



→ FSBPA Technical Conference  
St. Augustine, FL  
February 5, 2026

# City of Boynton Beach Living Shoreline Assessment

Presented by:  
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Coastal Engineer

# Welcome

# Agenda



- Project Overview
- Initial Steps
- Design Considerations
- Conceptual Design
  - Intracoastal Park
  - Mangrove Park
  - Jaycee Park
- Next Steps

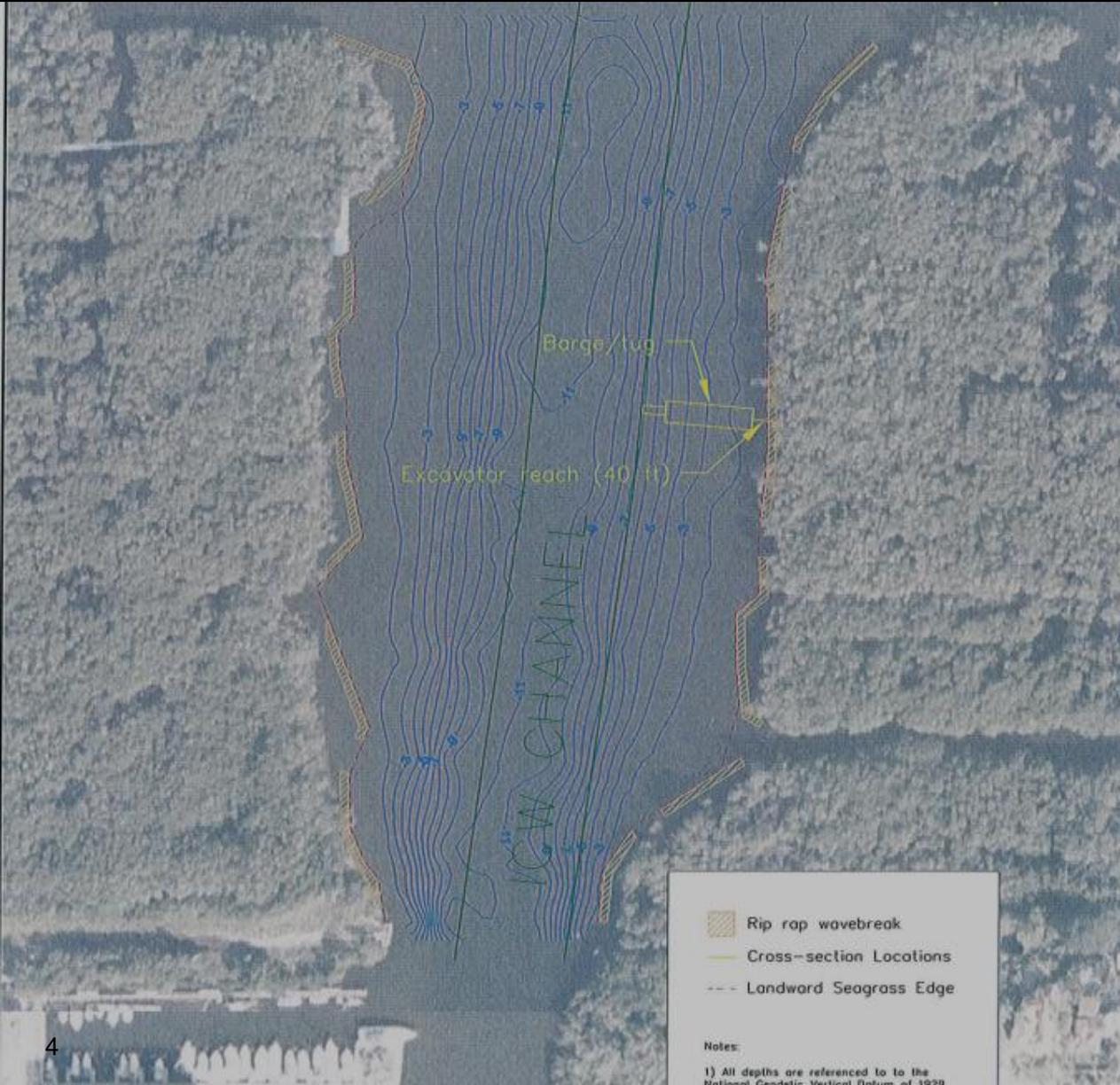


# Project Overview



- 16.5 square-miles with ~4 miles of intracoastal shoreline
- Resilient Florida Program Implementation Grant (awarded 2024)
  - ~\$537k (FDEP) with 100% grantee match (total ~\$1.07 million)
- 3 Parks Identified (1708 LF shoreline)
  - Intracoastal Park (northernmost)
  - Mangrove Park
  - Jaycee Park (southernmost)
- Phase = conceptual design (focus on ecotourism and flood mitigation)

# Initial Steps



- Site visit with the City
  - Shoreline conditions
  - Spot water depths
  - Conflicts
  - Condition of existing structures
- Public data pull
  - Coastal data (water levels, waves, SLR)
  - Elevation data (NOAA CUDEM)
  - Property lines
  - Record permits
- City supplied data
  - As-builts (utility)
  - Demolition plans

# Design Considerations



- Wave conditions
  - Wind waves (Intracoastal Park)
  - Vessel wake (30-40 ft vessels)

Park Facility Name	Minimum Wake Travel Distance (ft)	Boat Speed – Wave Period	Wake Height (ft)
Intracoastal Park	800	8 knots – 2.2 sec	0.65
		6 knots – 1.6 sec	0.35
		4 knots – 1.1 sec	N/A
Mangrove Park	200	8 knots – 2.2 sec	1.3
		6 knots – 1.6 sec	0.6
		4 knots – 1.1 sec	0.2
Jaycee Park	150	8 knots – 2.2 sec	1.5
		6 knots – 1.6 sec	0.70
		4 knots – 1.1 sec	0.25

