June 19 - 20, 2025
Hollywood, FL

TRANSPORTATION SYMPOSIUM

District 4 – Major Projects Updates

- Bing Wang, PE, FDOT
- Michael Sileno, PE, H&H
- Brad Salisbury, PE, FDOT
- Robert Bostian, PE, FDOT
- Binod Basnet, PE, FDOT

Transportation Symposium Website

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Hollywood, FL

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Jupiter US-1 Bridge Replacement Project from CR A1A to CR 707

jupiter US-1 bridge

Bing Wang, PE - FDOT
Michael Sileno, PE - H&H

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Project Location

jupiter US-1 bridge

3

3

jupiter US-1 bridge

Environment

- Natural Resources
- Cultural Resources

RESILIENCY

Public Involvement

- Detour
- Bridge Aesthetics

COMMUNITIES

Engineering

- Bascule Span Innovations
- Construction Innovations

SAFETY

TECHNOLOGY

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Timeline

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Jupiter Inlet and Surrounding Area

Outstanding Natural Area

The Inlet

Cultural Resources

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Jupiter Lighthouse & Museum

Augustin Fresnel
(1788-1827)

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Jupiter Lighthouse & Museum

Design and Construction Considerations

- Protection of Jupiter Inlet Lighthouse & Museum, and Existing Bridge
- New bridge will enhance community cohesion, emergency response, and mobility

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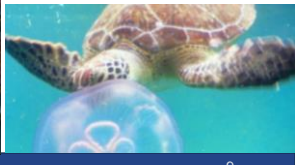
Outstanding Natural Area (ONA)

Jupiter Outstanding Natural Area



9

1958 Bridge

10

1958 Bridge Facts

US-1 Bridge over the ICWW/Loxahatchee River

- Built in 1958 and NRHP eligible
- Twin double leaf bascule span opens on demand
- Connected bascule piers for each set of leaves
- Two lanes in each direction
- Structurally deficient

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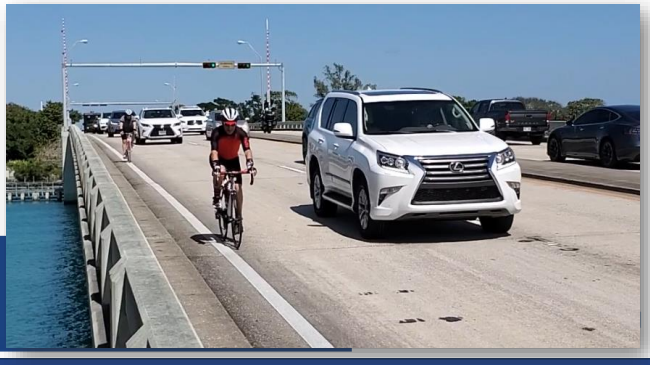
Purpose and Need

Structural deficiencies of the previous bridge built in 1958



Lack of facilities for pedestrians and cyclists

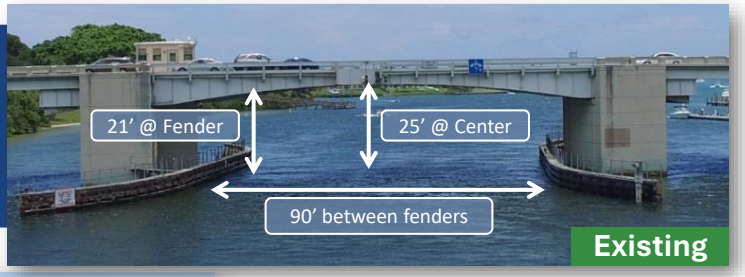
12

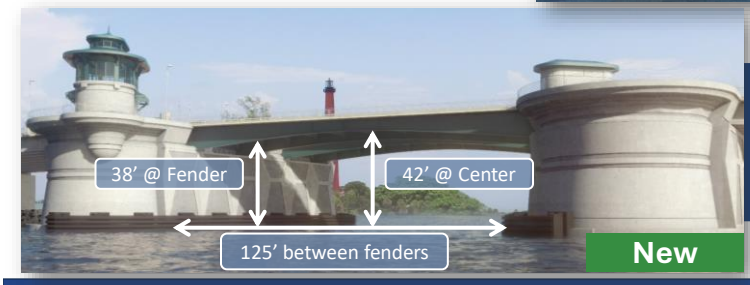
12

Purpose and Need

jupiter US-1 bridge

Substandard horizontal clearance at the navigable waterway channel





Increase vertical clearance to reduce frequency of bridge openings

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Community Engagement - Design

jupiter US-1 bridge

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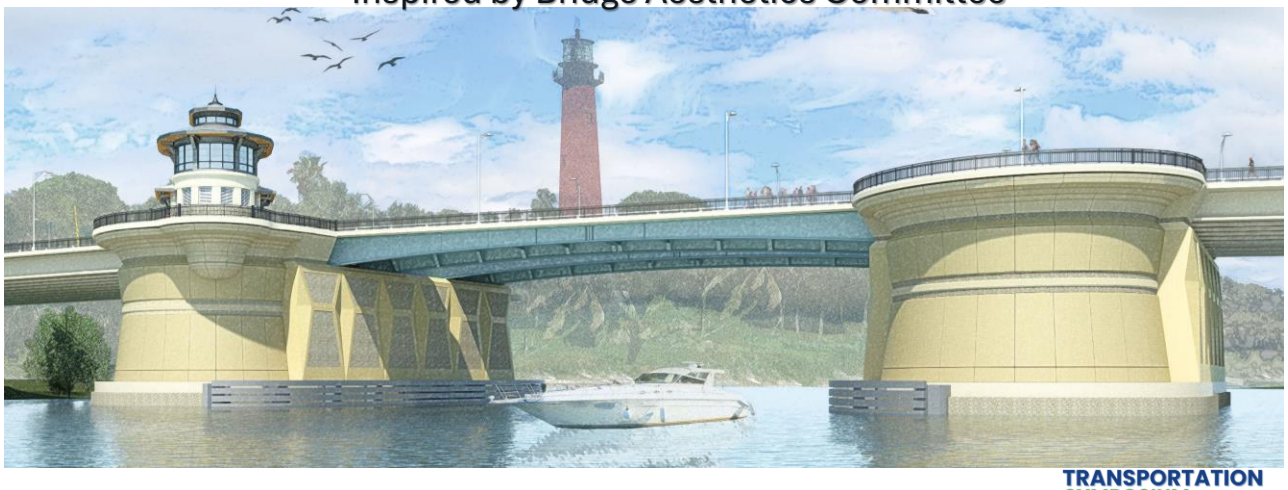
Final Bridge Rendering

Inspired by Bridge Aesthetics Committee



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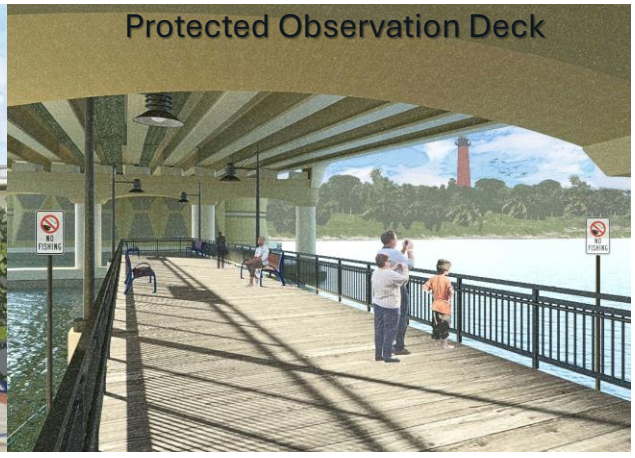
Final Rendering



