



City of Flagler Beach

P.O. Box 70 • 105 South Second Street
Flagler Beach, Florida 32136
Phone (386) 517-2000

August 25, 2023

Ms. Heidi Petito
County Administrator, Flagler County
1769 E. Moody Blvd., Bldg 2
Bunnell, FL 32110

Ms. Petito:

On behalf of the City of Flagler Beach City Commission, please consider the following projects as the City's Legislative Priorities:

1. *Lambert Avenue Water Main Extension.* The City of Flagler Beach maintains and operates a municipal water system. This system, which includes extraction, treatment, and distribution, supports the City's residents and businesses. A critical shortcoming of the system, though, is the lack of redundancy: only one sixteen-inch transmission main crosses (below) the Atlantic Ocean Intracoastal Waterway (AICW). Due to that sole crossing, the transmission network is not effectively "looped," especially at the north end of the City's service area east of the AICW. This systemic shortcoming puts water system users at increased risk if the sole crossing were damaged or severed or if water at the north end of the system is not adequately circulated.

The estimated cost to design an extended water main north on Lambert Avenue and then cross the AICW as a redundant service and additionally "loop" the system is approximately \$300,000. The estimated cost of construction for the extended water main is approximately \$3,000,000. The City of Flagler Beach requests an appropriation of \$1,650,000, which the City would similarly match, to design and construct the Lambert Avenue Water Main Extension.

2. *Flood Mitigation Measures for City Facilities.* Several City facilities are vulnerable to storm surge and flooding, especially those located in the vicinity of the AICW. These facilities include the Police and Fire stations; a 1,000,000-gallon water storage tank; two City Maintenance facilities, and the Library. Although a berm is currently being designed to protect this general area, additional equipment can be utilized to enhance protection in specific areas.

The estimated cost for sufficient protective measures (HydroDefense Flood Planks) is approximately \$150,000. The City requests an appropriation of \$150,000 for the purchase of an estimated twenty flood planks.

Mr. Dale L. Martin, City Manager; dmartin@cityofflaglerbeach; mobile (904) 557-5047

The Flagler Beach City Commission respectfully submits these two projects for consideration as part of the Flagler County comprehensive 2024/2025 Legislative Priorities. These projects will enhance the health, safety, and welfare of Flagler Beach residents during all phases of an emergency: preparedness, response, recovery, and mitigation.

Given the need for these projects, the City will also pursue alternative funding through federal, state, and regional agencies.

If you desire additional supporting documentation, please contact me.