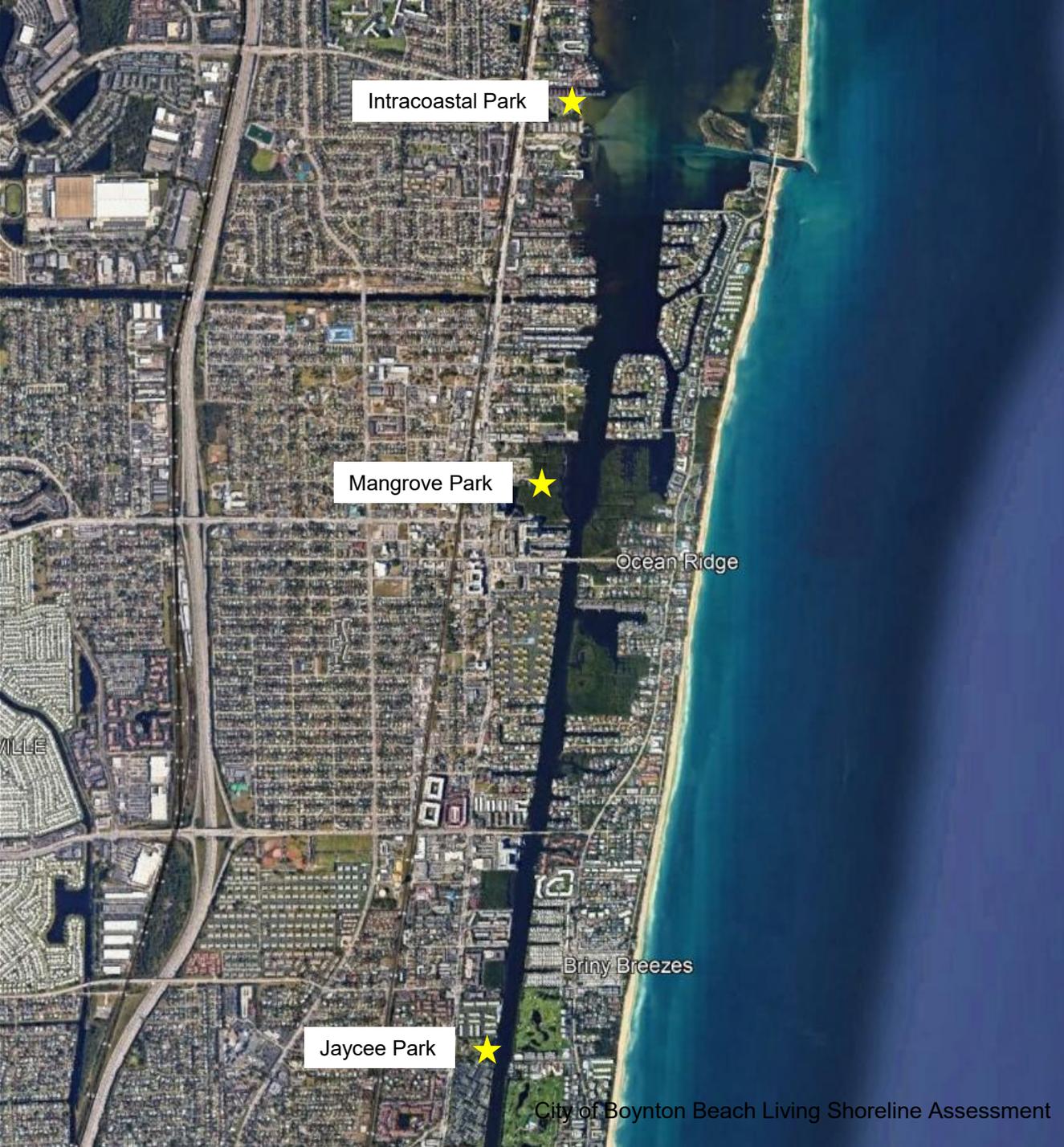
- Stillwater flood elevations (FEMA FIRM)

	Storm Event	Intracoastal Park	Mangrove Park	Jaycee Park
Stillwater Elevations (ft, NAVD-88)	10-yr	2.5 – 3.1	2.5 – 3.2	2.4 – 2.8
	25-yr	2.9 – 3.6	2.9 – 3.6	2.8 – 3.4
	50-yr	6.0 – 7.5	5.9 – 7.6	5.8 – 6.9
	100-yr	6.7 – 8.9	6.7 – 9.1	6.5 – 8.1
	500-yr	8.3 – 11.7	8.3 – 12.1	8.1 – 11.0

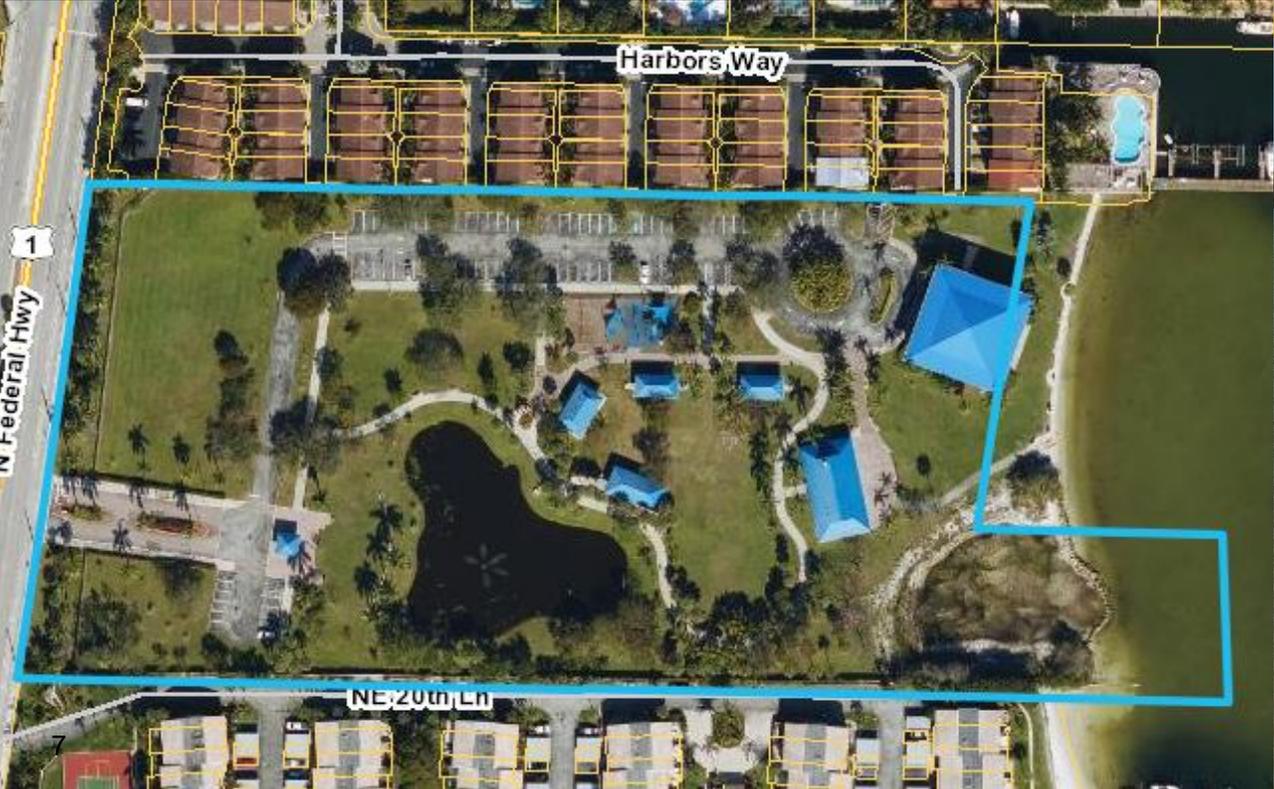
- Sea level rise (intermediate-high)
- Existing Conditions