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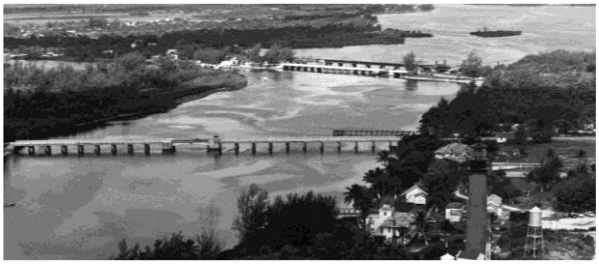
Accelerate the Construction

jupiter US-1 bridge

Opportunities from the Past

Temporary Channel



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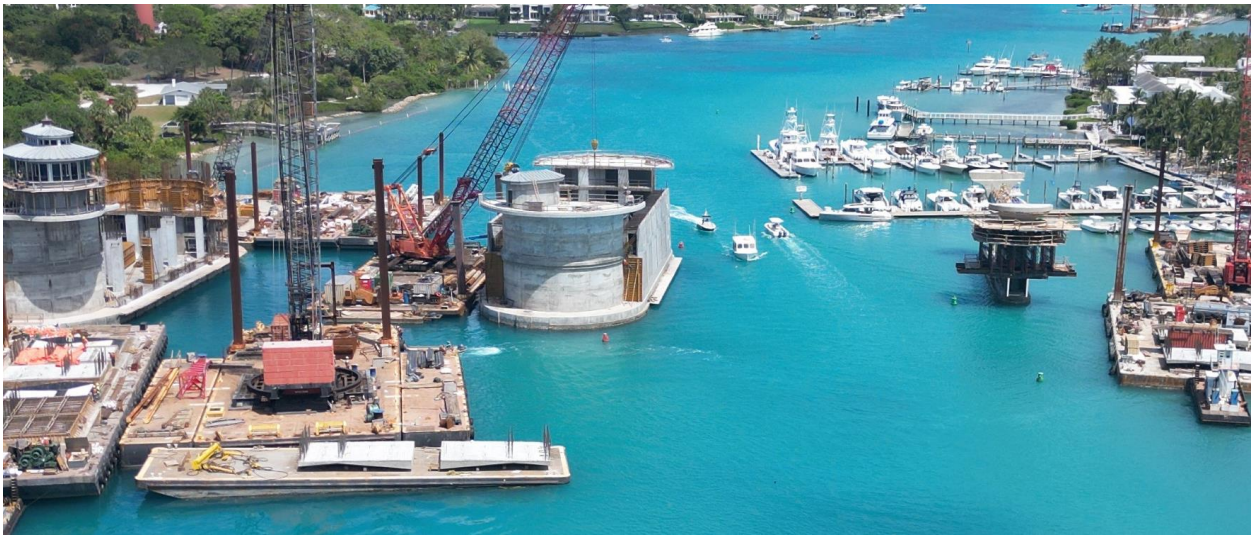
Accelerate the Construction

jupiter US-1 bridge



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Temporary Channel

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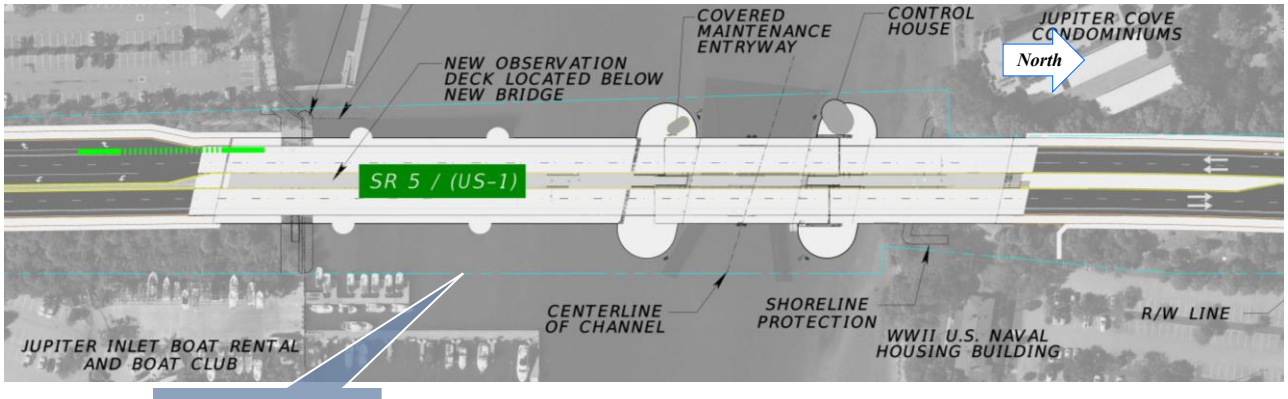
Construction Matters

No room for temporary bridge



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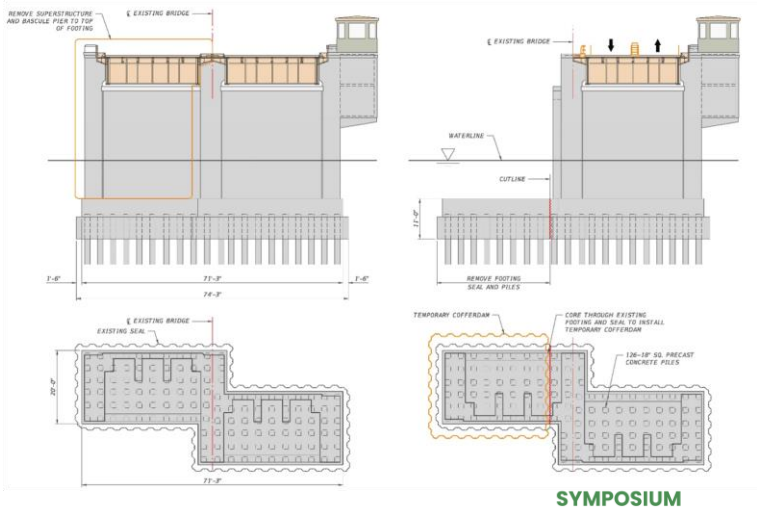
Construction Matters

Risk of Using Half of Existing Bridge



SYMPOSIUM

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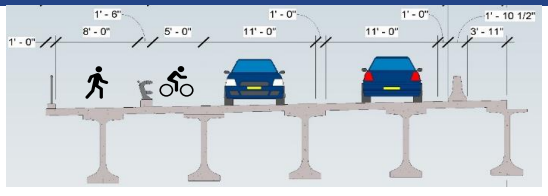
Hybrid Phased Construction

1. **Pre-Detour** - intersection improvements, ITS installation, and construct parts of new bridge
2. **Detour to Alt A1A** - Construct half of new bridge superstructure and complete substructure
3. **Post-Detour** – Construct remaining half of new bridge superstructure with 2 lanes of traffic and bike/ped facilities

18-month shorter construction relative to fully phased



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1 Pre-Detour Improvements

jupiter US-1 bridge

- Intersection improvements along detour route
- Real-time information from ITS
- Streamlined real-time monitoring by PBC traffic management operators and signal timing engineers

FDOT TSM&O Transportation Systems Management & Operations

SWZ

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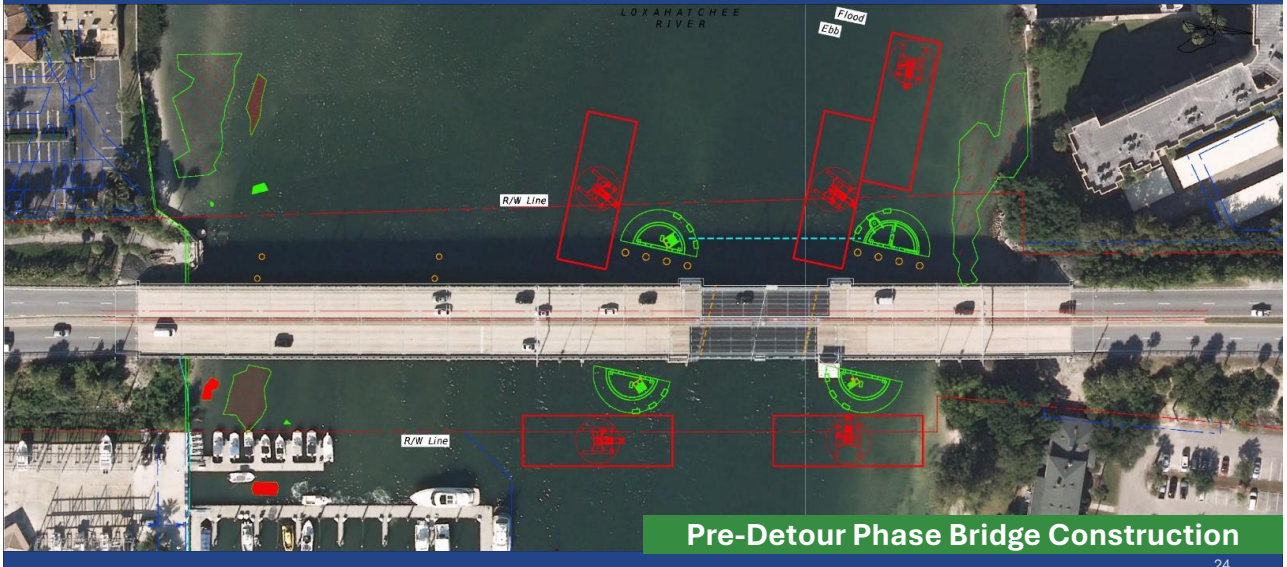
Pre-Detour Improvements

