MIAMI RIVER COMMISSION

May 5, 2025

NW 17th Ave PD&E Study

Presenters:

- ***Gabriel Delgado, P.E.*** *- Project Manager, Miami-Dade County Department of Transportation and Public Works - Highway Division*
- ***Rick Crooks, P.E.*** *- Consultant Project Manager, EAC Consulting, Inc.*

AGENDA

- Project Overview
- Purpose and Need
- Existing Conditions
- Study Process and Timeline
- Environmental Considerations
- Public Involvement
- Question and Answer Session

FEDERAL, STATE and COUNTY PARTNERSHIP

Federal-State Partnership

FDOT's Office of Environmental Management as Lead Federal Agency

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration (FHWA) and FDOT.

State-County Partnership

Interlocal Agreement between FDOT and Miami-Dade County and dated 12/12/23

Coordination with the Greater Miami Expressway Agency

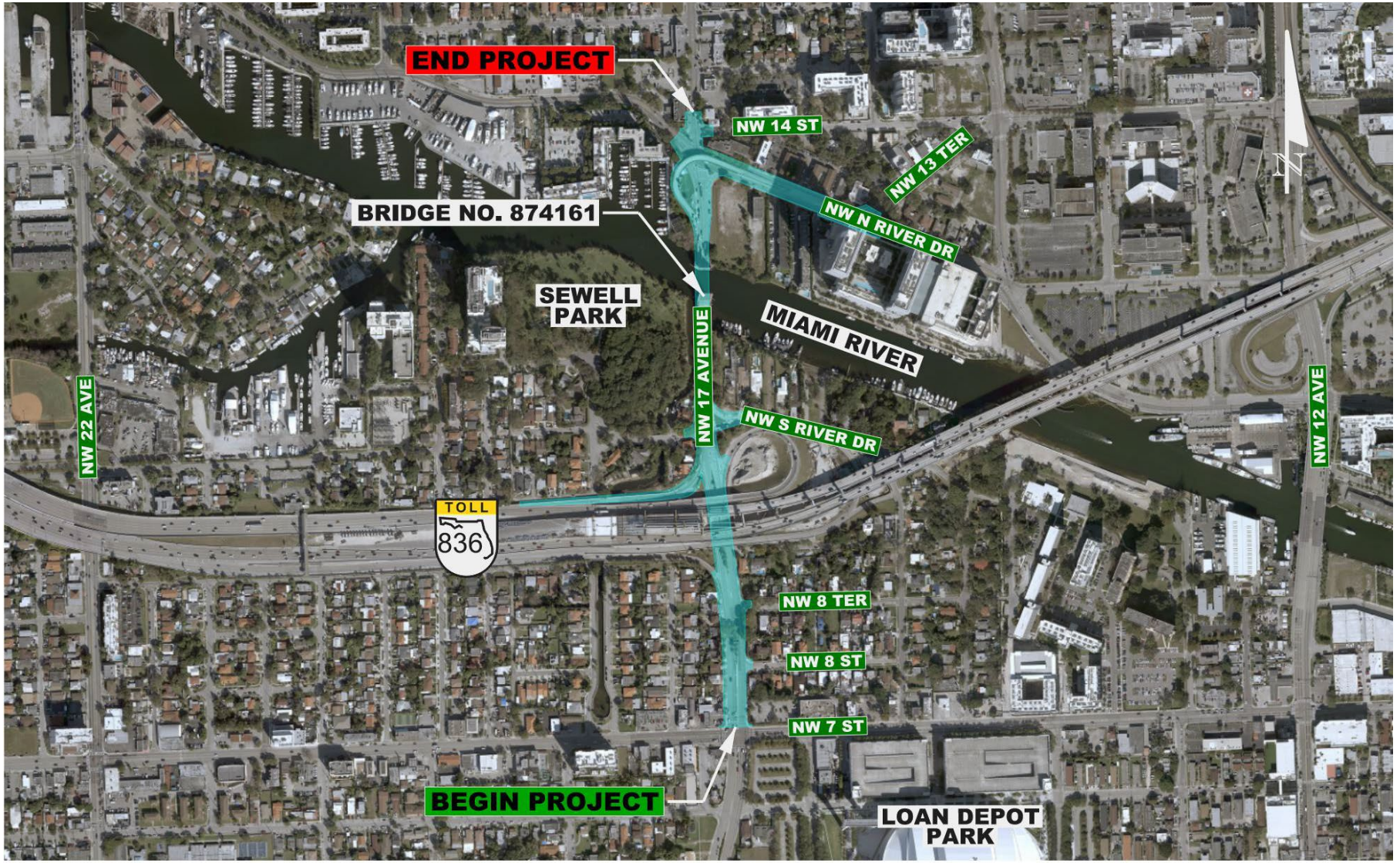
United States Coast Guard (USCG)

Cooperating Agency

United States Army Corps of Engineers (USACE)

Participating Agency

PROJECT LIMITS



This project involves the potential improvements to the NW 17th Avenue Bascule Bridge over Miami River and the 0.5-mile segment of NW 17th Avenue extending north from NW 7th Street to NW 14th Street in the City of Miami, Miami-Dade County.

Also included is the entrance ramp to westbound SR 836/Dolphin Expressway from NW 17th Avenue, and NW North River Drive from NW 17th Avenue to NW 13th Terrace.

The bridge provides access to the westbound ramp of the SR 836/Dolphin Expressway, an emergency evacuation route. The bridge is also one of two access points from the south side of the Miami River to the Hospital/Civic District on the north side of the river between NW 17th Avenue and I-95.

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PURPOSE & NEED

The purpose of the NW 17th Avenue Bascule Bridge over Miami River project is to **address its operational reliability** as well as **identified functional deficiencies through potential alternatives, such as replacement or rehabilitation.** Additional objectives are to **improve traffic** on NW 17th Avenue for all modes and improve navigational traffic on the Miami River.

Roadway & Bridge Deficiencies
Improve Operational Reliability & Function

Transportation Deficiencies
Accommodate Projected Travel Demand

Modal Interrelationships
Improve Pedestrian, Bicycle & Navigational Traffic

Safety
Improve Safety Conditions

BRIDGE REPAIRS HISTORY

Originally Constructed in 1928. The age and deteriorated condition of the bridge has resulted in continuous repairs to keep it operational.

Recent Repairs

- 2007 - A major emergency rehabilitation closed the bridge for six months
- 2014 - An operational drive system failure closed the bridge for two months
- 2014 to 2023:
  - Two separate incidents with the hydraulic motors/planetary gearboxes
  - One incident with a hydraulic motor
  - A vessel strike on the control house side
- 2023 – North leaf counterweight emergency replacement closed the bridge for 9 months

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PROJECT PRIORITY IN LOCAL & REGIONAL PLANS

The project is included in the Miami-Dade Transportation Planning Organization's (TPO) 2050 Long-Range Transportation Plan (LRTP) as a priority 1 project.

The project is listed in the Miami-Dade TPO's 2025-2029 Transportation Improvement Program (TIP).

Local funding in the DTPW section of the TIP for PD&E, Design and Partial Construction totals $12.114 million.

SUFFICIENCY RATING

NW 17th Ave Bascule Bridge Sufficiency Rating: 45.2 (As of 1/31/2024)

What is a Sufficiency Rating?

