VENETIAN CAUSEWAY

(Venetian Way)

Project Development & Environment (PD&E) Study

FROM NORTH BAYSHORE DRIVE TO PURDY AVENUE

FM No. 422713-2-22-01

Efficient Transportation Decision Making (ETDM): 12756

Cultural Resources Committee (CRC)

Meeting No. 4 • May 20, 2020

Florida Department of Transportation - District 6

Cooperating Agencies

VENETIAN ISLANDS HISTORIC BRIDGES

FDOT

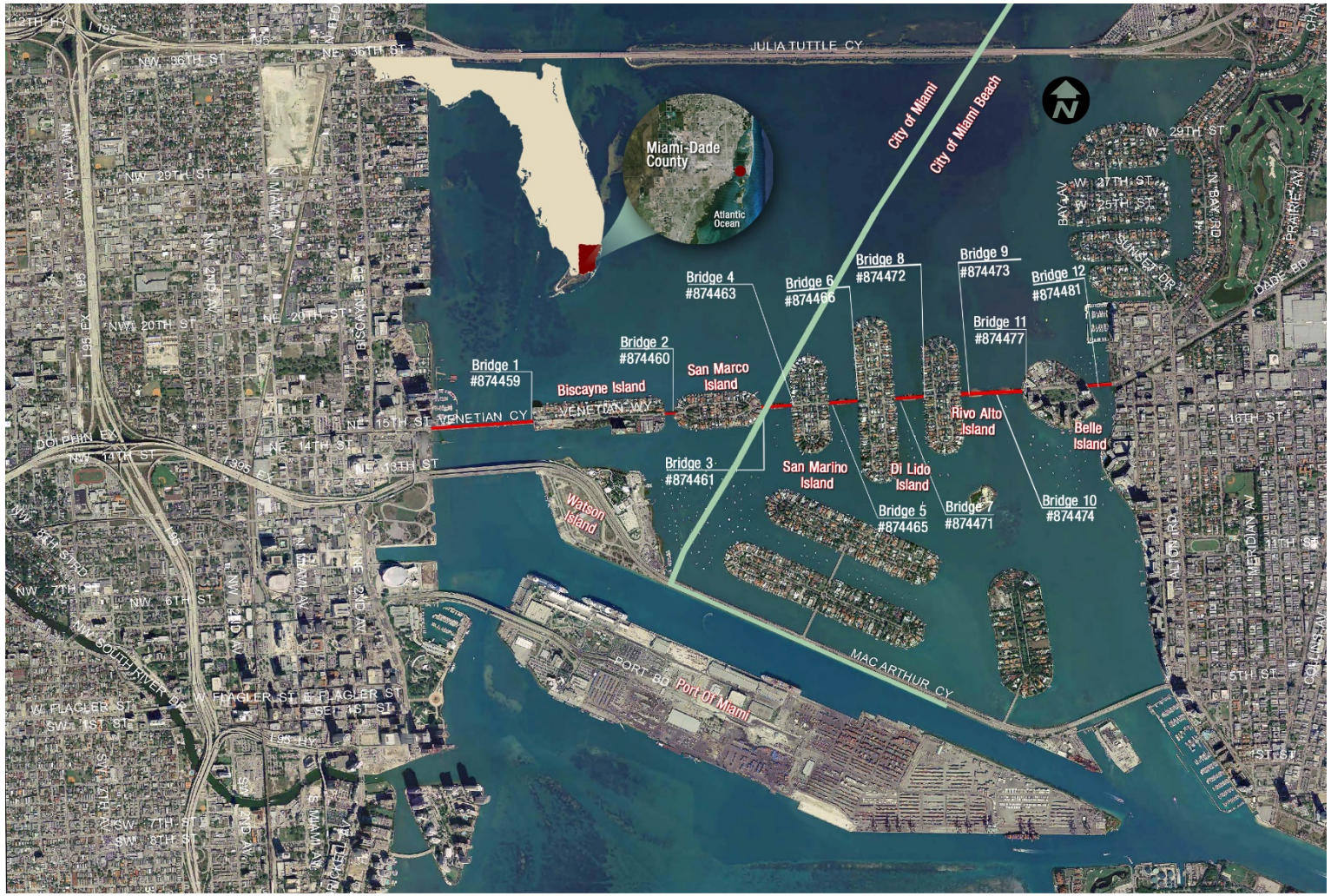
MIAMI-DADE COUNTY

Cooperating Agencies

US Army Corps of Engineers®

United States Coast Guard

Purpose and Need for Project



The purpose of the proposed project is to address identified structural and functional deficiencies of the twelve existing bridges (ten low-level fixed spans and two movable bascules), through potential alternatives such as no-build, replacement or rehabilitation.

Agenda

1. Project Status
2. Purpose of CRC
3. Preferred Alternative
4. Historic Resources
5. Discussion of Mitigation Measures
6. Section 106 Process
7. Next Steps

Class of Action (COA) Determination

- In **October 2016**, the Federal Highway Administration (FHWA) agreed the Project Development & Environment (PD&E) Study would proceed under the National Environmental Policy Act (NEPA).