jupiter US-1 bridge



Pre-Detour Phase Bridge Construction

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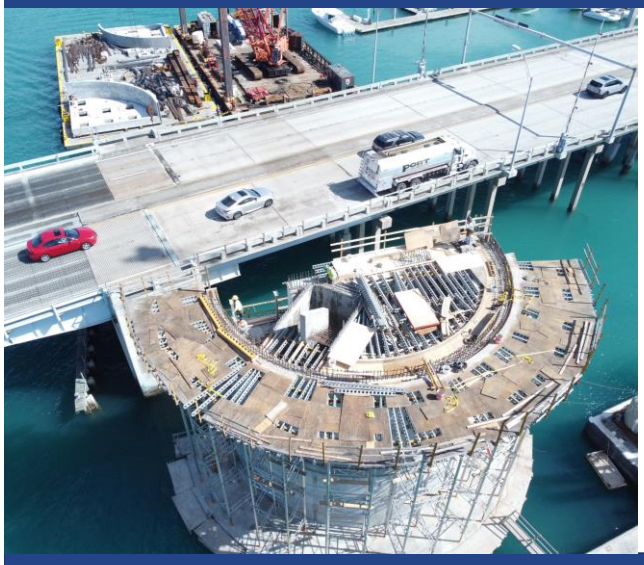
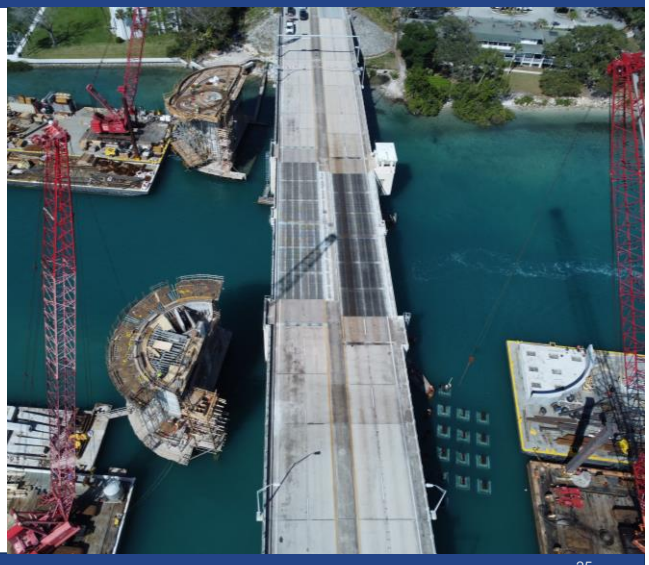
Pre-Detour Improvements





Current Construction

- 5 span bridge, including twin double leaf trunnion bascule span
- 2 lanes, 8ft sidewalks, 8 ft shoulders/bike lanes with solid deck
- 38 ft vertical clearance
- 125 ft horizontal clearance
- Reduce openings by 44%
- 5% profile no permanent impacts to adjacent properties

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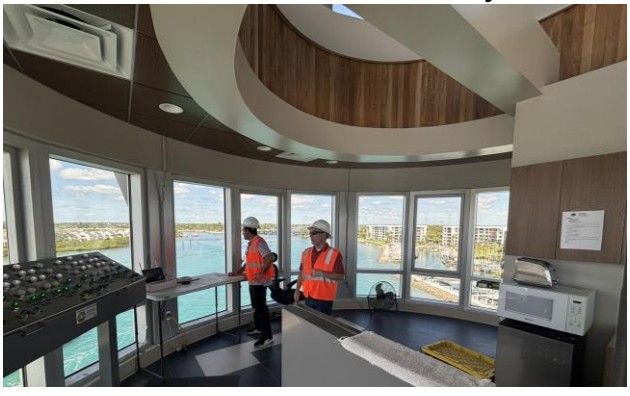
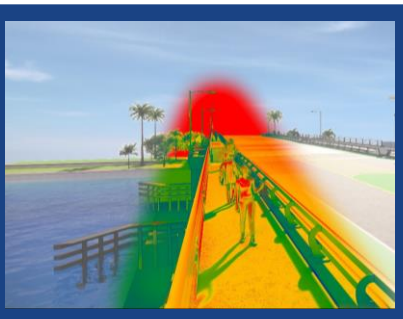
Control House

Multi-level control house with enhanced visibility of channel, sidewalks, and roadway





Enhanced multi-modal safety using LiDAR/Thermal system integrated with bridge controls

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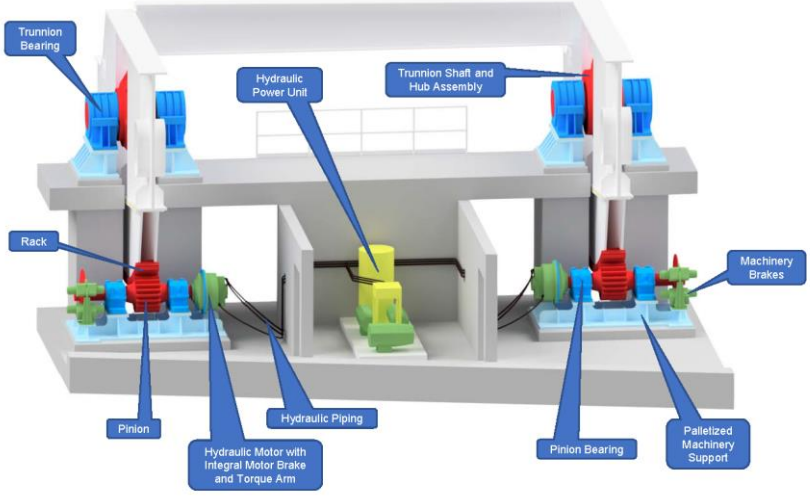
Operating Machinery



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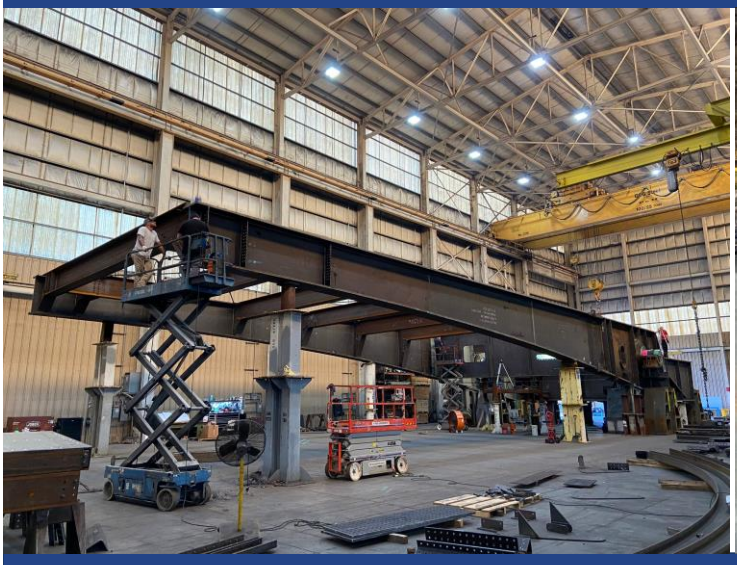
Shop Assembly



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Operating Machinery

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Above Deck Lock Bar

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Community Engagement - Construction

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Bridge Currently

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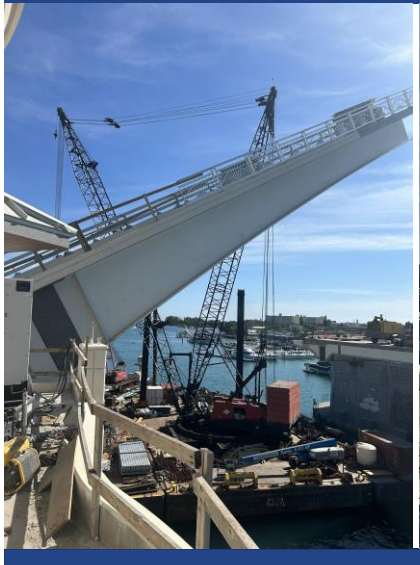
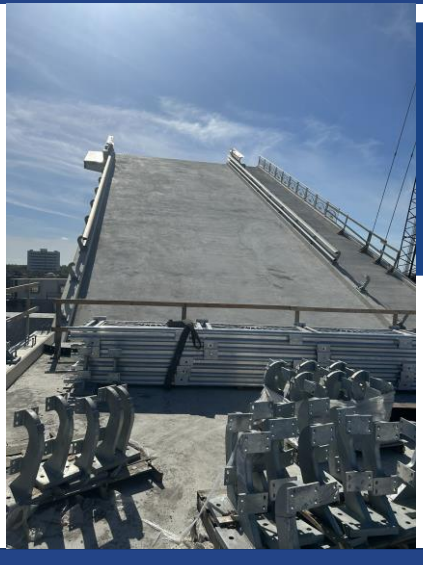
Detour to Alt A1A





Testing Bridge Opening on December 5, 2024

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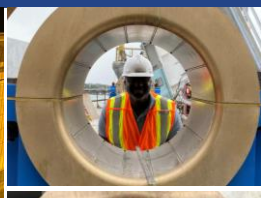
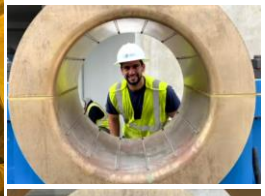
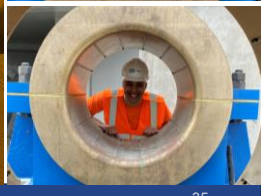
Detour Phase Completed !







