



Florida Department of
TRANSPORTATION

Venetian Causeway
Project Development & Environment (PD&E) Study
From North Bayshore Drive to Purdy Avenue
FPID NO. 422713-2-22-01 | ETDM NO. 12756

WELCOME!



Venetian Causeway

**Project Development & Environment (PD&E) Study
From North Bayshore to Purdy Avenue**

The Public Hearing will begin at 7:30 p.m.



Florida Department of
TRANSPORTATION

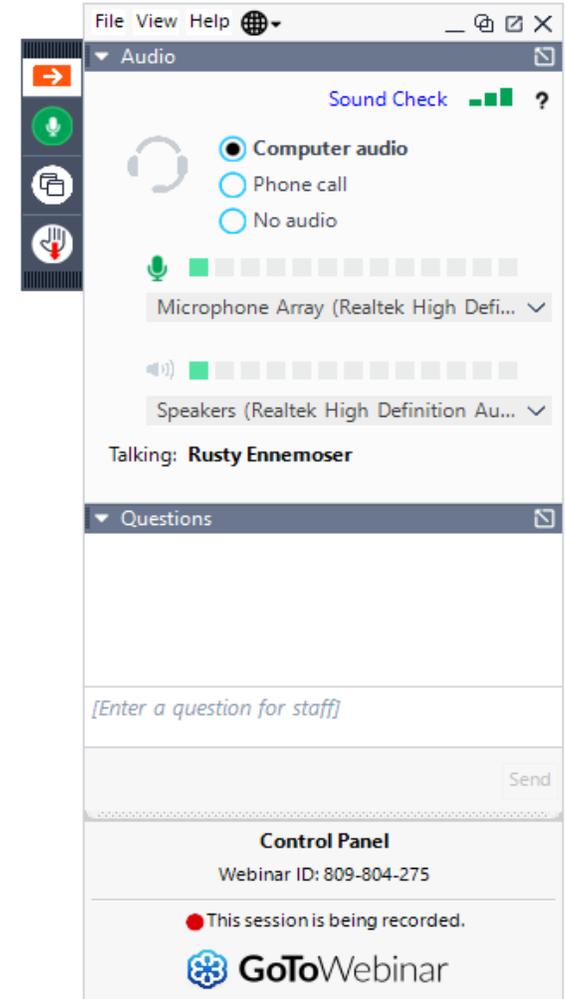
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If you experience technical difficulties, please contact **Daniel Beyra** at **305-305-9515** or e-mail daniel@thecreativeparticle.com so he can assist you.



Rules of Engagement

- Attendees **will remain muted** throughout the Public Hearing except for the **Question/Comment** period. Use the **“Raise Hand”** button on your **GoToWebinar** panel to provide a comment. **Provide your full name first, address and comment.**
- Attendees are welcome to submit questions/comments using the GoToWebinar Question Panel and a member of the team will respond during the open discussion. Participants will have **three minutes** to ask questions and provide comments.





Rules of Engagement

- This Public Hearing is being recorded
- The Public Hearing will begin with a presentation followed by comments and questions. Responses to questions will be provided separately.
- If you are calling in via phone, you will not be able to provide comments during the meeting. To provide comments, call 305-335-8466 or e-mail Tasha@TheBrandAdvocates.com
- Tonight's presentation is available at: <http://www.fdotmiamidade.com/venetianbridgestudy>
- The project team will remain until 9:00 p.m.



Florida Department of
TRANSPORTATION

Venetian Causeway
Project Development & Environment (PD&E) Study
From North Bayshore Drive to Purdy Avenue
FPID NO. 422713-2-22-01 | ETDM NO. 12756

Scan the QR Code to Download the Presentation





VENETIAN CAUSEWAY (Venetian Way)

**Project Development & Environment (PD&E) Study
FROM NORTH BAYSHORE DRIVE TO PURDY AVENUE**

FM No. 422713-2-22-01

Federal Aid No. 4042-411-C

Efficient Transportation Decision Making (ETDM): 12756



Public Hearing

May 11, 2021

Moderator: Dat Huynh, P.E.



The purpose of this public hearing is to share information with the general public about:

- The proposed improvements;
- Its conceptual design;
- All alternatives under study;
- The potential beneficial and adverse social, economic, and environmental impacts upon the community.

The public hearing also serves as an official forum providing an opportunity for members of the public to express their opinions regarding the project.



Title VI Non-discrimination

The Florida Department of Transportation is required to comply with various **non-discrimination laws and regulations**, including **Title VI of the Civil Rights Act of 1964**.

Public participation at this hearing is encouraged and solicited without regard to race, color, national origin, age, sex, religion, disability, or family status.

FDOT District Six Title VI Coordinator

Mr. Nicholas Danu, P.E.
1000 NW 111 Avenue, Room 6111-A,
Miami, Florida 33172
Phone: (305) 470-5219
Email: Nicholas.danu@dot.state.fl.us

FDOT State Title VI Coordinator

Ms. Jacqueline Paramore
605 Suwannee Street
Tallahassee, Florida 32399-0450
Phone: (850) 414-4753
Email: Jacqueline.paramore@dot.state.fl.us

This contact information is also provided in the project brochure and on a sign displayed at this hearing.



Meeting Format

1 Open House

2 Presentation

3 Comment Period



PROJECT NAME:

Venetian Causeway Project Development & Environment (PD&E) Study from North Bayshore Drive (City of Miami) to Purdy Avenue (City of Miami Beach), Miami-Dade County

STATE FINANCIAL MANAGEMENT NUMBER:

FM No. 422713-2-22-01

FEDERAL AID PROJECT ID:

4042-411-C

EFFICIENT TRANSPORTATION DECISION MAKING (ETDM) NUMBER:

12756

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 FDOT pursuant to 23 United States Code (U.S.C.) § 327 and a Memorandum of Understanding dated December 14, 2016, and executed by the Federal Highway Administration (FHWA) and FDOT.



FDOT encourages public participation without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons who need special assistance under the Americans with Disabilities Act of 1990 or who need translation services (free of charge) should contact Nicholas Danu, P.E. at (305) 470-5219; or in writing to FDOT, 1000 NW 111 Avenue, Miami, FL 33172; or by email at Nicholas.Danu@dot.state.fl.us at least seven (7) days prior to the Public Hearing.

FLORIDA DEPARTMENT OF
TRANSPORTATION
Venetian Causeway PD&E Study
PROJECT FACT SHEET



OVERVIEW: The Florida Department of Transportation (FDOT) District Six is developing the Project Development and Environment (PD&E) Study for the Venetian Causeway from North Bayshore Drive to Purdy Avenue in the City of Miami and the City of Miami Beach in Miami-Dade County. The Study is being conducted in conjunction with Miami-Dade County's Department of Transportation and Public Works and in cooperation with the U.S. Army Corps of Engineers and the United States Coast Guard.

PURPOSE AND NEED: The purpose of the proposed project is to address identified structural and functional deficiencies of the twelve existing bridges through potential alternatives such as replacement or rehabilitation.

STATUS: Public involvement is an extremely important part of a PD&E Study, to inform citizens about the project, and provide interested persons an opportunity to be involved in the development of the project. Throughout the study the Project Team conducted alternatives analysis with input from the public, affected parties and agencies. Alternatives were developed and evaluated based on the ability of each to meet the project's purpose and need. The viable alternatives were evaluated to compare and contrast the performance of each in meeting the established evaluation criteria, and to quantify its impacts to the natural, social, cultural, and physical environment. Numerical ratings for specific and relevant qualitative and quantifiable criteria were used to evaluate the viable alternatives such that the Preferred Alternative could be identified.

SCHEDULE: The Project Development and Environmental (PD&E) study began in 2014 and is working toward completion in 2021.

FUNDING: Partial funding has been allocated by Miami-Dade County for future phases of the project, including Design and Construction.

CONTACT: For more information about the project, please visit our website at www.fdotmiamidade.com/venetianbridgestudy. For further questions, please contact Dat Huynh, P.E., District Planning and Environmental Administrator by email at dat.huynh@dot.state.fl.us or by telephone at (305) 470-5201.

Public Hearing Purpose and Information

Laws and Regulations

The public hearing is being held in accordance with:

- **Section 120.525, F.S.** – Meetings, hearings, and workshops
- **Section 286.011, F.S.** – Government in the Sunshine Law
- **Section 335.199, F.S.** – Transportation projects modifying access to adjacent property
- **Section 339.155, F.S.** – Transportation planning
- **Americans with Disabilities Act of 1990 (ADA)**
- **Title VI of the Civil Rights Act of 1964** and Other Nondiscrimination Laws
- **49 CFR Part 24**, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs
- **40 CFR Part 1506**, Other Requirements of **NEPA**



Presentation Outline

1. Project Information
2. Purpose and Need
3. Transportation Development Process
4. Alternatives Analysis
5. Preferred Alternative
6. FDOT's Right Of Way Acquisition and Relocation Process
7. Environmental Documents
8. Next Steps
9. Public Comments





Project Information

Memorandum of Understanding Disclosure

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried-out by FDOT pursuant to 23 United States Code § 327 and a Memorandum of Understanding dated December 14, 2016, and executed by FHWA and FDOT.



Project Information

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).



Project Information



- The Venetian Causeway is approximately 2.5 miles long.
- A two-lane undivided facility that provides a major link between the cities of Miami and Miami Beach in Miami-Dade County, Florida.
- The Causeway includes ten fixed span bridges and two bascule leaf span bridges over the Intracoastal Waterway (ICWW).
- The bridges were originally built in 1926 and have been designated as historic landmarks by the City of Miami and City of Miami Beach; they are also listed on the National Register of Historic Places (NRHP).

Project Information



Cooperating Agencies



US Army Corps
of Engineers®



United States
Coast Guard



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**.
- We anticipate a **Finding of No Significant Impact (FONSI)**.

Purpose and Need of the 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.





Purpose and Need

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.



Purpose and Need

Structural and Functional Deficiencies

Bridge No.	DOT Bridge #	NBI Condition Rating											Deficiency FO/SD
		Sufficiency Rating											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*	2021*
1	874459	32.6	32.6	32.6	19.0	-	-	64.0	64.0	67.6	67.6	67.6	-
2	874460	52.0	52.0	54.7	45.9	45.9	45.9	49.9	50	36.6	36.6	36.9	FO
3	874461	55.5	55.5	52.2	46.0	46.0	36.5	41.3	38.9	23.6	23.6	23.9	FO
4	874463	55.5	55.5	55.3	46.0	46.0	36.5	41.3	38.9	25.1	25.1	25.5	FO
5	874465	47.9	47.9	47.6	36.5	36.5	36.5	41.3	38.9	23.6	23.6	20.4	SD
6	874466	57.6	57.6	54.4	48.2	48.2	39.2	43.8	40.1	28.1	28.1	28.5	FO
7	874471	55.5	49.9	52.2	46.0	46.0	46.0	41.3	37.6	37.6	37.6	23.9	FO
8	874472	55.5	55.5	55.5	46.0	46.0	36.5	41.3	23.6	25.1	25.1	25.5	FO
9	874473	64.0	64.0	61.0	48.7	48.7	48.7	44.3	27.4	27.4	27.4	27.7	FO
10	874474	57.5	54.5	54.5	32.1	32.1	32.1	32.2	32.2	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	34.3	34.6	FO
12	874481	68.1	68.1	68.1	40.4	40.4	40.4	34.9	34.9	16.0	16.0	16.0	SD