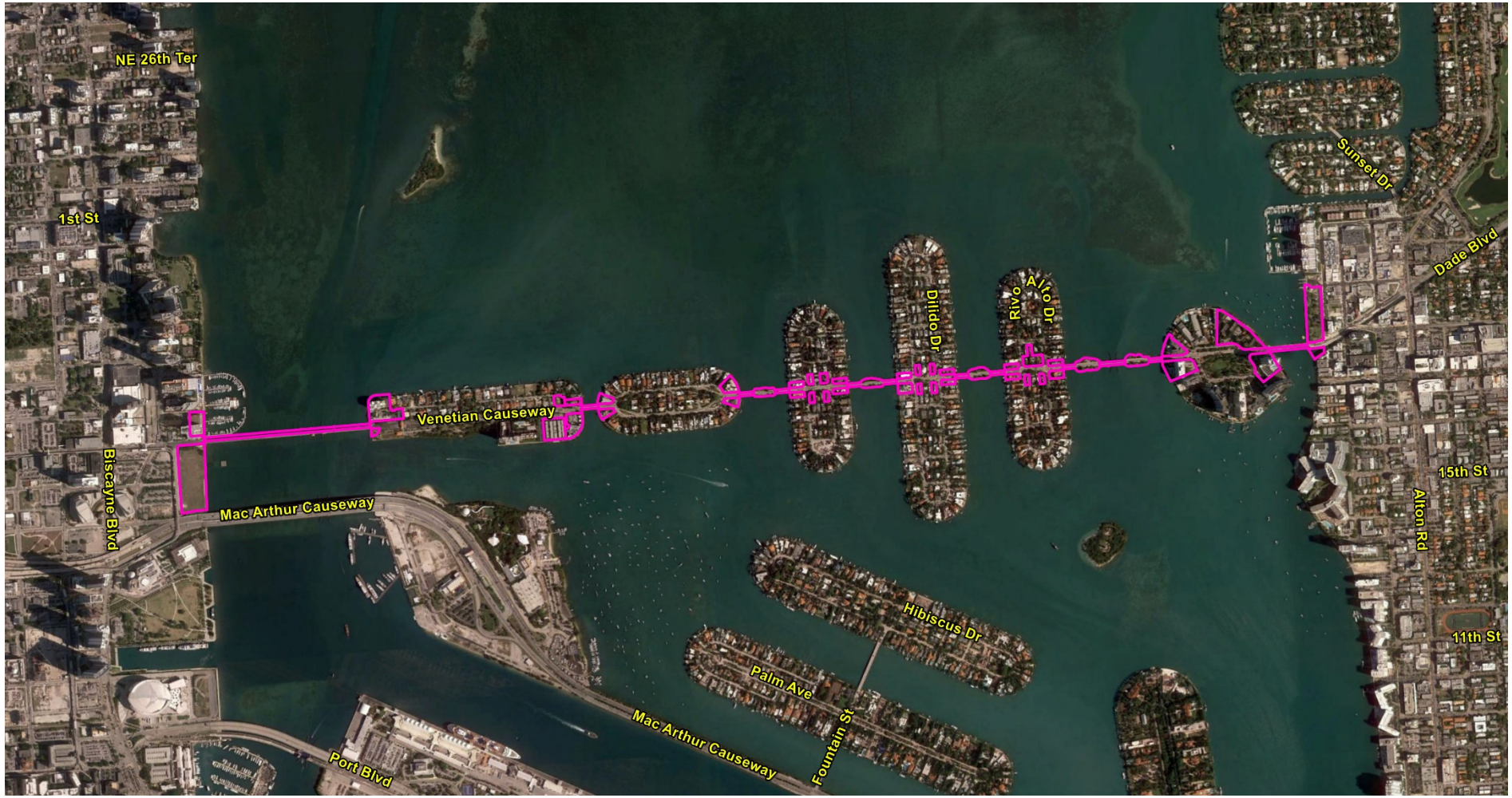
- Class of Action (COA) determination of **Environmental Assessment (EA)** was approved on **November 10, 2016**.

National Environmental Policy Act (NEPA) Assignment – Effective 12/14/2016

Pursuant to 23 United States Code (U.S.C.) 327, the Florida Department of Transportation (FDOT) has assumed Federal Highway Administration's (FHWA's) responsibilities under the National Environmental Policy Act (NEPA) for highway projects on the State Highway System (SHS) and Local Agency Program (LAP) projects off the SHS. In general, FDOT's assumption includes all highway and roadway projects in Florida whose sources of federal funding comes from FHWA or which constitute a federal action through FHWA. This includes responsibilities for environmental review, interagency consultation and other regulatory compliance-related actions pertaining to the review or approval of NEPA projects. Therefore, whereas FHWA was previously identified as the Lead Federal Agency, this function is now served by FDOT with approval authority resting in the Office of Environmental Management (OEM).

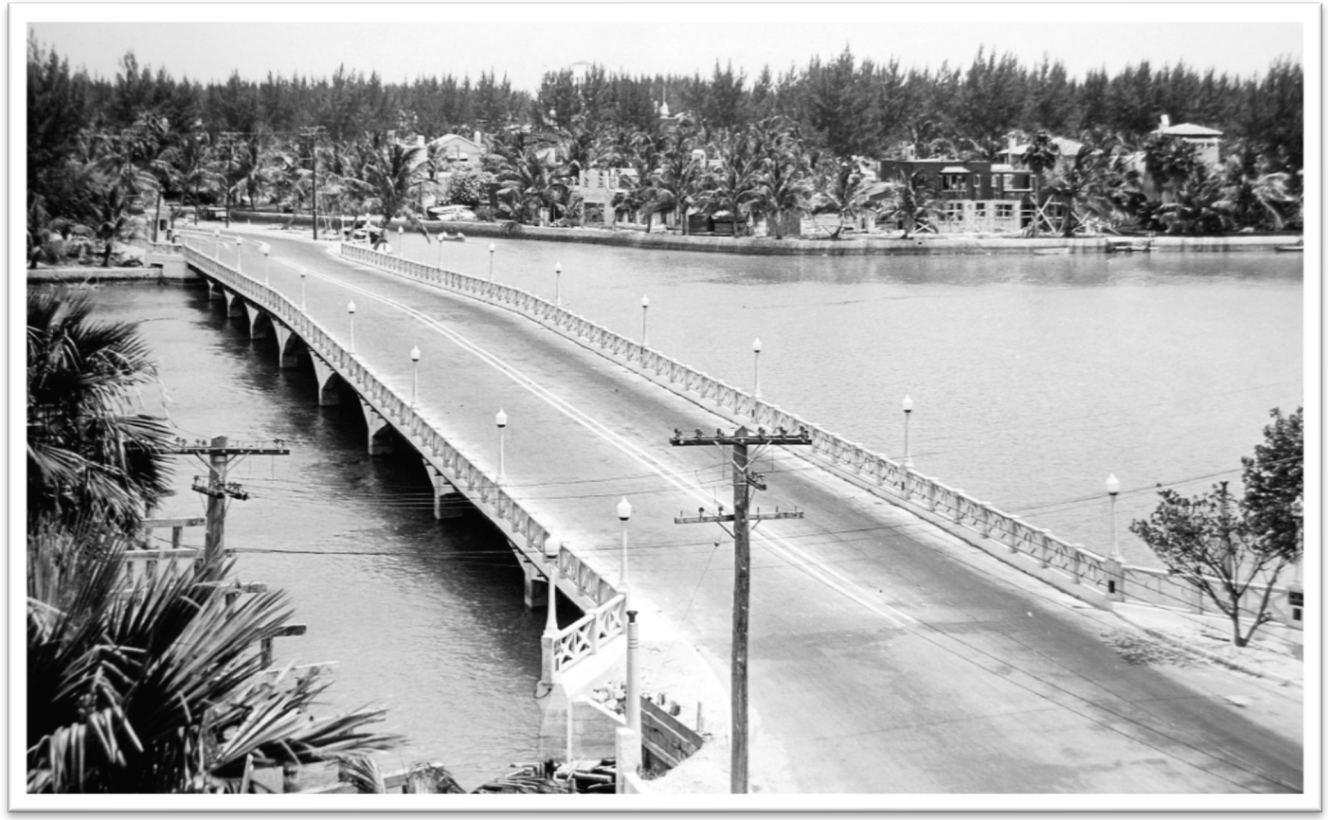
Purpose of the CRC – Background

Historic Resources - Area of Potential Effect (APE)



Purpose of the CRC – Background

Historic Resources – Venetian Causeway



- Constructed in 1926
- Oldest causeway in Florida
- Listed on the National Register of Historic Places (NRHP)
- Listed as Historic in the Cities of Miami and Miami Beach

Purpose of the CRC – Background

Historic Resources

Collins Canal

Built by John Collins in 1912, the canal is significant as the oldest remaining manmade structure within the City of Miami Beach; this is significant based on Community Planning and Development, Engineering, and Transportation.

