



# VENETIAN CAUSEWAY

Project Development & Environment (PD&E) Study

FROM NORTH BAYSHORE DRIVE TO PURDY AVENUE

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FM No. 4227132-22-01

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Efficient Transportation Decision Making (ETDM): 12756



Public Kick-Off Meeting  
June 25, 2014; 6:00pm

**Florida Department of Transportation - District 6**



**PROJECT MANAGER**  
Dat Huynh, PE



**CONSULTANT  
PROJECT MANAGER:**  
Enrique "Rick" Crooks, PE



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

## Purpose & Need


The purpose of the proposed project is to examine the potential replacement or rehabilitation of the twelve existing bridges (ten low-level fixed spans and two movable bascules).

Posted on Monday, 04.14.14

VENETIAN CAUSEWAY

### Bus service suspended on Venetian Causeway

Like 171



Housekeeper Sonia Gomez has to walk across the west end of the Venetian Causeway on Monday, April 14, 2014, to catch a bus because the bus she would ordinarily take cannot cross the bridge. PATRICK FARRELL / MIAMI HERALD STAFF

Fullsize Buy Photo previous | next Image 1 of 3

Related Content

- Smaller buses to serve a portion of Venetian Causeway

the route changes.

BY CHRISTINA VEIGA AND PATRICIA MAZZEI  
CVEIGA@MIAMIHERALD.COM

Metrobus service has been suspended on the Venetian Causeway after a bus opened a hole in a bridge deck, forcing county officials to impose stricter weight restrictions.

"The load restrictions are going to be in place for many years, in all likelihood," said Miami-Dade County Engineer Antonio Cotarelo.

The hole incident occurred last month, prompting special inspections of bridges on the Venetian, which in turn led to the suspension of bus service late Friday.

So far, emergency services are running as normal, said Miami Beach Fire Rescue Capt. Adonis Garcia. But bus service over the causeway has been suspended since the lightest county bus weighs 15 tons — well over the five-ton and 11-ton restrictions now placed on portions of the bridge.

Bus riders who take Miami-Dade Transit Route A or the South Beach Local are most impacted by





- Low Sufficiency Ratings (S.R.) 32.4 to 67.1 (FDOT Bridge Insp. Reports 2014)
- Functionally Obsolete (10 of 12 bridges)
- Need for constant maintenance

Bridge No.	S.R. 2011	S.R. 2014	Rating
1	32.6	32.4	F.O.
2	52.0	47.6	F.O.
3	55.5	49.5	F.O.
4	55.5	49.5	F.O.
5	47.9	40.1	F.O.
6	57.6	48.6	F.O.
7	55.5	54.5	F.O.
8	55.5	54.5	F.O.
9	64.0	61	F.O.
10	57.5	54.5	-
11	64.0	55.7	F.O.
12	68.1	67.1	-

## Sufficiency Ratings

**SUFFICIENCY RATING = S1 + S2 + S3 - S4**  
**Sufficiency Rating Shall Not Be**  
**Less Than 0% nor Greater than 100%**