FO= Functionally Obsolete
SD= Structurally Deficient

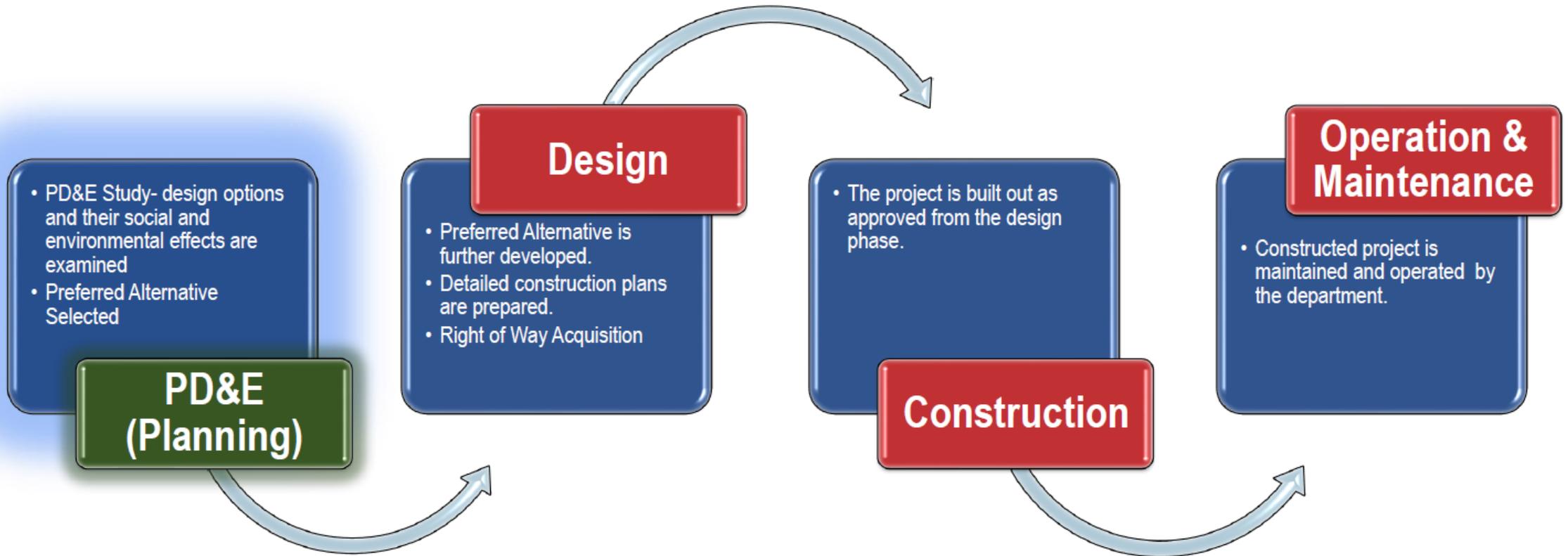
Sufficiency Ratings increased after 2016 Bridge 1 Emergency Repair

Sufficiency Ratings/Deficiency that decreased from 2020

* Sufficiency Ratings as per latest FDOT Bridge Information April 2021



Transportation Development Process





Transportation Development Process

PD&E Process

PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY PROCESS



COMMUNITY OUTREACH

A continuous community outreach process is integrated into every step of the project to ensure the causeway residents, businesses and public, and other interested parties have meaningful opportunities for participation throughout the PD&E Study.

Transportation Development Process

Planning Consistency

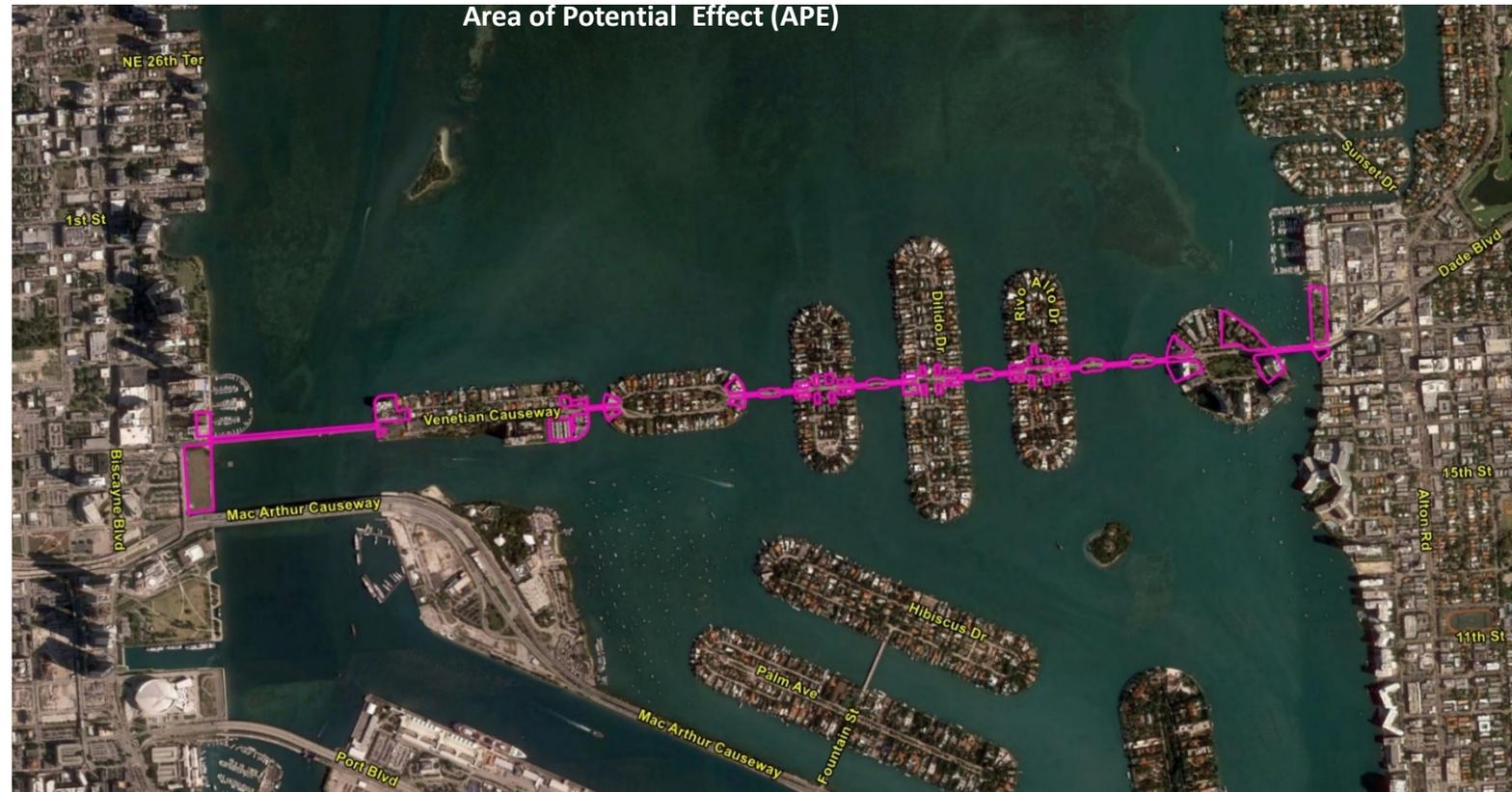
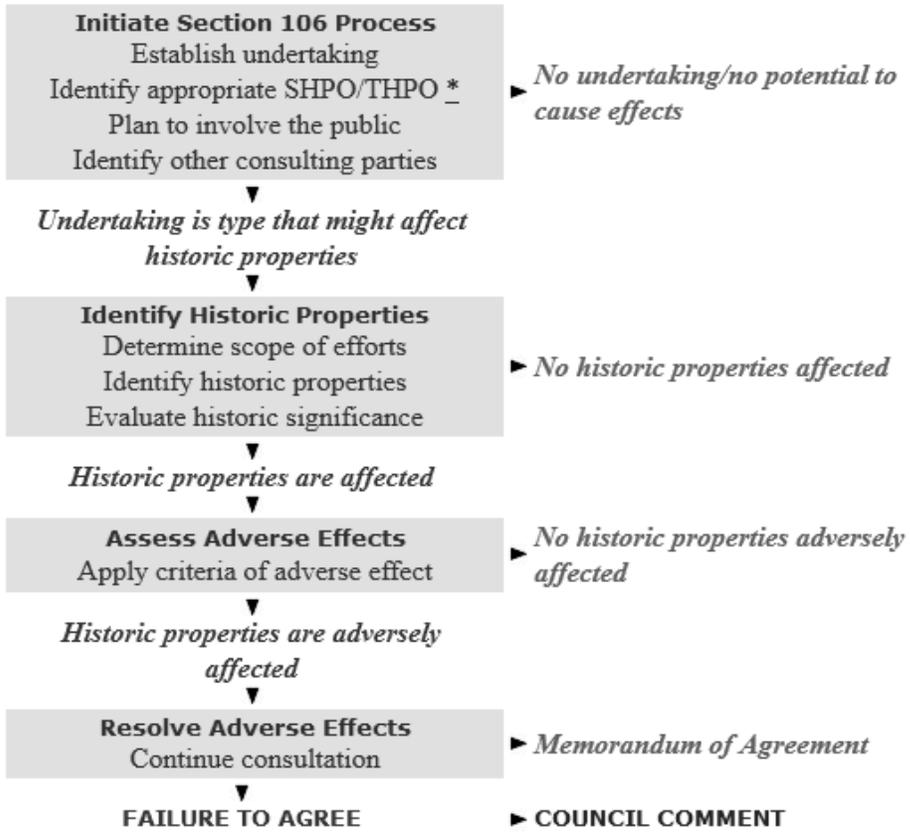


The Venetian Causeway Bridge Replacement project is identified in the Miami-Dade Metropolitan Planning Organizations 2045 Long Range Transportation Plan (L RTP) as an unfunded project. The 2019 Miami-Dade Transportation Planning Organization (TPO) Transportation Improvement Program (TIP) only includes funds for the planning phase of the project. The Adopted 2014-2019 FDOT Five-Year Work Program shows the Venetian Causeway Bridge project with funding in the amount of \$327,716 for Highways/PD&E in FY 2019.

The Fiscal Year 2018-2019 Adopted Budget and Multi-Year Capital Plan for Miami-Dade County Parks, Recreation and Open Spaces has allocated funds for the Venetian Causeway Bridge Replacement project. The project will replace Bridges 2 through 12; Bridge 1 will remain. The budget includes \$4.75 million for the planning and design phases during FY 2018 - 2020, and \$13.5 million for the construction phase of the project during FY 2020-2024.

Alternatives Analysis – Historic Resources

Section 106 under the National Historic Preservation Act of 1966





Alternatives Analysis – 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



Alternatives Analysis

No-Build and Build Alternatives

NO-BUILD ALTERNATIVES	
1	No-Action – The bridges remain as is with routine maintenance only.
2	Transportation Systems Management & Operations (TSM&O) – The bridges remain as is with routine maintenance only. Transit, bicycle, pedestrian and other operational improvements would be made to facilitate transportation along the corridor.
BUILD ALTERNATIVES - REHABILITATION	
Fixed Bridge Alternatives	
The rehabilitation of the bridges would require that a rehabilitation alternative for the fixed bridges be selected.	
3	Fixed Bridge Rehabilitation w/out Beam Strengthening – Rehabilitation of the fixed bridges to improve safety and load carrying capacity.
4	Fixed Bridge Rehabilitation with Beam Strengthening - Rehabilitation of the fixed bridges to improve safety and load carrying capacity. Includes beam strengthening to achieve a higher load carrying capacity.
Movable Bridge Alternative	
The rehabilitation alternative of the eastern movable bridge (Bridge 10).	
M1	Bascule Bridge Rehabilitation – Rehabilitation of the eastern movable bridge (Bridge 10) to improve safety and achieve a higher load carrying capacity.