Terrace Tower

This fourteen-story, Modern building was designed by Morris Lapidus and constructed by the Island Venetian Construction Company in 1961-1962; this building is significant based on its Architecture.

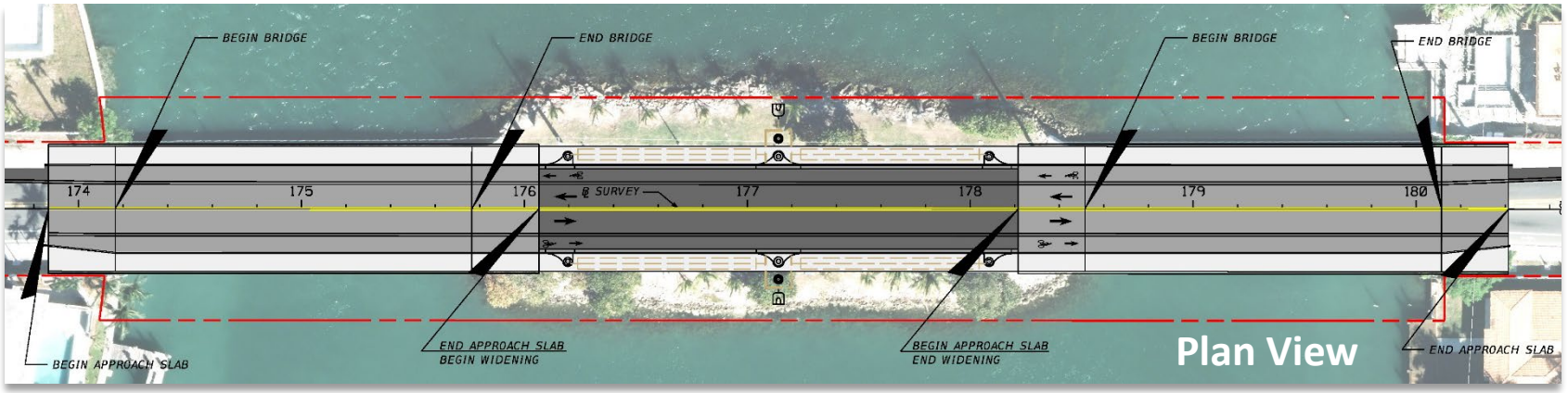
Preferred Alternative – Fixed Bridges

Alt. 7

Alt. 7 –Arch Beam

Estimated Cost : $43 - $47 Million

**High Range for Phased Construction*

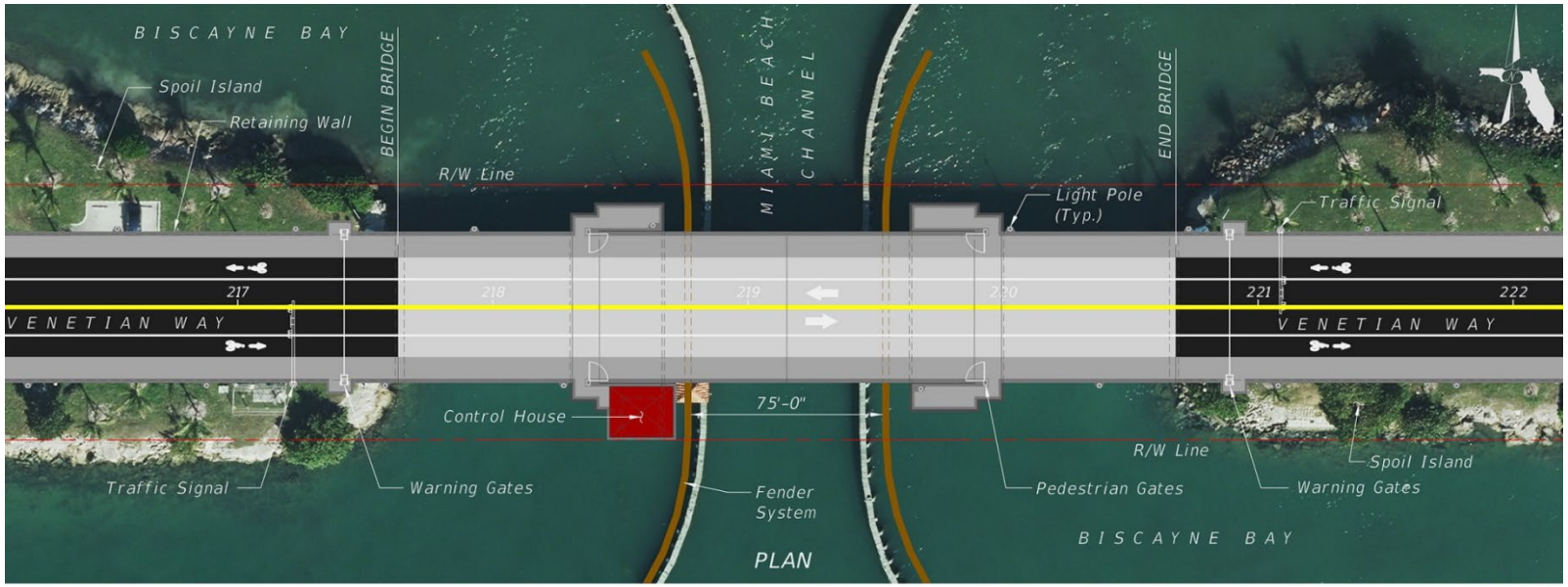


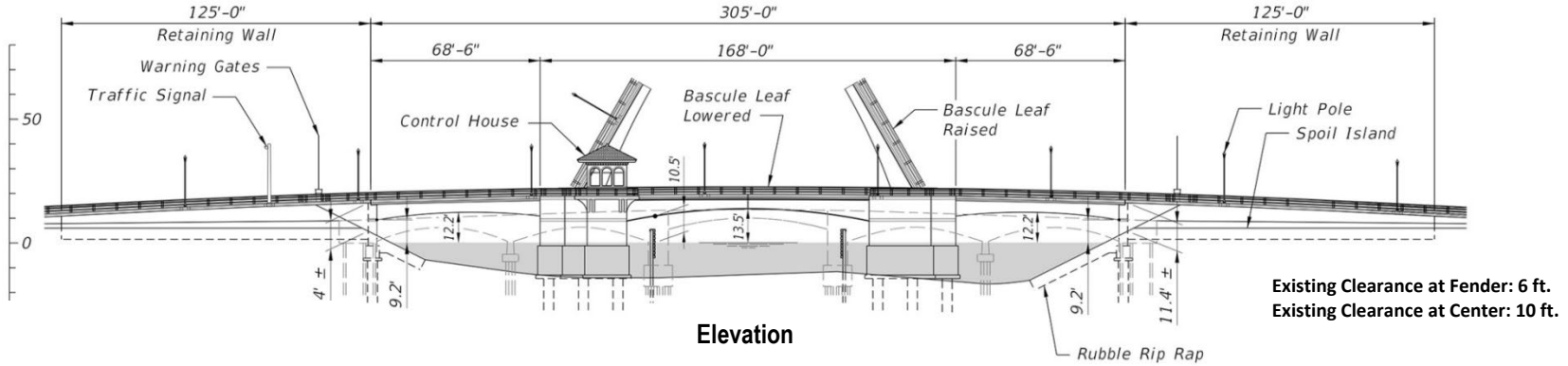
Preferred Alternative – Movable Bridge

Alt. M4

Alt. M4 – Double Leaf Bascule Bridge

Estimated Cost Range: $39 - $43 Million





Elevation

Existing Clearance at Fender: 6 ft.
Existing Clearance at Center: 10 ft.