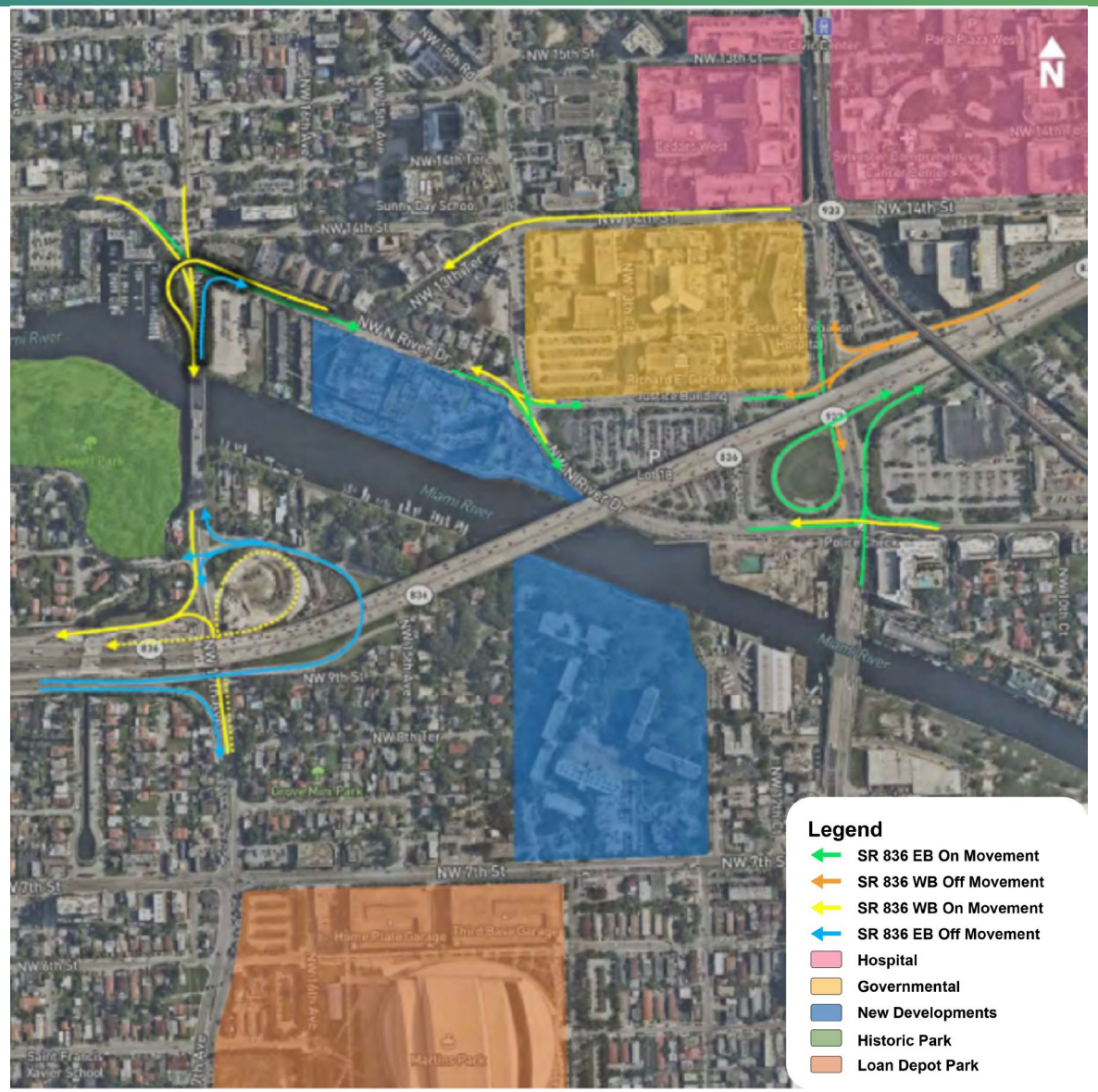
- A method established by the Federal Highway Administration to evaluate the health of a bridge.
- Ratings are used to help determine whether a bridge should be repaired or replaced.
  - Bridges with Sufficiency Ratings below 50 are eligible for Federal Highway Bridge Program funding as a replacement.
  - Bridges with Sufficiency Ratings between 50 and 80 are eligible for Federal Highway Bridge Program funding for rehabilitation

A low Sufficiency Rating does not mean the bridge is unsafe

- NW 17th Ave Bridge's Functional Obsolescence contributes to its low sufficiency rating

EXISTING CONDITIONS – TRAFFIC DEFICIENCIES

The NW 17th Avenue and NW 12th Avenue interchanges operate as a complimentary pair, with NW 17th Avenue providing access to and from the west only, and NW 12th Avenue providing access to and from the east only. Because of this, traffic flows to/from SR-836 are dominant during peak daily periods.



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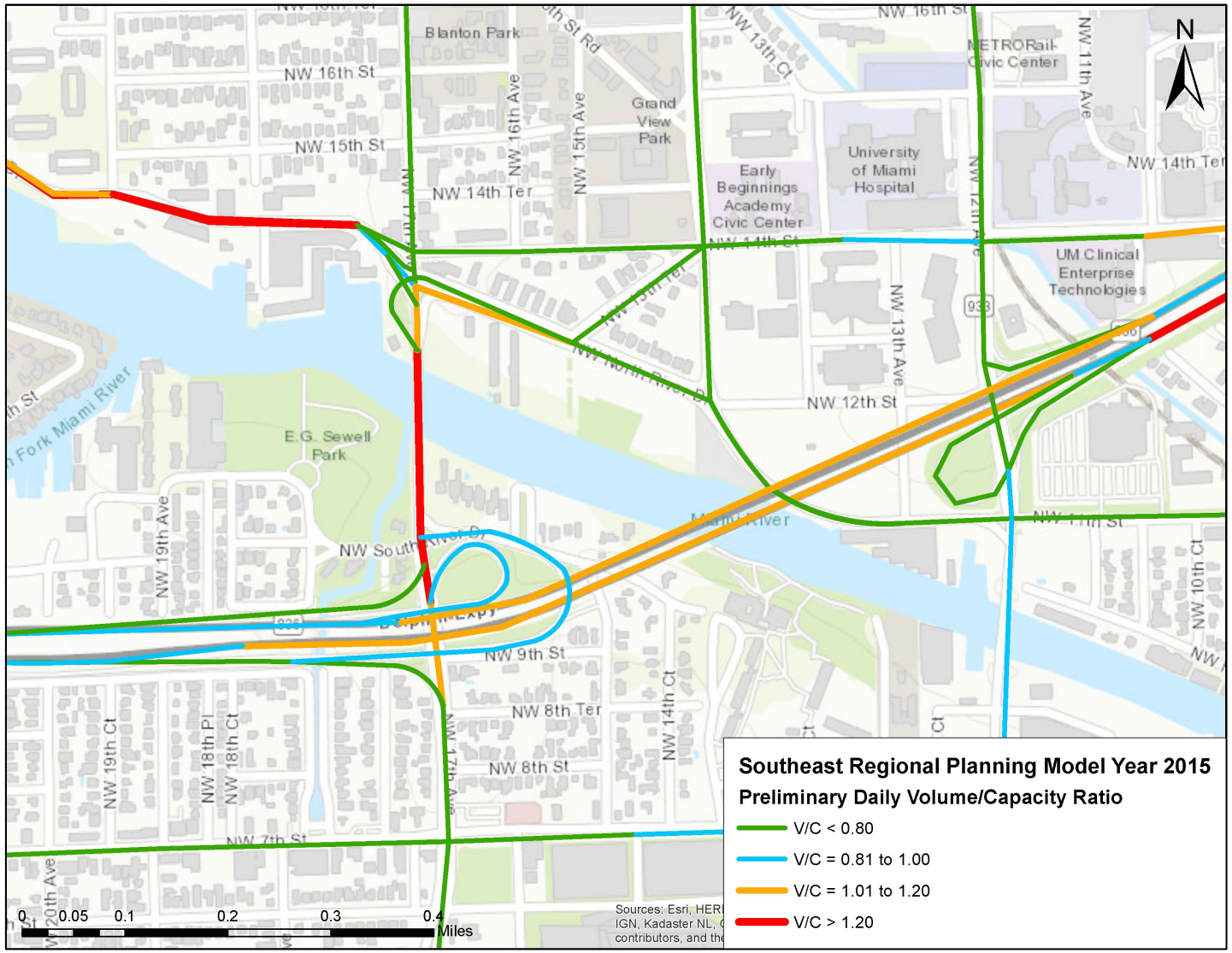
EXISTING CONDITIONS – TRAFFIC DEFICIENCIES

Southeast Regional Planning Model (SERPM), developed and adopted by Florida Department of Transportation, has the ability to model base year 2015 and future year 2045.