Alternatives Analysis

Build Alternatives

BUILD ALTERNATIVES - REPLACEMENT	
Fixed Bridge Alternatives	
The replacement of the bridges would require that the structural system for the fixed bridges be selected.	
5	Tunnel – This alternative replaces the movable bridges with a tunnel that maintains navigational traffic and connects to the residential islands.
6	High Level Fixed Bridge – This alternative replaces the movable bridges with a high-level bridge that maintains navigational traffic.
7	Arched Beams – This alternative provides low-level bridges, replicates the arched beams and maintains the look of the existing bridges
8	Florida I Beams (FIB) with Arched Fascia – This alternative provides low-level bridges, replicates the existing arched beams at the fascia of the bridge and uses FIB for the interior beams.
9	Florida I Beams (FIB) - This alternative provides low-level bridges, uses FIB for all the beams.
10	Cast-in-Place Slab (Flat/Variable Depth) – This alternative provides low-level bridges that use a cast- in-place deck that can have either a flat profile or a variable profile that approximates an arch beam.
11	Infill Spoil Islands – It was suggested during the Alternatives Public Workshop that removing the existing bridges and filling to create a long spoil island that would bridge the gap to the residential island be evaluated as an alternative.
12	Value Engineering Alternative – This alternative consists of seven alternatives for addressing bridges 2 through 12 and 3 alternatives for the typical section.
Movable Bridge Alternatives	
The replacement of the eastern movable bridge (Bridge 10) would require that the movable bridge type be selected.	
M2	Swing Bridge – The existing double leaf bascule bridge (drawbridge) would be replaced with one that pivots around a center support and swings open to allow the passage of boats.
M3	Vertical Lift Bridge - The existing double leaf bascule bridge (drawbridge) would be replaced with one that lifts the bridge deck vertically to allow the passage of boats below the raised deck.
M4	Double Leaf Bascule Bridge – The existing bridge would be replaced in kind.
M5	Single Leaf Bascule Bridge – The existing double leaf bascule bridge (drawbridge) would be replaced with one that has only one leaf instead of two.



Alternatives Analysis

Screening Matrix – Reasonable Alternatives

Alternative	Description	Meets Purpose and Need	Sensitive to Historic Resource	Sensitive to Natural and Physical Environment	Meets Rehab or Replacement Parameters	Community Preference	Total
1	Do Nothing	0	3	3	0	0	6
2	Transportation Systems Management & Operations (TSM&O)	0	3	3	0	0	6
Rehabilitation Alternatives							
3	Fixed Bridge Rehab w/out Beam Strengthening	3	3	2	2	1	11
4	Fixed Bridge Rehab with Beam Strengthening	3	3	2	3	2	13
M1	Bascule Bridge Rehabilitation	3	3	2	3	2	13
Replacement Alternatives							
Typical Sections							
T1	Venetian Railing	3	3	3	3	3	15
T2	Wyoming Railing TL-4 at coping	3	0	3	2	1	9
T3	Wyoming Railing TL-3 at curb and Original Venetian Railing at Coping	3	1	3	2	1	10
T4	Wyoming Railing TL-3 at curb and Custom Railing at Coping	3	0	3	2	0	8
Fixed Alternatives							
5	Tunnel	3	0	1	1	1	6
6	High Level Fixed Bridge	3	0	1	1	2	7
7	Arched Beams	3	3	2	3	3	14
8	FIB With Arched Fascia	3	1	2	2	1	9
9	FIB	3	0	2	2	0	7
10	Cast-in-Place Slab (Flat/Variable Depth)	3	0	2	2	1	8
11	Infill Spoil Islands	3	0	0	1	3	7
Movable Bridge Alternatives							
M2	Swing Bridge	3	0	2	2	0	7
M3	Vertical Lift Bridge	3	0	2	2	0	7
M4	Double Leaf Bascule Bridge	3	3	2	3	3	14
M5	Single Leaf Bascule Bridge	3	0	2	2	0	7

Screening Matrix - Scoring Methodology	Score
High	3
Medium	2
Low	1
Not Applicable	0



Alternatives Analysis

Viable Alternatives Matrix

NO-BUILD ALTERNATIVES	
1	No-Action – The bridges remain as is with routine maintenance only.
2	Transportation Systems Management & Operations (TSM&O) – The bridges remain as is with routine maintenance only. Transit, bicycle, pedestrian and other operational improvements would be made to facilitate transportation along the corridor.
BUILD ALTERNATIVES - REHABILITATION	
Fixed Bridge Alternatives The rehabilitation of the bridges would require that a rehabilitation alternative for the fixed bridges be selected.	
4	Fixed Bridge Rehabilitation with Beam Strengthening - Rehabilitation of the fixed bridges to improve safety and load carrying capacity. Includes beam strengthening to achieve a higher load carrying capacity.
Movable Bridge Alternative The rehabilitation alternative of the eastern movable bridge (Bridge 10).	
M1	Bascule Bridge Rehabilitation – Rehabilitation of the eastern movable bridge to improve safety and achieve a higher load carrying capacity.
BUILD ALTERNATIVES - REPLACEMENT	
Fixed Bridge Alternatives The replacement of the bridges would require that the structural system for the fixed bridges be selected.	
7	Arched Beams – This alternative provides low-level bridges, replicates the arched beams and maintains the look of the existing bridges
Movable Bridge Alternatives The replacement of the eastern movable bridge (Bridge 10) would require that the movable bridge type be selected.	
M4	Double Leaf Bascule Bridge – The existing bridge would be replaced in kind.

Alternatives Analysis

Alt. 1

Alternative 1 – No-Action

- Existing Deficiencies will Remain
- Continued Deterioration
- Extensive Periodic Repairs and Maintenance

Does not meet purpose and need for project

The No-Action Alternative does not correct the bridges' structural and functional deficiencies, nor does it extend the anticipated service life of the bridges.



Alternatives Analysis

Alt. 2

Alternative 2 – Transportation System Management and Operations (TSM&O)

- Enhanced Bus service
- Facilitate Pedestrians and Bicyclists
- Existing Deficiencies will remain, but safe bridges required for effective TSM&O

This alternative does not meet purpose and need for project

The TSM&O Alternative does not correct the bridges' structural and functional deficiencies, nor does it extend the anticipated service life of the bridges.



Alternatives Analysis – Bridge Rehabilitation

Alternative 4 – Fixed Bridge Rehab with Beam Strengthening

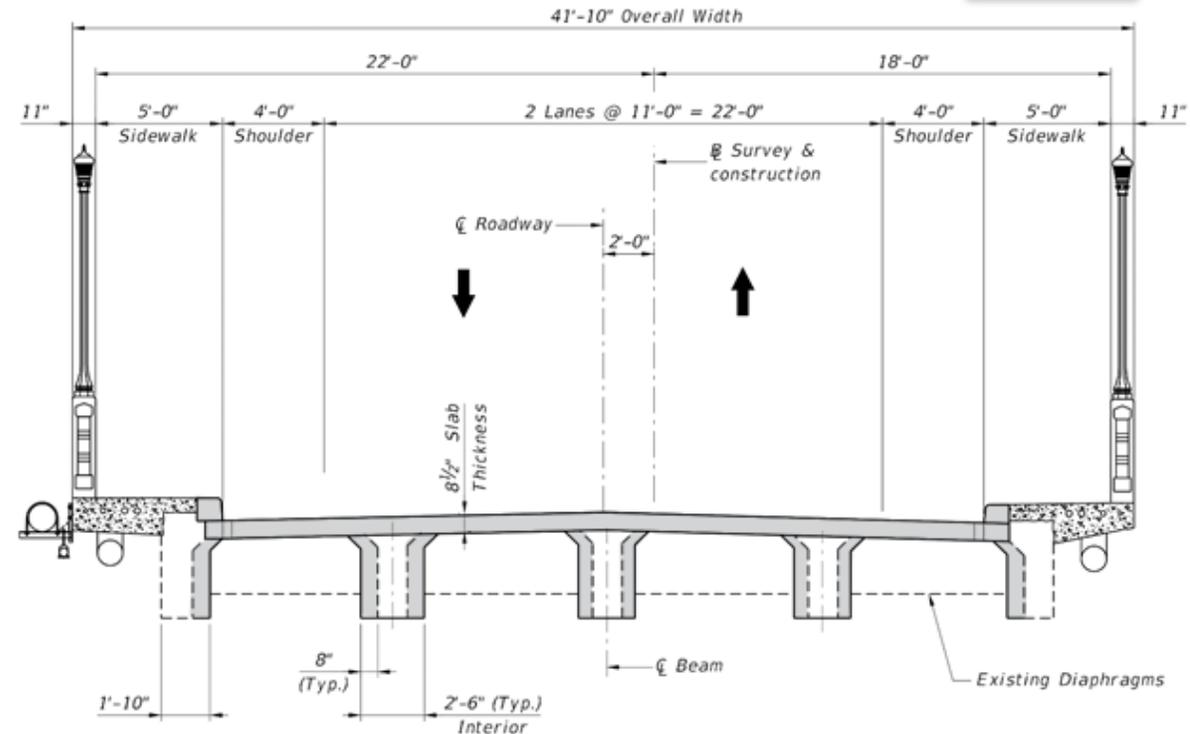
Alt. 4

Typical Section

- Expand Sidewalk to 5 feet to meet minimum requirement for ADA
- 4-ft. Shoulder does not meet 5.5-ft. shoulder requirement for bike lane

Rehabilitation includes:

- Deck Replacement Beam and Foundation Strengthening
- 41'-10" Overall width to remain, Venetian Railing to remain



Estimated Cost Range: \$42 - \$44 Million

Meets purpose and need for project

Alternatives Analysis – Bridge Rehabilitation

Alternative M1 – Bascule Bridge Rehabilitation

- Modifies the existing movable span to improve safety aspects of Bridge 10
- Eliminates structural, mechanical and electrical deficiencies.
- Extends the life of the bridge for a minimum of 25 years with routine maintenance and periodic repairs.
- Existing sidewalks and lane configurations would remain the same.

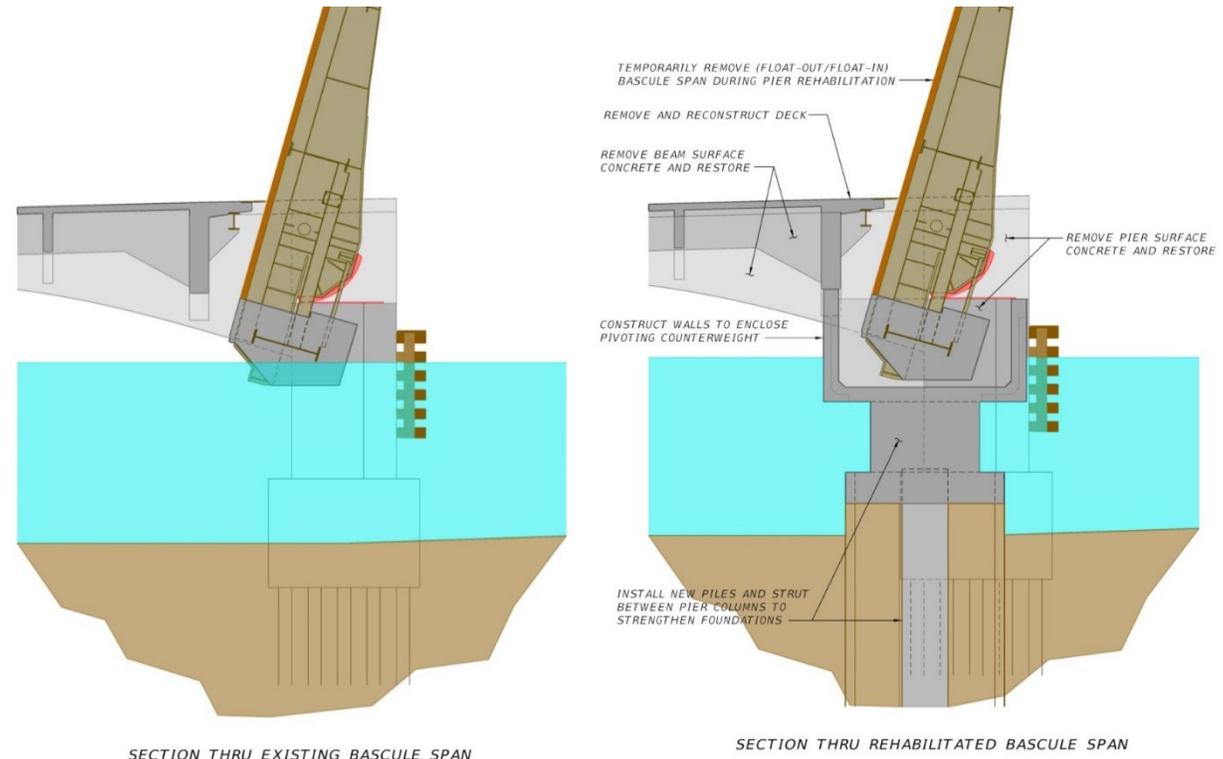
Estimated Cost Range: \$8 - \$9 Million

This alternative meets the purpose and need for project.