December 31, 2024
2 lanes open | 1 in each direction

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Bridge Opening Day

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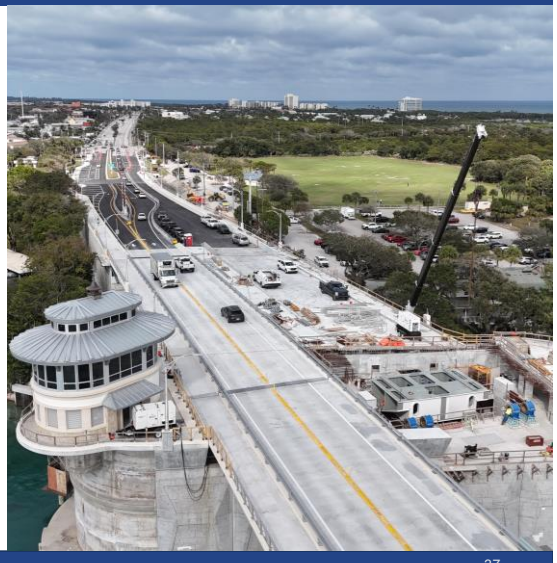
Post-Detour



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Post-Detour

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Post-Detour

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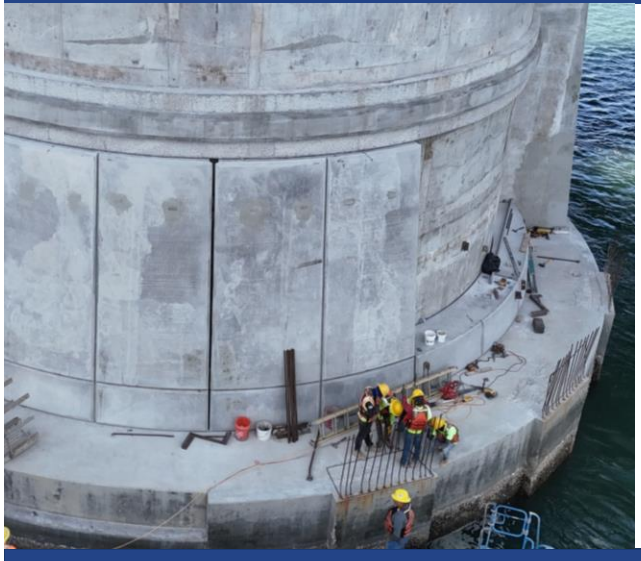
Post-Detour



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All 4 Lanes Open

41

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Riverwalk

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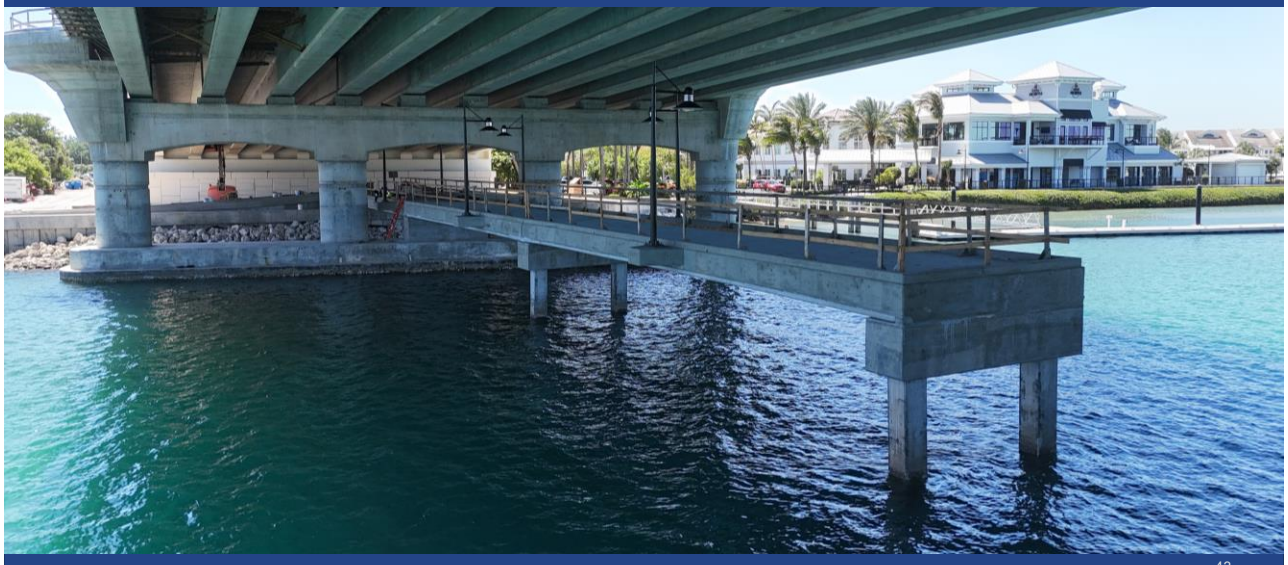
Observation Deck



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Project is currently in construction at

90%

Winning Bid

$122M

October 30, 2025

Final Acceptance Completion Date

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Acknowledgements

jupiter us-1 bridge

SOUTHLAND Johnson Brothers

STRAAM GROUP

CDR MAGUIRE ENGINEERING

MEHTA ENGINEERING an STV Company

GANNETT FLEMING

TOWN OF JUPITER

VILLAGE OF TEQUESTA PALM BEACH COUNTY FLORIDA

Our subconsultant partners

AREHNA

ASA CONSULTANTS

bcc engineering

ELAND a GAI Company

Kimley»Horn

SAKOIAN INTERNATIONAL, LLC

WGI

VIA ENGINEERING GROUP, INC

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SR A1A Resiliency Project

Brad Salisbury, P.E. - FDOT

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District Four Resiliency

Tidal Flooding on SR A1A in Hollywood

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Partners in Improving Resiliency

FDOT

FIU FLORIDA INTERNATIONAL UNIVERSITY

Broward MPO Metropolitan Planning Organization

BROWARD COUNTY FLORIDA

CITY OF Hollywood FLORIDA

FLORIDA'S Hollywood COMMUNITY REDEVELOPMENT AGENCY

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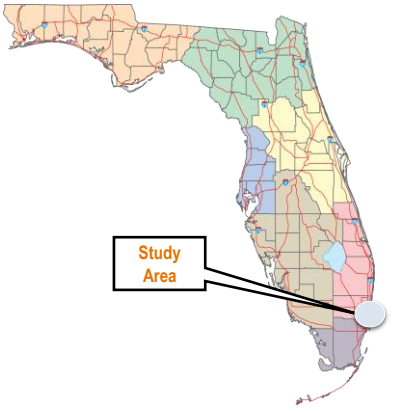
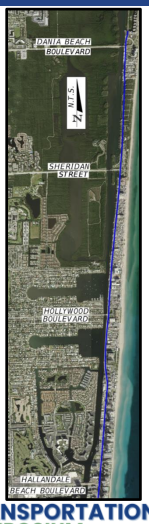
Accelerated Timeline

- FY21 - A1A Corridor Study
- FY21- Pilot Project Programming
- FY22 – Design
- FY25 – Construction
- Estimated 3 Years of Construction





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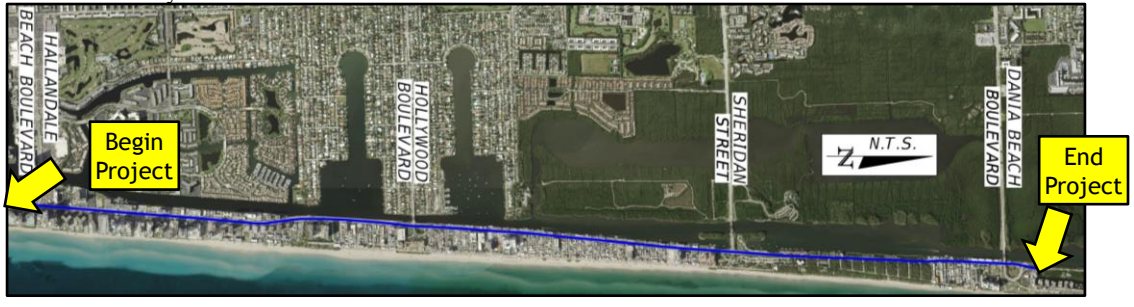
Corridor Study

Existing Conditions Report

- Field Observations
- Seawalls
- Low Road Elevations
- Potential Overflow Locations
- Storm Sewer Systems
- Outfalls
- Contributing Areas
- Land Use
- Create Model of System