Sincerely,



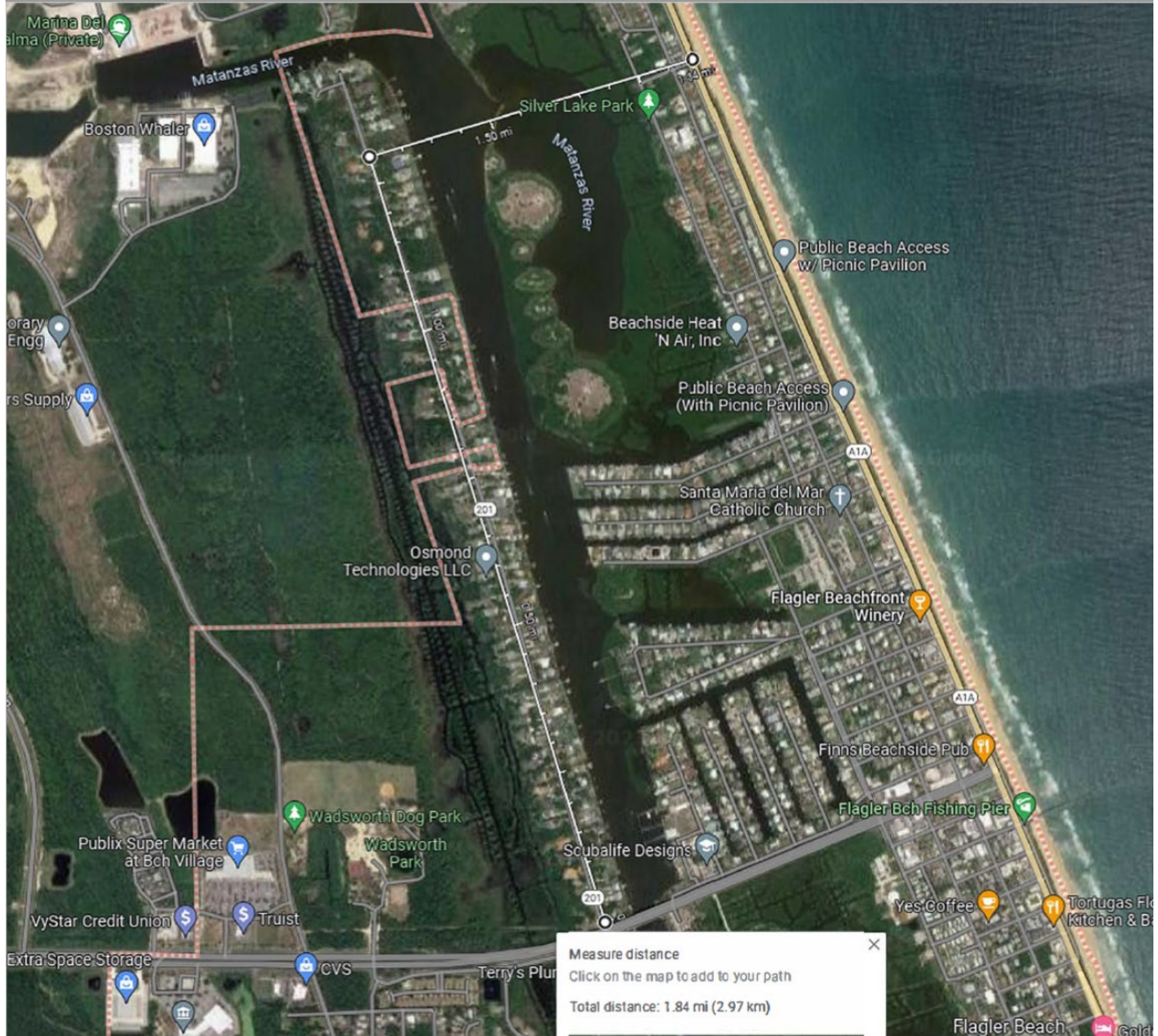
Dale L. Martin
City Manager

Cc: Flagler Beach City Commission
E. Fernandez, Anfield Consulting

Encl: Map, Lambert Avenue Water Main Extension and AICW Crossing
Cost Estimate, Water System Improvements
Cut Sheet, PS Flood Barriers HydroDefense Flood Plank

**Proposed Lambert Avenue Water Main Extension and
Atlantic Ocean Intracoastal Waterway Crossing**

(depicted in white)



Flagler Beach Additional Storage at WTP and Redundant WM River Crossing
Order of Magnitude Project Cost Estimate
Revised 8/8/23

Description: Project involves addition of a 1MG ground storage tank (GST) on existing water treatment plant (WTP) site. Project also involves construction of 16" water main (WM) along Lambert Avenue from SR100, then cross the Matanzas River at N 17th Street and along N. 17th Street to SRA1A

Item	Description	Est. Qty	Unit	Est. Unit Price	Est. Extended Cost
1	Mobilization	1	LS	\$ 75,000	\$ 75,000
2	MOT/Soil & Erosion Control/Etc.	1	LS	\$ 60,000	\$ 60,000
3	GST Site Prep	1	LS	\$ 90,000	\$ 90,000
4	GST Site Piping	1	LS	\$ 120,000	\$ 120,000
5	1MG GST	1	LS	\$ 1,600,000	\$ 1,600,000
6	GST Painting	1	LS	\$ 55,000	\$ 55,000
7	GST Chlorination/Activation	1	LS	\$ 25,000	\$ 25,000
8	16" WM Tie-ins	2	EA	\$ 25,000	\$ 50,000
9	16" HDPE via HDD (Upland)	6800	LF	\$ 175	\$ 1,190,000
10	16" HDPE via HDD (Subaqueous)	2400	LF	\$ 300	\$ 720,000
11	16" PVC via Open Cut	500	LF	\$ 65	\$ 32,500
12	16" Valves	10	EA	\$ 7,900	\$ 79,000
13	Fittings	1	LS	\$ 85,000	\$ 85,000
14	Restoration	1	LS	\$ 75,000	\$ 75,000
15	General Conditions	1	LS	\$ 100,000	\$ 100,000
				Subtotal	\$ 4,356,500
				20% Contingency	\$ 871,300
				15% Design/ Permitting/CEI	\$ 653,475
				Total	\$ 5,881,275

Notes:

1. Mead & Hunt does not guarantee estimate; actual costs may vary.
2. HDD costs provided by regional specialty contractor.