The Rehabilitation Alternative corrects the bridges' structural and functional deficiencies, and extends the anticipated service life of the bridges

This alternative meets the Section 4(f) prudent and feasible standard.

Alt. M1



Alternatives Analysis – Bridge Replacement

Fixed Bridges

Alternative 7 – Arch Beam

- Replaces Bridges 2 through 9, Bridge 10 approaches, Bridge 11 and 12 with low – profile, arched beam bridges that mimic the original bridges.

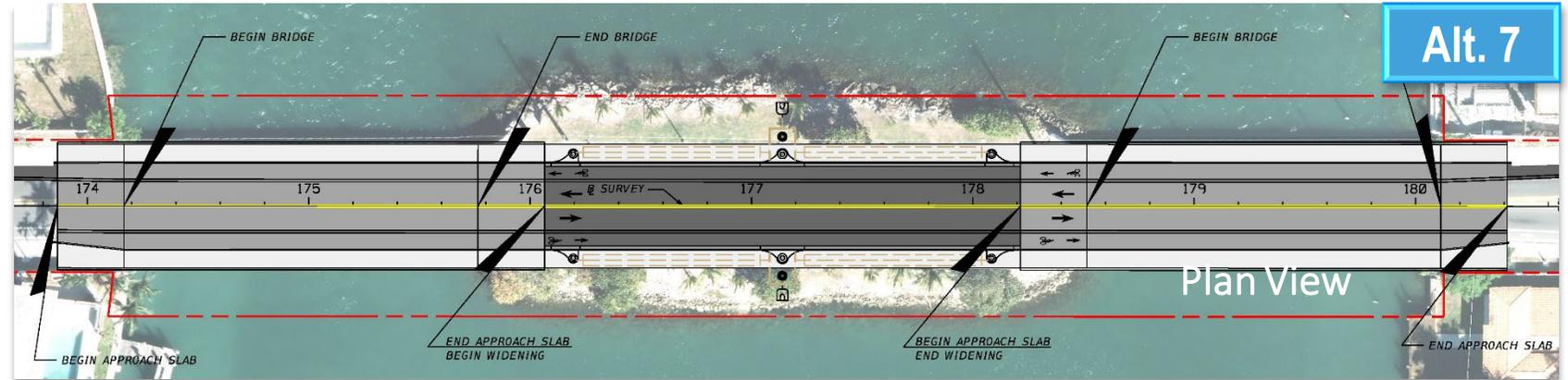
Estimated Cost : \$43 - \$47 Million

****High Range for Phased Construction***

This alternative meets the purpose and need for project.

The Replacement Alternative corrects the bridges’ structural and functional deficiencies, and extends the anticipated service life of the bridges

This alternative meets the Section 4(f) prudent and feasible standard.





Alternatives Analysis – Bridge Replacement

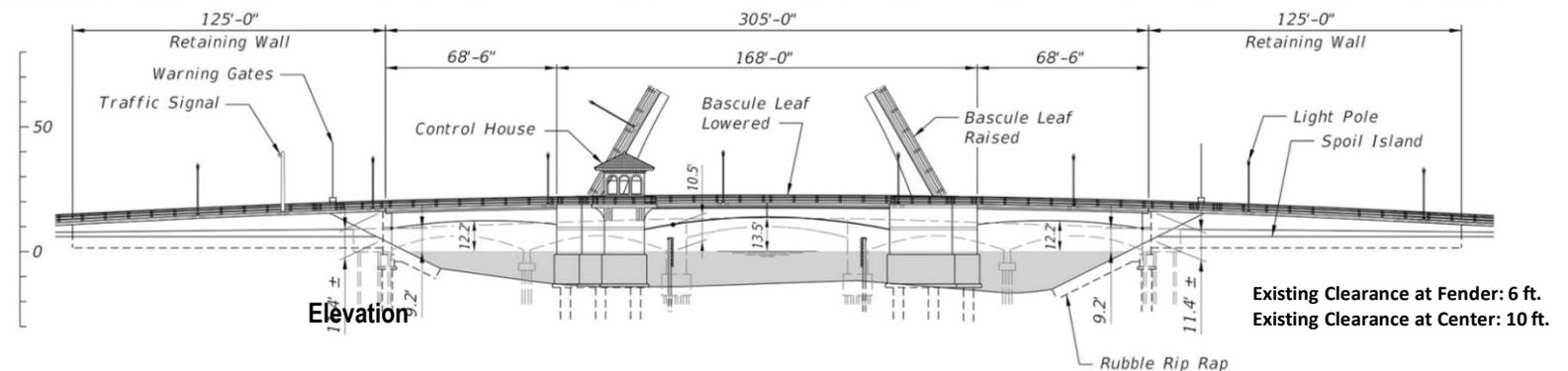
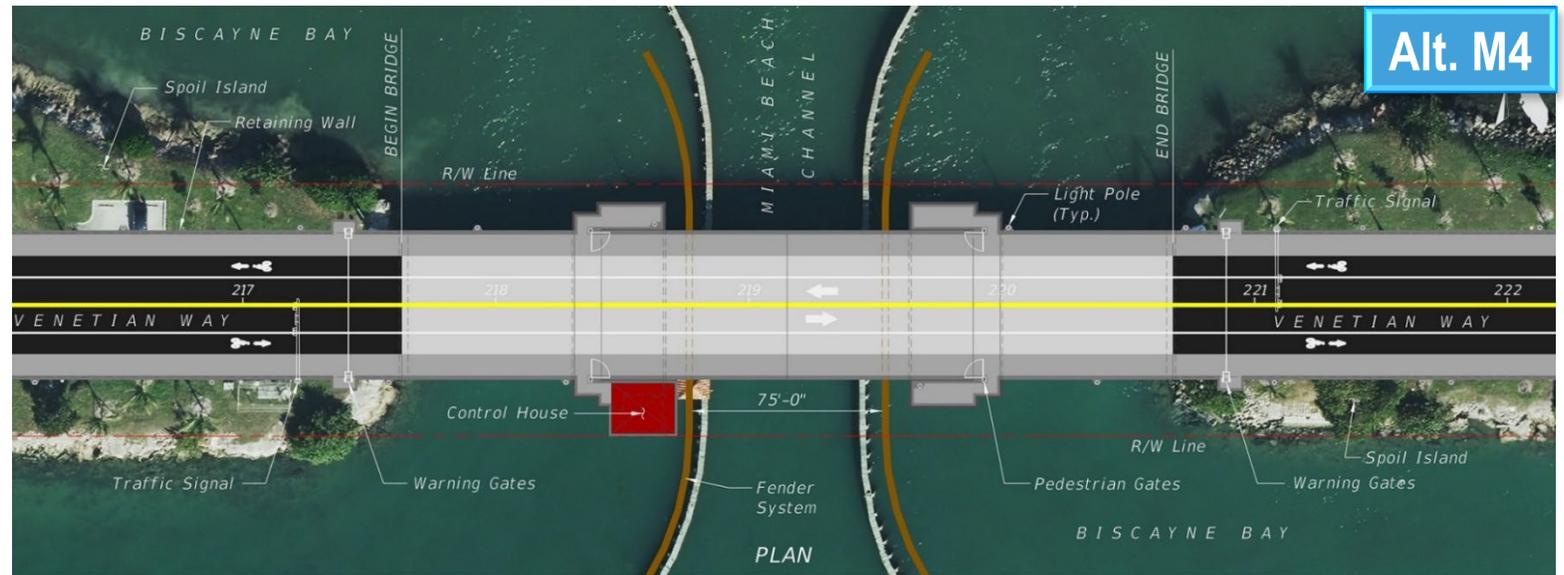
Movable Bridge Alternative M4 – Double Leaf Bascule Bridge

Estimated Cost Range:
\$39 - \$43 Million

This alternative meets the purpose and need for project.

The Replacement Alternative corrects the bridges' structural and functional deficiencies, and extends the anticipated service life of the bridges

This alternative meets the Section 4(f) prudent and feasible standard.



Alternatives Analysis – Public Involvement

Public Involvement Activities

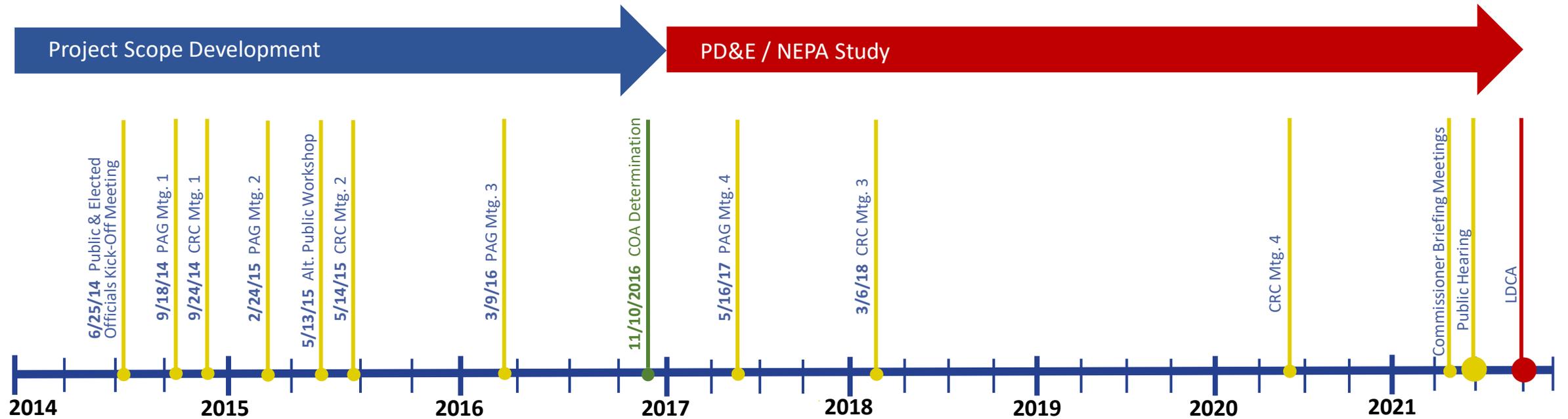
- Project Kick-Off Meeting
- (4) - Project Advisory Group (PAG) Meetings
- (4) - Cultural Resources Committee (CRC) Meetings
 - ✓ State Historic Preservation Officer (SHPO)
 - ✓ City of Miami Historic Preservation Officer
 - ✓ City of Miami Beach Historic Preservation Section
 - ✓ Federal Highway Administration (FHWA)
 - ✓ FDOT Office of Environmental Management (OEM)
 - ✓ City of Miami Preservation
 - ✓ City of Miami Beach Preservation
- Alternatives Public Workshop
- (2) - Agency Coordination Meetings
- Homeowner Association Meetings – Supplemental meetings as per public request
- Transportation Aesthetics Review Committee (TARC) Meeting
- Newsletters, Fact Sheets, Press Releases
- Commissioner Briefings
- Public Hearing