For base year 2015, the traffic near the NW 17th Ave bridge is already congested based on volume/capacity (V/C) ratios.

- Extremely Congested (V/C > 1.2)
  - NW 17th Ave Bridge
  - NW N River Dr west of NW 17th Ave
- Roadway Failure (V/C >1.0)
  - SR 836
  - NW N River Dr east of NW 17th Ave
- Approaching Roadway Failure (V/C > 0.8)
  - SR 836 Ramps to 17th Ave
  - NW 12th Ave



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EXISTING CONDITIONS

- An emergency evacuation route
- Provides access to SR 836 Expressway as well as the Hospital/Civic District
- Confined R/W
- Proximity to Lawrence Canal
- Limited Vertical Clearance on Bascule Bridge and Flyover Bridge

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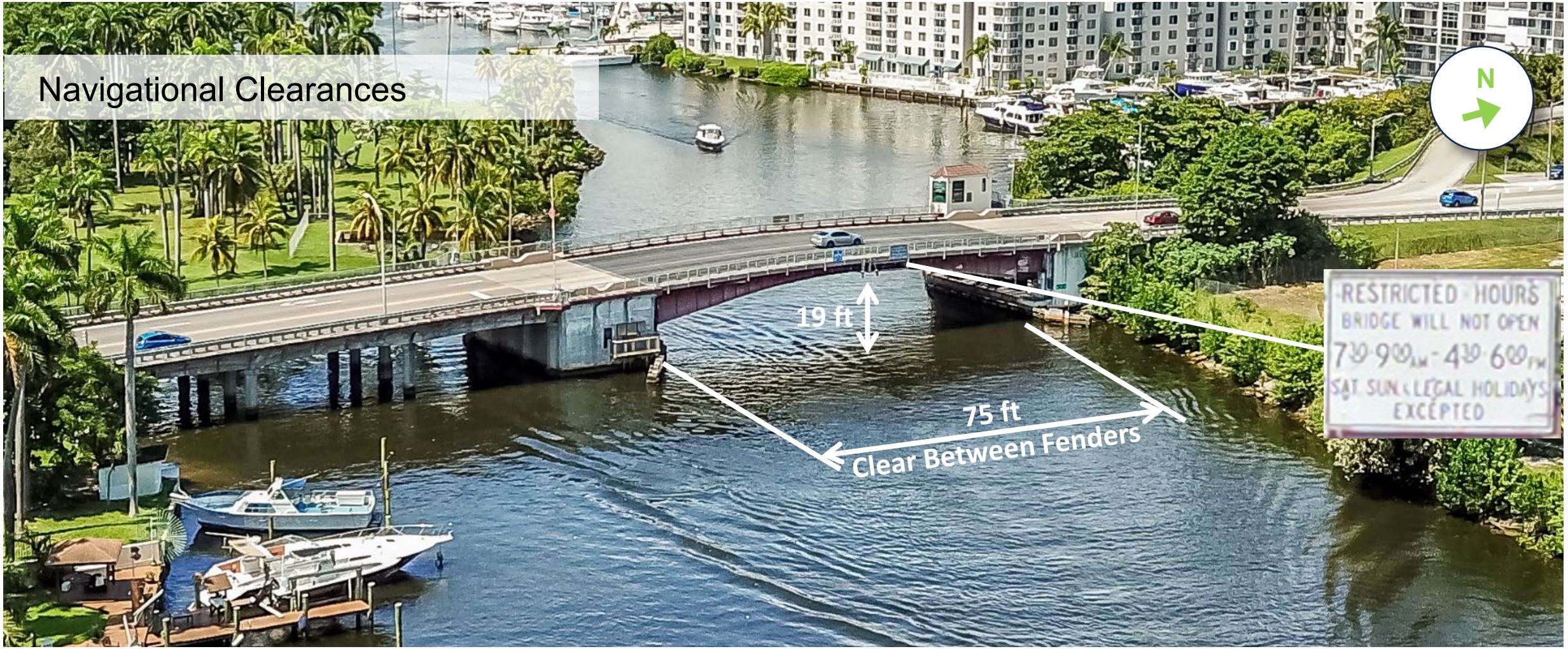
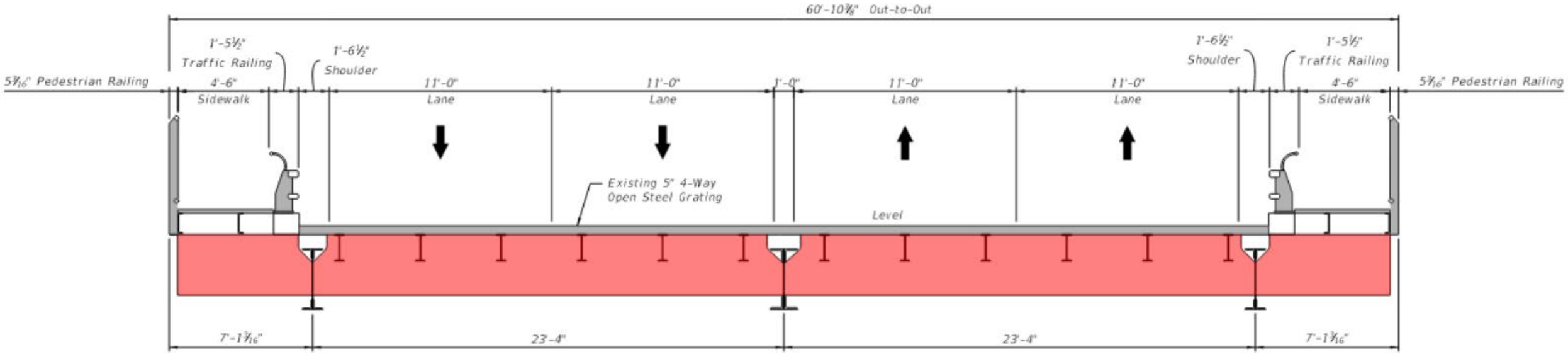
EXISTING CONDITIONS



- Current USCG Clearance Guidelines – 90ft horizontal clearance, 25ft Vertical Clearance

EXISTING CONDITIONS – TYPICAL BRIDGE SECTION



BASCULE SPAN TYPICAL SECTION A-A (EXISTING)

EXISTING CONDITIONS

Emergency Counterweight Replacement (2023)

TRANSPORTATION PROJECT DELIVERY PROCESS

CONTINUOUS AGENCY & PUBLIC ENGAGEMENT

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6
Planning	PD&E Study	Design	Right of Way Acquisition	Construction	Maintenance

WE ARE HERE

Evaluate:

Engineering Alternatives

Environmental Impacts (Social, Cultural, Natural, & Physical Resources)

