

**MIAMI RIVER COMMISSION
PUBLIC MEETING
MARCH 7, 2022**

Miami River — Miami Intermodal Center Capacity Improvement

MR-MICCI



PROJECT OVERVIEW

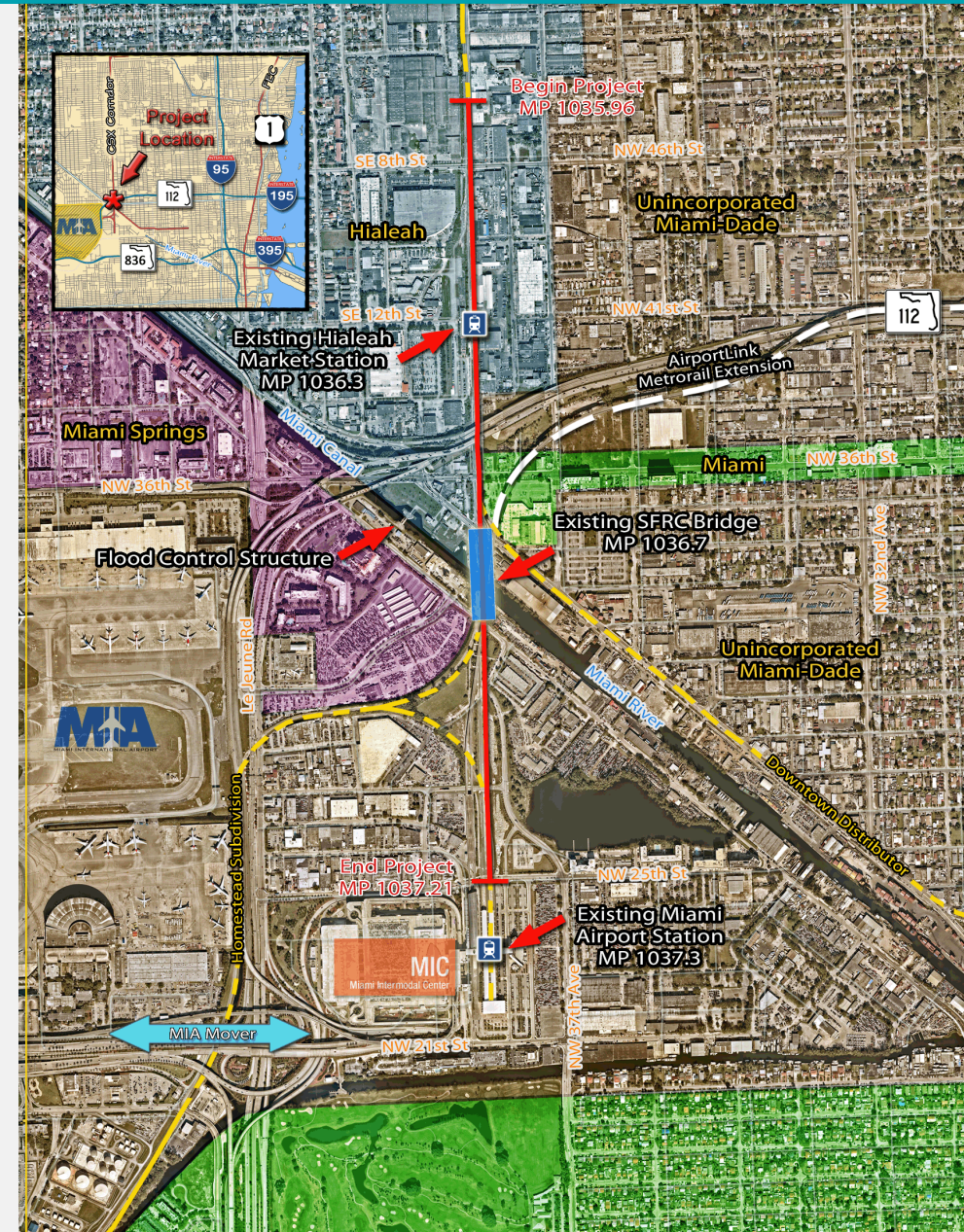
Improve System Linkage on South Florida Rail Corridor (SFRC)

- Complete final link of SFRC, the only single-track section on 72-mile Tri-Rail System
- From just north of Tri-Rail Hialeah Market Station (MP 1035.96) to just north of Tri-Rail Miami Airport Station (MP 1037.21)

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

- SFRTA Tri-Rail: 50 trains weekdays/30 weekends
- Amtrak: future service to MIC for 2 trains daily
- CSX: 6 to 8 freight trains daily

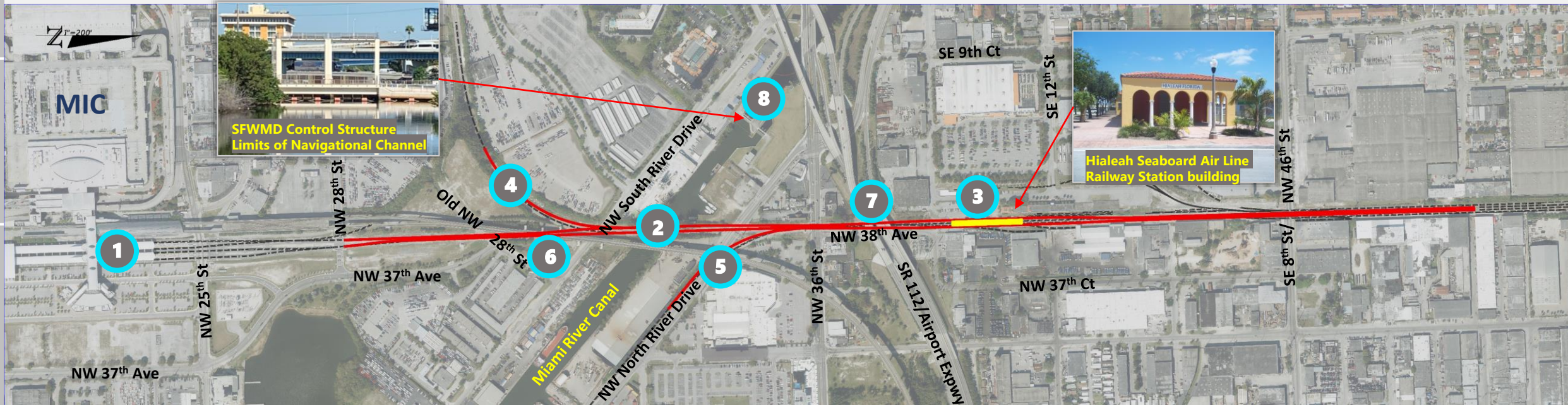
Improve Tri-Rail Travel Time and Schedule Adherence