Alt. M4

Preferred Alternative – Movable Bridge

Alt. M4 – Double Leaf Bascule Bridge

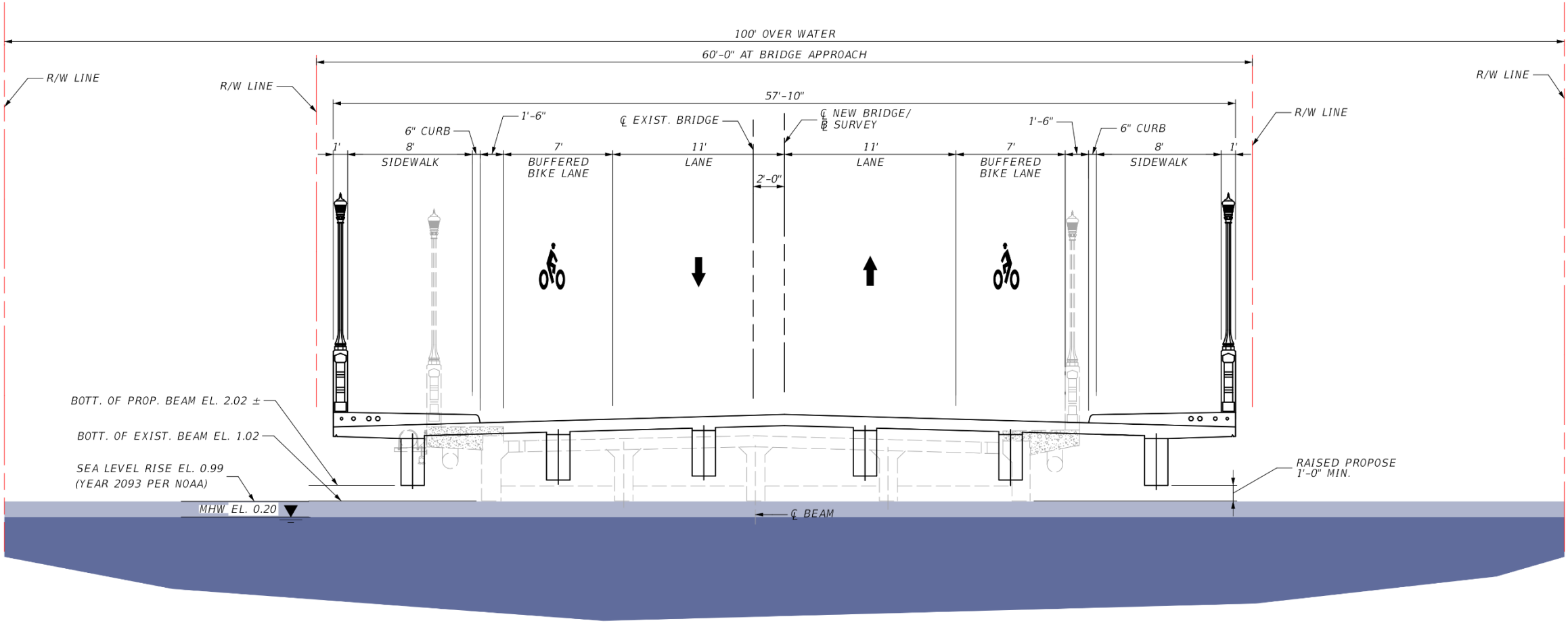
MOVABLE BRIDGE 10 ELEVATION

Preferred Alternative – Bridge Typical Section

Alt. T1 – Venetian Railing

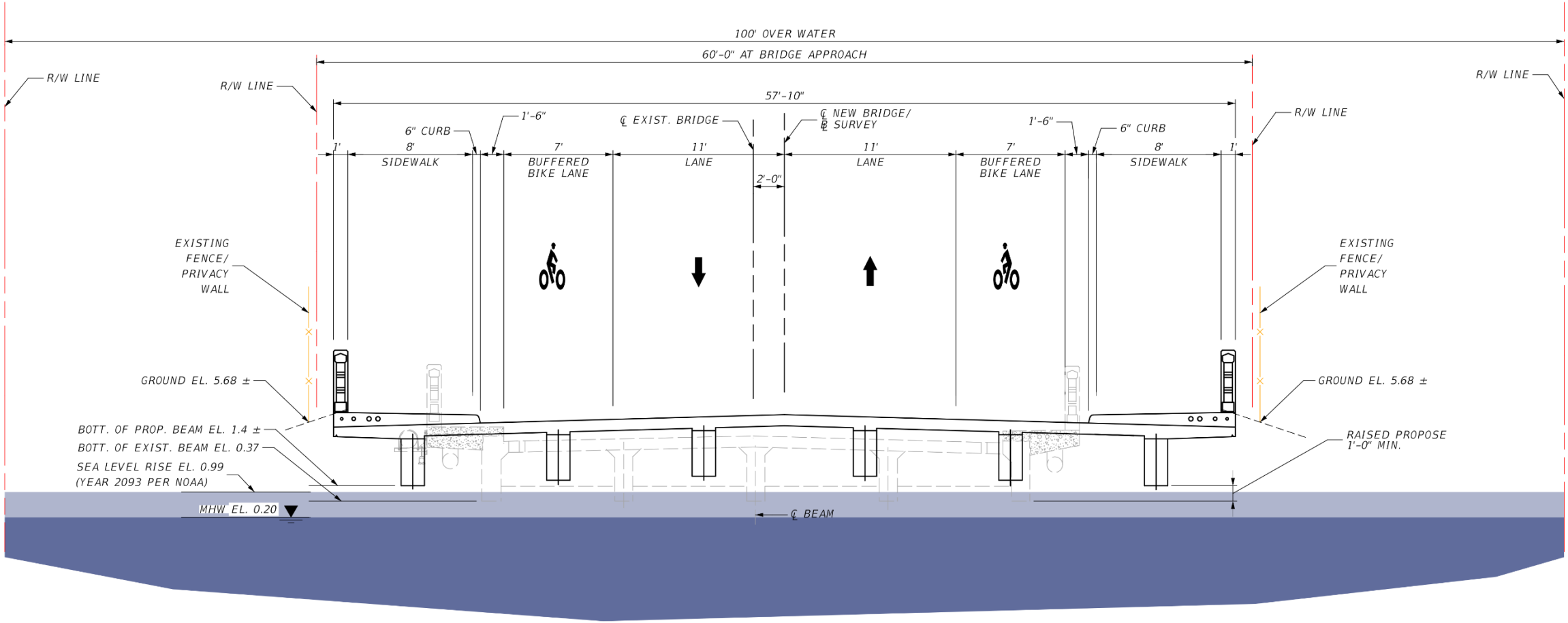
- **Posted Speed = 30 MPH**
- **Design Speed = 35 MPH**
- Developed with input from the Venetian Island residents.