Comply with:

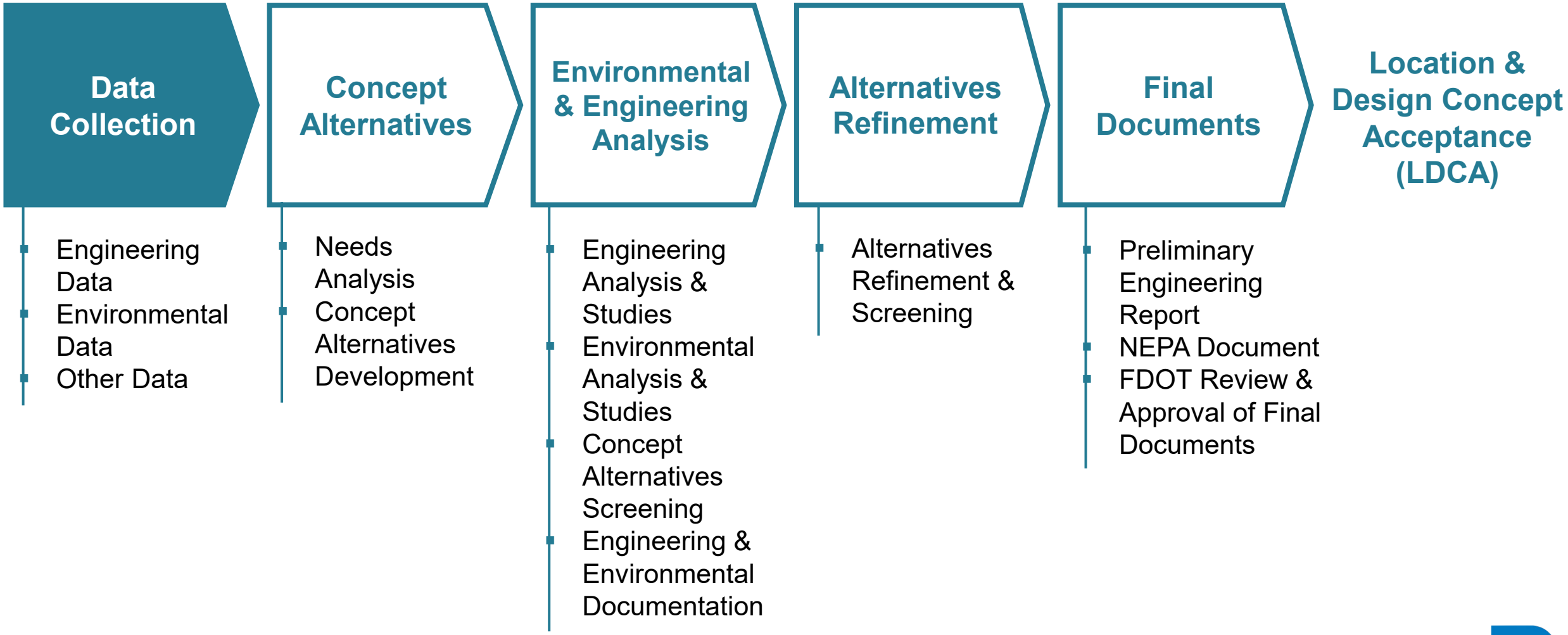
National Environmental Policy Act (NEPA)

Federal & State Environmental laws

Requirements for Federal Funding

PD&E STUDY PROCESS

CONTINUOUS AGENCY & PUBLIC ENGAGEMENT



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ALTERNATIVES THAT PRESERVE THE EXISTING HISTORIC BRIDGE

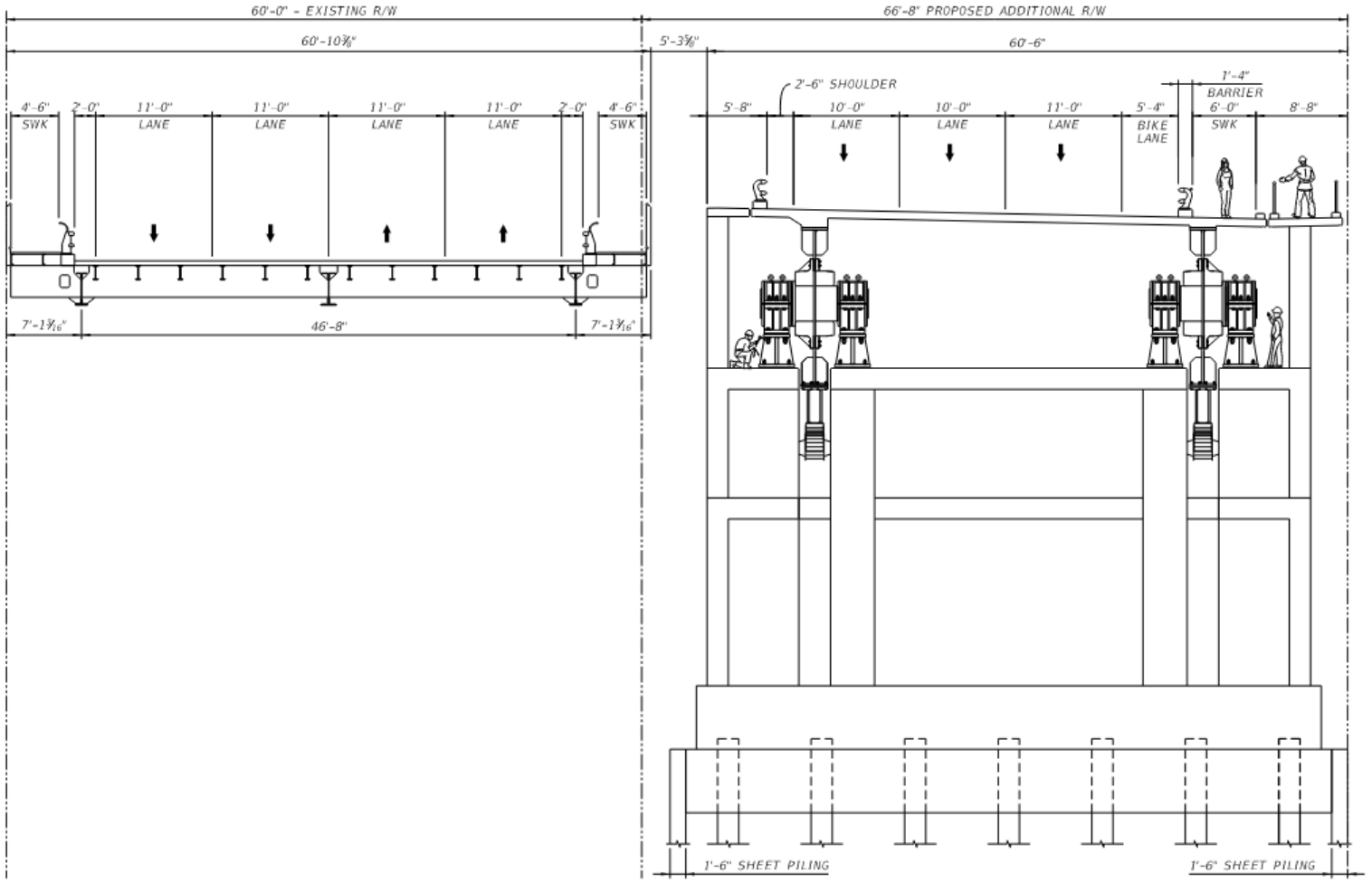
1. ***Alternative 1 No Action***

2. ***Alternative 2 TSM&O***

3. ***Alternative 3 Rehabilitation***

4. ***Alternative 4 Rehabilitate the Existing Bridge and Build Adjacent Bridge***
   - *Alternative 4A with bike lanes*
   - *Alternative 4B with sharrows*