PROJECT OVERVIEW

Project Location Map

- 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



PROPOSED IMPROVEMENTS

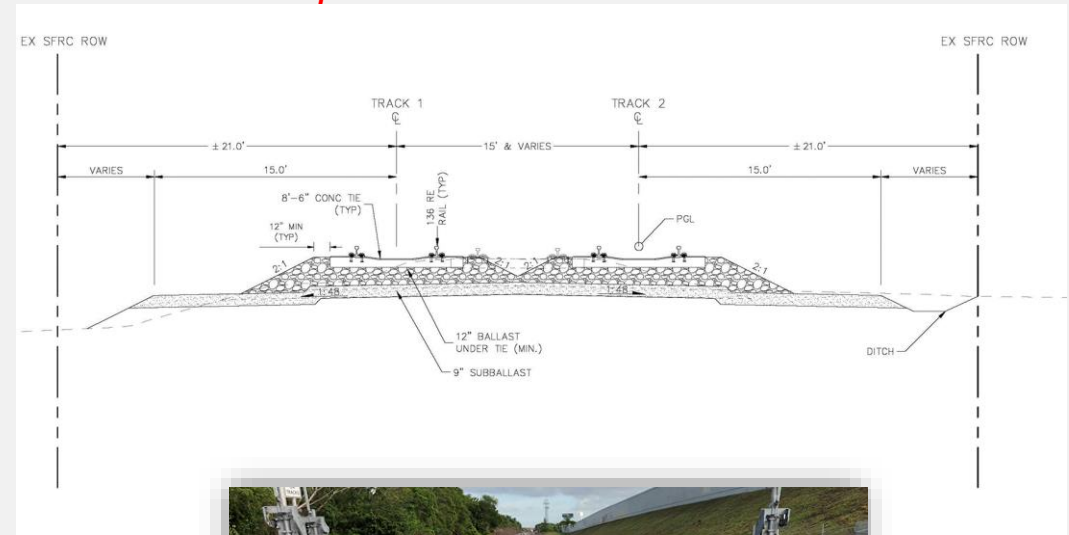
PROPOSED RAILROAD TRACKS

Addition of a second mainline track for adding capacity to SFRC

Existing Single Track



Proposed Double Track



PROPOSED IMPROVEMENTS

PROPOSED 400-FT CENTER PLATFORM

Existing Station – West Side Platform

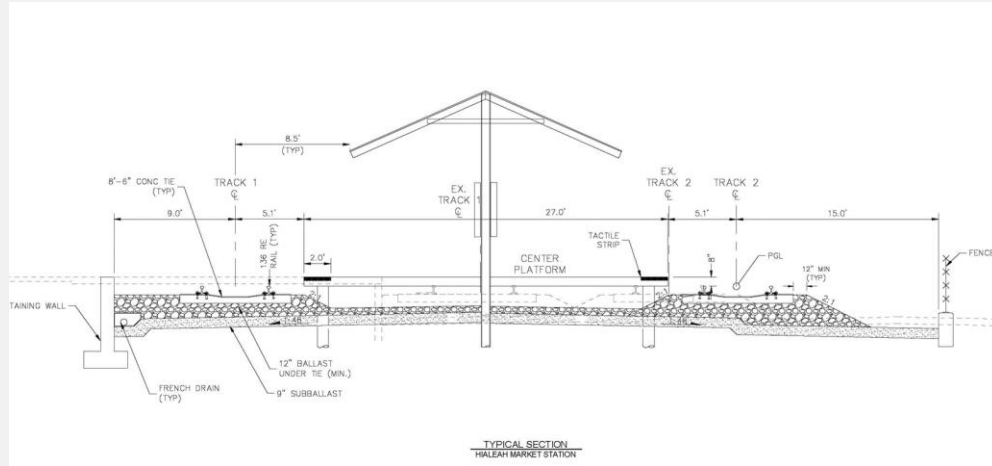


Proposed Station – Center Platform

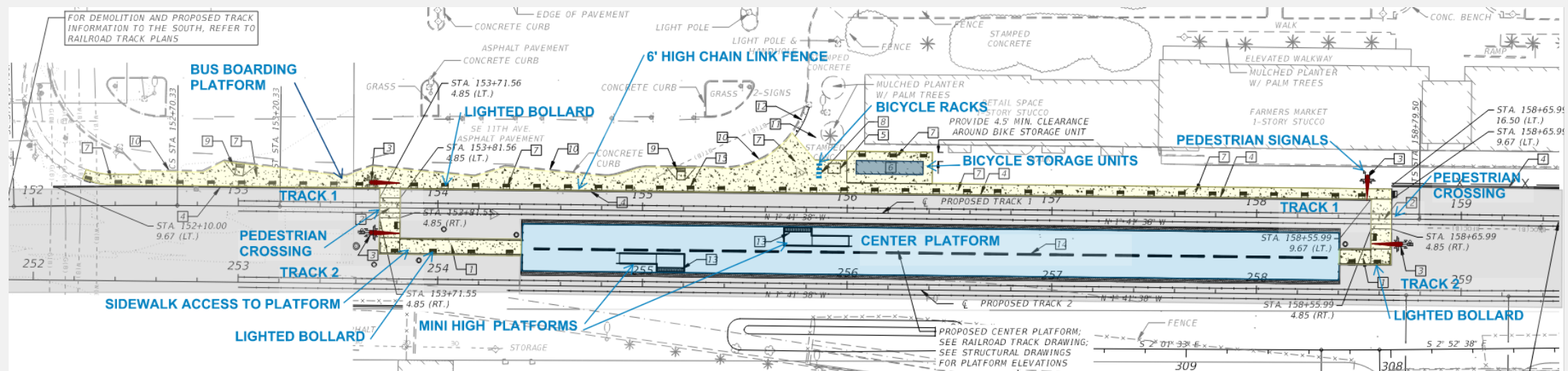


PROPOSED IMPROVEMENTS

PROPOSED 400-FT CENTER PLATFORM



Center Platform Plan View



Introduction

Project Overview

Proposed Improvements

Budget/Schedule

Close

PROPOSED IMPROVEMENTS

BRIDGE OVER MIAMI RIVER

Replace single track bascule bridge with two fixed railroad bridges over Miami River

Existing Single Track Bascule Bridge



Proposed – Two single track fixed bridges



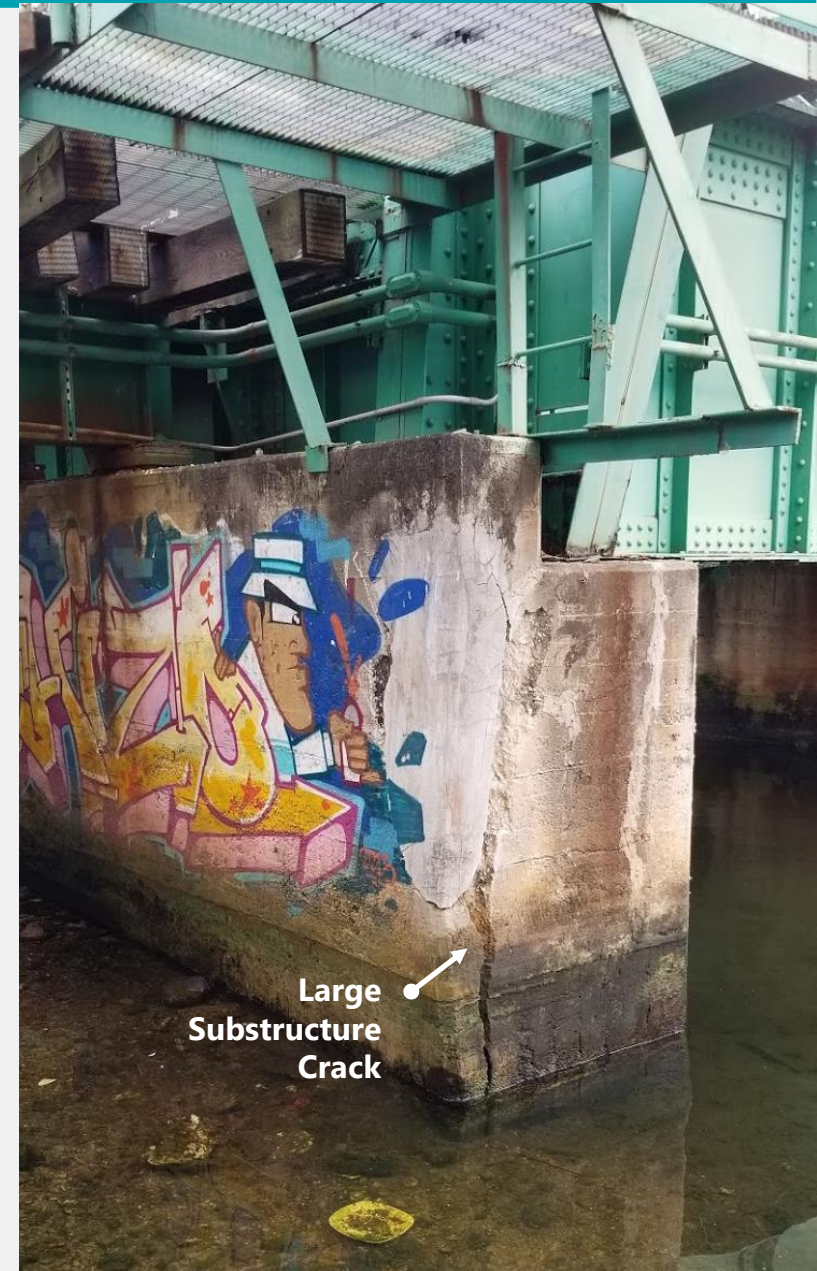
PROPOSED IMPROVEMENTS

REPLACE EXISTING BASCULE BRIDGE

- Built in 1926
- 114'-6" Single Leaf Scherzer Rolling Lift
- 196'-4½" Total Bridge Length
- 55'-0" Navigation Channel