### FHWA Funding Policy

#### Sufficiency Rating

$0 \leq S < 50$

$50 \leq S \leq 80$

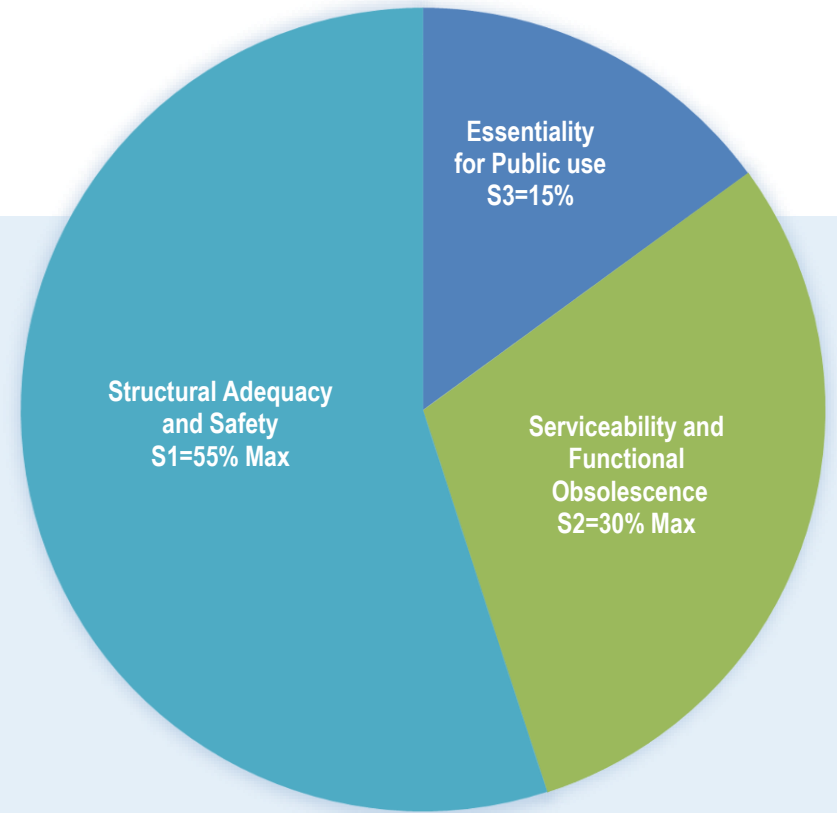
$80 < S \leq 100$

#### Funding Action

Replacement

Rehabilitation

Maintenance

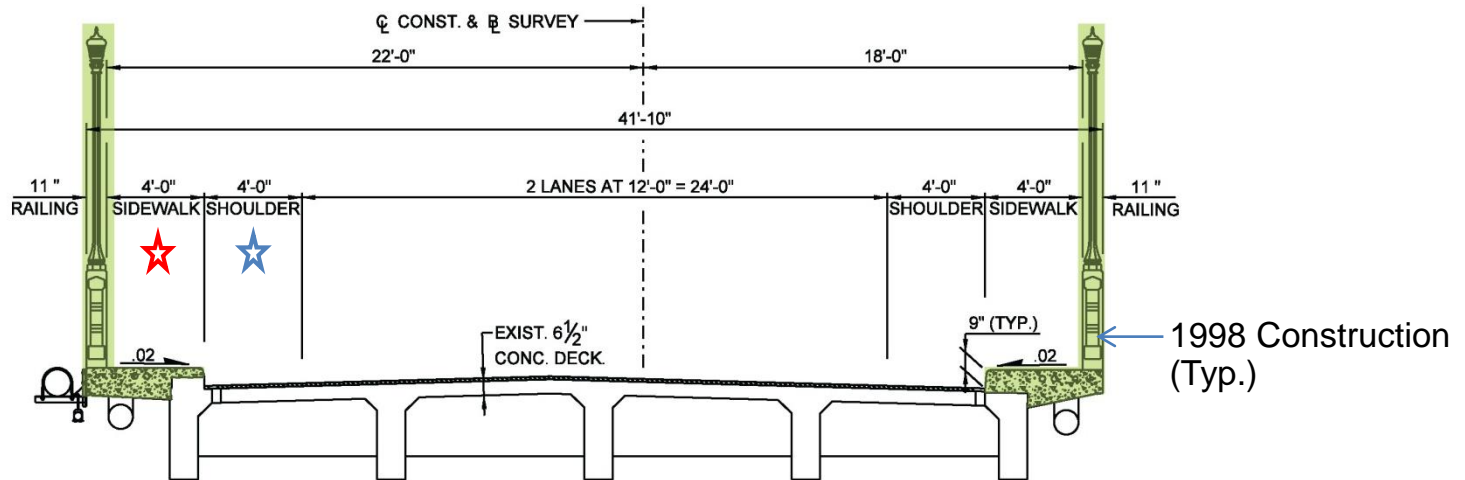


Special Reductions  
**S4 = 13% Max**

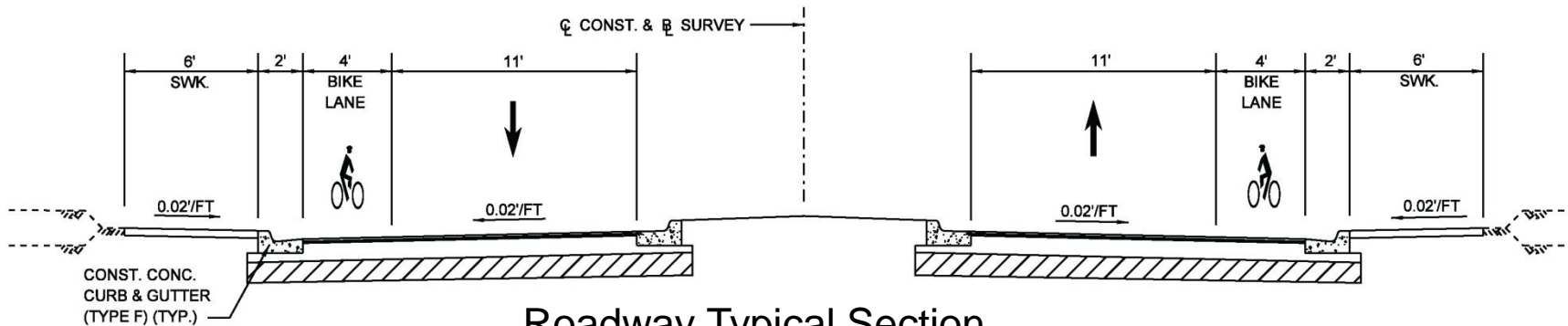
## History of continuous repair and maintenance

