated cost of \$500,000. Construction of the new seawall is projected to begin in Summer 2026, with an expected duration of 12 months. The total estimated cost for construction and inspection services is \$3.7 million.

Aurelia Place and Poinciana Drive Seawall:

The 50-foot seawall along Poinciana Drive, located within the Idlewyld Homeowners Association, has been classified as functionally obsolete due to tidal overtopping and structural deficiencies. The seawall borders a City-owned parcel housing critical sewer infrastructure that supports the wastewater needs of the Idlewyld neighborhood. Frequent tidal flooding, caused by the seawall's top elevation being below the high tide threshold, regularly inundates the parcel and occasionally Poinciana Drive. This flooding damages private property, landscaping, and the City's essential sewer pump station infrastructure. The proposed replacement will include a structurally sound seawall with a cap elevation of five (5) feet NAVD, engineered to safeguard the neighborhood and the City's infrastructure from high tide events while enhancing the area's long-term resilience.

Status: The final design and permitting for this seawall are expected to be completed in early 2026, pending funding availability, at an estimated cost of \$200,000. Construction is anticipated to begin in Summer 2026 and is projected to take approximately 12 months. The total estimated cost for construction and inspection services is \$1.1 million.

Solar Plaza Drive /SE 5th St. Seawall:

The 234-foot seawall along SE 5th Street, part of the Riviera Isles Improvement Association, has been declared functionally obsolete due to significant structural deficiencies. While its current elevation is at the high tide level and minimizes overtopping, the seawall is no longer watertight, allowing tidal water to seep through and flood SE 5th Street over ten (10) times per year. This street serves as the only access route for the 140 homes in the Riviera Isles neighborhood, with flooding severely disrupting both vehicle and pedestrian access. The proposed replacement will feature a watertight, structurally sound seawall with a cap elevation of five (5) feet NAVD. This new design will safeguard the roadway, maintain neighborhood access during high tide events, and enhance resilience for years to come.

Status: The final design and permitting for this seawall are expected to be completed by early 2026, pending funding availability, at an estimated cost of \$500,000. Construction is anticipated to begin in Summer 2026 and is projected to take approximately 12 months. The total estimated cost for construction and inspection services is \$4 million.

Design and repair of seawalls is funded through CIP project P12330. While funding is available to initiate design of the five (5) seawalls, additional general funds will be required in order to proceed to construction. Public Works anticipates a total funding requirement of \$10.8 million, while it is projected that the CIP project will only receive \$1,542,304 in funding in FY2026 to go towards construction. Staff will continue to seek grant opportunities to assist with offsetting this shortfall but will also request additional funding as part of the FY2026 budget process to prioritize this program. Funding strategies for this program will be discussed as part of the City Commission goal setting workshop in January 2025.

For further information on these efforts, please contact Alan Dodd, PE, Director of Public Works, adodd@fortlauderdale.gov.

- c. Anthony G. Fajardo, Assistant City Manager
Laura Reese, Acting Assistant City Manager
Ben Rodgers, Acting Assistant City Manager
Christopher Cooper, Acting Assistant City Manager
D'Wayne M. Spence, Interim City Attorney
David L. Soloman, City Clerk
Patrick Reilly, City Auditor
Department Directors
CMO Managers