Existing Bridge Conditions

- Paint failure and significant steel corrosion
- Cracked and spalled substructure
- Damaged miter rails
- Mechanical/Electrical
 - No electrical control system
 - Aged and overloaded machinery
 - Requires team of maintenance staff to operate



PROPOSED IMPROVEMENTS

DEAUTHORIZATION OF NAVIGATIONAL RIGHTS

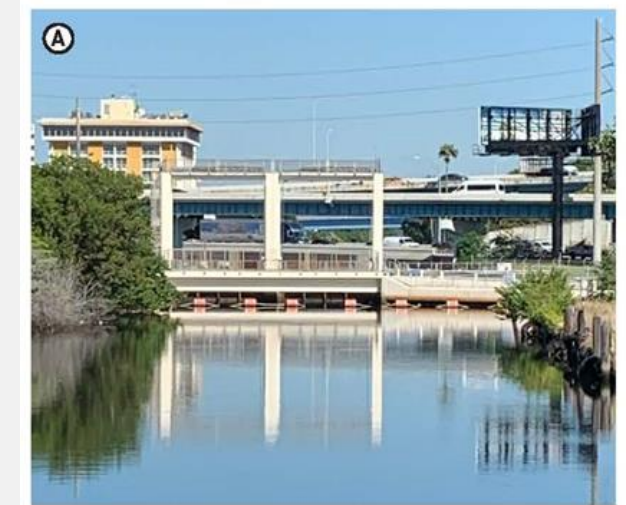
- Deauthorization of navigational rights of Federal Project canal approved in December 2020 by U.S. Congress under Water Resource Development Act (WRDA)
- Defined the Miami River Canal as non-navigable from the existing bridge to the upstream SFWMD S-26 salinity barrier and flood control structure

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>

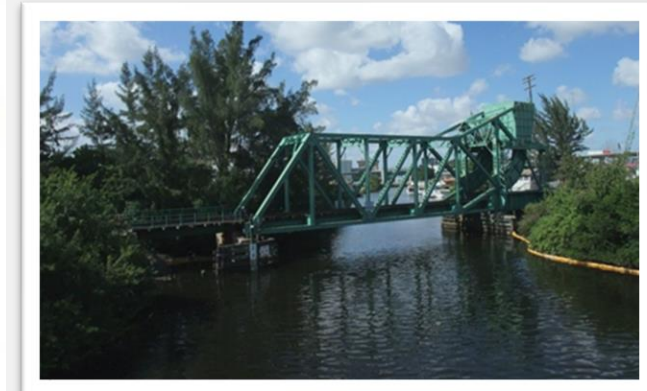
3 SEC. 325. MIAMI RIVER, FLORIDA.

4 The portion of the project for navigation, Miami River,
 5 Florida, authorized by the Act of July 3, 1930 (46 Stat.
 6 925; 59 Stat. 16; 74 Stat. 481; 100 Stat. 4257), beginning
 7 at the existing railroad bascule bridge and extending ap
 8 proximately 1,000 linear feet upstream to an existing salin
 9 ity barrier and flood control structure, is no longer author
 10 ized beginning on the date of enactment of this Act.

FIGURE 1 MR-MICCI PROJECT LOCATION MAP



SFWMD S-26 Control Structure



Existing Bascule Bridge

PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

Replace single track bascule bridge with two fixed railroad bridges over Miami River

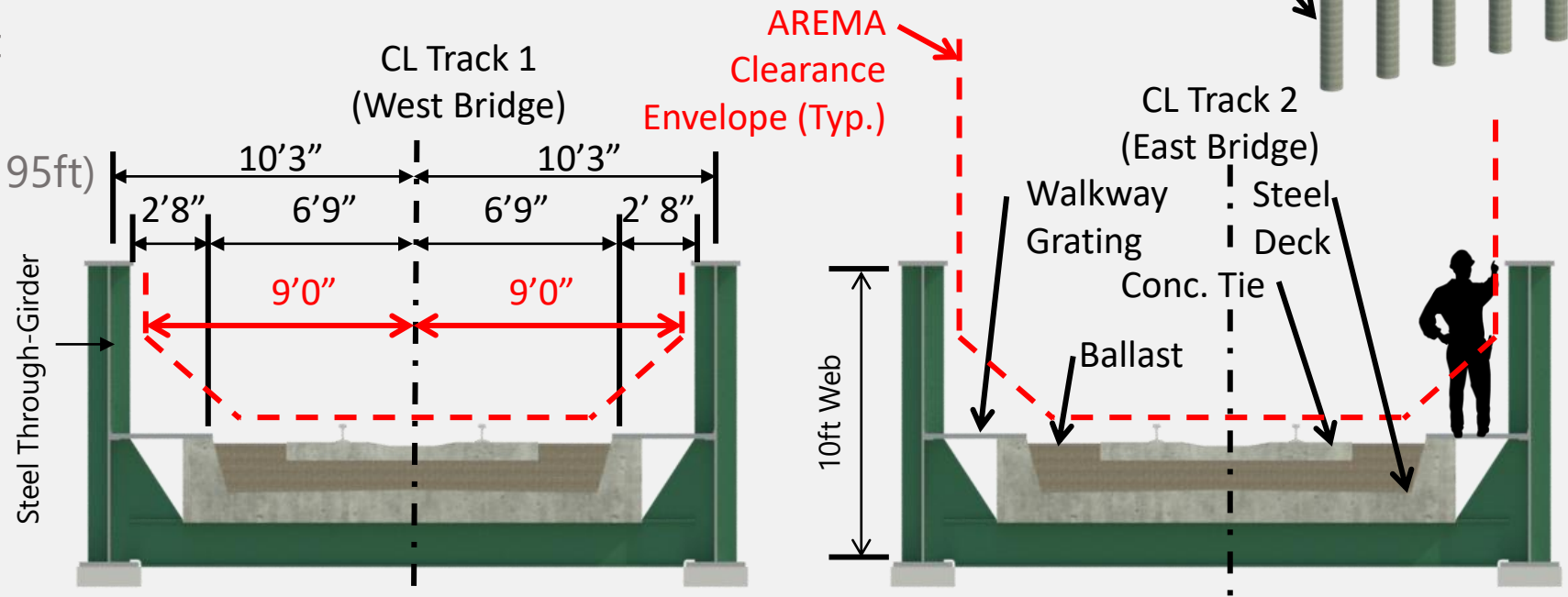
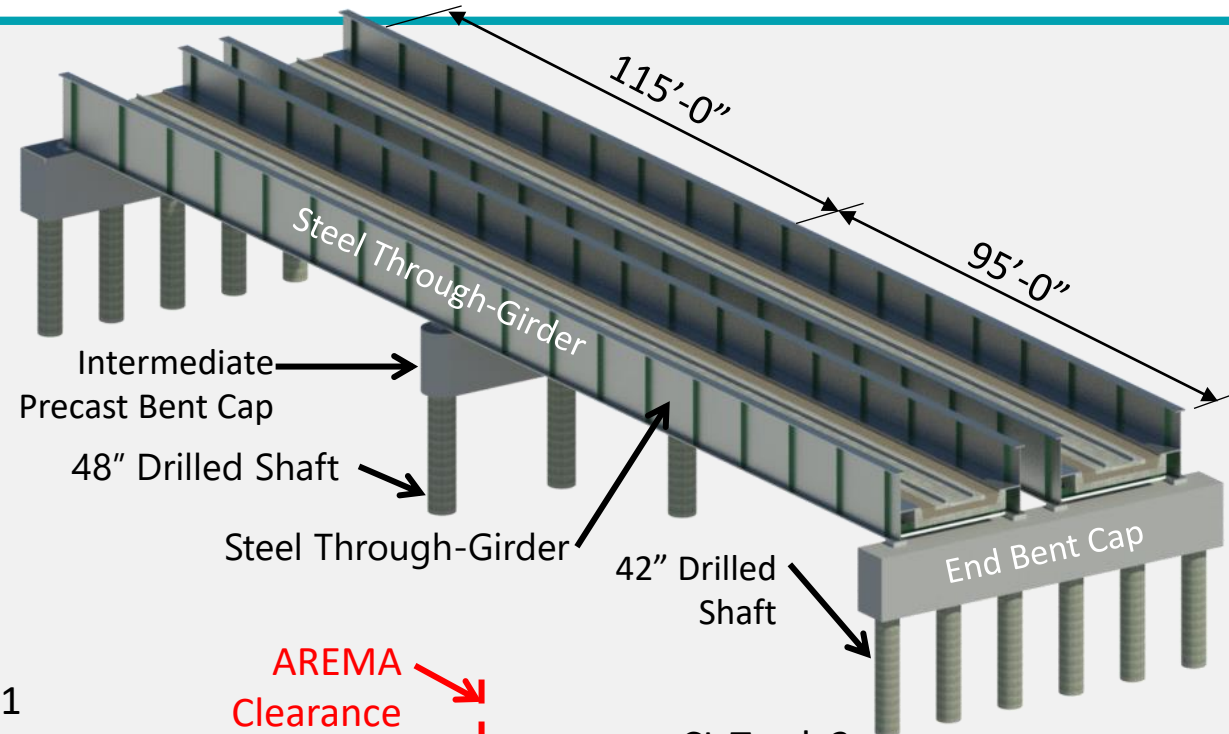
- Two parallel bridges
- CSX preferred details
- AREMA design criteria