Alternative 4A Rehabilitate the Existing Bridge and Build Adjacent Bridge with Bike Lanes



BASCULE PIER SECTION AT TRUNNION

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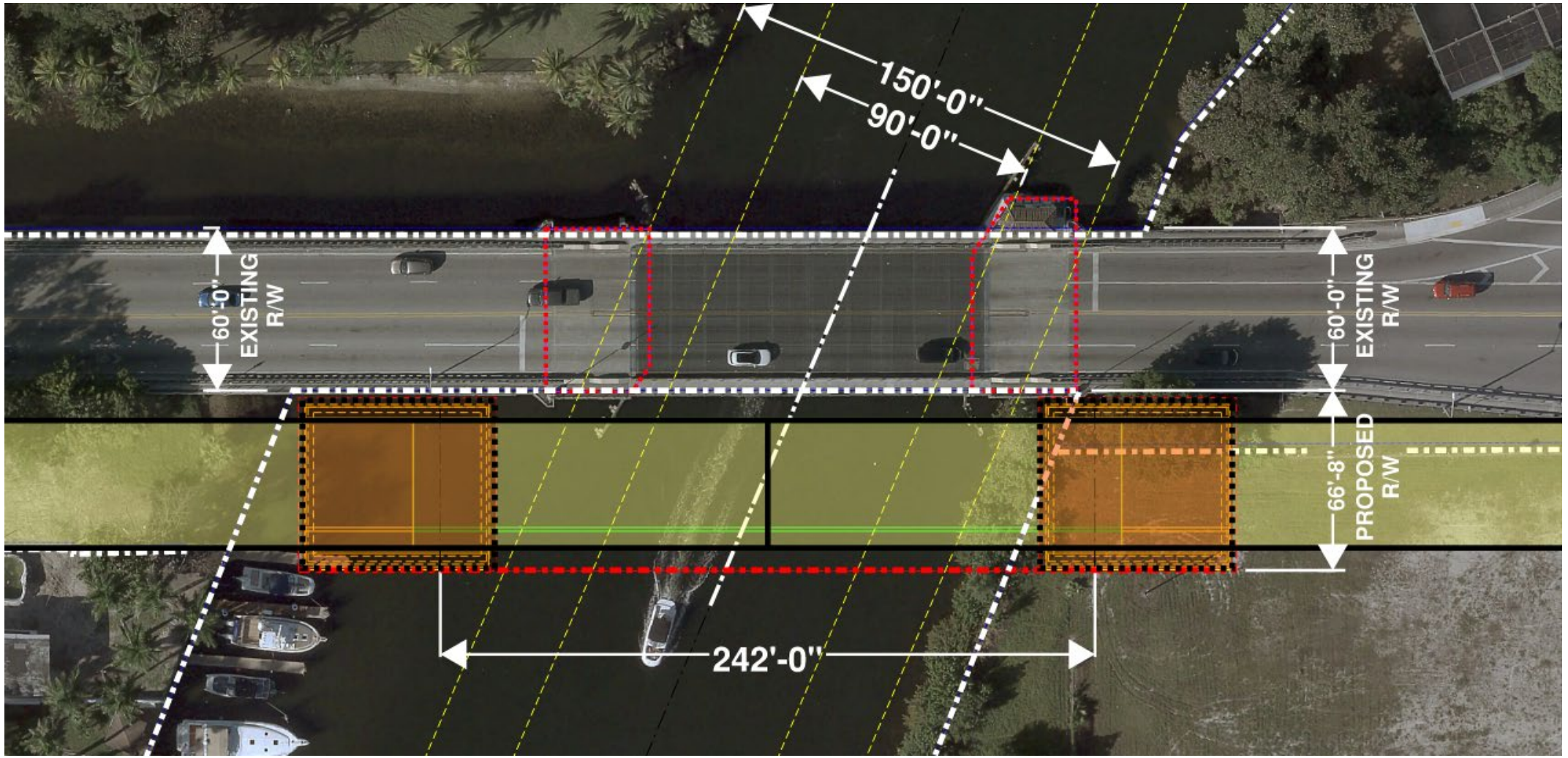
Alternative 4A Rehabilitate the Existing Bridge and Build Adjacent Bridge with Bike Lanes



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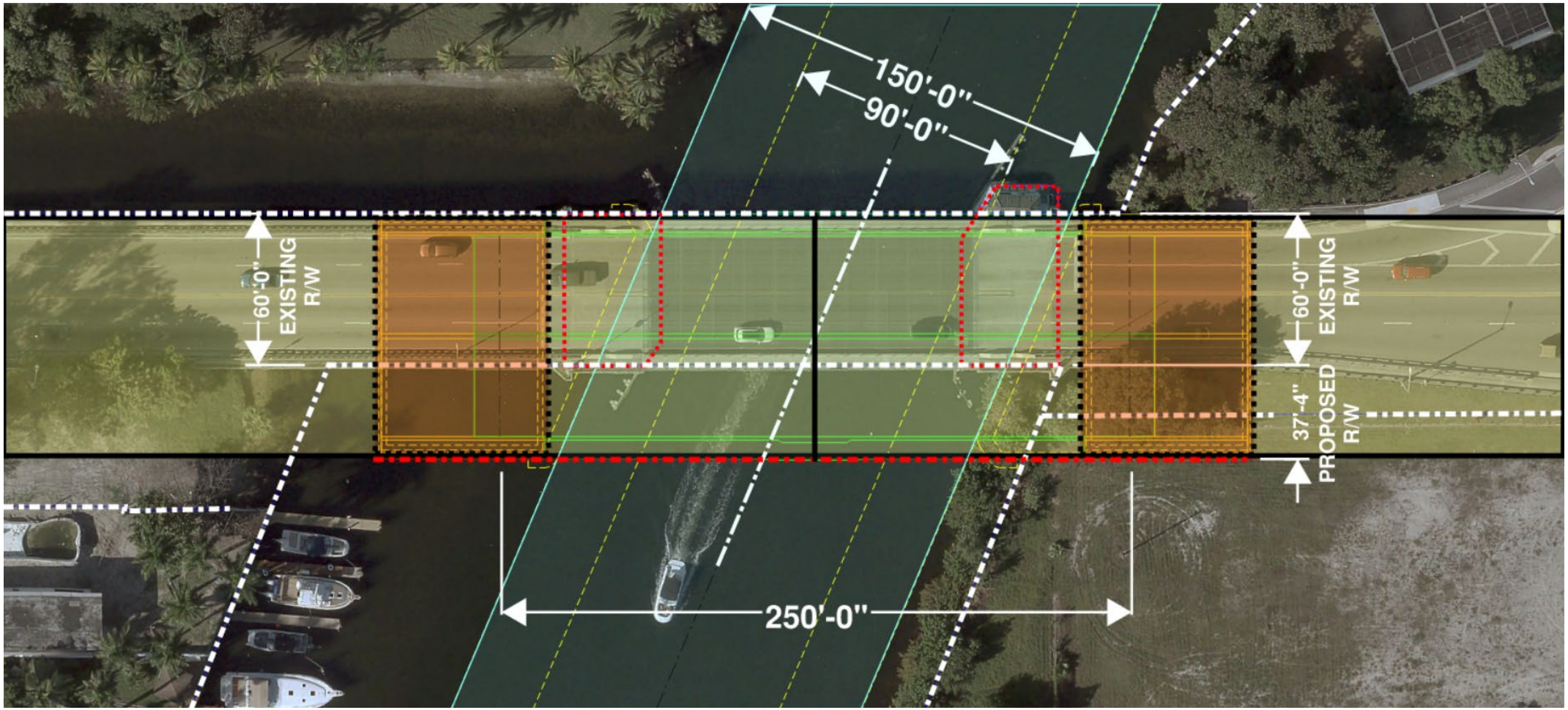
REPLACEMENT ALTERNATIVES UNDER CONSIDERATION