Preferred Alternative – Raised Bridge Typical Section



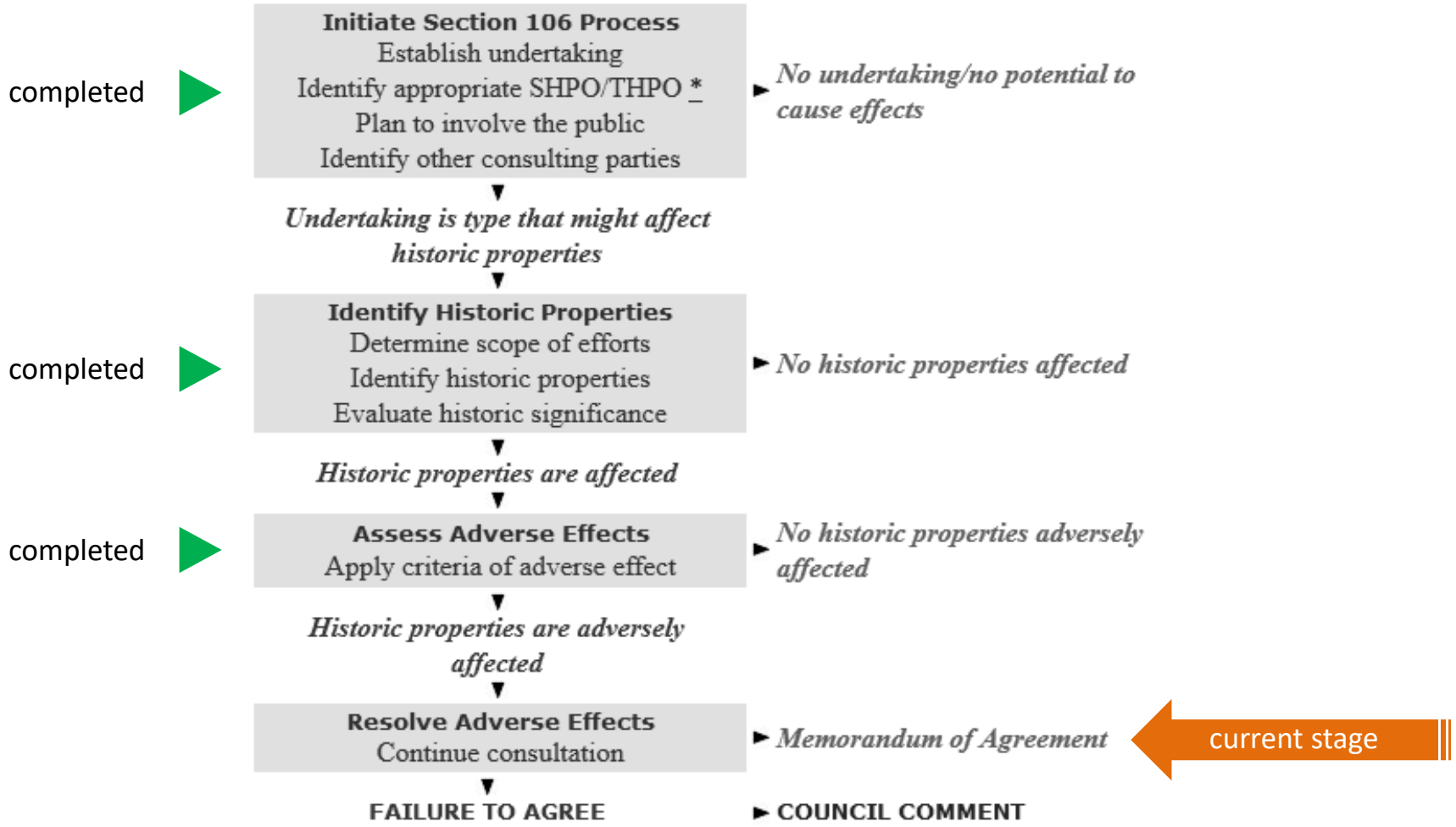
Bridge Section at Pier

Preferred Alternative – Raised Bridge Typical Section

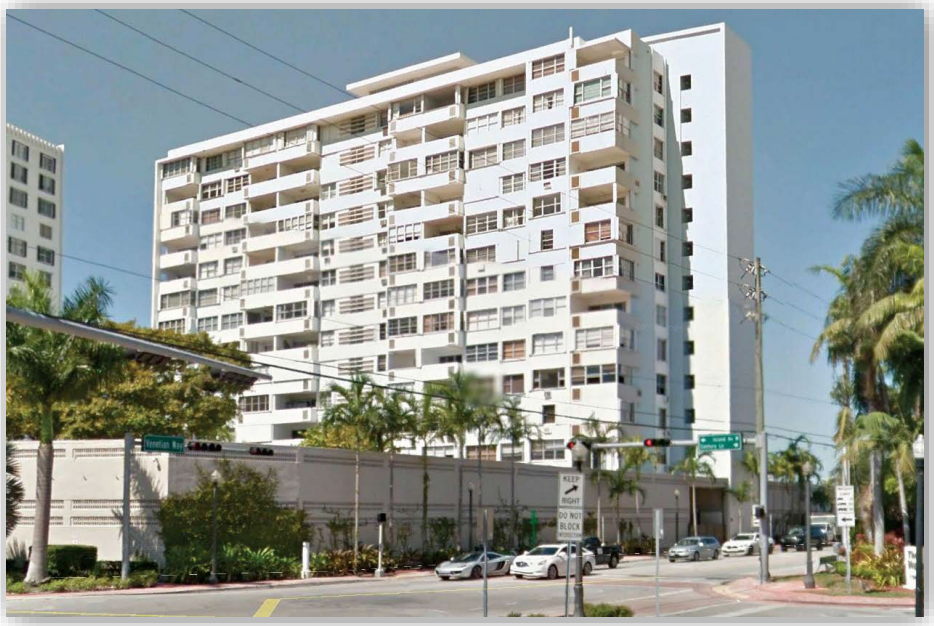


Bridge Section at Approach

Section 106 Process



Historic Resources – CRAS Documentation



- CRAS report prepared and submitted to SHPO-concurrence on CRAS June 25, 2019.
- 27 resources documented as part of the CRAS
  Two previously recorded buildings (8DA11740 and 8DA11754), two previously recorded linear resources (8DA11375 and 8DA12366), and ten newly identified buildings (8DA14385-8DA14394).
- The National Register-listed resource, Venetian Causeway (8DA4736), was converted to the Venetian Islands Resource Group (8DA14395) and includes the twelve individual bridges (8DA14373-8DA14384) as six manmade islands and five earthen causeway landings that are contributing features.
- Terrace Towers (8DA11754) and Collins Canal (8DA11375) determined eligible

Historic Resources Effects

Adverse Effects

- Section 106 Effects Determination Case Study Report, Memorandum of Agreement, and further consultation with affected parties prepared and submitted to SHPO – SHPO concurred with findings Feb. 18, 2020
- No Action and TSM&O Alternatives – No Adverse Effects to any resources
- The Rehabilitation Alternatives would result in impacts to the contributing bridges, and therefore, the Venetian Islands Resource Group. The Collins Canal (8DA11375) and Terrace Towers (8DA11754) will not be adversely affected by the Rehabilitation Alternatives.