Substructure

- Cast-in-place concrete caps construction
- Designed for vessel impact

Superstructure

- Two simple spans (115ft & 95ft)
- Steel through-girders
- Ballast steel deck plate
- Steel grating walkway
- Meets AREMA clearances



Typical Section

PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

Photo of single-track railroad fixed bridge with steel through-girders

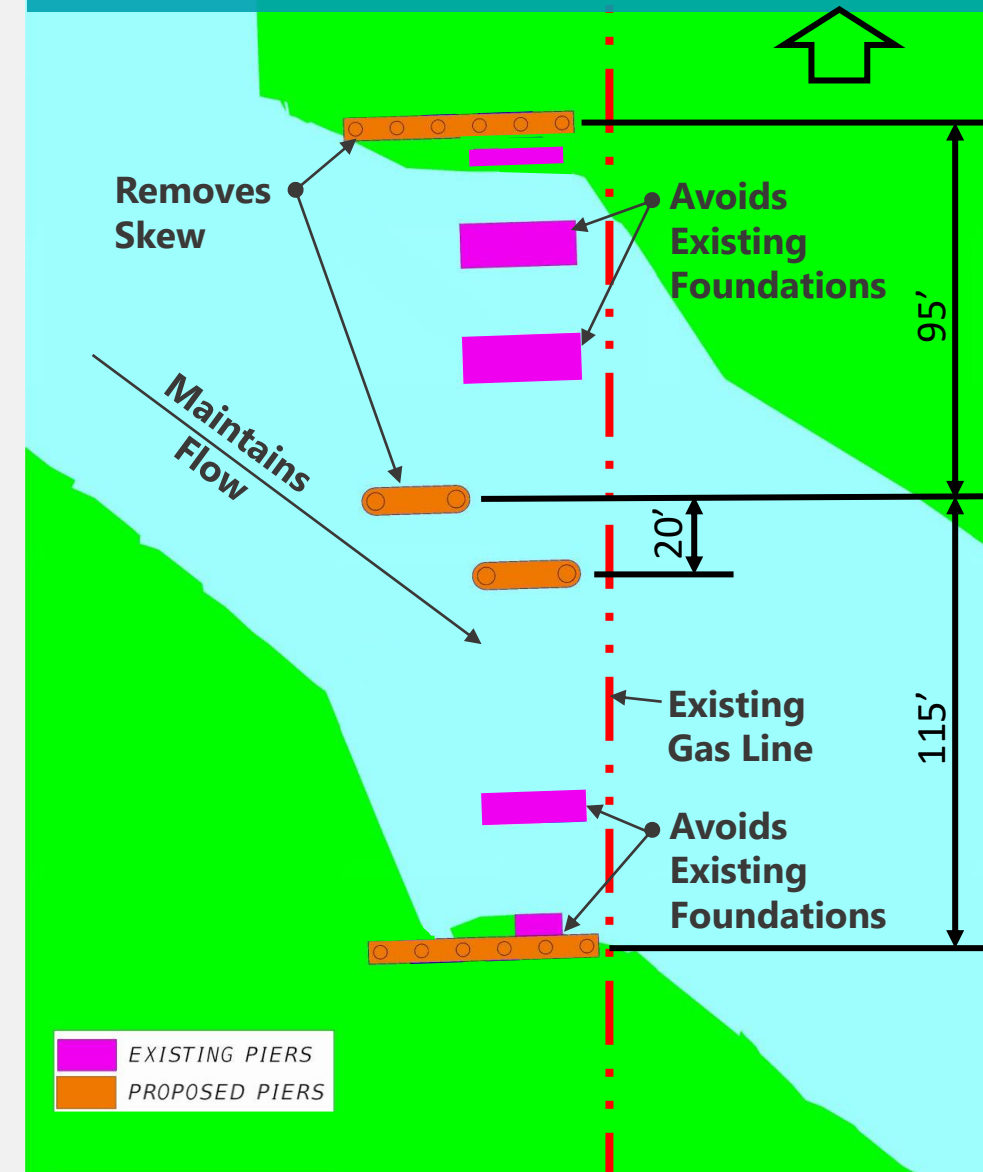


PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

- Eliminates Pier Line
 - Reduces to a 2-span structure
- Maximizes Distance From Existing Piers
 - New bents avoid all existing foundations
 - Minimizes construction impacts to existing piers
 - Avoids full removal of existing foundation
 - New foundation installed in undisturbed soil
- Removes Skew - Simpler details, preferred by CSX
 - Drilled Shaft Placement
 - Shafts located directly beneath girder
 - 8 less drilled shafts to be installed in river
 - Bent stagger allows shafts to be spaced at 3D
- Maintains Hydraulic Conveyance
 - Staggered bents align with river flow improving existing hydraulic opening