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Field Observations

October 2020 King Tide Flooding

October 2019 King Tide Flooding

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Seawalls

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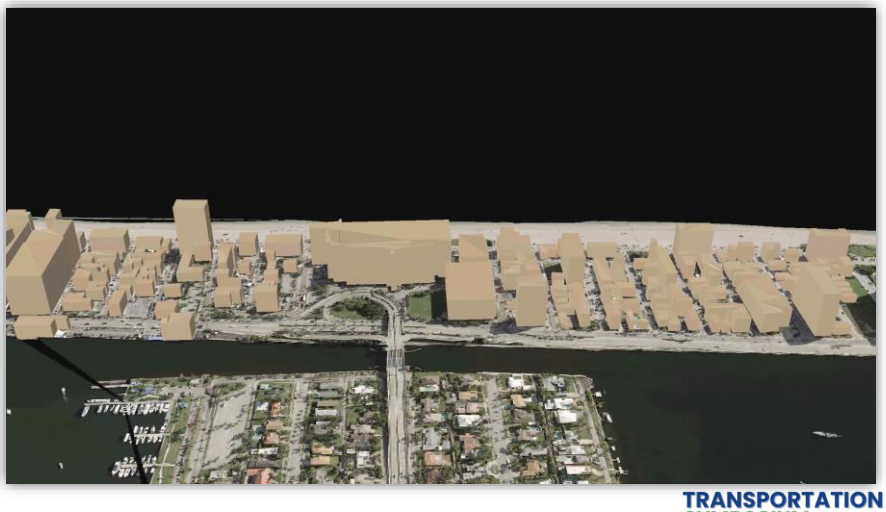
Hydrological Modeling

Using:
- LIDAR Data
- CADD Files
- ICPR4 Modeling



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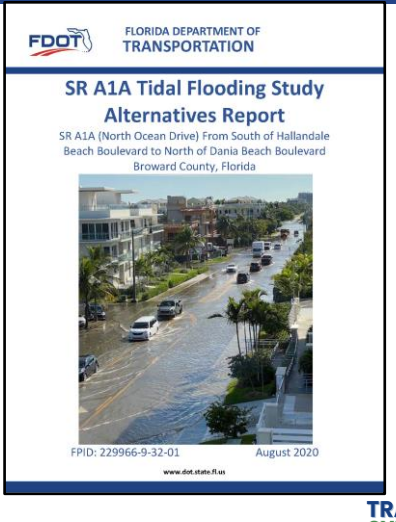
Alternatives Report

- Review of existing backflow prevention devices
- Proposed remedies:
  - Prevention
    - Raise low seawalls
    - Construct new seawalls where none exist
  - Attenuation
    - Repair or replace backflow preventers
    - Repair or replace leaking structures
    - Pump stations to remove tidal flows
  - Restoration
    - Raise/reconstruct low side streets
    - Raise/reconstruct SR-A1A



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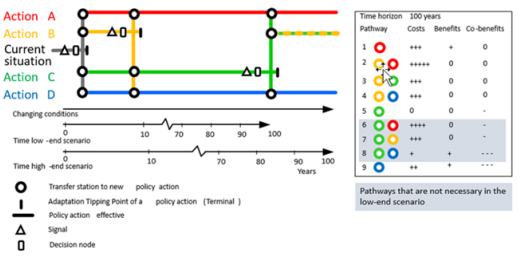
Accommodating Future Expansion with Today's Design



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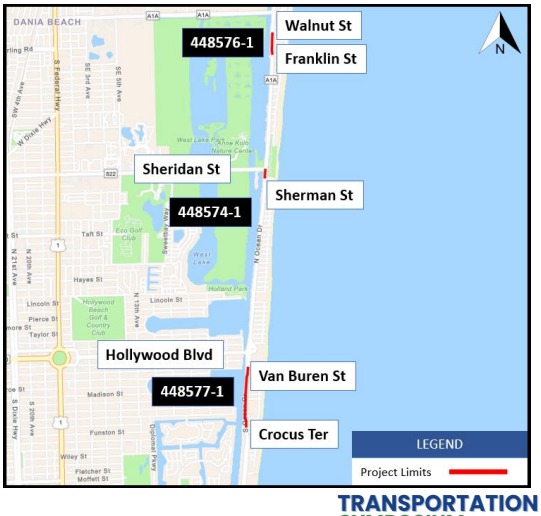
Project Programming

- Mid Term Improvements
  - Seawall Installation to 5' NAVD within FDOT Right-of-Way (Broward County 2050 Ordinance)
  - Pipe Lining and Replacement of Drainage Structures
  - Pump Station Installation at 4 High Priority Drainage Basins
- Funding Partnerships for Design and Construction of the Pump Stations with Broward County and the City of Hollywood
- Continued coordination between agencies



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Design Process

Date	Milestone
August 2022	Notice to Proceed
November 2022	Value Engineering Workshop
November 2022	Final Survey Received
December 2022	City of Hollywood Board Meeting
December 2022	Conceptual Drainage Report (Alternatives Analysis)
February 2023	Initial Engineering (30%)
June 2023	Permit Submittals – USACE, SFWMD
July 2023	Constructability (60%)
October 2023	Public Meeting
December 2023	Biddability (90%)
June 2024	Production (S&S)
September 2024	Letting

- Complex design performed on an accelerated schedule tied to local, state, federal funding and other resilience grants.

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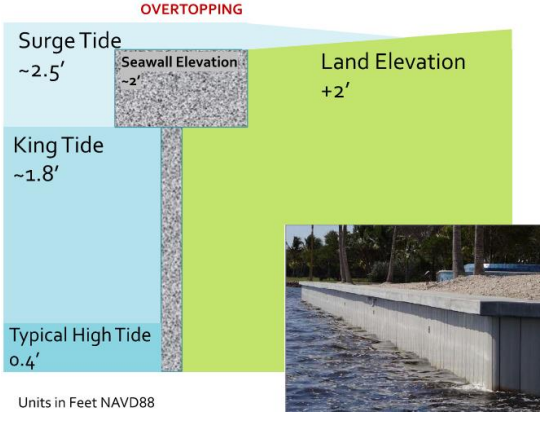
Design Development

- Stormwater Model (ICPR4) development:
  - Refine existing conditions using design survey
  - Add pump station model inputs
  - Model multiple tailwater alternatives – *Design High Water, King Tides, Surge Tide*
  - Propose storm drain hydraulic upgrades to maximize pump stations' effectiveness
  - Model new seawalls as overland weirs
  - Consideration of construction funding, cost/benefit of larger pump stations
  - Present alternatives analysis to District 4 Drainage Office for review and approval



From "*Proposed Minimum Seawall Height Policy*" – *Broward County Environmental Planning and Community Resilience Division*

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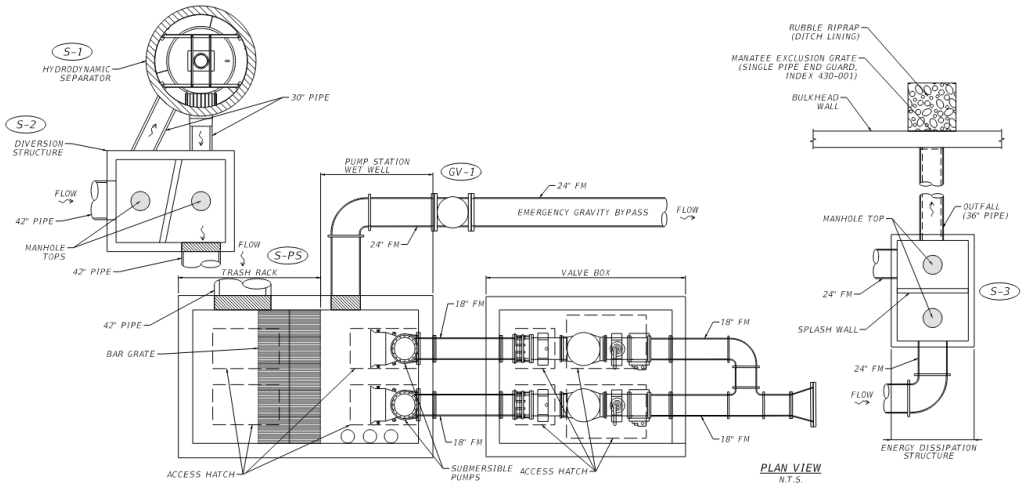
Design Typicals



Typical Detail - Pump Station System

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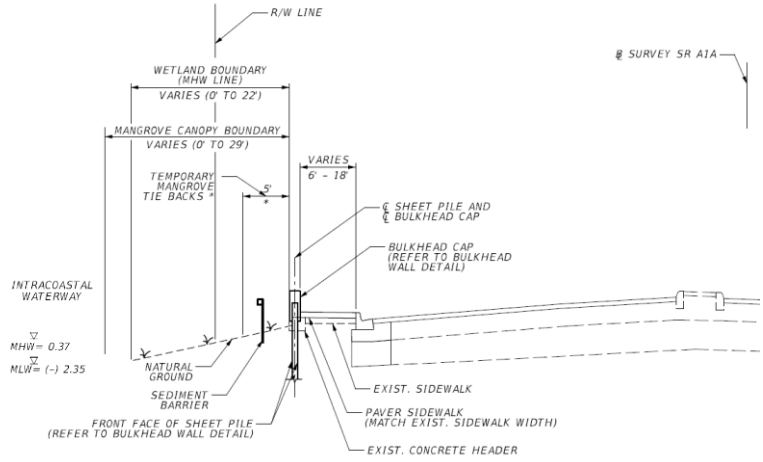
Design Typicals (*cont.*)