Year	SLR (ft)
2020	0.36
2040	0.92
2060	1.87
2080	3.35
2100	5.22

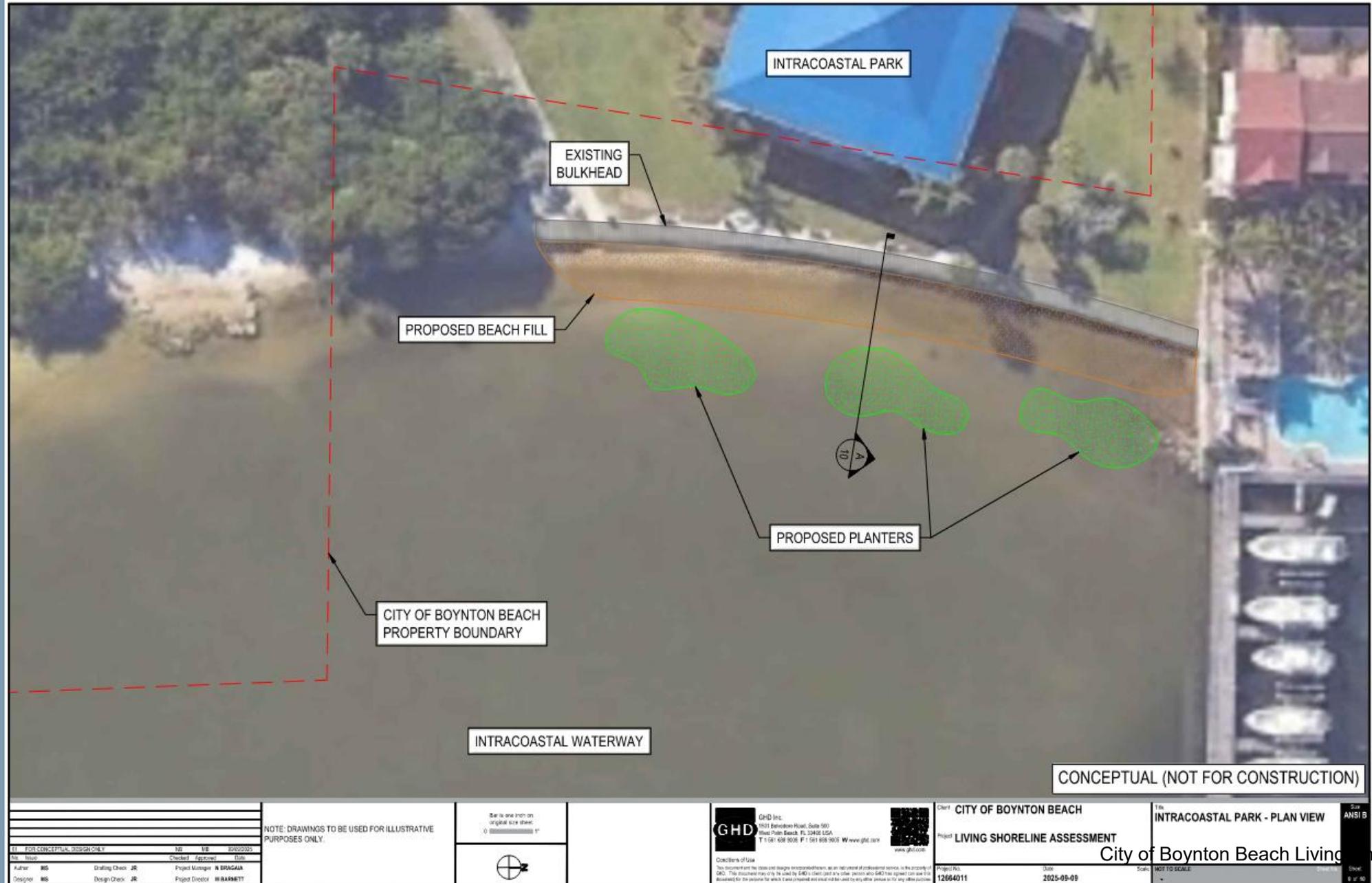
# Conceptual Design



# Intracoastal Park

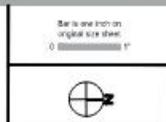


# Plan View



Author	MS	Drafting Check	JR	Project Manager	A BRASHEAR
Designer	MS	Design Check	JR	Project Director	M BARRETT

**NOTE: DRAWINGS TO BE USED FOR ILLUSTRATIVE PURPOSES ONLY.**



Scale: 1" = 10' (Graphic scale bar)