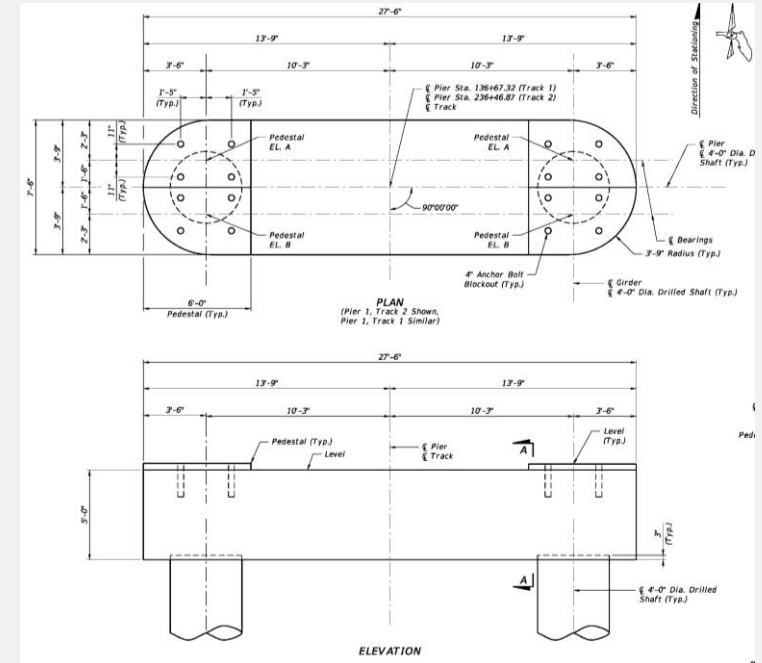
Substructure Layout



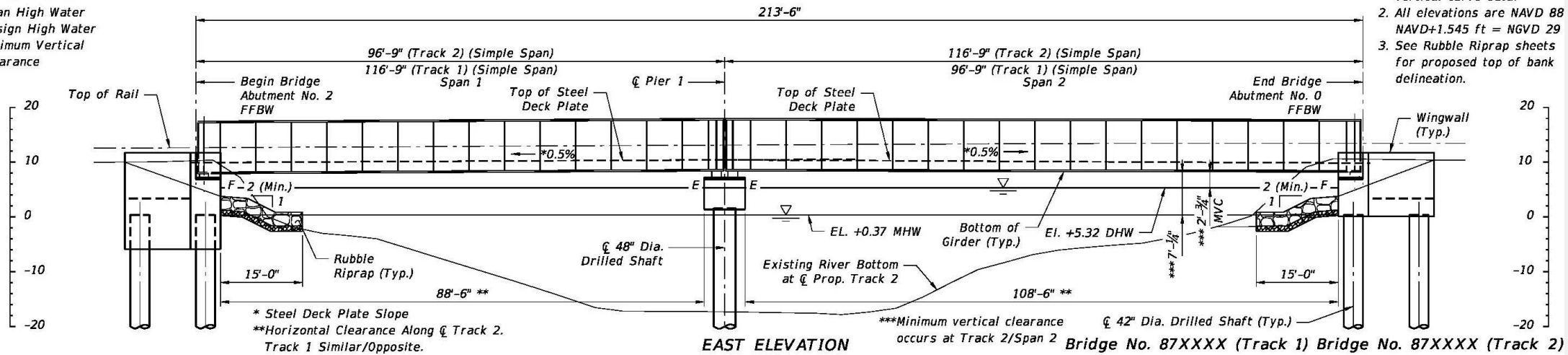
PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

- Low-Level Bridge (2-ft above MHW)
- Steel through-girders
 - Painted per owner/maintaining agency
 - Protective coating due to aggressive environment
- Rounded pier caps for bents in water
 - Deflects for minimal vessel collision (empty barge)



- LEGEND**
- ⊕ Boring Location
 - MHW Mean High Water
 - DHW Design High Water
 - MVC Minimum Vertical Clearance



1. See Foundation Layout Sheet for top of rail vertical curve data.
2. All elevations are NAVD 88 NAVD+1.545 ft = NGVD 29
3. See Rubble Riprap sheets for proposed top of bank delineation.

* Steel Deck Plate Slope
 **Horizontal Clearance Along \bar{C} Track 2. Track 1 Similar/Opposite.

***Minimum vertical clearance occurs at Track 2/Span 2

Bridge No. 87XXXX (Track 1) Bridge No. 87XXXX (Track 2)

PROPOSED BRIDGE OVER MIAMI RIVER

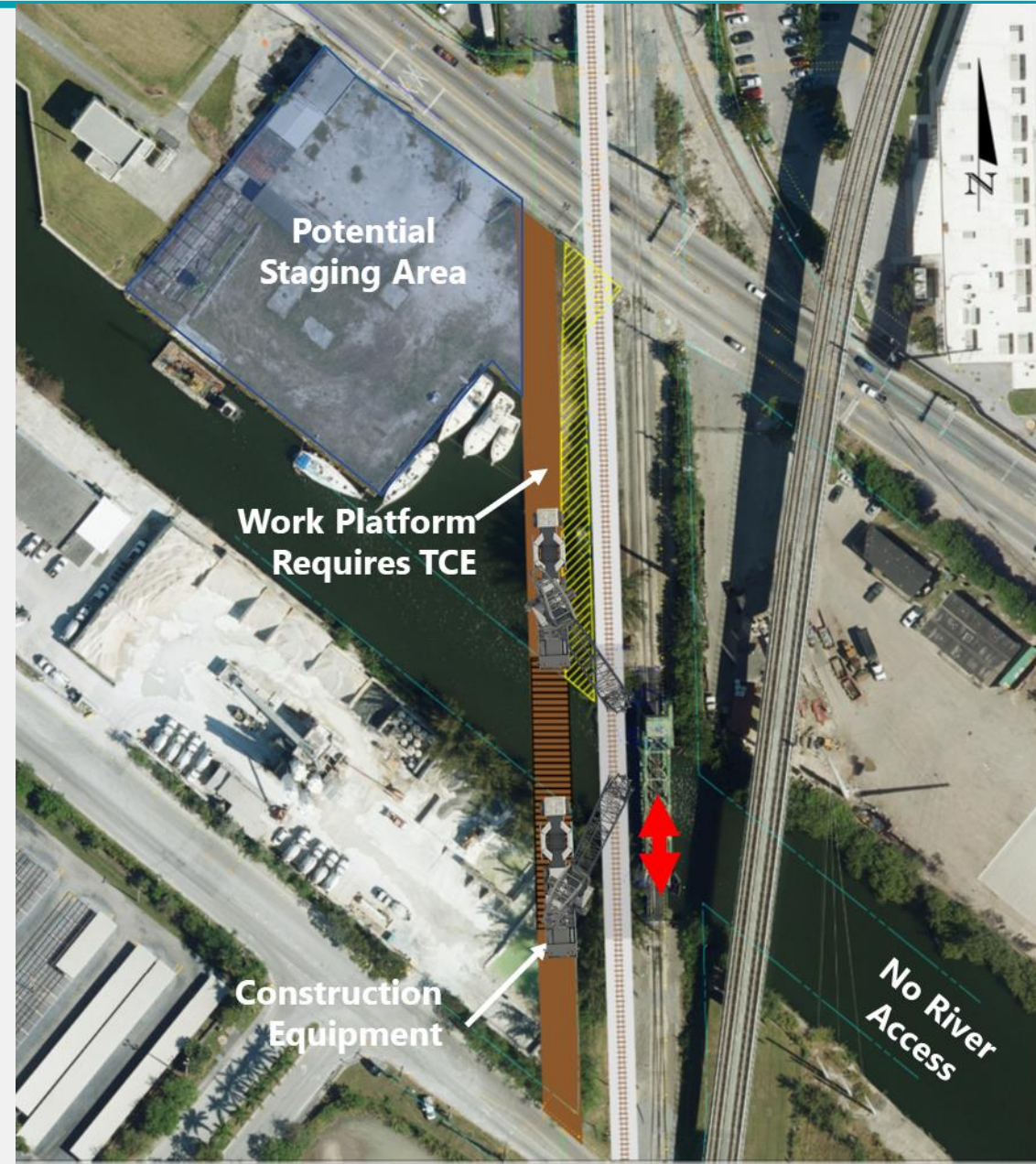
- Navigational Lights for safety for smaller recreational vessels at piers and 1/4 points of spans



PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

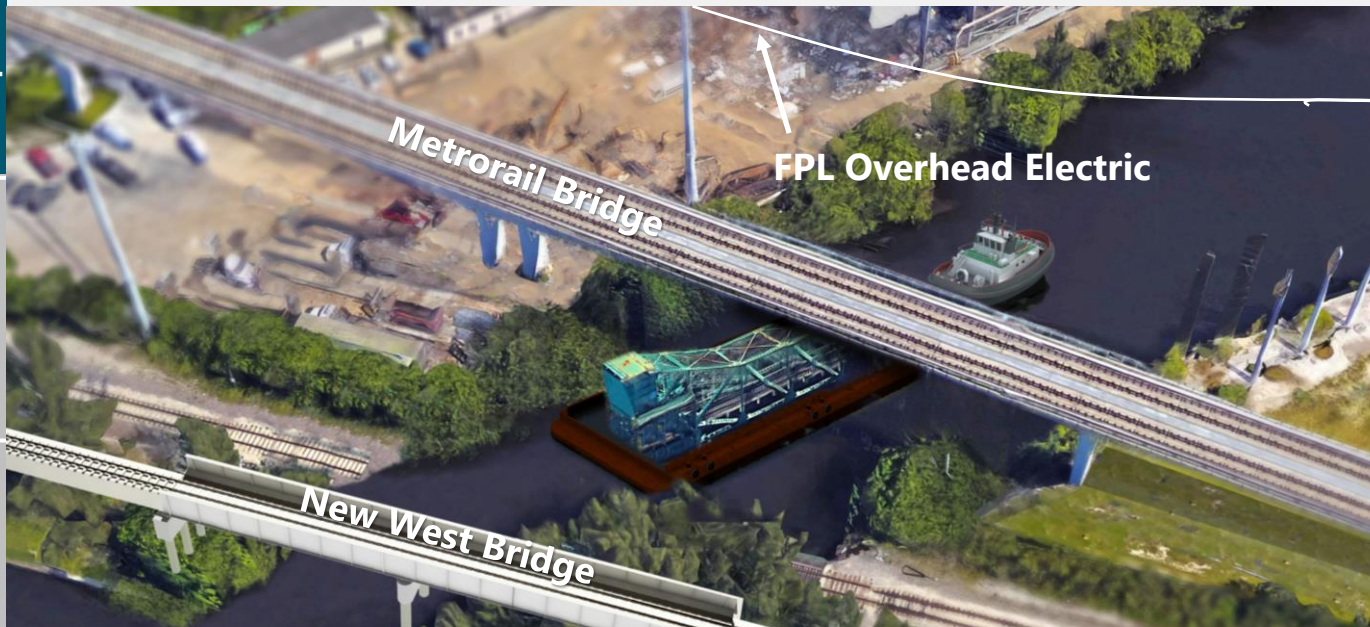
- Construction Sequence Phase 1 - West Bridge
 - Work platform recommended for access to new west bridge
 - Maintain train traffic on existing bridge
 - All access separated from existing bridge
 - Barge from west would be landlocked



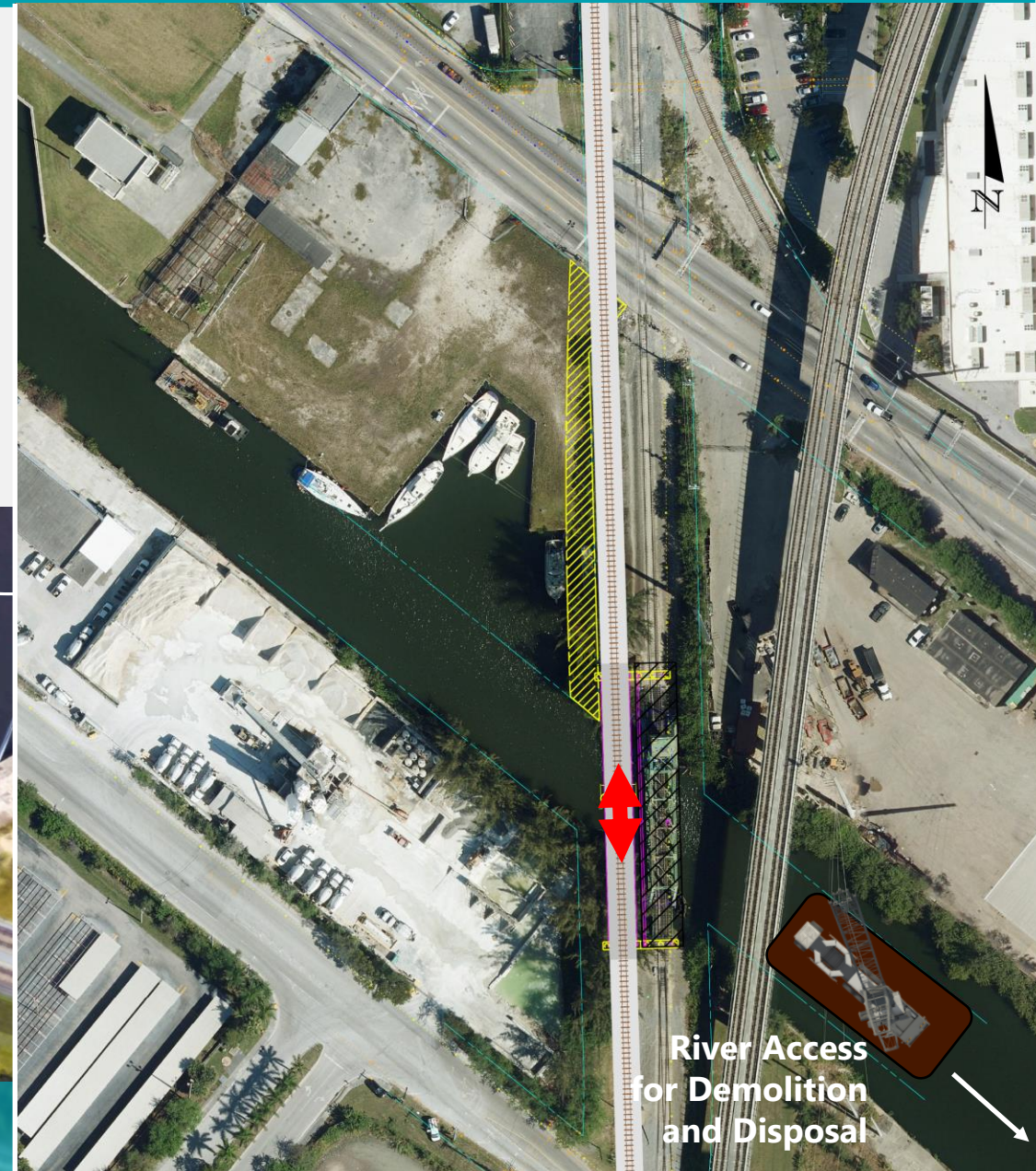
PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

- Construction Sequence Phase 2A – Demolition
 - Shift railroad traffic to new west bridge
 - Demolish existing bascule bridge from barges
 - Float out bascule leaf in one piece
 - Existing foundations can be cut off at mudline (cofferdams not needed for containment)