Alternatives Analysis – Public Involvement

Public Involvement Activities



LEGEND

CRC: Cultural Resource Committee

MTG: Meeting

PAG: Project Advisory Group

LDCA: Location Design Concept Acceptance



Alternatives Analysis

Evaluation Matrix

1. Engineering

- Meets Purpose and Need
- Safety
- Service Life
- Structural Capacity
- Hurricane and Vessel Impact Resistance
- Bridge Clearances
- Maintenance of Traffic and Constructability
- Utility Services
- Economic Impact
- Pedestrian and Bicycle Facilities



Criteria	No Build Alternatives				Build Alternatives			
	Alt 1 - No-Action		Alt 2 - Transportation System Management and Operations		Rehabilitation		Replacement	
	Alt 1 - No-Action	Score	Alt 2 - Transportation System Management and Operations	Score	Alt 4 - Rehabilitation with Beam Strengthening and Alt M1 - Bascule Bridge Rehabilitation	Score	Alt 7 - Arched Beams with T1 - Venetian Railing and Alt M4 - Double Leaf Bascule Bridge	Score
Meets Purpose and Need	No	0	No	0	Yes	3	Yes	5
Meets Current Safety Standards	No	1	No	1	Partially	3	Yes	5
Service Life	0-3 years	1	0-8 years	1	25 years	2	75 years	5
Typical Sectional Functionality	Substandard sidewalks and bicycle lanes	1	Substandard sidewalks and bicycle lanes	1	Substandard sidewalks and bicycle lanes	2	Meets current criteria	5
Structural Capacity	H-15	1	H-15	1	HL-93	5	HL-93	5
Hurricane Resistance	Not Satisfied	0	Not Satisfied	0	Satisfied	5	Satisfied	5
Vessel Collision Resistance	Not Satisfied	0	Not Satisfied	0	Satisfied	5	Satisfied	5
Bridge Clearances	Remain	1	Remain	1	Remain	1	Improved (Raised 1')	2
Maintenance of Traffic During Construction	N/A	5	N/A	5	82 months	1	48 months (phased construction)	3
Utility Services	Remain	3	Remain	3	Remain	3	Improved	5
Economic Impact	None	1	None	1	None	3	Improved	5
Constructability	No Impact	5	Minimal	4	Major Impact	1	Some Impact	3
Pedestrian and Bicycle Facilities	Remain as is	1	Remain as is	1	Pedestrian - Improved Bicycle - Remain as is	2	Improved	5



Alternatives Analysis

Evaluation Matrix

2. Environmental

- Natural
- Physical
- Cultural and Historic
- Social and Economic

3. Project Costs

- Engineering
- Construction
- Maintenance and Life Cycle

Environmental Impacts									
NATURAL	Benthic Resources	no impact	5	no impact	5	impact to corals from scour protection, substructure & beam strengthening	3	impact to corals from scour protection, substructure replacement, spoil island shoreline	2
	Essential Fish Habitat	no impact	5	no impact	5	minimal impacts from construction means and methods	4	minimal impacts from construction means and methods/minimal impact to shoreline of spoil islands	3
	Threatened & Endangered Species	no impact	5	no impact	5	minimal impacts from construction means and methods	4	minimal impacts from construction means and methods	3
	Water Quality	Scuppers discharge to OFW	0	Scuppers discharge to OFW	0	Scuppers discharge to OFW	0	temporary impacts during construction/overall benefit	5
PHYSICAL	Noise Impacts	no impact	5	no impact	5	minimal impacts from construction means and methods	5	temporary impacts during construction	5
	Air Quality	no impact	5	no impact	5	minimal impacts from construction means and methods	5	temporary impacts during construction	5
	Contamination Impacts	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0
CULTURAL AND HISTORIC	Historic - Section 106/4(f)	No Adverse Effect	5	No Adverse Effect	5	Adverse Effect - some impact to resource	3	Adverse Effect - Resource replaced, National Register of Historic Places listing may be affected	1
SOCIAL AND ECONOMIC	Aesthetic/Visual Impacts	utilities remain	3	utilities remain	3	utilities remain	4	wider section, bridge aesthetics replicated, utilities hidden, arch and railings remain	4
	Recreational Areas	Not Applicable	0	Not Applicable	0	Not Applicable	0	Not Applicable	0
	Community Cohesion	no impact	3	no impact	3	temporary impact to access during construction	3	temporary impact to access during construction	5
Project Costs									
Engineering Costs (Bridges only)		\$ -	5	\$ -	5	\$6.9 Million	3	\$11.7 Million	1
Construction Costs (Bridges only)		\$ -	5	\$ -	5	\$53 Million	3	\$90 Million	1
Yearly Maintenance Costs (first 25 years)		\$1.4 Million	1	\$1.4 Million	1	\$1.4 Million	1	\$100,000	5
Life Cycle Costs over 75 years		Unknown	0	Unknown	0	\$179 Million	1	\$96 Million	3
Total Points			67		66		75		101



Preferred Alternative – Bridge Replacement

Fixed Bridges – Alternative 7 – Arched Beams



Estimated Cost : \$43 - \$47 Million

**High Range for Phased Construction*



Preferred Alternative – Bridge Replacement

Alternative M4 – Double Leaf Bascule Bridge

Estimated Cost Range: \$39 - \$43 Million

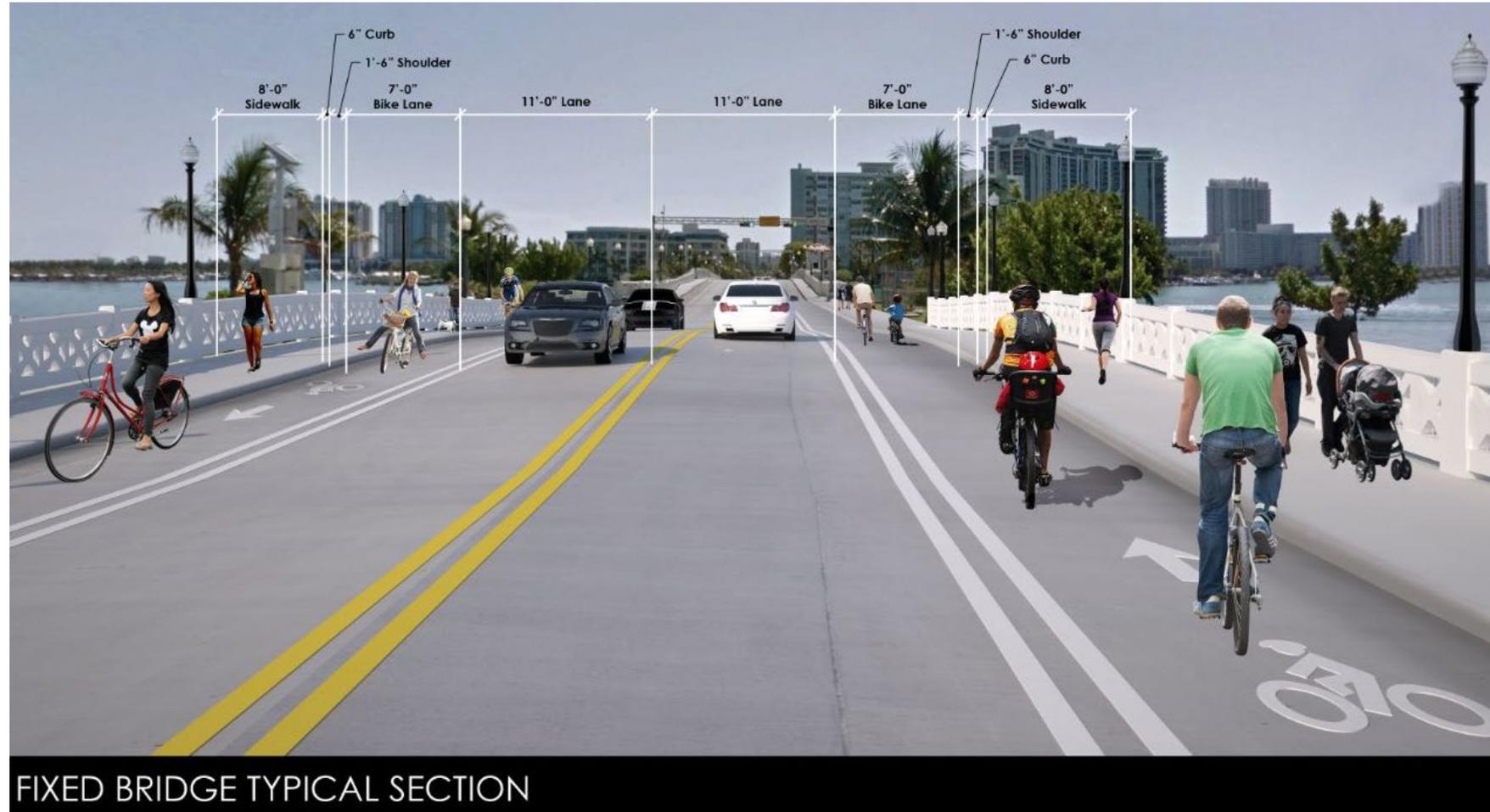




Preferred Alternative – Bridge Replacement

Bridge Typical Section

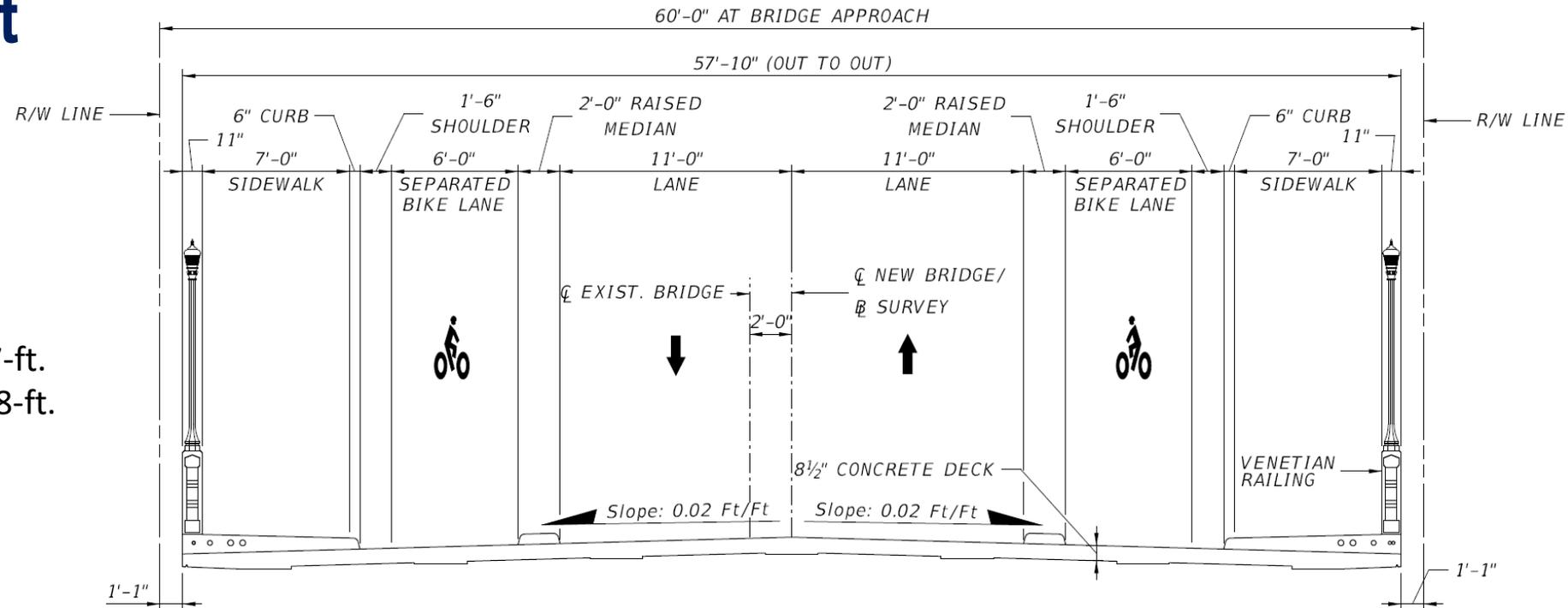
- Posted Speed = 30 MPH
- Design Speed = 35 MPH