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**City of Boynton Beach**

**Project: LIVING SHORELINE ASSESSMENT**

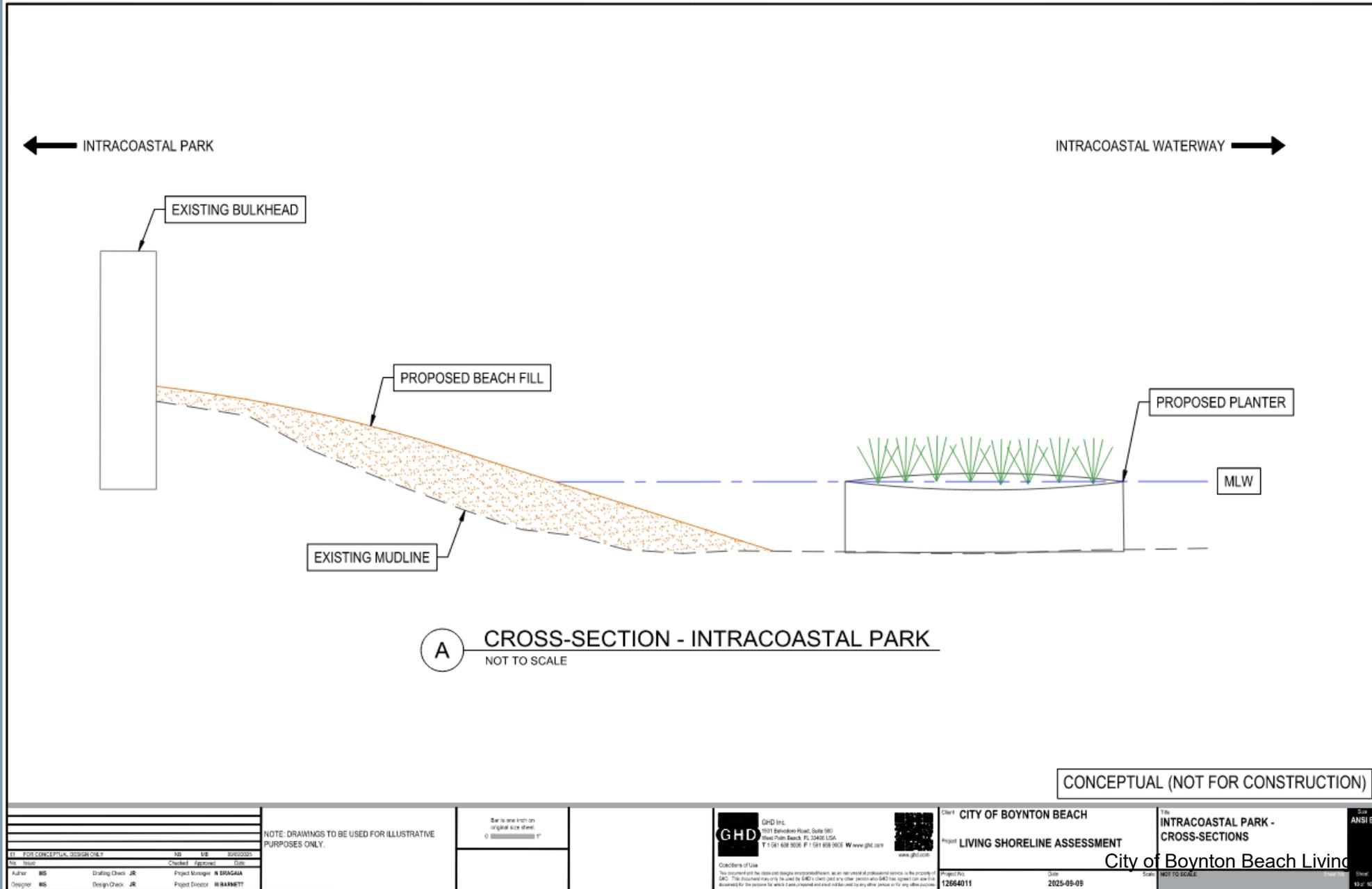
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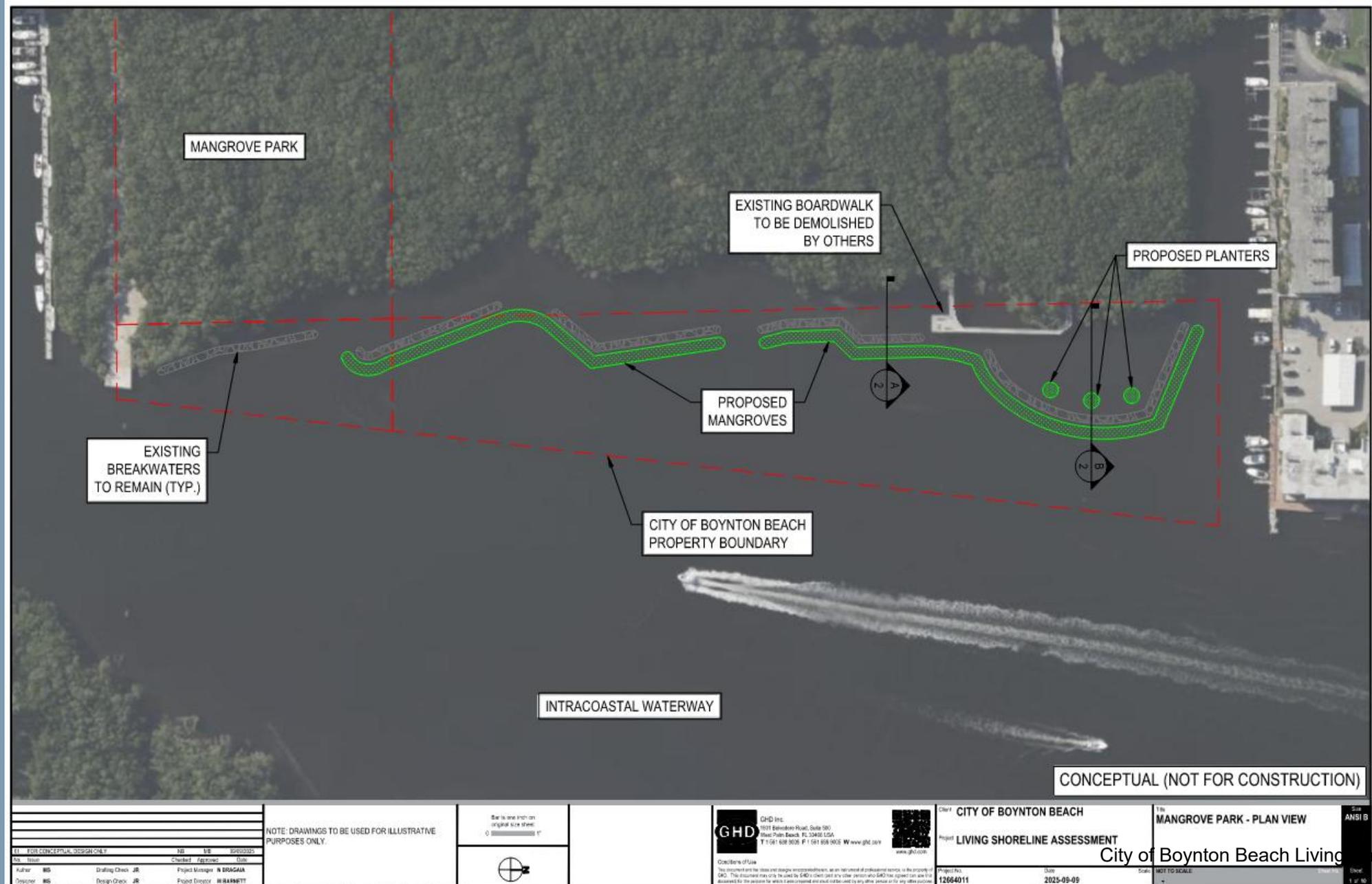
# Cross Section



# Mangrove Park



# Plan View – Option 1



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Author	MS	Drafting Check	JR	Project Manager
Designer	MS	Design Check	JR	Project Director