- The preferred alternative includes Replacement Alternative 7 for the fixed bridges, Railing Alternative T1, and Replacement Alternative M4 for the moveable bridge. This alternative will result in an adverse effect to the contributing bridges and the Venetian Islands Causeway Resource Group.
- This adverse effect finding is primarily related to the bridge structures and will not affect other contributing resources or elements of the resource group. In consideration of available project information, the Preferred Alternative will have no adverse effect on the Collins Canal (8DA11375) or Terrace Towers (8DA11754).

Programmatic Section 4(f) Evaluation

Adverse Effects

- The Replacement Alternative will have an adverse effect on significant historic resources- due to removal of the original bridges.
- The proposed action will require demolition and complete replacement of the existing historic Venetian Causeway bridges 2 through 12. The historic elements of the Causeway includes:
  - The octagonal concrete entrance towers (to remain);
  - the low profile of the bridges;
  - the concrete arched beams;
  - the geometrically designed bridge railings;
  - the lighting poles and fixtures;
  - and the historically designed East Bridge Tender House.

Conclusion

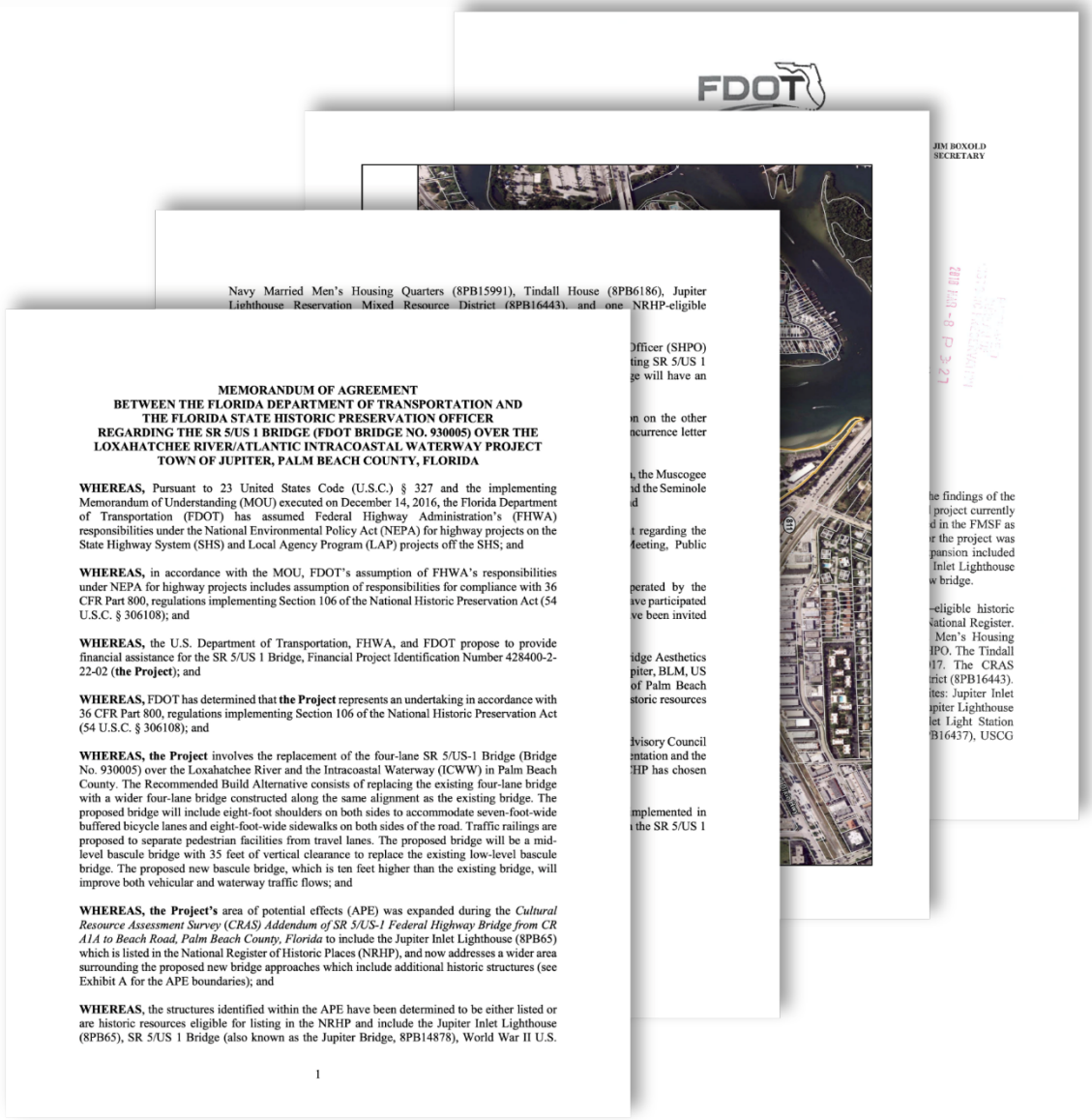
The Replacement Alternative meets the Section 4(f) prudent and feasible standard and is recommended. Measures to minimize harm will be provided.