1. *Alternative 5 Replacement – 6 lanes single bridge double leaf*
   - *Alternative 5A with bike lanes*
   - *Alternative 5B with sharrows*
2. *Alternative 6 Replacement - 5 lanes + 1 lane flyover to SR 836 - single bridge double leaf*
   - *Alternative 6A with bike lanes*
   - *Alternative 6B with sharrows*
3. *Alternative 7 Replacement - 6 lanes dual bridge double leaf*
   - *Alternative 7A with bike lanes*
   - *Alternative 7B with sharrows*
4. *Alternative 8 Replacement - 5 lanes + 1 lane flyover to SR 836 - dual bridge double*
   - *Alternative 8A with bike lanes*
   - *Alternative 8B with sharrows*
5. *Alternative 9 Replacement – 6 lanes Phased Construction for Maintenance of traffic (dual bridge double leaf)*
   - *Alternative 9A with bike lanes*
   - *Alternative 9B with sharrows*
6. *Alternative 10 Swing*
7. *Alternative 11 Lift*
8. *Alternative 12 High-Level*
9. *Alternative 13 Tunnel*

ALTERNATIVES ANALYSIS

REPLACEMENT ALTERNATIVES

- USCG Coast Guard Channel Clearances: 90ft Horizontal with 25ft Vertical (achieving the vertical clearance is challenging)



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Environmental Considerations

- Natural Resources
- Social Resources
- Physical Resources
- Cultural Resources
- Anticipated Class of Action: Environmental Assessment

Efficient Transportation Decision Making Summary Table

Degree of Effect Legend

N/A	N/A / No Involvement
1	Enhanced
2	Minimal
3	Moderate
4	Substantial
5	Potential Issue

	Social and Economic							Cultural and Tribal			Natural					Physical					
	Social	Economic	Land Use Changes	Mobility	Aesthetic Effects	Relocation Potential	Farmlands	Section 4(f) Potential	Historic and Archaeological Sites	Recreational and Protected Lands	Wetlands and Surface Waters	Water Resources	Floodplains	Protected Species and Habitat	Coastal and Marine	Noise	Air Quality	Contamination	Infrastructure	Navigation	Special Designations
Alternative #1 *Published: 09/27/2024 Reviewed from 04/16/2024 to 05/31/2024)*	2	1	2	1	2	2	N/A	3	3	2	3	3	3	3	3	3	2	3	3	3	3

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NATURAL RESOURCES

Wetlands & Other Surface Waters

Miami River

Lawrence Canal

Biscayne Bay Aquatic Preserve-Outstanding Florida Waters (OFW)

Essential Fish Habitat

Spiny lobster and snapper-grouper complex

Required Surveys

Florida bonneted bat survey

Benthic survey

Terrestrial survey

Federal & State Protected Species and Habitats

American crocodile; Florida bonneted bat; Piping plover; Everglades snail kite; Eastern indigo snake; Sea turtles; Corals; Nassau grouper; Smalltooth sawfish; Giant manta ray

Wood stork Core Foraging Area

West Indian manatee Critical Habitat

SOCIAL RESOURCES – COMMUNITY FEATURES

Religious Centers

New Apostolic Church

Group Care Facilities

Camillus House, Inc.- Dormitory

Lincoln Marti #14 Private School

American Indian Lands & Native Entities

Embassy of the Miccosukee Tribe of Indians of Florida

Miccosukee Caves

Marinas & Parks

River Run Yacht Club and Marina

Serenity On The River Marina

Grove Mini Park

Grove Park

Sewell Park

NW 16th Avenue Park

Lawrence Waterway and Sewell Park

Sociocultural Effects Analysis will be conducted

PHYSICAL RESOURCES

Contamination Evaluation

Underground Storage Tanks

Hazardous Waste Sites

Potential Asbestos Containing Materials, Lead-Based Paint, or Metal Based

Phase I/Contamination Screening Evaluation will be conducted

Noise Study

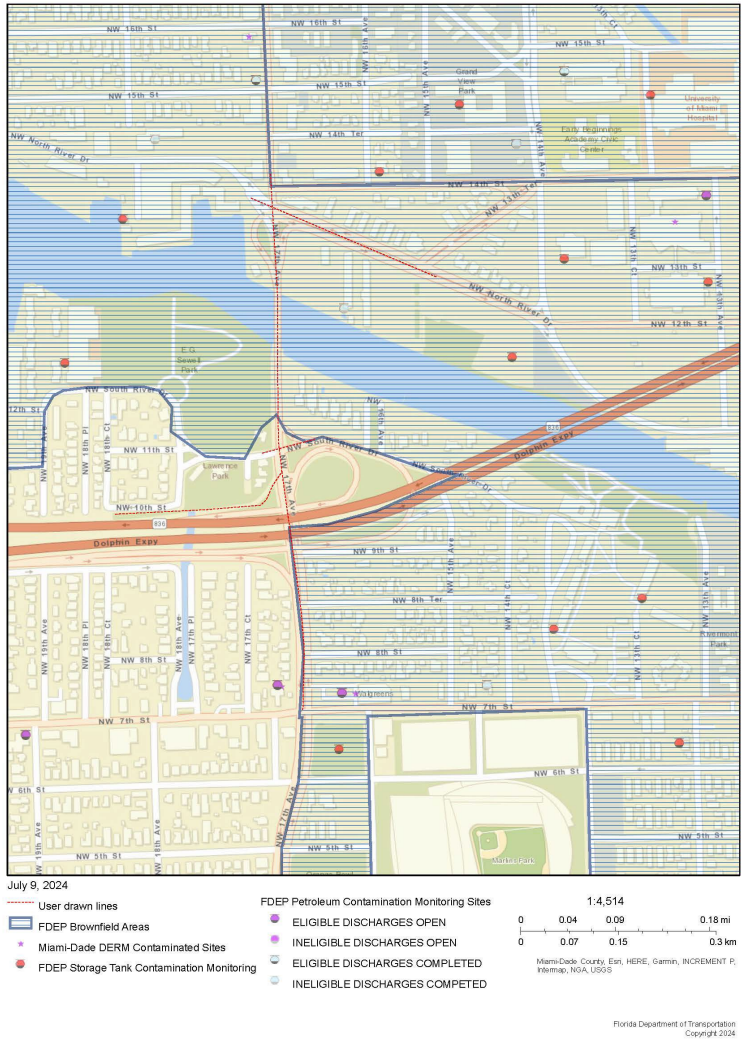
Moderate impacts are anticipated

Noise Study will be conducted

Air Quality

Minimal impacts during project construction

Contamination



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CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act is applicable

- Cultural Resource Assessment Survey (CRAS), Effects Case Study, Consultation, Memorandum of Agreement (MOA) anticipated
- CRAS is currently underway
- Archaeological fieldwork has started
- Historic Resources Area of Potential Effects (APE) – Preferred Alternative influences the APE and number of resources to be documented