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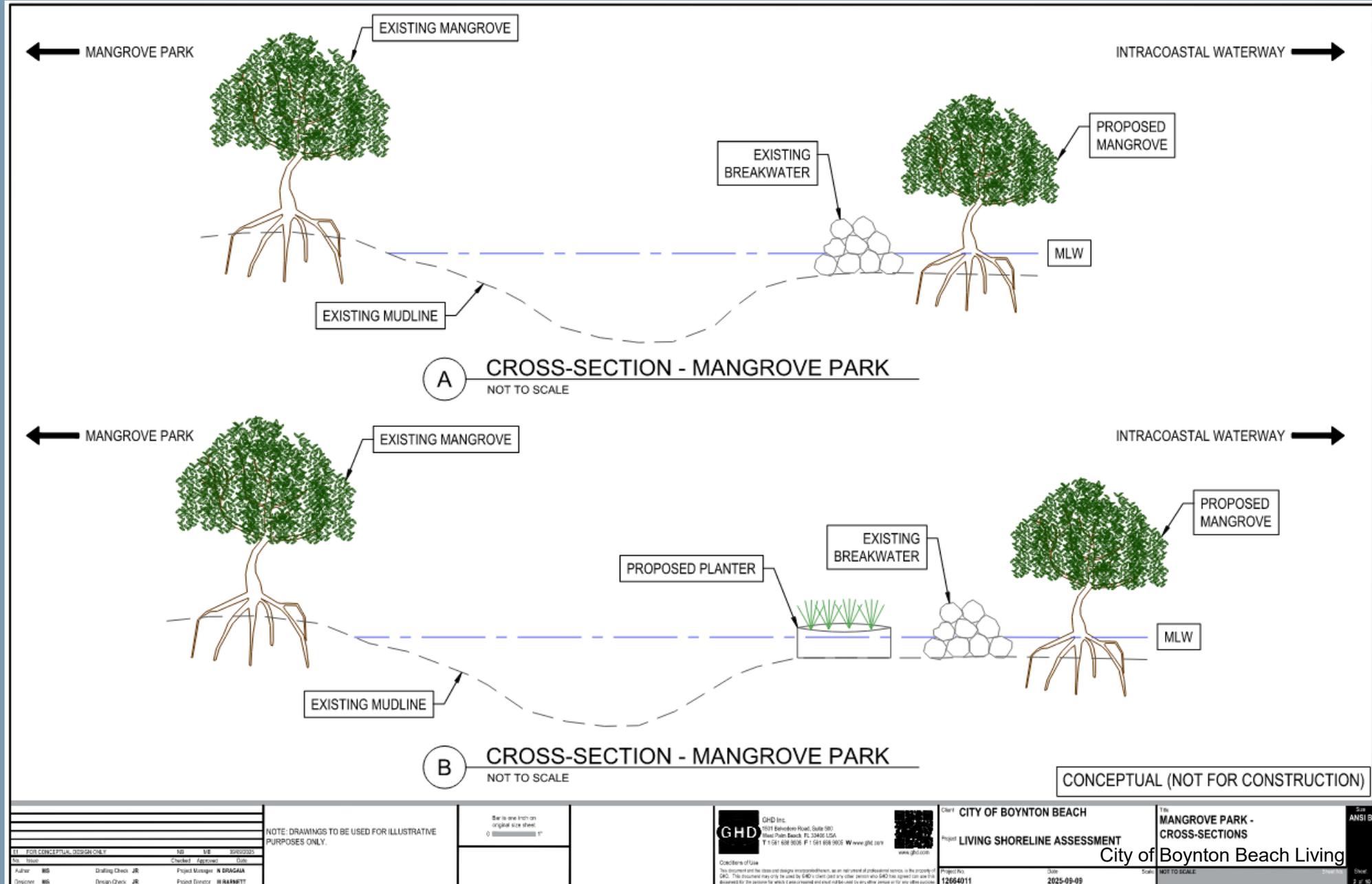
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Client **CITY OF BOYNTON BEACH**  
Project **LIVING SHORELINE ASSESSMENT**