Historic Resources – Mitigation

Memorandum of Agreement in Progress

- MOA will be prepared according to latest template and guidance provided by OEM— in progress

- Consultation with agencies and affected parties will be necessary to have input in mitigation measures—CRC meeting is a good way to bring everyone together for consultation



MEMORANDUM OF AGREEMENT
BETWEEN THE FLORIDA DEPARTMENT OF TRANSPORTATION AND
THE FLORIDA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE SR 5/US 1 BRIDGE (FDOT BRIDGE NO. 930005) OVER THE
LOXAHATCHEE RIVER/ATLANTIC INTRACOASTAL WATERWAY PROJECT
TOWN OF JUPITER, PALM BEACH COUNTY, FLORIDA

WHEREAS, Pursuant to 23 United States Code (U.S.C.) § 327 and the implementing Memorandum of Understanding (MOU) executed on December 14, 2016, the Florida Department of Transportation (FDOT) has assumed Federal Highway Administration's (FHWA) responsibilities under the National Environmental Policy Act (NEPA) for highway projects on the State Highway System (SHS) and Local Agency Program (LAP) projects off the SHS; and

WHEREAS, in accordance with the MOU, FDOT's assumption of FHWA's responsibilities under NEPA for highway projects includes assumption of responsibilities for compliance with 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, the U.S. Department of Transportation, FHWA, and FDOT propose to provide financial assistance for the SR 5/US 1 Bridge, Financial Project Identification Number 428400-2-22-02 (**the Project**); and

WHEREAS, FDOT has determined that **the Project** represents an undertaking in accordance with 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, the Project involves the replacement of the four-lane SR 5/US-1 Bridge (Bridge No. 930005) over the Loxahatchee River and the Intracoastal Waterway (ICWW) in Palm Beach County. The Recommended Build Alternative consists of replacing the existing four-lane bridge with a wider four-lane bridge constructed along the same alignment as the existing bridge. The proposed bridge will include eight-foot shoulders on both sides to accommodate seven-foot-wide buffered bicycle lanes and eight-foot-wide sidewalks on both sides of the road. Traffic railings are proposed to separate pedestrian facilities from travel lanes. The proposed bridge will be a mid-level bascule bridge with 35 feet of vertical clearance to replace the existing low-level bascule bridge. The proposed new bascule bridge, which is ten feet higher than the existing bridge, will improve both vehicular and waterway traffic flows; and

WHEREAS, the Project's area of potential effects (APE) was expanded during the *Cultural Resource Assessment Survey (CRAS) Addendum of SR 5/US-1 Federal Highway Bridge from CR A1A to Beach Road, Palm Beach County, Florida* to include the Jupiter Inlet Lighthouse (8PB65) which is listed in the National Register of Historic Places (NRHP), and now addresses a wider area surrounding the proposed new bridge approaches which include additional historic structures (see Exhibit A for the APE boundaries); and

WHEREAS, the structures identified within the APE have been determined to be either listed or are historic resources eligible for listing in the NRHP and include the Jupiter Inlet Lighthouse (8PB65), SR 5/US 1 Bridge (also known as the Jupiter Bridge, 8PB14878), World War II U.S.

1

Historic Resources – Mitigation

Potential Mitigation Measures - Discussion

- Design of the new bridges that sensitively preserves, repairs, and/or acknowledges the historic bridges and elements of the causeway (lighting, railings, tender stations, towers). This design process will likely involve the establishment of a bridge aesthetics committee.
- HAER/HALS documentation of the affected Resource Group, Bridges, and Significant Features – NPS will need to be consulted to determine the levels of documentation they recommend
- Public Interpretation—Florida Historical Markers, up to four markers: one City of Miami side, one Miami Beach side, and perhaps two mid-way, one for the eastbound and one for the westbound sides
- Miami-Dade County Bridge Context, covering bridges through 1975. This would be a useful tool for research and evaluation of bridges, similar to the context produced in FDOT, District 4 following the Bridges of the Isles project. Existing sources would be utilized and augmented with additional research and a sample of field verification.
- The bridges to be replaced will be made available for an alternative use, if feasible.

Section 106 of National Historic Preservation Act

Cultural Resources Assessment Survey –Completed

- Establish Area of Potential Effect
- Identify and Document Resources
- Evaluate Significance according to NRHP Criteria