Preferred Alternative – Bridge Replacement

Alternate Bridge Typical Section - Separated Bike Lane

- Sidewalks reduced from 8-ft. to 7-ft.
- Bike lane increased from 7-ft. to 8-ft. (6-ft. bike lane and 2-ft. median separation)



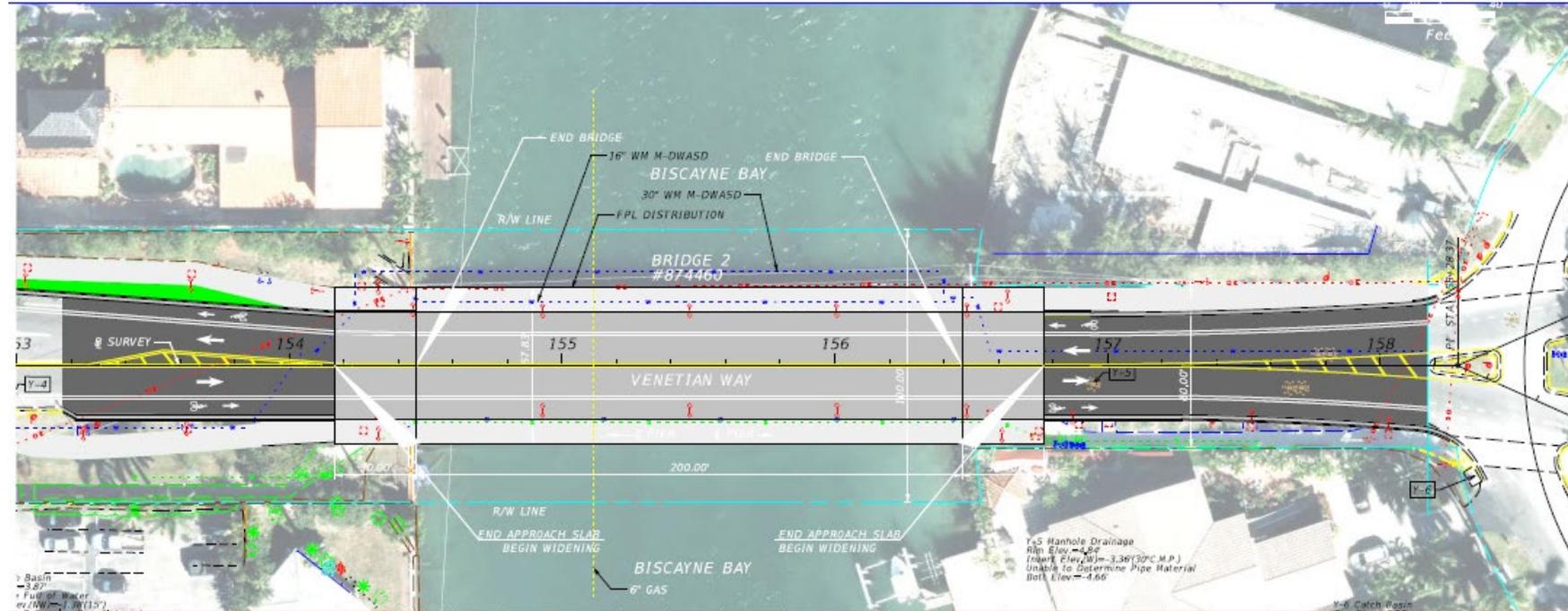
BRIDGE TYPICAL SECTION - SEPARATED BIKE LANE ALTERNATIVE
(FIXED BRIDGES 2-9, 11 AND 12)

Preferred Alternative – Bridge Replacement

Utilities

Existing Utility lines will be converted to sub-aqueous lines.

- 16-in. watermains
- 6-in. and 8-in. force mains
- 3-in. and 4-in. gas lines
- FPL Distribution



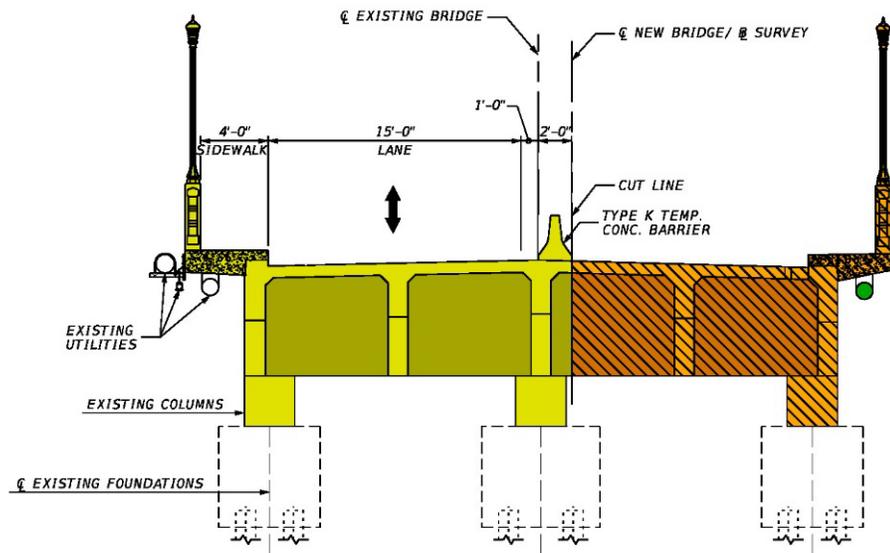
Estimated Cost : \$10 Million



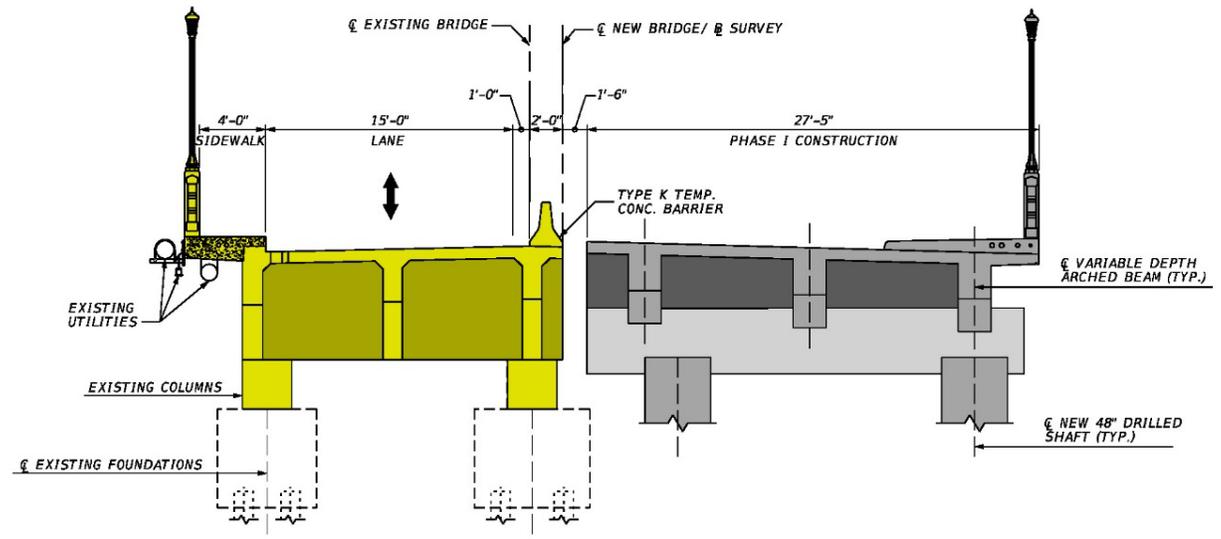
Preferred Alternative – Bridge Replacement

Phased Construction

- DEMOLITION
- EXISTING BRIDGE
- PROPOSED BRIDGE
- RELOCATE UTILITIES



PHASE I - STAGE I



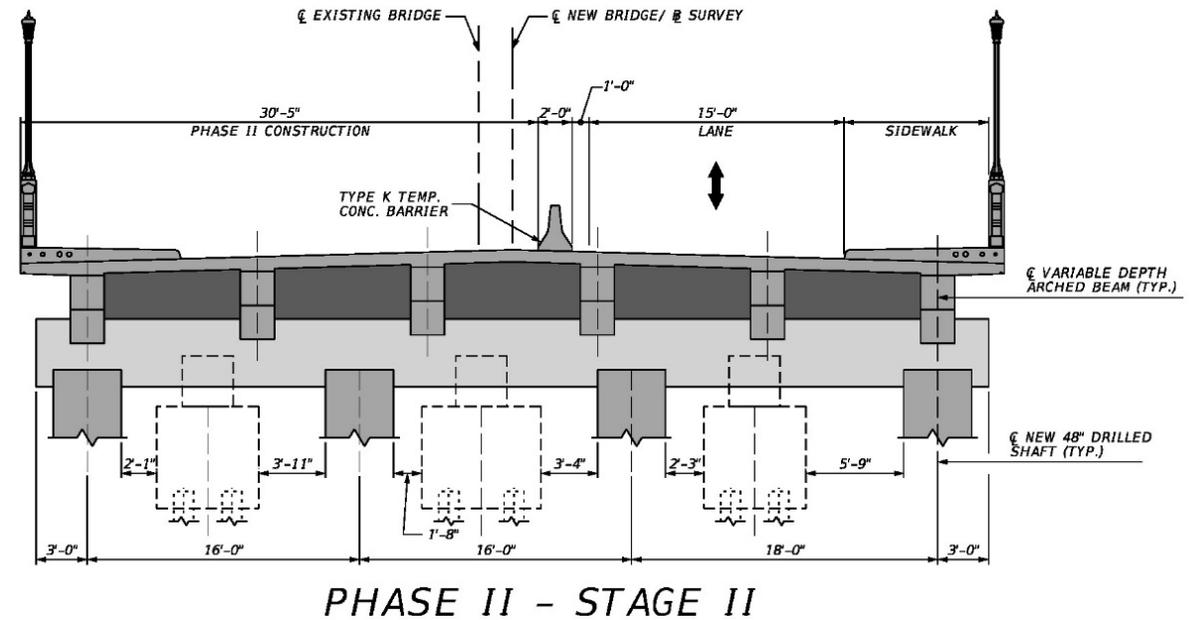
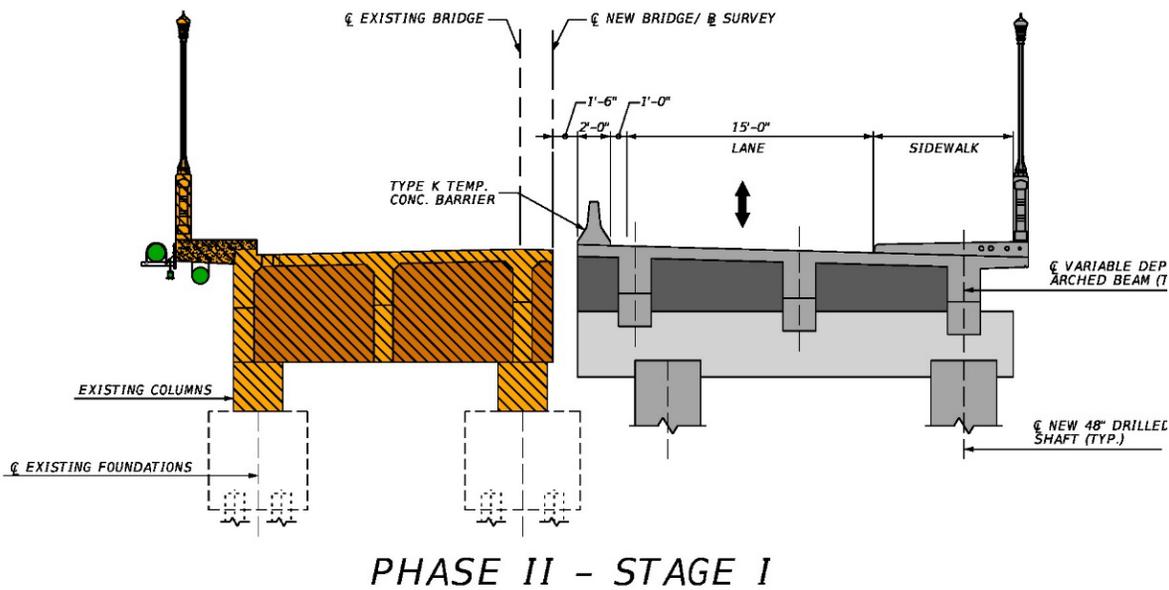
PHASE I - STAGE II