Known National Register Eligible and Listed Resources

- NW 17th Ave Bridge
  - Part of the Harbor Bond Issue of 1926. The last remaining bridge constructed as part of this infrastructure effort.
  - Eligible for its historical associations with the Community Planning and Development of the City of Miami, and
  - Eligible in the area of Engineering as a historic bascule bridge and its Mediterranean Revival influenced design elements.
- NW North River Drive Flyover
  - 1969 Bridge Eligible in the area of Engineering as an early example of a reinforced continuous concrete boxed beam flyover bridge
- Grove Park Historic District (may be within or adjacent to APE; will have to determine based on alternative)

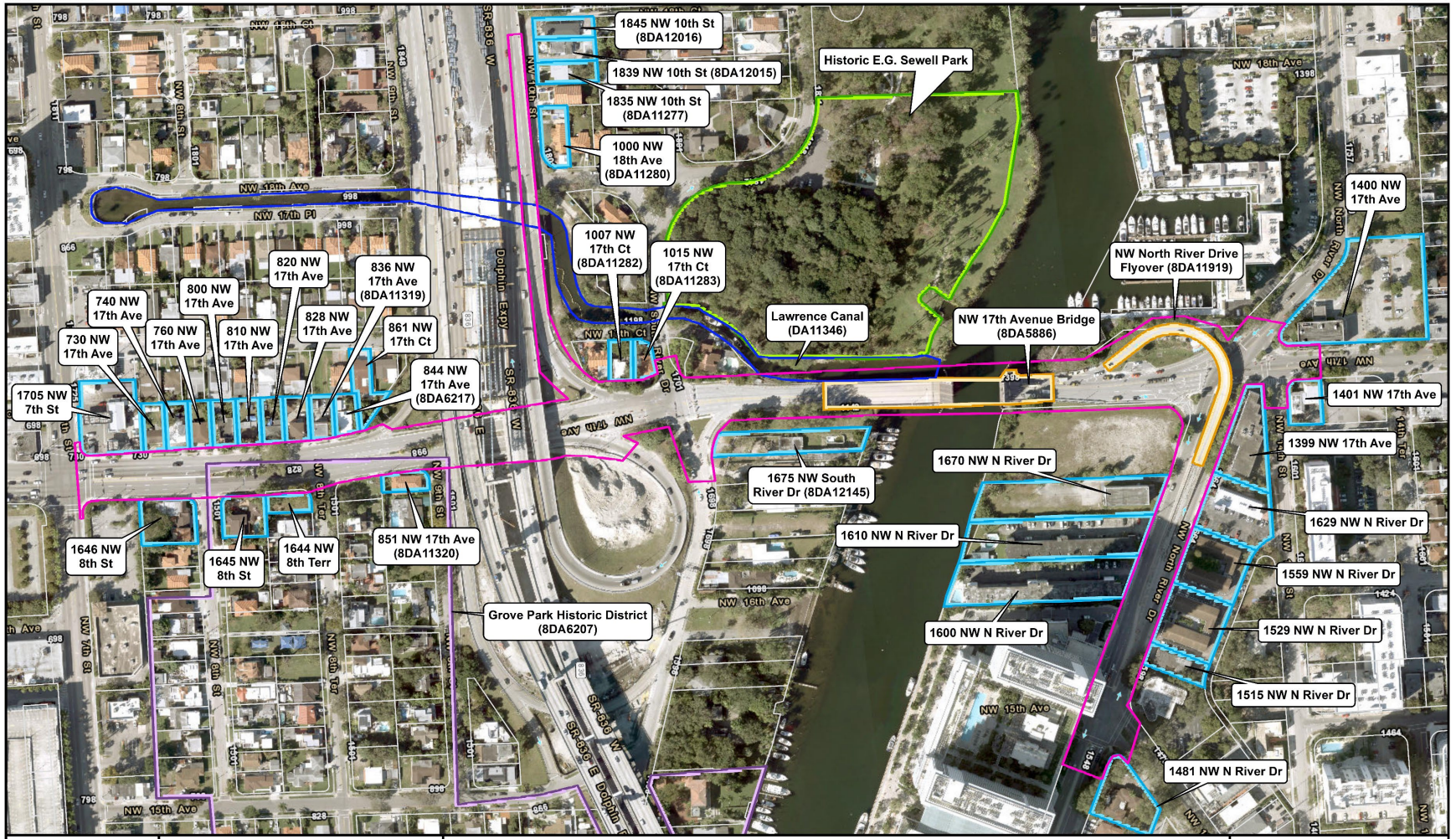
Section 4(f)

- Park Impacts
- Historic Bridge Impacts - Likely Programmatic Evaluation

PRELIMINARY HISTORIC RESOURCES MAP

Janus Research

Created 10/28/2024



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PUBLIC INVOLVEMENT

GOAL

Execute comprehensive **proactive public involvement** that informs the public and provides opportunities for meaningful participation that gathers **feedback for the technical team** to consider as the potential project alternatives are developed.

KEY ISSUES

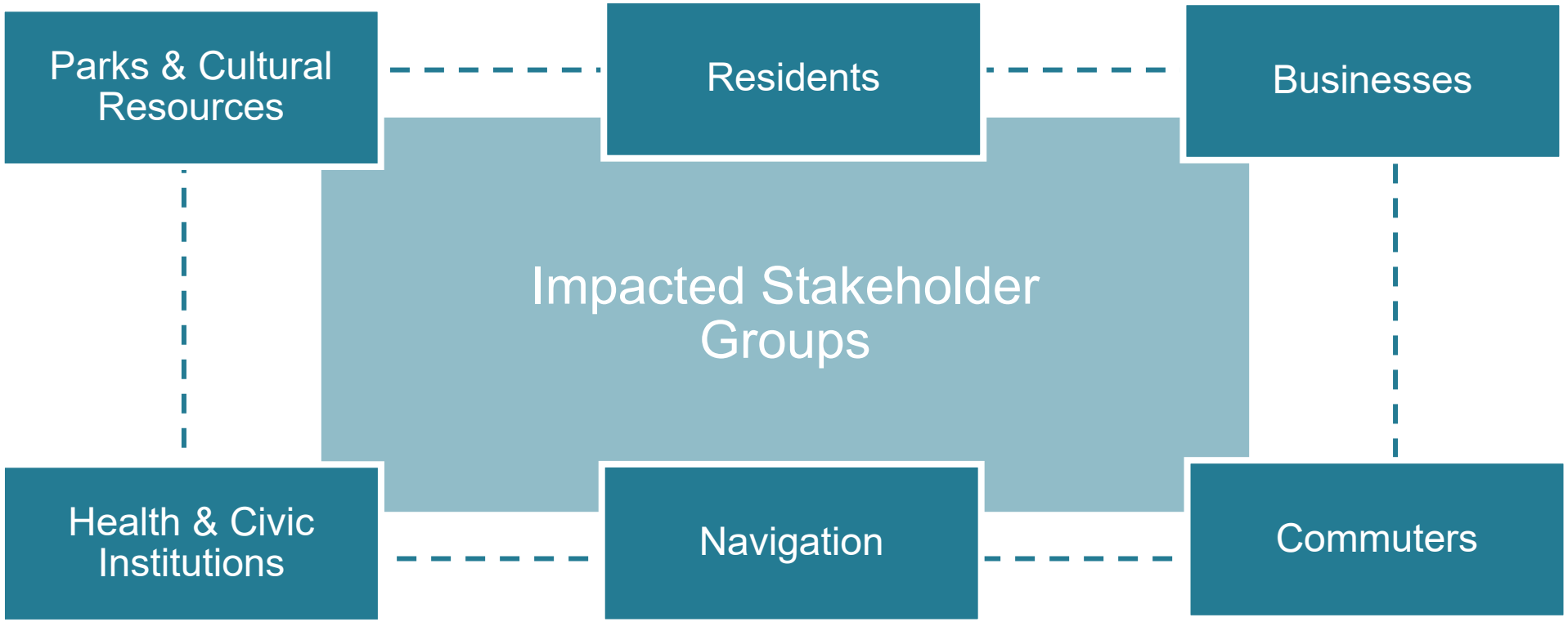
Historic significance of the Bascule Bridge and the Flyover Bridge