Float Out Bascule Demolition

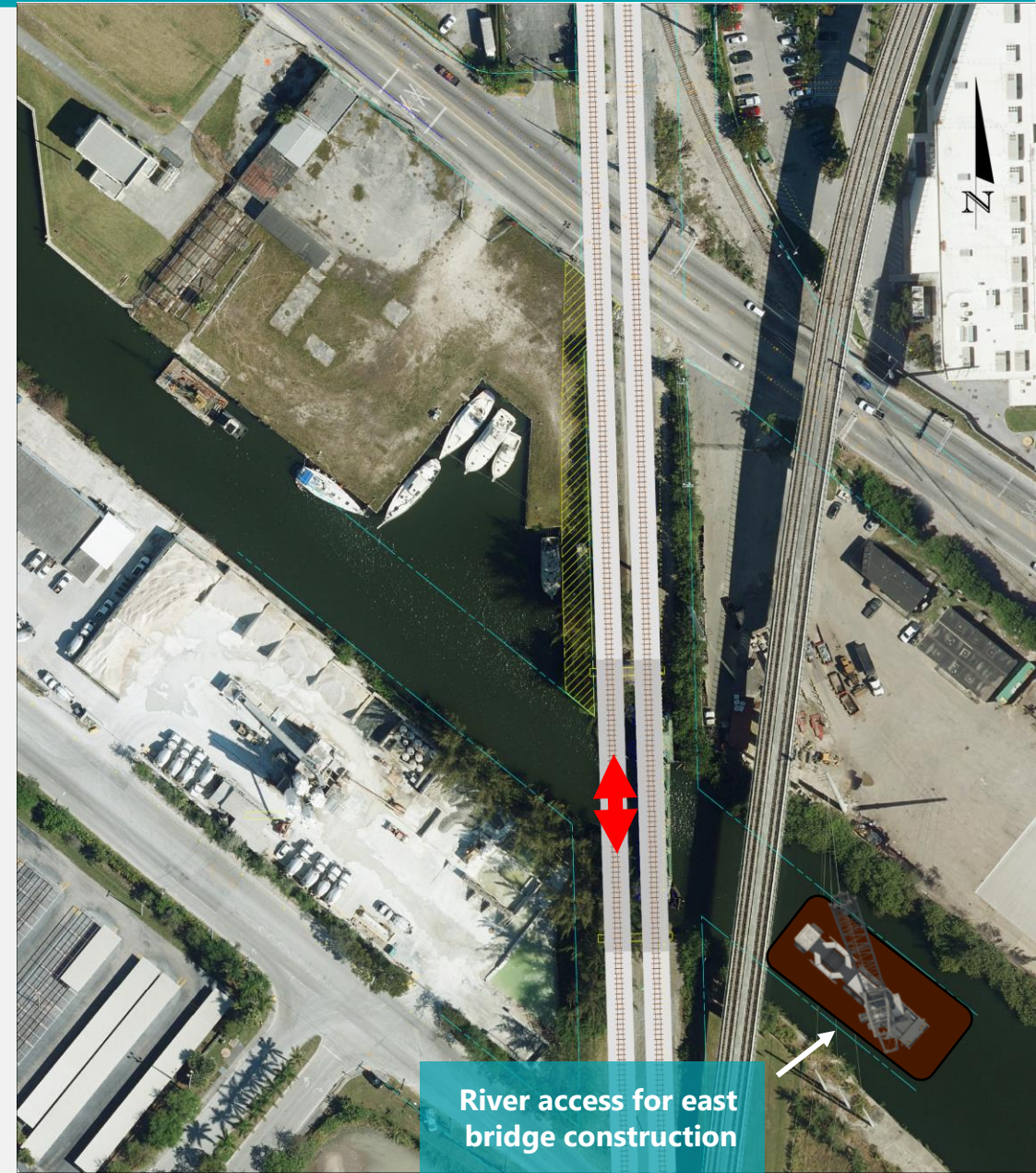


River Access for Demolition and Disposal

PROPOSED IMPROVEMENTS

PROPOSED BRIDGE OVER MIAMI RIVER

- Construction Sequence Phase 2B – East Bridge
 - Maintain railroad traffic on new west bridge
 - Use barges to construct east bridge
 - Maintain clearance from existing Metrorail bridge
 - Avoid or minimize impacts to utilities

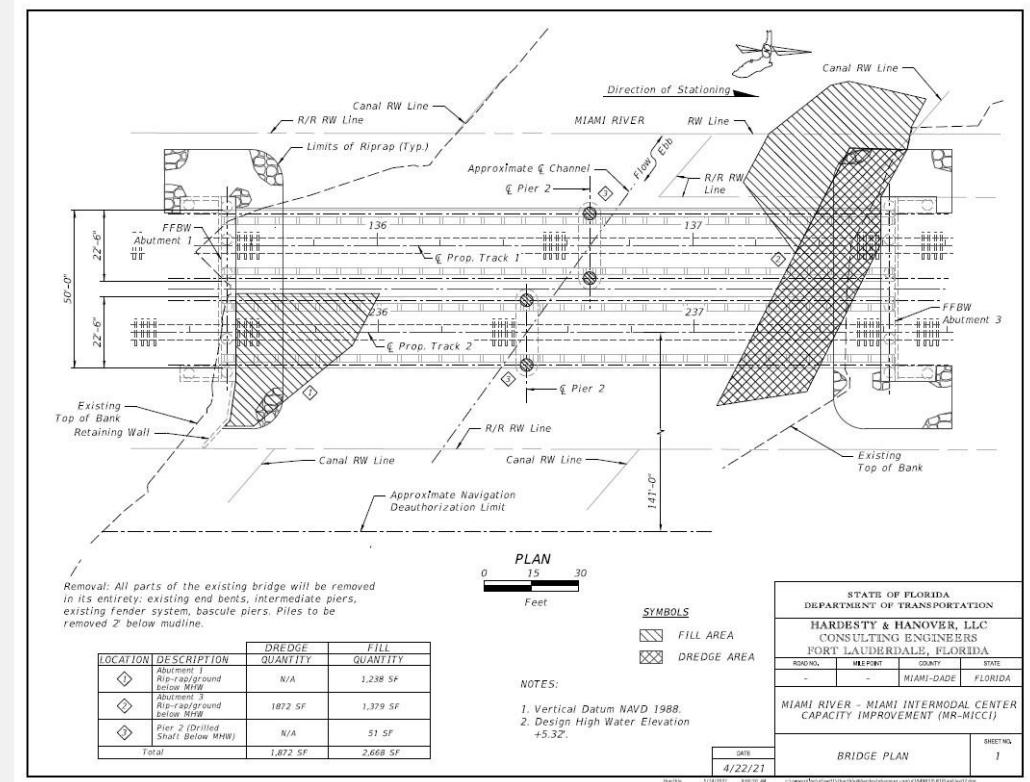
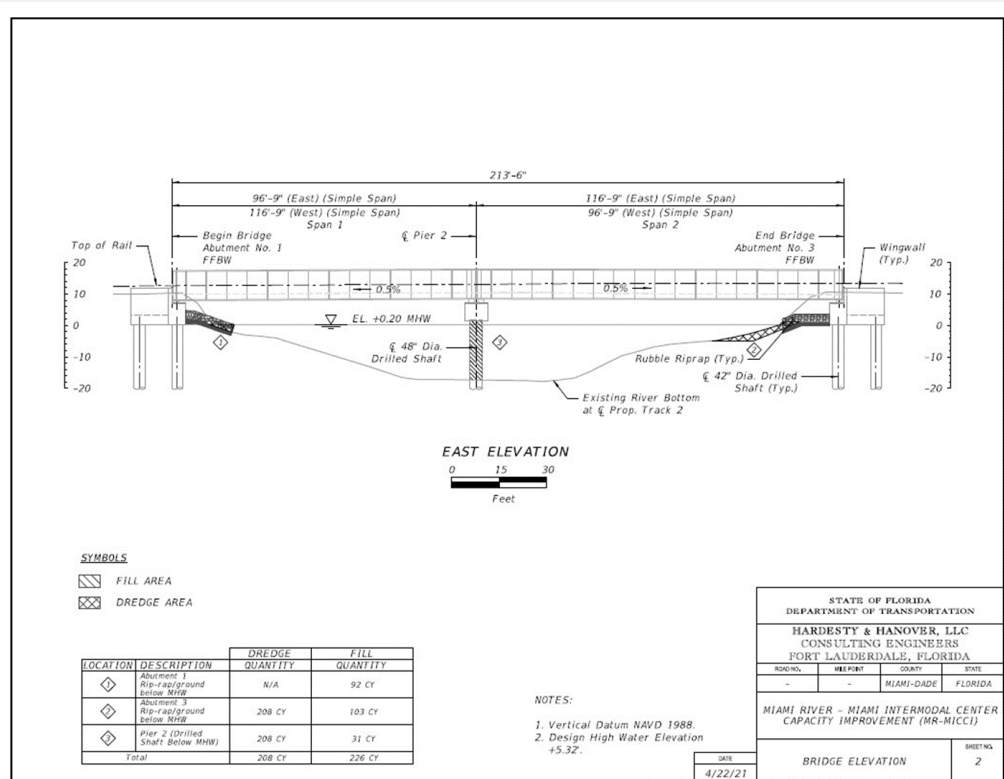


River access for east bridge construction

PROPOSED IMPROVEMENTS

ENVIRONMENTAL & PERMITTING:

- Dredge and Fill
 - 0.20 acres only within the Miami River Canal
 - USACE Section 404 Permit
 - Project qualifies for Nationwide 14 Permit



PROPOSED IMPROVEMENTS

ENVIRONMENTAL & PERMITTING:

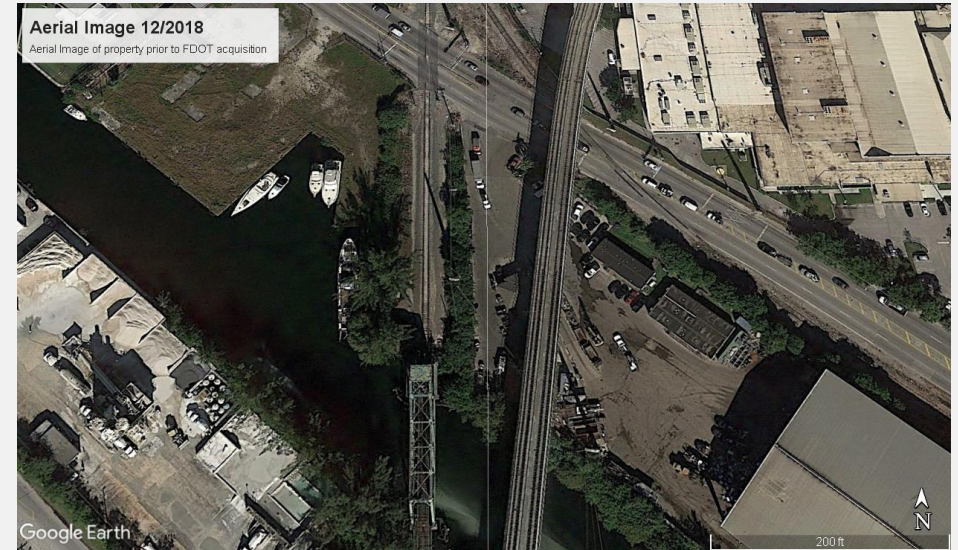
- USCG Bridge Permit
 - Conducted a navigation (vessel) survey
 - Permit under review
 - Public notice is out

- USACE 408 Review not required

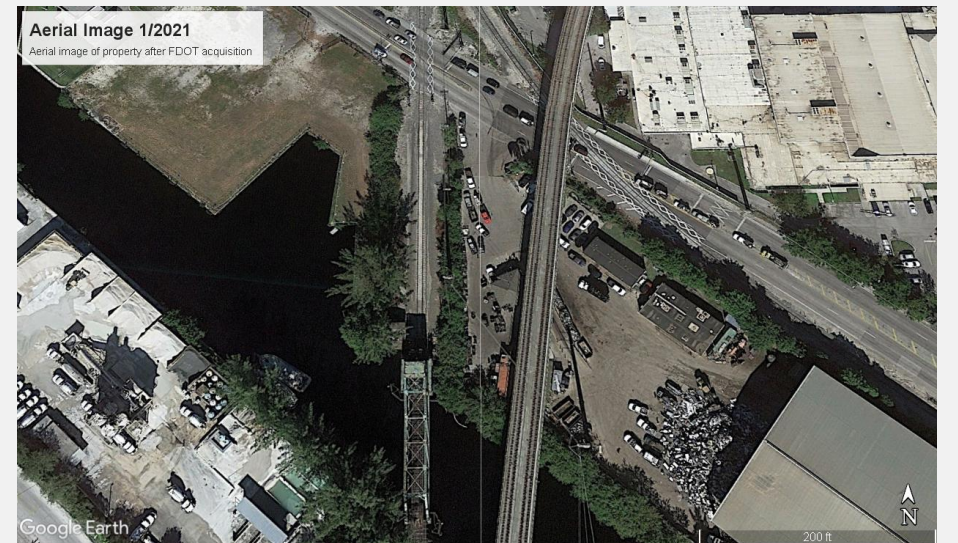
- SFWMD
 - Right-of-Way Occupancy (ROW) Permit Issued (Feb. 15, 2022)
 - ERP

- Miami-Dade County RER Class I and Class VI Permits

- FDEP NPDES (by contractor)



Aerial Photo at Bridge 2018

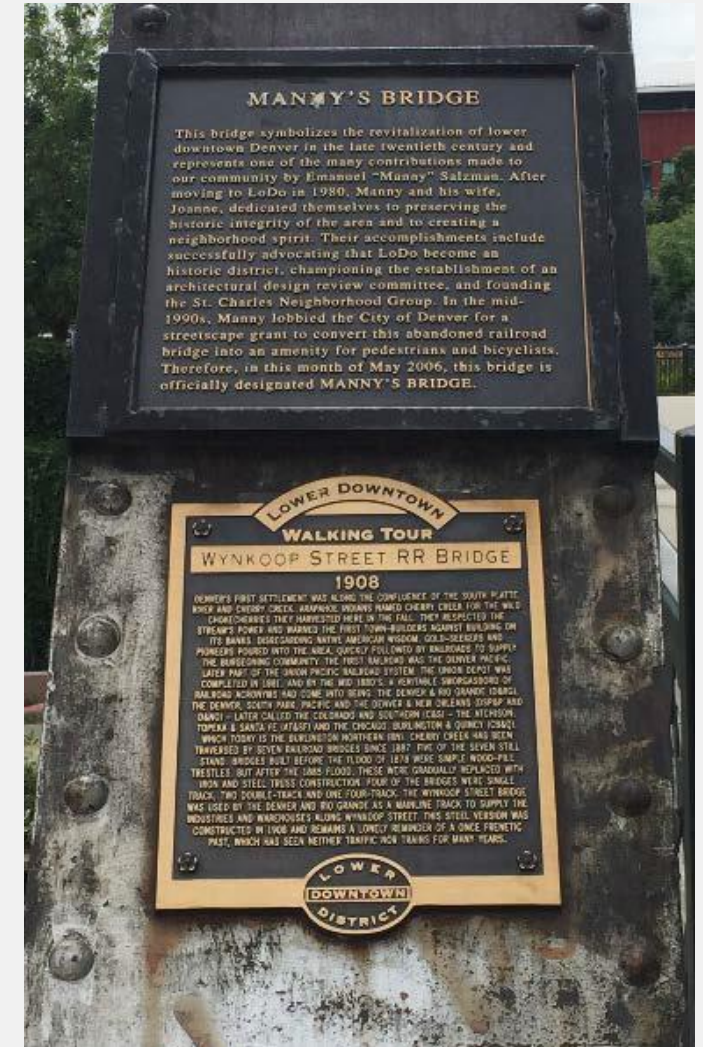


Aerial Photo at Bridge 2021

PROPOSED IMPROVEMENTS

ENVIRONMENTAL & PERMITTING: Section 106 (NEPA)

- National Historic Preservation Act (NHPA) requires federal agencies to consider effects on historic properties
 - Existing bridge is protected as National Register of Historic Places (NRHP)—Eligible Resource
- Memorandum of Agreement (signed January 2018) among:
 - Federal Transit Administration (FTA)
 - SFRTA
 - FDOT
 - Florida State Historic Preservation Officer (SHPO)
- Stipulations
 - Compliance with project description—no changes shall be made to the project without consultation with FTA, FDOT, and SHPO
 - Documentation of the CSXT Railroad Bridge
 - CSXT Railroad Bridge Public Recognition and Education- a Florida Historical Marker



PROJECT BUDGET

COST ESTIMATE AND FUNDING

- COST ESTIMATES AND FUNDING AMOUNTS
 - Preliminary Engineering Funding: \$5.2M
 - Right-of-Way Estimate: \$19.6M
 - Construction Cost Estimate: \$48M
 - Construction Support Funding: \$6.3M
- FUNDING TYPE
 - State (FDOT)- currently, only state funds committed (Construction & Right of Way acquisition partially funded)
 - FDOT is seeking other funding opportunities through local funds (SFRTA) and federal grants

PROJECT SCHEULDE

- PD&E Completed (by SFRTA): January 2018
- Design Start: September 2019
 - Initial Engineering (30% Plans): May 2020
 - Constructability (60% Plans): December 2022
 - Permits: September 2023
 - Biddability (90% Plans): November 2023
 - Right of way: July 2024
 - Production: September 2024
- Construction
 - Anticipated Letting: 2025
 - Anticipated Construction Start: 2025



QUESTIONS