Preferred Alternative – Bridge Replacement

Phased Construction

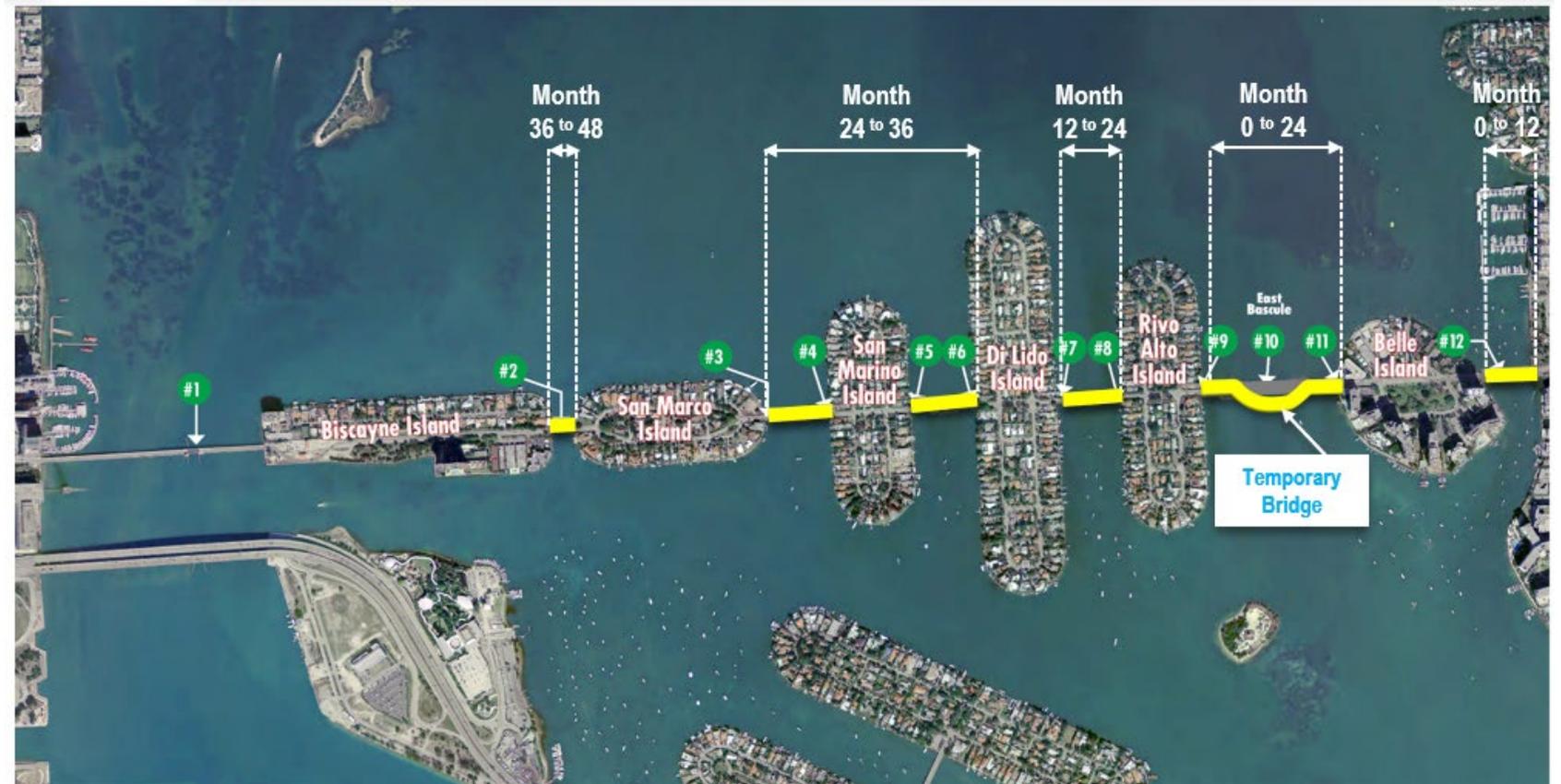
- DEMOLITION
- EXISTING BRIDGE
- PROPOSED BRIDGE
- RELOCATE UTILITIES



Preferred Alternative – Bridge Replacement

Maintenance of Traffic - Replacement Phased Construction with Temporary Bridge

- Temporary Bridge at East Bascule with 1 Lane 2-Way (Pedestrians & Bicycle Access).
- Limit Access Impacts to One Island at a Time
- Duration = 48 Months



	1-Lane/2-Way
	Bridge Numbers



Preferred Alternative – Bridge Replacement

Estimated Construction Costs

Alternative 7: Arched Beams	\$43 - \$47 Million
Alternative M4: Double Leaf Bascule Bridge	\$39 - \$43 Million
Utilities: Replace existing utilities with sub-aqueous utilities	<u>\$10 Million</u>
Total	\$92 - \$100 Million





Preferred Alternative

Social, Economic and Environmental Impact

Environment

- **Natural Resources**

- Wetlands
- Essential Fish Habitat
- Threatened & Endangered Species
- Water Quality

- **Physical Resources**

- Noise Impacts
- Air Impacts
- Contamination Impacts

- **Cultural Resources**

- Historic
- Archaeological

- **Social and Economic**

- Community Cohesion
- Community Resources
- Mobility
- Aesthetics
- Recreation

Preferred Alternative

Natural Environment

- No Direct Wetland Impacts
 - No wetland mitigation required
 - Temporary impacts to Biscayne Bay due to construction methods including:
 - Barge/vessel use, water quality
- Improve water quality in Biscayne Bay
 - Biscayne Bay Aquatic Preserve
 - Outstanding Florida Water



Preferred Alternative

Natural Environment

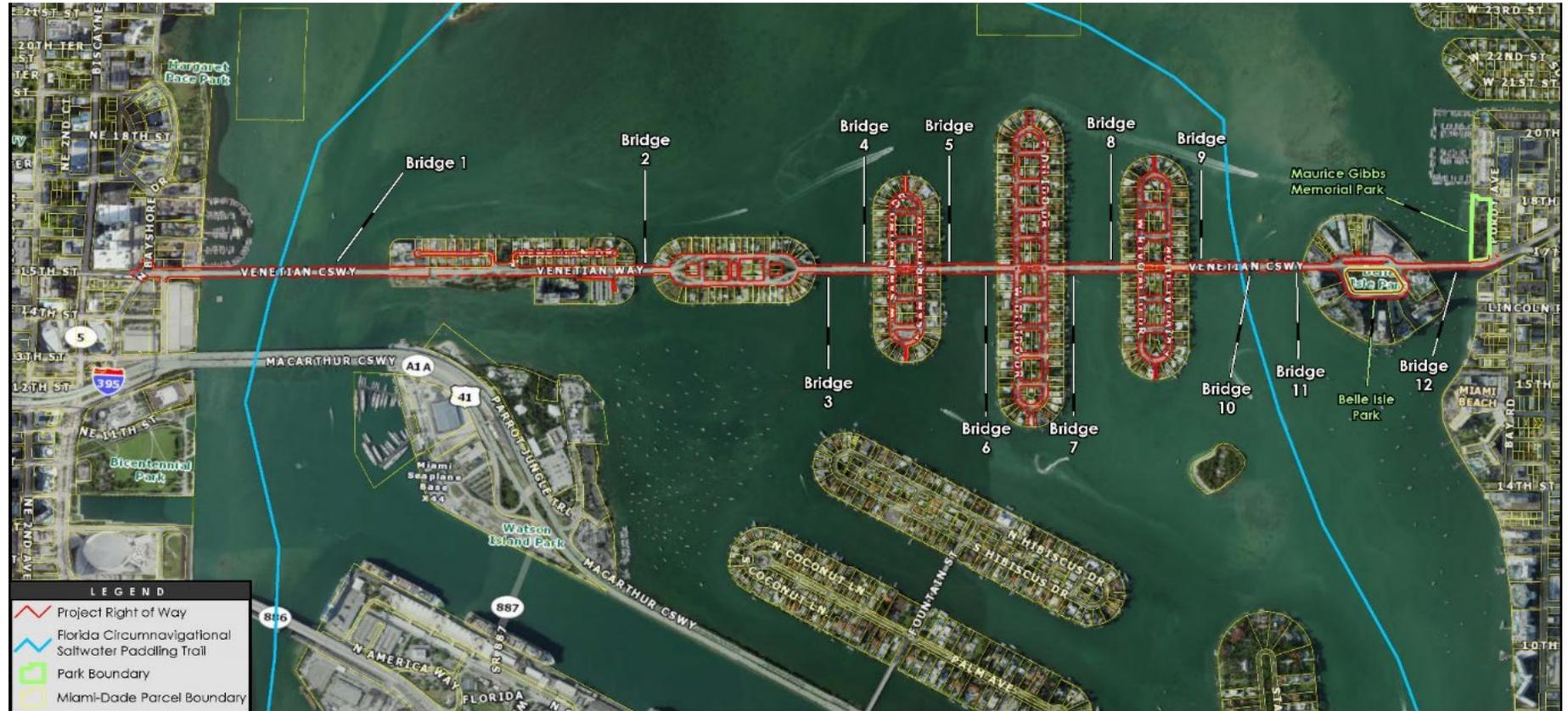
- Threatened & Endangered Species
 - Consultation under Section 7 of the Endangered Species Act
 - Formal Consultation for Johnson's seagrass critical habitat
 - Biological Opinion Issued by NMFS
 - Informal Section 7 Consultation with USFWS and NMFS for all other marine and terrestrial species
 - Effects determined to be May Affect, Not Likely to Adversely Affect or No Effect
- Essential Fish Habitat Analysis
 - Prepared in accordance with the Magnuson-Stevens Fishery Conservation and Management Act
 - Conservation Recommendations developed with NMFS
 - Conceptual Coral Relocation Plan prepared for potential impact to corals