Typical Detail - Bulkhead Wall

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Design Challenges

- Develop Construction Plans with consideration of:
  - 3 Projects, 2 Consultants, 6 Total FPIDs
  - 6+ Disciplines
  - 6+ Funding Sources
  - Cost/Benefit Analysis
  - Limited ROW
  - Maintenance Agreements
  - Existing FDOT infrastructure
  - Major utility infrastructure on a barrier island
  - (3) Technical Special Provisions, (1) Modified Special Provision, (4) New Pay Items
  - U.S. Army Corps of Engineers, South Florida Water Management District Permits
  - Fulfill short-term purpose and need, with long-term vision in mind

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SW 10th Street Connector Phased Design Build Project

SW 10th Street Connector

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Project Location and Regional Connectivity

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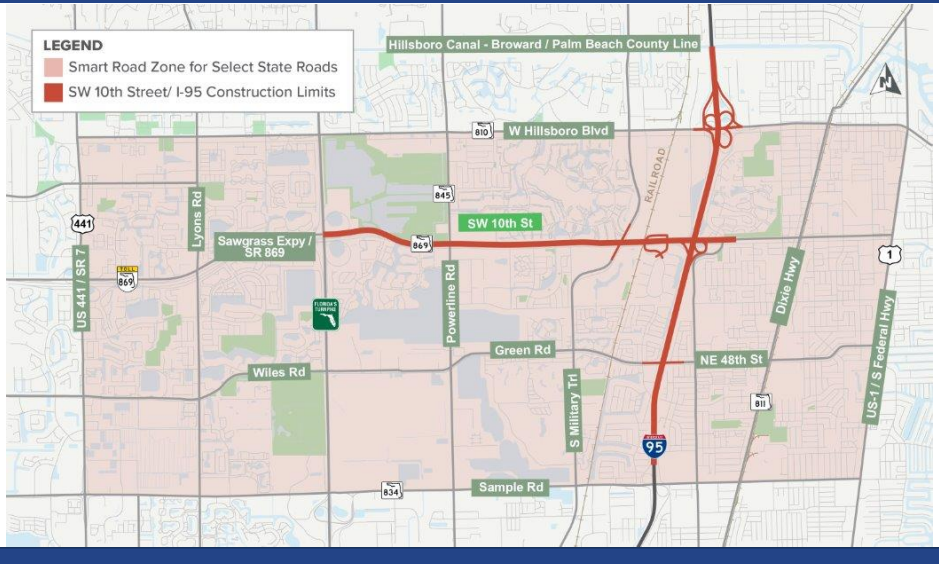
Project Location and Regional Connectivity



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Future SW 1Oth St Connector Lanes / Local SW 10th St – Looking West

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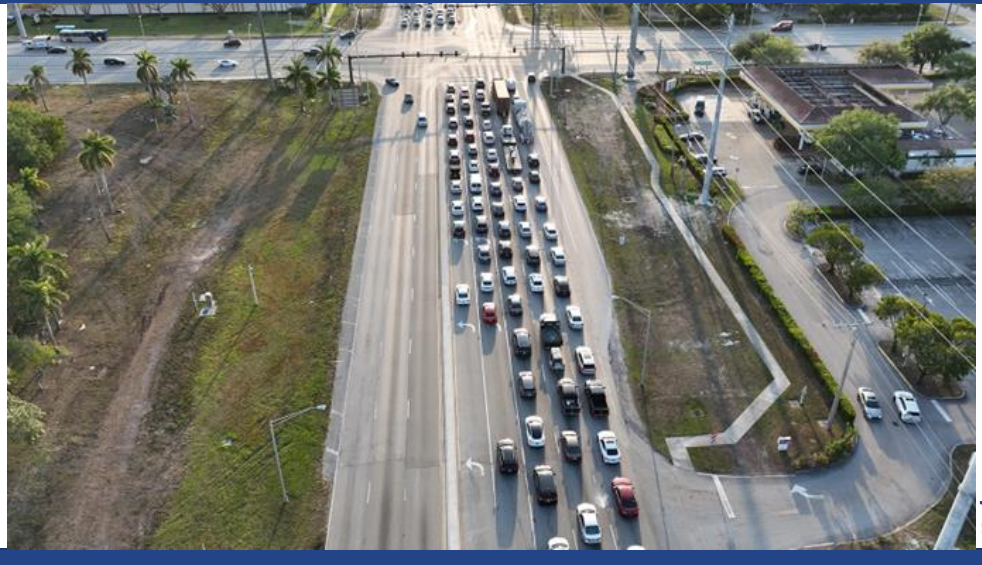
Existing SW 10th Street at Powerline Road



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Future SW 10th Street Connector Lanes elevated over Powerline Road

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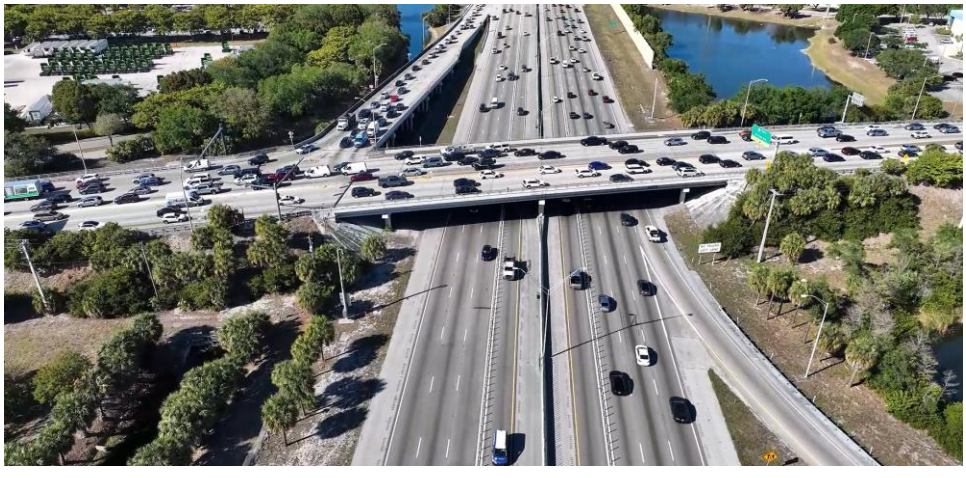
Existing SW 10th Street over I-95



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Future SW 10th Street over I-95 with Direct Connector Ramps

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Existing SW 10th Street Looking East – East of Florida's Turnpike

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Future SW 10th Street Connector Lanes Decision Point – Looking East leaving Sawgrass Expressway

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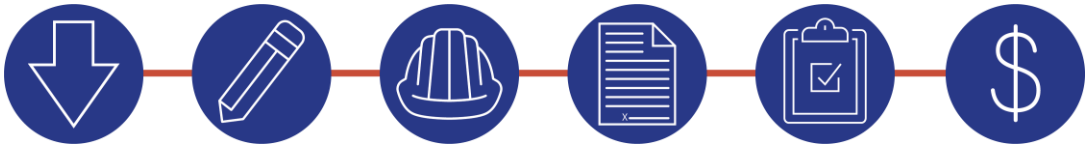
Phased Design-Build Benefits

- Design, phasing and construction of combined projects managed by one design-build team – reduces cost, claim and schedule risks
- Minimizes disruption to stakeholders and traveling public by reducing construction duration



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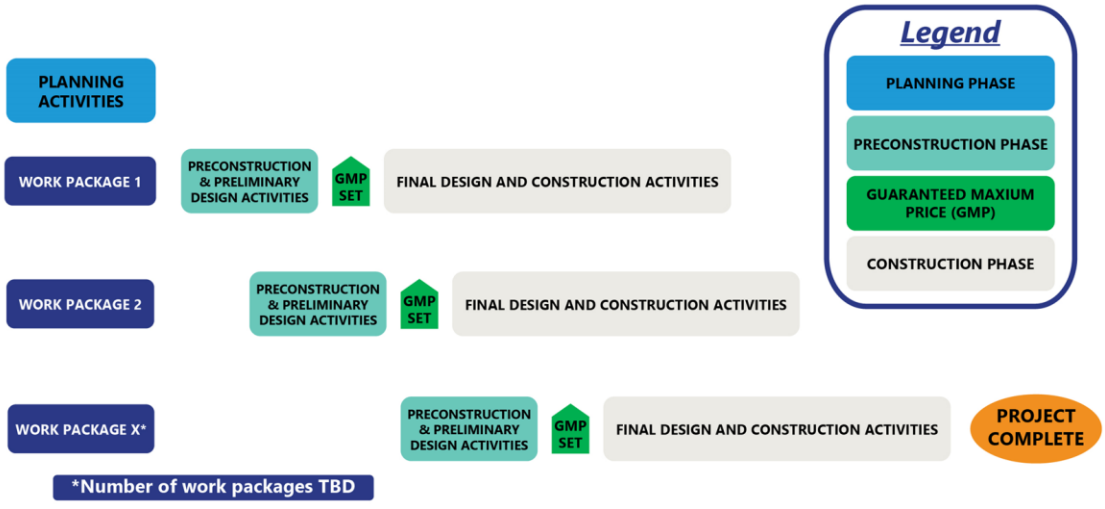
Phased Design-Build Process