Evaluation of Effects -Determination of Effects Case Study

Apply Section 106 Criteria of Effects –Completed

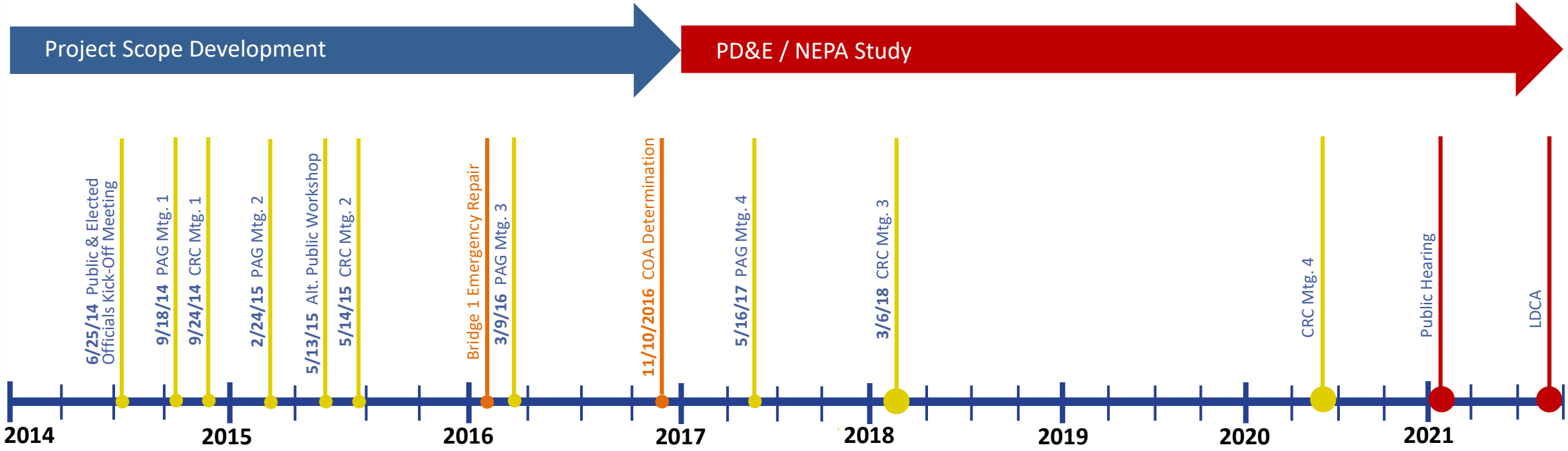
- Replacement Will be Adverse Effect

MOA and Consultation-In progress

- Develop MOA in consultation with affected parties and appropriate agencies

Section 4(f) Programmatic or Individual Statement Documentation to document there is no prudent or feasible alternative to the proposed improvements

Next Steps



LEGEND

CRC: Cultural Resource Committee

MTG: Meeting

PAG: Project Advisory Group

LDCA: Location Design Concept Acceptance

Drive Safely

Stay Informed

FDOT Contact

Project Manager: Dat Huynh, PE

Email: Dat.Huynh@dot.state.fl.us

Phone: 305-470-5201

Miami-Dade County Contact

Public Information Officer: Karla Damian

Department of Transportation and Public Works

Email: kdamian@miamidade.gov

Phone: 786-469-5420

ONLINE

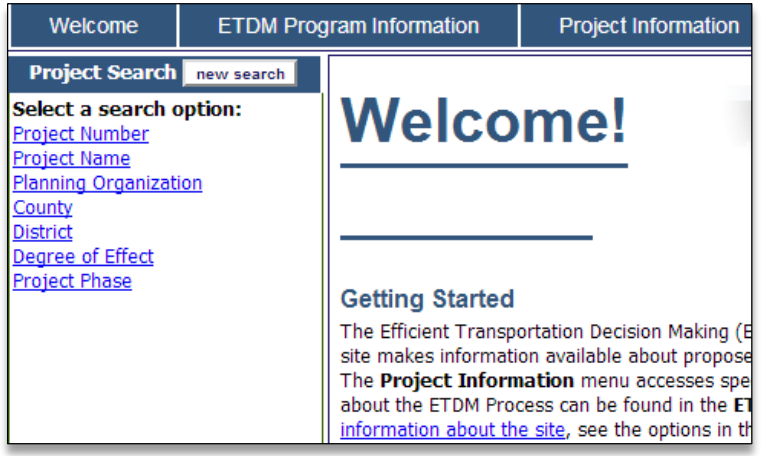
- Project webpage - Updates posted weekly

  http://www.fdotmiamidade.com/venetianbridgestudy

- Efficient Transportation Decision Making (ETDM)

  https://etdmpub.fla-etat.org/est/

  - **Click on Project Number on left hand menu**
  - **Type in 12756**
  - **Click "Go" or press Enter**



Structural and Functional Deficiencies

Bridge No.	DOT Bridge #	NBI Condition Rating									
		Sufficiency Rating									Deficiency FO/SD
		2011	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2019*
1	874459	32.6	32.6	32.6	19.0	-	-	64.0	64.0	67.6	-
2	874460	52.0	52.0	54.7	45.9	45.9	45.9	49.9	50	36.6	FO
3	874461	55.5	55.5	52.2	46.0	46.0	36.5	41.3	38.9	23.6	FO
4	874463	55.5	55.5	55.3	46.0	46.0	36.5	41.3	38.9	25.1	FO
5	874465	47.9	47.9	47.6	36.5	36.5	36.5	41.3	38.9	23.6	FO
6	874466	57.6	57.6	54.4	48.2	48.2	39.2	43.8	40.1	28.1	FO
7	874471	55.5	49.9	52.2	46.0	46.0	46.0	41.3	37.6	37.6	FO
8	874472	55.5	55.5	55.5	46.0	46.0	36.5	41.3	23.6	25.1	FO
9	874473	64.0	64.0	61.0	48.7	48.7	48.7	44.3	27.4	27.4	FO
10	874474	57.5	54.5	54.5	32.1	32.1	32.1	32.2	32.2	32.2	FO
11	874477	64.0	64.0	56.7	41.0	41.0	30.0	35.6	34.3	34.3	FO
12	874481	68.1	68.1	68.1	40.4	40.4	40.4	34.9	34.9	16.0	SD

FO= Functionally Obsolete
SD= Structurally Deficient

Sufficiency Ratings increased after 2016 Bridge 1 Emergency Repair

Sufficiency Ratings that decreased from 2018 to 2019

Structural and Functional Deficiencies

A bridge is considered to be **functionally obsolete** if it has deck geometry, load carrying capacity, clearance or approach roadway alignment that no longer meets the criteria for the system of which the bridge is a part. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths or vertical clearances to serve the traffic demand or those that may be occasionally flooded.

Bridges are considered to be **structurally deficient** where 1)significant load carrying elements are found to be in poor or worse condition due to deterioration and/or damage or, 2) the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing intolerable traffic interruptions.

Any bridge classified as structurally deficient is excluded from the functionally obsolete category.

Environmental Impacts

- Formal Section 7 (of the Endangered Species Act) Consultation for Johnson's seagrass critical habitat
  - Informal Section 7 Consultation for all other marine and terrestrial species
  - Consultation with USFWS and NMFS is on-going
- Conceptual mitigation plan prepared for potential impact to corals on scour protection areas
- Temporary impacts to Biscayne Bay due to construction methods including:
  - Barge Use, water quality, noise
- Retain and improve bicycle and pedestrian access
- No impacts to community services or facilities