Preferred Alternative

Social Environment

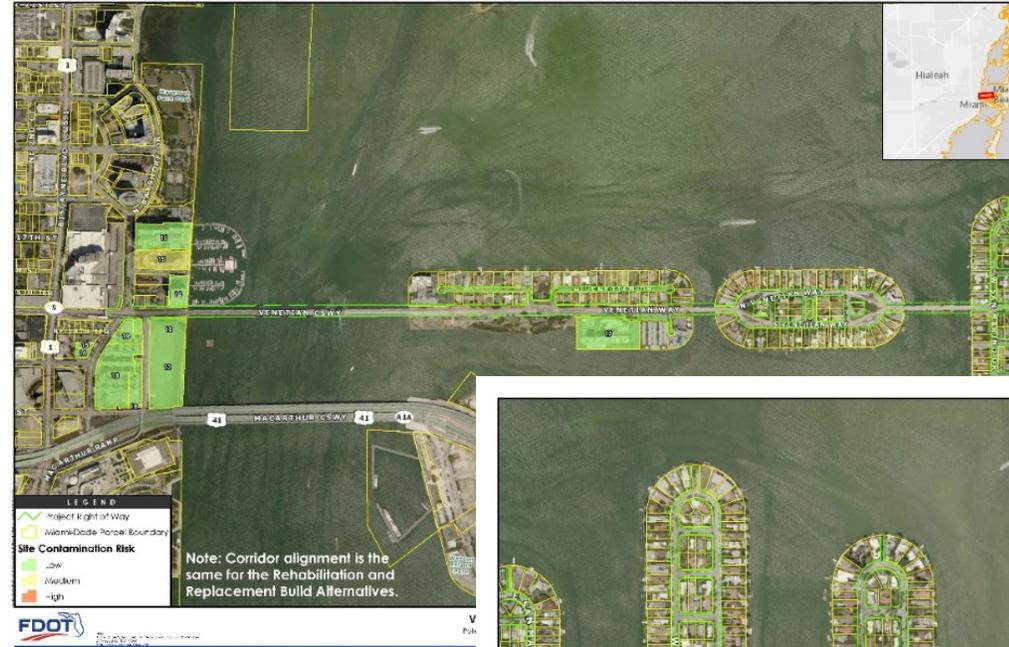
- Retain and improve bicycle and pedestrian access
- No impacts to community services or facilities
- Parks/Recreational Resources
 - No Impact or Use of Maurice Gibb Memorial Park or Belle Isle Park
 - Temporary use of the Florida Circumnavigational Saltwater Paddling Trail



Preferred Alternative

Physical Environment

- No Noise Impacts anticipated
- No Impact to Air Quality
- Minimal Contamination Involvement
 - 1 High Risk Site
 - 4 Medium Risk Sites
 - 13 Low Risk Sites





Preferred Alternative

Cultural Resources - Section 106 Process

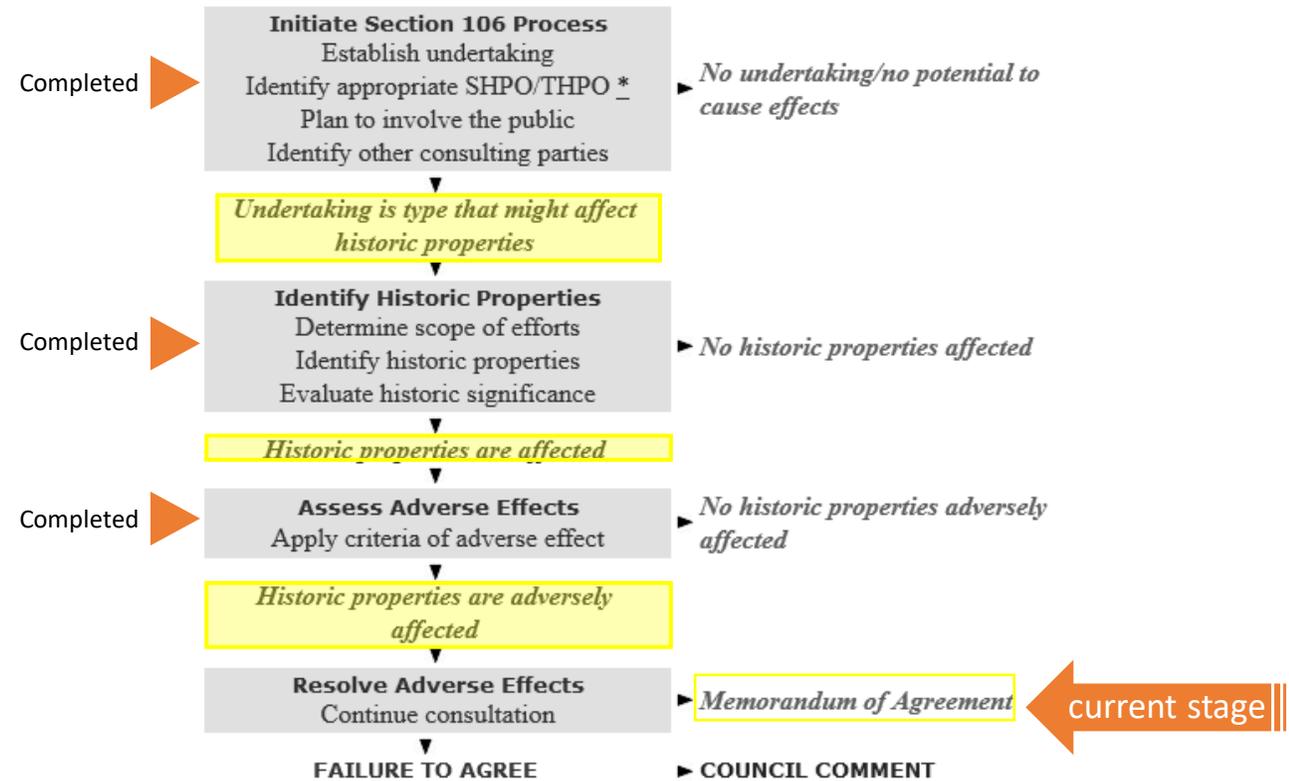
Evaluation of Effects - Determination of Effects Case Study

Apply Section 106 Criteria of Effects

- Replacement Will be Adverse Effect

MOA and Consultation-In progress

- MOA was developed in consultation with affected parties and appropriate agencies
- Pending Signature after Public Hearing





Preferred Alternative

Cultural Resources – Section 106 and Section 4(f) Processes

Adverse Effects under Section 106

- The Replacement Alternative will have an adverse effect on the Venetian Island Resource Group- 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.
- Memorandum of Agreement in process.

Section 4(f)

Programmatic Section 4(f) Documentation was completed and documents that there is no prudent or feasible alternative to the proposed improvements.

- Memorandum of Agreement (MOA) with minimization and mitigation measures is included as part of the Programmatic Section 4(f) document.

Preferred Alternative

Cultural Resources - Memorandum of Agreement

Conclusion

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

- Historic bridge recordation in accordance with Historic Landscape Survey (HALS) Level II
- A project design that acknowledges the historic appearance of the bridges. 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.
- Four Florida Historical Markers will be placed along the causeway and will include a narrative description of the history and significance of the Venetian Causeway.
- A historical context report for bridges in Miami-Dade County will be prepared that will provide a consolidated source of information on area historic bridges.





Right of Way Acquisition and Relocation Process

- This project will not cause any relocation of families or businesses.
- The project will not have any right of way acquisition.



Environmental Documents

The Environmental Documents have been available for review 21 days prior to the hearing and will be available for Public Review for 10 days after the Public Hearing at the following locations until **May 21, 2021**.

Miami Beach Regional Library:

- Address: 227 22nd Street, Miami Beach, Florida 33139
- Telephone: 305.535.4219
- Hours of Operations: Monday – Thursday 9:30am – 8:00 pm; Friday – Sunday 9:30 am to 6:00pm

Culmer/Overtown Branch Library:

- Address: 227 22nd Street, Miami Beach, Florida 33139
- Telephone: 305.535.4219
- Hours of Operations: Monday – Thursday 9:30am – 8:00 pm; Friday – Sunday 9:30 am to 6:00pm

FDOT District 6 Office:

- Address: 1000 NW 111th Avenue, Miami, Florida 33172
- Telephone: 800-435-2368
- Hours of Operations: Monday – Friday 9:00 am – 5:00 pm

Online:

The documents are also available for review on the project website <http://www.fdotmiamidade.com/venetianbridgestudy>



Next Steps

- The Department will incorporate your comments into the decision making
- A final decision will be made on the Preferred Alternative
- The Final PD&E Documents are sent to FDOT's Office of Environmental Management (OEM) in Tallahassee for Location and Design Concept Acceptance (LDCA)

PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY



DESIGN & CONSTRUCTION



PUBLIC INVOLVEMENT & AGENCY COORDINATION



Public Comments

- Type comments or questions in the Comments Pane on the control panel in the GoToWebinar
- Use raise hand feature in GoToWebinar to ask questions during the comment period
- Submit Comment Forms via email Tasha@TheBrandAdvocates.com
- Submit your comments through Website: <http://www.fdotmiamidade.com/venetianbridgestudy>
- Mail Comment Forms to the FDOT Project Manager; Dat Huynh, PE at:

Dat Huynh, PE
Planning and Environmental Administrator
Florida Department of Transportation District 6 office
1000 NW 111 Avenue, Room 6111-A,
Miami, Florida 33172

Comments postmarked on or before
May 21, 2021
will be included in the Project Administrative Record





Public Comments

FDOT Contact

Project Manager: Dat Huynh, PE

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

Phone: 305-470-5201

Miami-Dade County Contact

Project Manager: Ryan Fisher, PE

Email: Ryan.Fisher@miamidade.gov

Phone: 786-469-5264

ONLINE

- Project webpage - Updates posted weekly

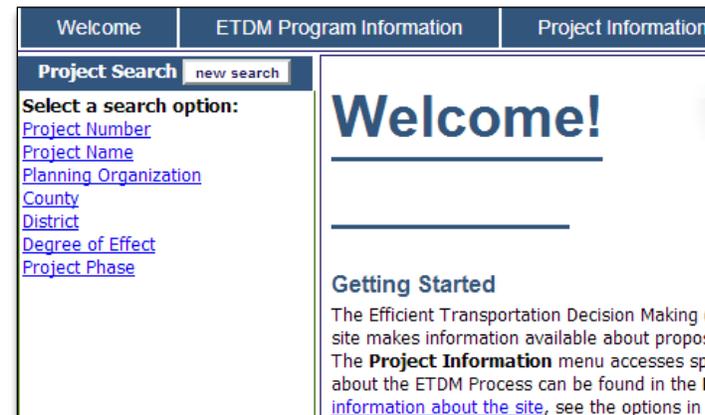
<http://www.fdotmiamidade.com/venetianbridgestudy>

- Submit Comment Forms via email at :

Tasha@TheBrandAdvocates.com

- 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



Florida Department of
TRANSPORTATION

Venetian Causeway
Project Development & Environment (PD&E) Study
From North Bayshore Drive to Purdy Avenue
FPID NO. 422713-2-22-01 | ETDM NO. 12756





We are currently experiencing technical difficulties.

Thank you for your patience. We will resume shortly.