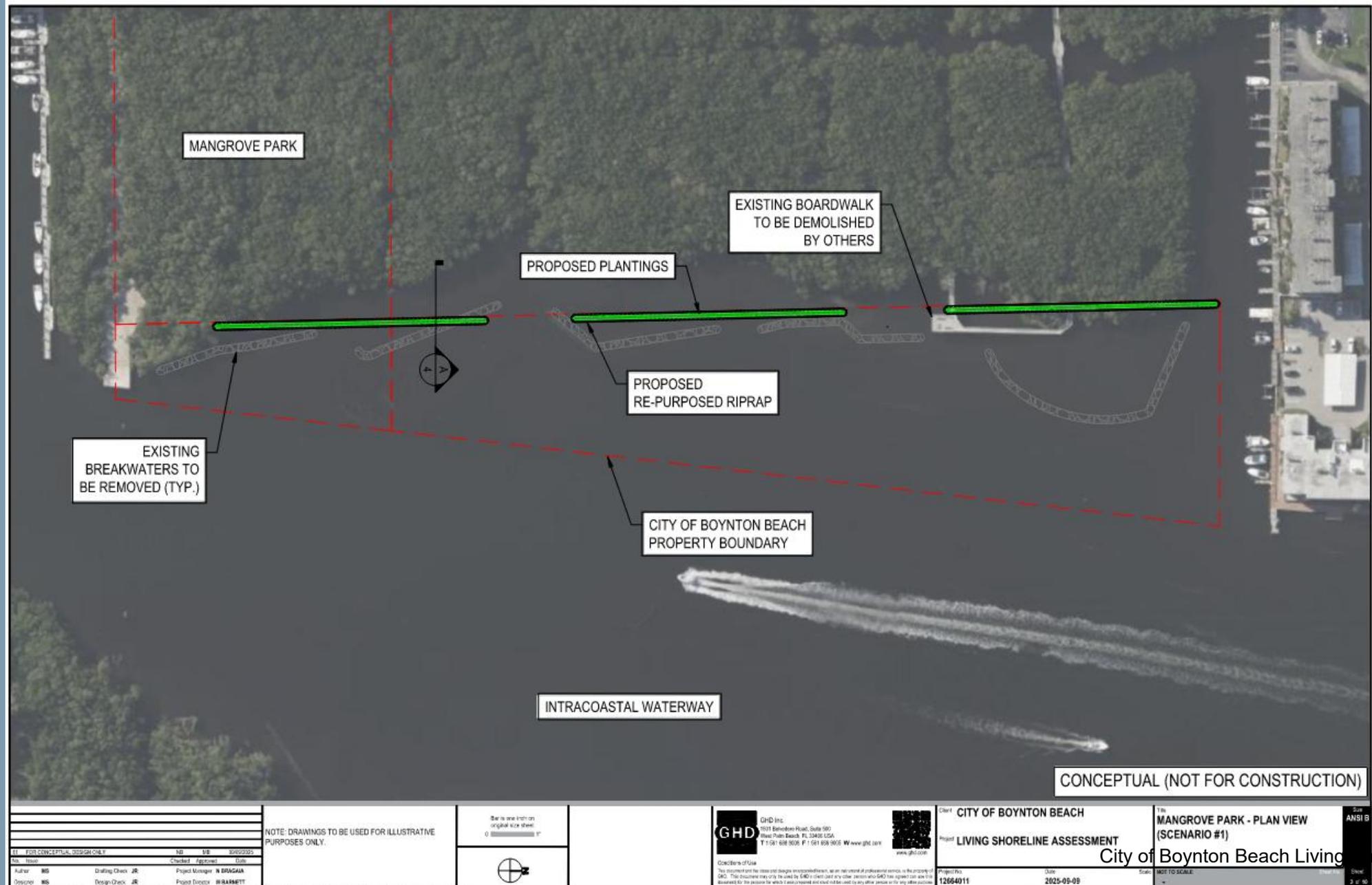
Title **MANGROVE PARK - PLAN VIEW**

City of Boynton Beach Living Shoreline Assessment

# Cross Section – Option 1



# Plan View – Option 2



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Author	MS	Drafting Check	JR	Project Manager
Designer	MS	Design Check	JR	Project Director
		BRAGANA		BRANETT

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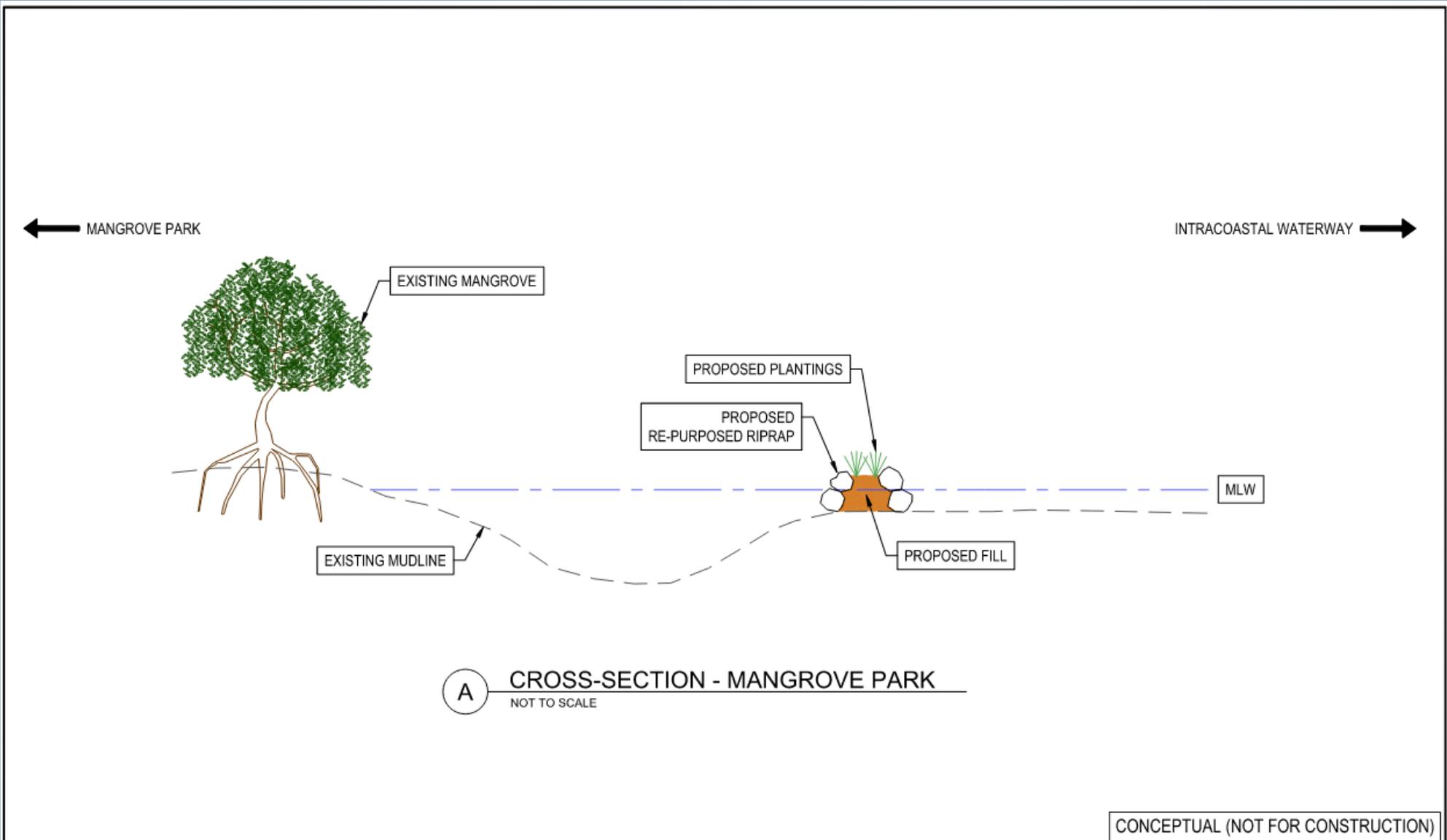
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Client	CITY OF BOYNTON BEACH
Project	LIVING SHORELINE ASSESSMENT
Project No.	12064011
Date	2025-09-09

Title	MANGROVE PARK - PLAN VIEW (SCENARIO #1)
Scale	AS SHOWN

# Cross Section – Option 2



DATE: 09/09/2025	
NO. 01	FOR CONCEPTUAL DESIGN ONLY
Author	MS
Designer	MS
Drafting Check	JR
Design Check	JR
Checked	MS
Project Manager	BRAGARA
Project Director	WARMETT

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City of Boynton Beach  
Project: LIVING SHORELINE ASSESSMENT