Environmental and Navigational Impact to the Miami River

Connectivity for residents, commuters, and emergency responders

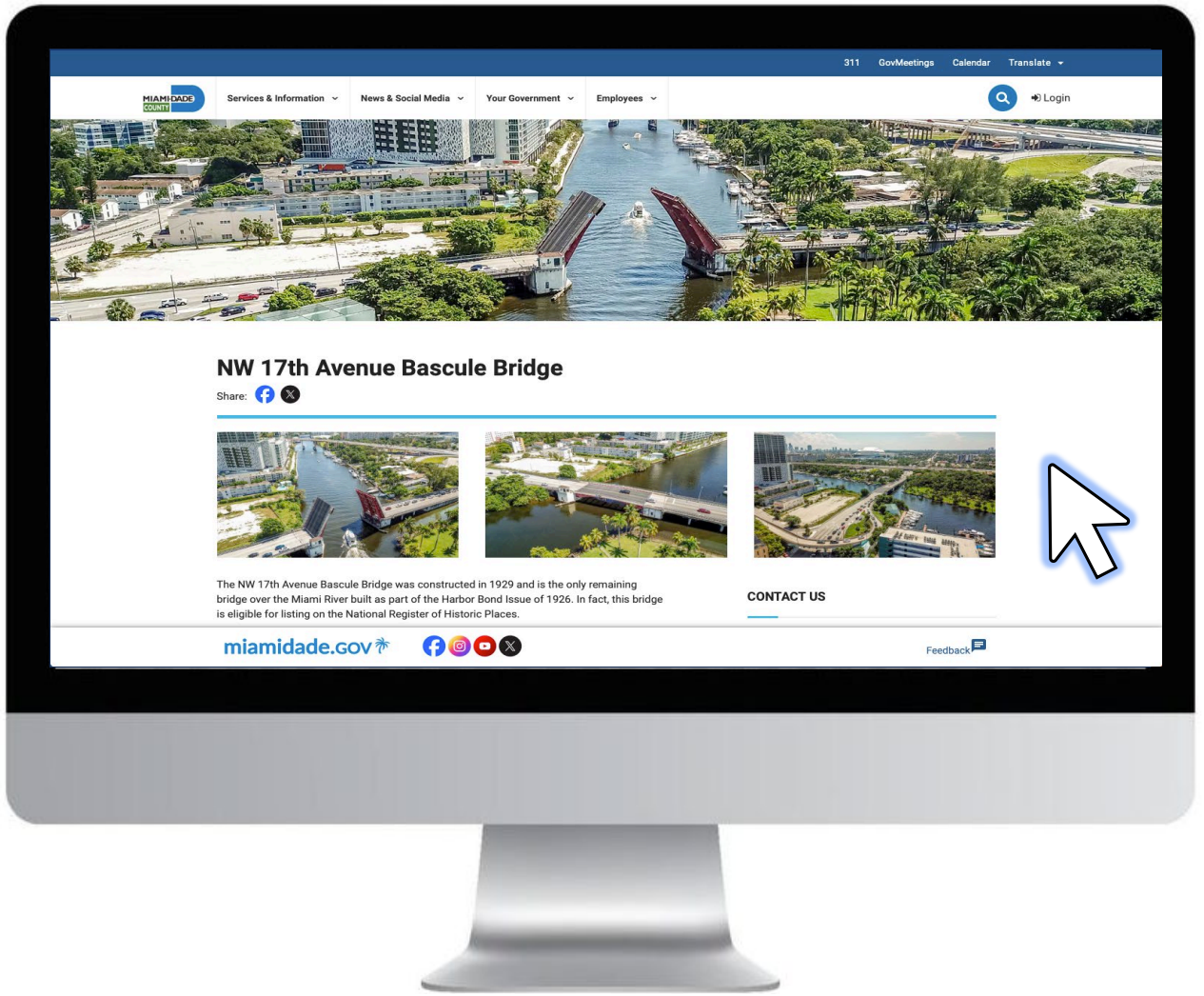
Mitigation of construction impacts

PUBLIC INVOLVEMENT



Opportunities for Participation

- Public meetings, workshop, and a public hearing
- Small group presentations and one-on-one meetings
- Project Advisory Group (PAG) and Cultural Resource Committee (CRC)
- Briefings to elected officials
- Email - 17AveBridgeStudy@miamidade.gov
- Phone - 786-714-2792
- Project Website: *https://www.miamidade.gov/global/transportation/public-works/nw-17-ave-bridge.page*



ALTERNATIVES EVALUATION PROCESS

Alternatives Refinement

- **Alternatives Development**
- **Alternatives Screening**
- Alternatives Meeting
  - *Alternatives Presented to Public*
- Refine Alternatives
- Alternatives Development
- Public Hearing
  - *Preferred Alternative Identified*

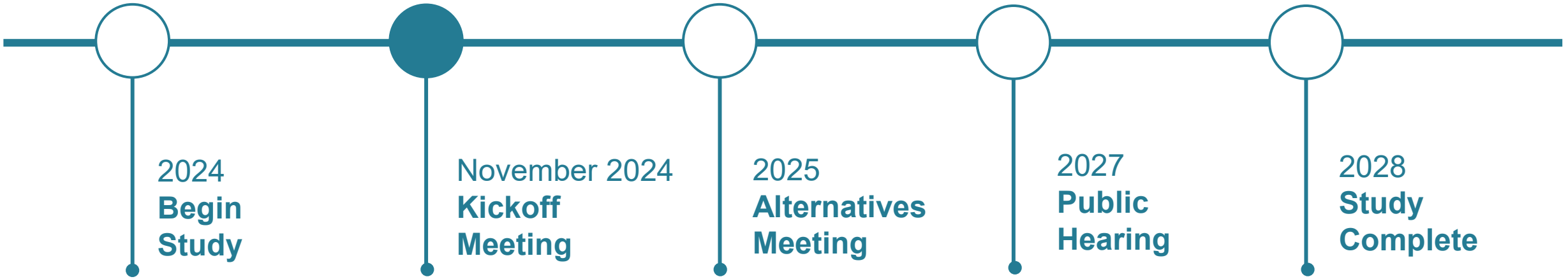
Possible Screening Parameters

- *Meets Purpose and Need*
  - *Improves Operational Reliability and Function*
  - *Accommodates Projected Travel Demand*
  - *Improves Pedestrian, Bicycle & Navigational Traffic*
  - *Improves Safety Conditions*
- *Sensitivity to the Historic Resources*
- *Sensitivity to the Natural, Social and Physical Environment*
- *Community Preference*
- *Right of Way Impacts*
  - *Impacts to Lawrence Canal*
  - *Right of Way Acquisition*

CONTINUOUS AGENCY & PUBLIC ENGAGEMENT

PROJECT TIMELINE

CONTINUOUS AGENCY & PUBLIC ENGAGEMENT



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SAFETY MESSAGE

PUT IT DOWN

FOCUS ON DRIVING

CONTACT US

EMAIL

17AveBridgeStudy@miamidade.gov

PHONE

786-714-2792

Any additional questions or concerns?
Email or call us!