100%
Customizable



Stackable Planks



Quick Deployment

HYDRODEFENSE® FLOOD PLANK XL (FP-535)

FOR FLOOD PROTECTION ON LARGE OPENINGS, THE BEST DEFENSE IS HYDRODEFENSE®

The HydroDefense® Flood Plank XL (FP-535) from PS Flood Barriers™ is the most dependable way to protect large openings like driveways, loading docks, storefronts, retaining walls and full building perimeters from the advance of flood water. Specifically engineered to protect extra-large openings, the HydroDefense system is custom built using our proprietary flood planks, also known as stop logs, to address your distinct flood vulnerabilities. The HydroDefense Flood Plank XL is stored away from your opening, providing the perfect solution when you need protection in place only at the time of flooding.

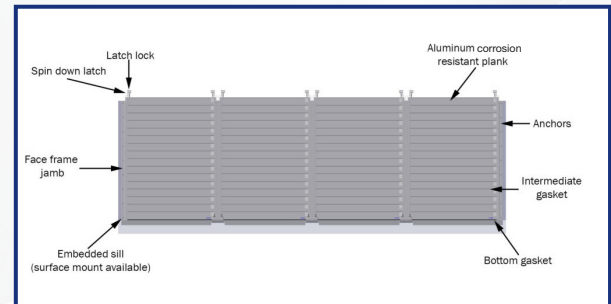
EASY DEPLOYMENT

- No sealant required on planks during deployment – watertight protection that deploys quickly without mess or dry time
- Identical flood planks of symmetrical shape allow for quick assembly because planks fit either way
- Easy-grip construction makes part handling simpler and safer
- Fewer pieces to track mean less stress during assembly
- Easy-to-replace seal can be changed in the field in minutes



KEEPS WATER OUTSIDE WHERE IT BELONGS

- Rugged extruded-aluminum planks and durable gaskets are tested to withstand the rigors and unpredictable nature of flooding
- Components are engineered to integrate together to form a structural watertight wall
- Rugged T-Lock seal is mechanically locked in place



CUSTOMIZABLE, ADJUSTABLE AND SAFE – HYDRODEFENSE MAKES MORE SENSE

- 100% customizable to meet virtually any building or large area opening requirements
- Unique spin-down latches enable walls to be set up with varying heights (instead of all or nothing)
- Lockable spin-down latches allow the deployed barrier to lock in place
- Affordable replacement seals make it easier to keep a well-maintained flood solution

Ask About Our Other Flood Barriers For Large Openings:



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Vertical Lift
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STANDARD TECHNICAL DATA

MATERIAL:

- **Flood Planks and Frame:** 6000 series aluminum alloy
- **Seal:** UV Resistant EPDM (High-grade material)
- **Installation:** To be installed to structural walls, typically concrete or masonry
- **Floor Surface:** Seals to existing floor surface or optional embedded steel sill
- **Mullions:** Removable mullions create a sectional barrier of any length

HARDWARE:

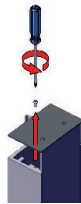
- Spin-down compression latches with security locking

PERFORMANCE RATING:

- Tested to the American National Standard for Flood Abatement Equipment, ANSI/FM 2510 2014, section 4.3.3, for water protection up to 12 feet

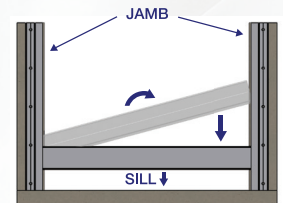
DEPLOYMENT INSTRUCTIONS:

Step 1. Remove cover assembly from jambs and spray jamb seals with a water-soap mixture.



Step 2. Install the plank that is labeled “Bottom Plank” first. This plank is unique and the gaskets have been factory sealed to ensure a watertight junction with the sill.

- Place one corner of the bottom plank into the jamb.
- Angle the opposite end of the plank upward until it clears the opposite jamb.
- Slide the plank into the jamb, taking care to not tear the jamb gasket.
- Level plank and slide down.
- Center the plank between the jambs and ensure that the plank fully overlaps both jamb gaskets.



Step 3. Install the intermediate planks in the same manner as the bottom plank, ensuring that each plank is fully seated onto the plank below. If this is not achieved, lift and re-seat the plank on the plank below before continuing.

Step 4. Install latching, making certain to tighten both latch sides evenly to compress planks uniformly. Tighten latch bolts to a torque of 100 in.-lb. To ensure that the gaskets are compressed uniformly, measure from the floor to the top plank on both ends. These dimensions are required to be within 1/4" of each other. Use of supplied latch-lock is optional but recommended in locations where tampering of the HydroDefense™ Flood Plank Wall System is prevalent.