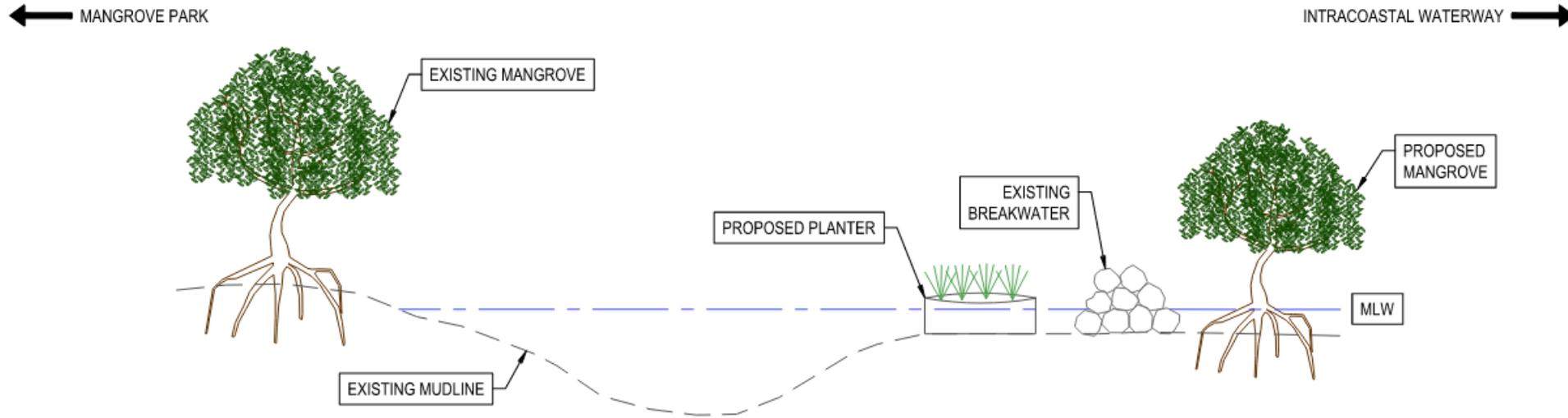
Client: CITY OF BOYNTON BEACH  
Project: LIVING SHORELINE ASSESSMENT

Title: MANGROVE PARK - CROSS-SECTIONS (SCENARIO #1)  
City of Boynton Beach Living Shoreline Assessment

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Date: 2025-09-09  
Sheet: 4 of 8



# Cross Section – Option 3

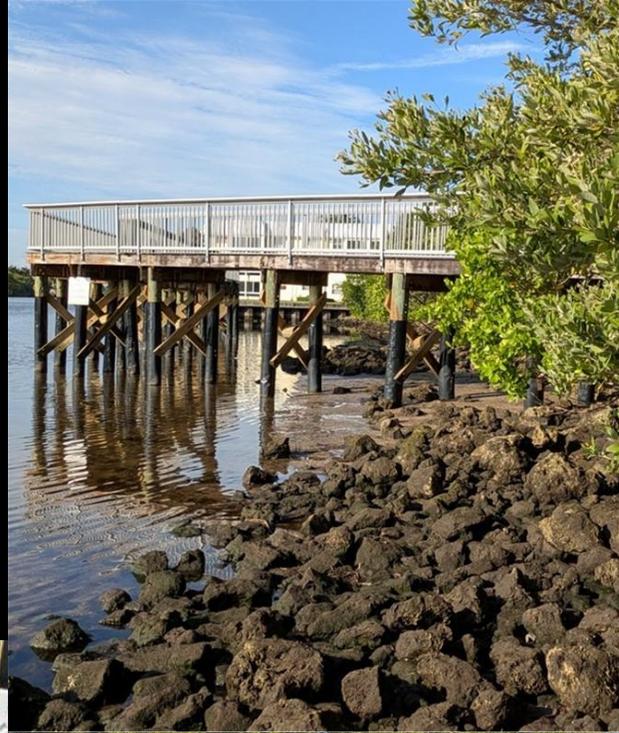


**A** CROSS-SECTION - MANGROVE PARK  
NOT TO SCALE

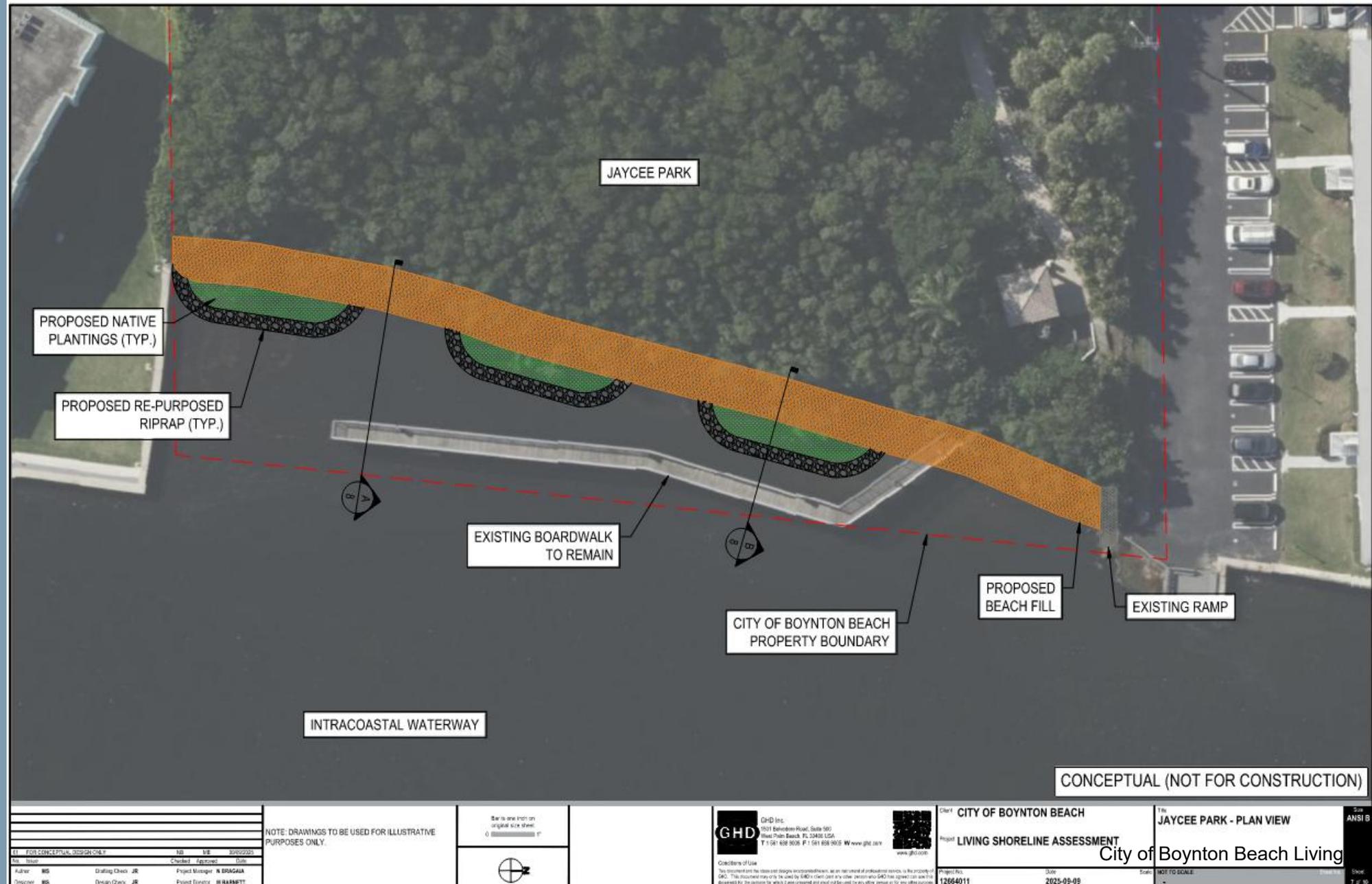
CONCEPTUAL (NOT FOR CONSTRUCTION)