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Planning Phase - Deliverables due 270 days after NTP

- Project Management Plan
- Quality Management Plan
- Construction Phasing Plan
- Master Schedule
- Initial Risk Register
- Opinion of Probable Cost (OPCC)

- Planning Phase Preliminary Plans of Project
  - Pre-30% Roadway, Drainage, Structures, etc.
  - 90% TSM&O Plans (Smart Work Zone) for Early Works Implementation
- Technical memorandums
- PD&E Re-evaluation(s) and SIMR Re-evaluation, if required

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Preconstruction Phase – Summary of Scope

- Update and Maintain Planning Phase Documents
- Prepare the following:
  - Community Awareness Plan
  - Safety Plan / Hurricane Preparedness Plan
  - Subcontractor Plan
  - Designs to 90% (some low-risk packages may be bid at 60%, pending FDOT agreement)
- Prepare Governmental Approvals and permits
- Continue conducting weekly design meetings
- Continue conducting Risk and opportunity / innovation workshops
- Maintain Project Risk Register and Risk Mitigation
- Develop OPCC at 60% and 90%
- Solicit Bids and Select Subcontractors
- Develop GMPs and Work Package Proposals

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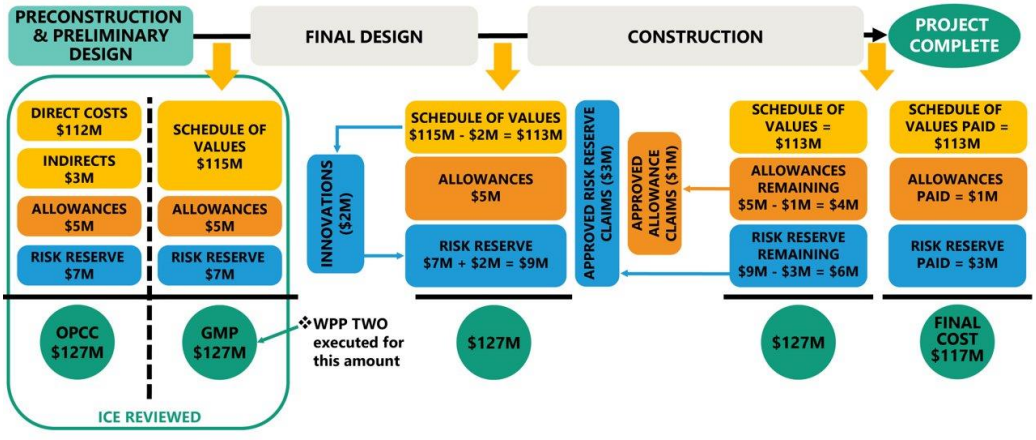
Work Package Example



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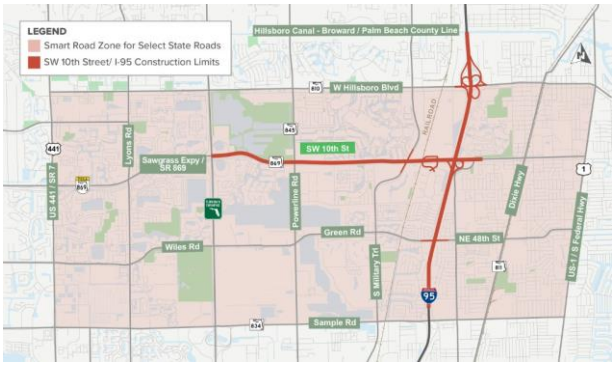
Early Construction Builds – Smart Roads

Transportation Systems Management and Operations Smart Work Zone

Objective is to support safety and mobility within the vicinity of the SW 10th Street Connector and Local SW 10th Street roadway, and regional arterial traffic operations during and after construction.



Smart Work Zones Will be Built-Out With Technology to:

Help Motorists Make Informed Decisions on the Most Efficient Route Through and Around the Work Zone

Advise of Potential Congestion and Major Construction Activities in Advance

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Anticipated Project Timeline

- Advertised for Phased Design-Build Contract: **February 2024**
- Contract Execution (Planning Phase): **March 2025**
- Begin Construction (Early Works): **2026**
- End Construction / Final Acceptance: **Approximately 2032**

SW 10TH STREET CONNECTOR PROJECT TIMELINE

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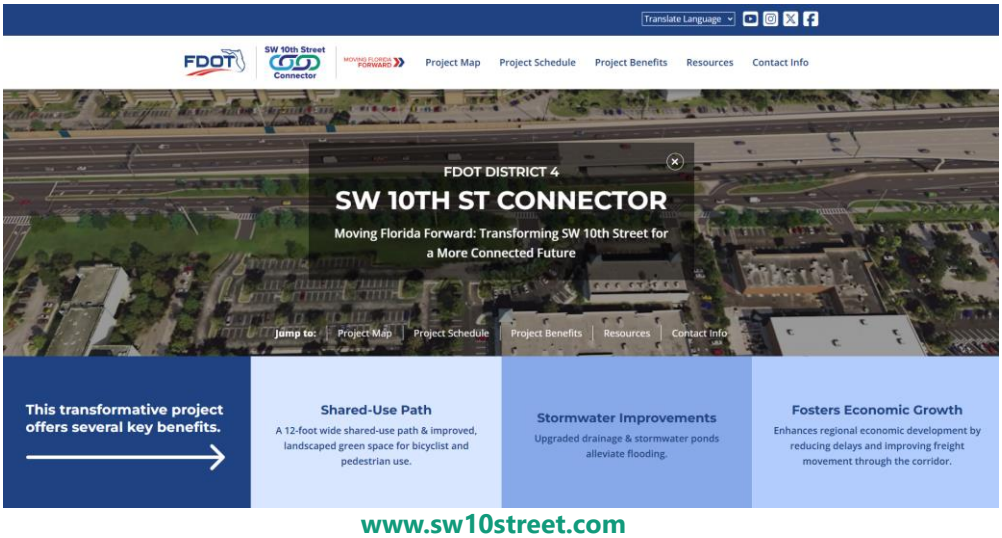
SW 10th Street Connector Project Website



www.sw10street.com

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Miami River – Miami Intermodal Center Capacity Improvement (MR-MICCI) Project

Binod Basnet, P.E. - FDOT

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Project Overview

Improve System Linkage on South Florida Rail Corridor (SFRC)

Complete double tracking of SFRC, only single-track section left on the 72-mile of Tri-Rail System

Meet Commuter + Freight Demand on SFRC in Miami-Dade County

- **SFRTA Tri-Rail:** 50 trains per day on weekdays
  30 trains per day on weekends
- **CSX:** 6 to 8 freight trains daily

Improve Travel Time and Schedule Adherence

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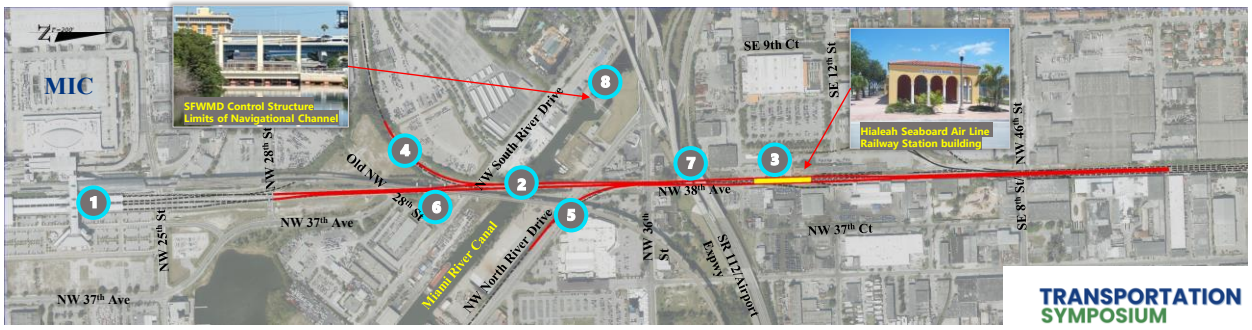
Project Location

1. Existing Tri-Rail Miami Airport Station @ MICC
2. Existing bascule bridge/**Proposed fixed bridge**
3. **Hialeah Market Station**
4. Homestead Spur
5. Downtown Spur
6. Existing Metrorail crossing
7. Existing SR 112 bridge crossing
8. SFWMD Control Structure

From just north of Tri-Rail Hialeah Market Station (MP 1035.96) to just north of Tri-Rail Miami Airport Station (MP 1037.21)



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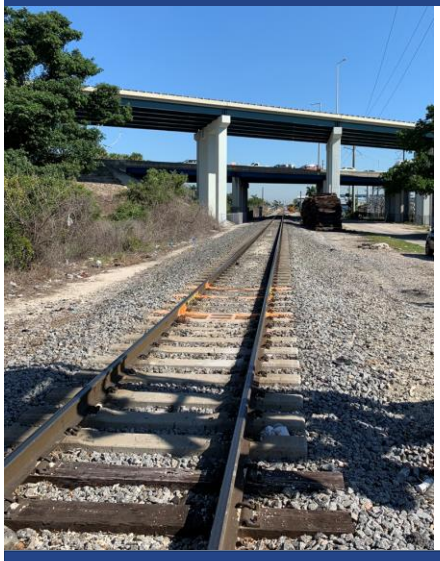
Existing Condition



TRACK CORRIDOR

- Single mainline track from North of NW 46th Street/ SE 8th Street to north of the new NW 28th Street
- Right-of way width varies from 50-ft to 100-ft
- Land use is primarily industrial
- Seven at-grade railroad/roadway crossings
  - NW 25th Street
  - NW 28th Street
  - Old NW 28th Street
  - NW South River Drive
  - NW North River Drive
  - NW 36th Street
  - NW 46th Street/SE 8th Street
- Two spurs
  - Downtown Lead
  - Homestead Subdivision
- Sidings

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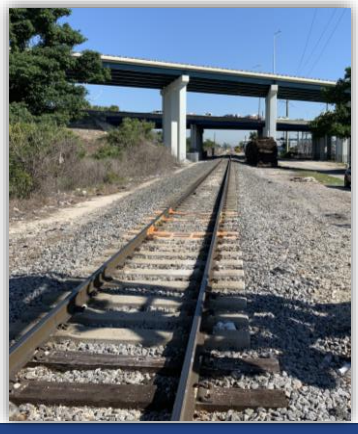
Proposed Improvements

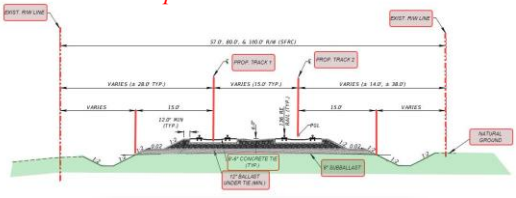
PROPOSED RAILROAD TRACKS

Addition of a second mainline track for adding capacity to SFRC

Existing Single Track



Proposed Double Track



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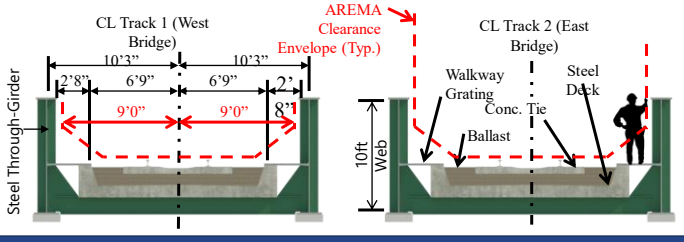
Proposed Improvements

PROPOSED TWIN BRIDGES OVER MIAMI RIVER



Both bridges have same dimensions

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Proposed Improvements

CONSTRUCT A 400-FT CENTER PLATFORM AT HIALEAH MARKET STATION

- Center Platform with single continuous canopy
- Reconfigured site for new bus parking, bicycle racks and storage units, trash receptacles, seating, and ticketing
- Near historic Hialeah Seaboard Air Line Railway Station building
- Tri-Rail Station blue canopy (i.e., Pompano Beach Station) distinct from the NRHP-listed Hialeah Seaboard Air Line Railway Station
- Requires temporary closure of station (approx. 6-8 weeks)

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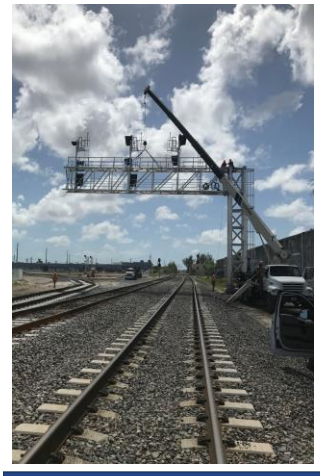
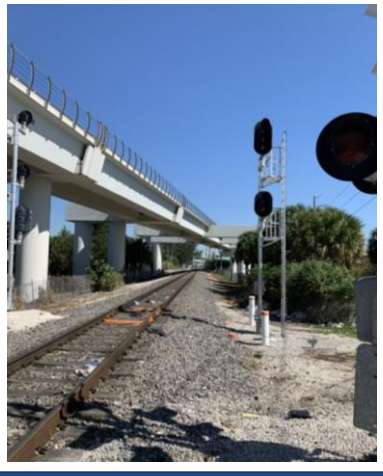
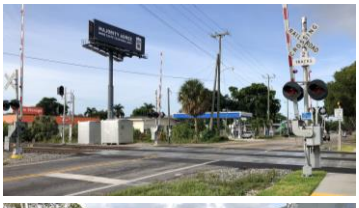
Proposed Improvements

UPGRADE RAILROAD SIGNALS, POSITIVE TRAIN CONTROL, AND CROSSINGS







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Act of Congress

DEAUTHORIZATION OF NAVIGATIONAL RIGHTS

- Deauthorization of navigation rights of Federal Project canal approved in December 2020 by U.S. Congress under Water Resources Development Act (WRDA).
- Defined the Miami River Canal as non-navigable from the existing bridge to the upstream SFWMD S-26 salinity barrier and flood control structure.

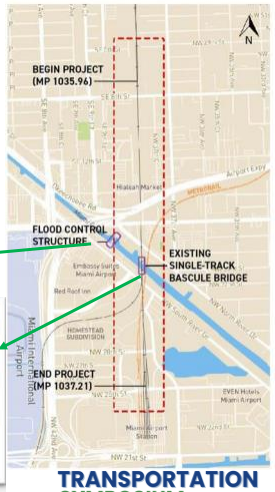
The Miami River Canal provision was approved via the Consolidated Appropriations Act, 2021 (12/21/2020) and is contained in Section 325 (page 3852) of the Water Resources Development Act of 2020 (page 3608): https://www.govinfo.gov/content/pkg/BILLS-116hr133eah/pdf/BILLS-116hr133eah.pdf

SEC. 325. MIAMI RIVER, FLORIDA.
The portion of the project for navigation, Miami River, Florida, authorized by the Act of July 3, 1930 (46 Stat. 925; 59 Stat. 16; 74 Stat. 481; 100 Stat. 4257), beginning at the existing railroad bascule bridge and extending approximately 1,000 linear feet upstream to an existing salinity barrier and flood control structure, is no longer authorized beginning on the date of enactment of this Act.

SFWMD S-26 Control Structure

Existing Bascule Bridge

FIGURE 1 MR-MICCI PROJECT LOCATION MAP



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Project timeline

SCHEDULE AND COST

Anticipated Construction Start:
Summer 2026

Anticipated Construction End:
Spring 2029

Estimated Construction Cost:
$84 Million

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Partners

STAKEHOLDERS

RTA South Florida Regional Transportation Authority

Miami-Dade County

CSX

US Army Corps of Engineers

South Florida Water Management District

FDOT District 6

Miami River Commission

City of Hialeah

DESIGN CONSULTANT PARTNERS

Gannett Fleming

Kimley»Horn

tsf GEO

ASA Consultants

INTERA

Janus Research Group

MRG Media Relations Group, LLC

Miller Legg

Premiere Lighting & Traffic

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Safety Message

Visit:

secureyourload.com

"Secure Your Load as if everyone you love is driving in the car behind you"

DID YOU KNOW:

- **A 20 lb. object at 55 mph has a force of 1,000 lbs. at impact!**
- **Unsecured loads are responsible for up to 40% of the litter on our roads costing us billions of dollars each year.**
- **National GA report states unsecured loads cause 440 deaths, 10,000 injuries, and 51,000 incidents.**

TO SECURE THE LOAD IN YOUR VEHICLE OR TRAILER:

- Tie it down with rope, netting, or straps.
- Tie large objects directly to your vehicle or trailer.
- Consider covering the entire load with a sturdy tarp or netting.
- Don't overload your vehicle or trailer.
- Always double-check your load to make sure it's secure.
- Don't forget that animals should also be properly secured.

BEFORE YOU DRIVE, ASK YOURSELF THESE QUESTIONS:

- Is there any chance of debris or cargo falling or blowing out of my vehicle?
- Is my load secured at the back, sides and top?
- What would happen to my load if I had to brake suddenly, I hit a bump, or another vehicle hit me?
- Would I want my loaded vehicle driving through my neighborhood?
- Would I feel safe if I were driving behind my vehicle?
- Is "Secure Your Load" on my company's safety checklist?

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Questions?

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Please be sure to **certify your attendance** before leaving this event or no later than **Monday, June 30**, in order to receive PDH/CEC. Detailed instructions are available on the Transportation Symposium website.

Transportation Symposium Website

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