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No. Issue 01 FOR CONCEPTUAL DESIGN ONLY	No. Issue 01 FOR CONCEPTUAL DESIGN ONLY	Author: MS Designer: MS	Drafting Check: JR Design Check: JR	Project Manager: N BRAGAIA Project Director: M BARNETT	Project No: 12664011 Date: 2025-09-09

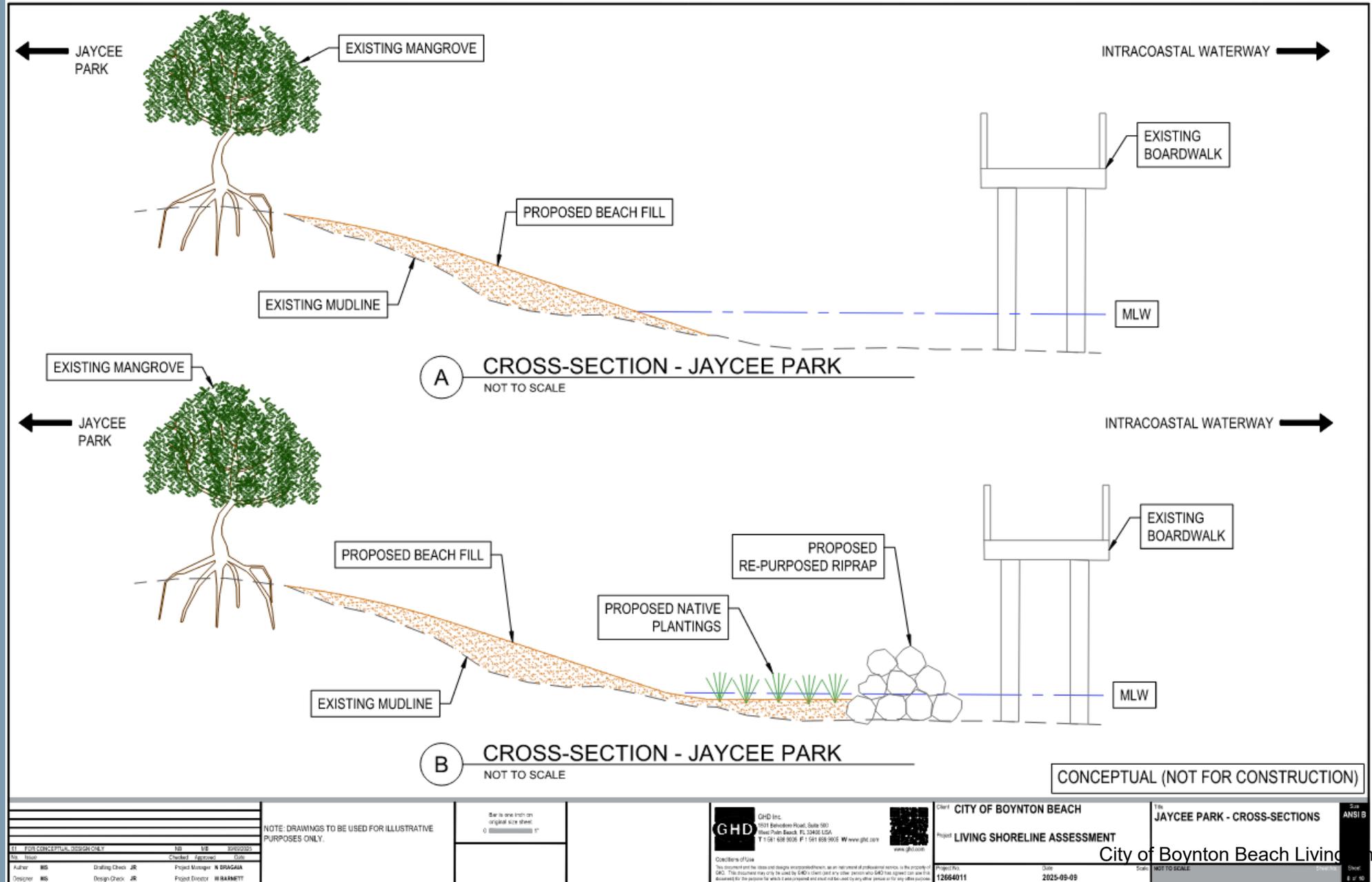
# Jaycee Park



# Plan View

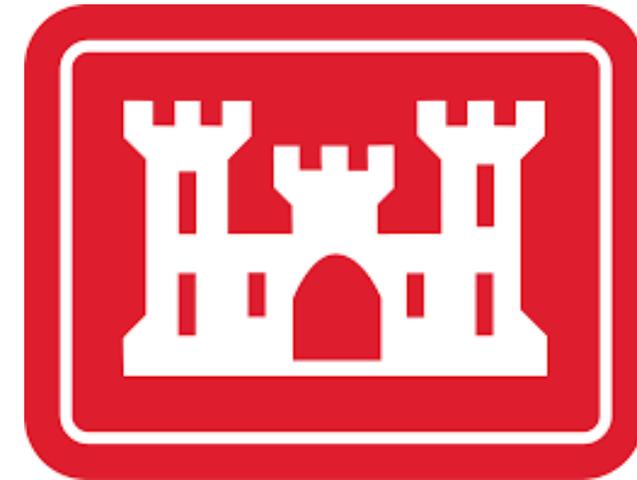


# Cross Section



# Cost Estimate & Permitting

- Class 5 OPCC
- Regulatory roadmap
  - FDEP
  - USACE
  - Others (FIND, PBC)?



# Next Steps



- Recommendations:
  - Site-specific bathymetric and topographic survey
  - Detailed design considering environmental conditions
  - Verify property boundaries
  - Vision for Mangrove Park improvements
  - Pre-application meetings with respective agencies
- 100% design and construction



# \* Thank You

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