- **1970s:** Over one half of the 201 pile caps were repaired
- **1998:** Bridge Rehabilitations
  - 40%-90% of girders and deck repaired
  - One pile cap repair & Riprap placement at all foundations
- **2011:** 50%-75% of girders and deck repaired
- Much of original resource lost due to repairs and replacement
  - New light poles (1998)
  - New railings (1998)
  - 60% of West Bridge replaced in 1997 (including drawbridge)
  - East drawbridge superstructure replaced in 1998





Bridge Typical Section



Roadway Typical Section

★ 6 ft sidewalk required for FDOT, 5 ft minimum. (4 ft existing)

★ 5.5 ft shoulder required for bike lane (4 ft existing)

- Existing bridge typical section does not meet standards and is not compatible with proposed master plan roadway typical section
- Drainage: Direct discharge through bridge scuppers into the environmentally sensitive Biscayne Bay

## Existing Condition – Fixed Bridges

- Substructure
  - Substructure repairs in 1998 included the placement of riprap at all foundations
  - Unknown Foundations
  - Continued Deterioration
- Superstructure
  - Recently repaired but deterioration continues
  - Cracked and Spalling Concrete





## Existing Condition – West Bascule (874459)

- West approach spans 1 -16 are 1926 construction
  - Scour Susceptible
  - Unknown Foundations
  - Continued Substructure and Superstructure Deterioration
  - Recent Deck Failure
- Approach Spans 7-28 and 30-41 and Bascule Span Replaced in 1998 (substructure and superstructure)



## Existing Condition – East Bascule (874474)

- Constructed in 1926
- Cracked and Spalling Concrete
- Bascule leaves (steel) replaced in 1998
- Scour Susceptible Foundations
- Unknown Foundations
- Structural Steel Corrosion
- Electrical & Mechanical Deficiencies



**United States Department of the Interior  
National Park Service**

## National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

### 1. Name of Property

historic name Venetian Causeway  
other names/site number Venetian Causeway

### 2. Location

street & number N. E. 15th Street and Dade Boulevard ☐ N/A not for publication  
city, town Miami-Miami Beach ☒ vicinity  
state Florida code FL county Dade code FL zip code 33128

### 3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	<u>0</u>	<u>0</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u>0</u>	<u>0</u> sites
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	<u>0</u> structures
	<input type="checkbox"/> object	<u>0</u>	<u>0</u> objects
		<u>1</u>	<u>0</u> Total

Name of related multiple property listing: N/A  
Number of contributing resources previously listed in the National Register N/A

### 4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of certifying official George W. Percy Date 6/5/89  
Florida Department of State-Bureau of Historic Preservation  
State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official \_\_\_\_\_ Date \_\_\_\_\_  
State or Federal agency and bureau \_\_\_\_\_

### 5. National Park Service Certification

I, hereby, certify that this property is:

☐ entered in the National Register.  
☐ See continuation sheet.  
☐ determined eligible for the National Register. ☐ See continuation sheet.  
☐ determined not eligible for the National Register.  
☐ removed from the National Register.  
☐ other, (explain:) \_\_\_\_\_

Signature of the Keeper

Date of Action



## FLORIDA DEPARTMENT OF STATE

Jim Smith  
Secretary of State  
DIVISION OF HISTORICAL RESOURCES  
R.A. Gray Building  
500 South Bronough  
Tallahassee, Florida 32399-0250  
Director's Office (904) 488-1480 Telecopier Number (FAX) (904) 488-3353

August 22, 1989

Mr. Edward R. Blumberg, Esquire  
Venetian Islands Improvement Association  
441 East Di Lido Drive  
Miami Beach, Florida 33139

Re: Venetian Causeway

Dear Mr. Blumberg:

It is a pleasure to advise you that the above referenced site has been officially listed in the National Register of Historic Places as of July 13, 1989.

On behalf of Secretary of State Jim Smith and our historic preservation staff, I congratulate you on achieving this formal recognition of the historic significance of this property. We appreciate your interest in preserving this important element of Florida's cultural resources.

Sincerely,

*George W. Percy*  
George W. Percy  
State Historic  
Preservation Officer

- Listed in the National Register of Historic Places in 1989
- Locally Listed by the Cities of Miami and Miami Beach



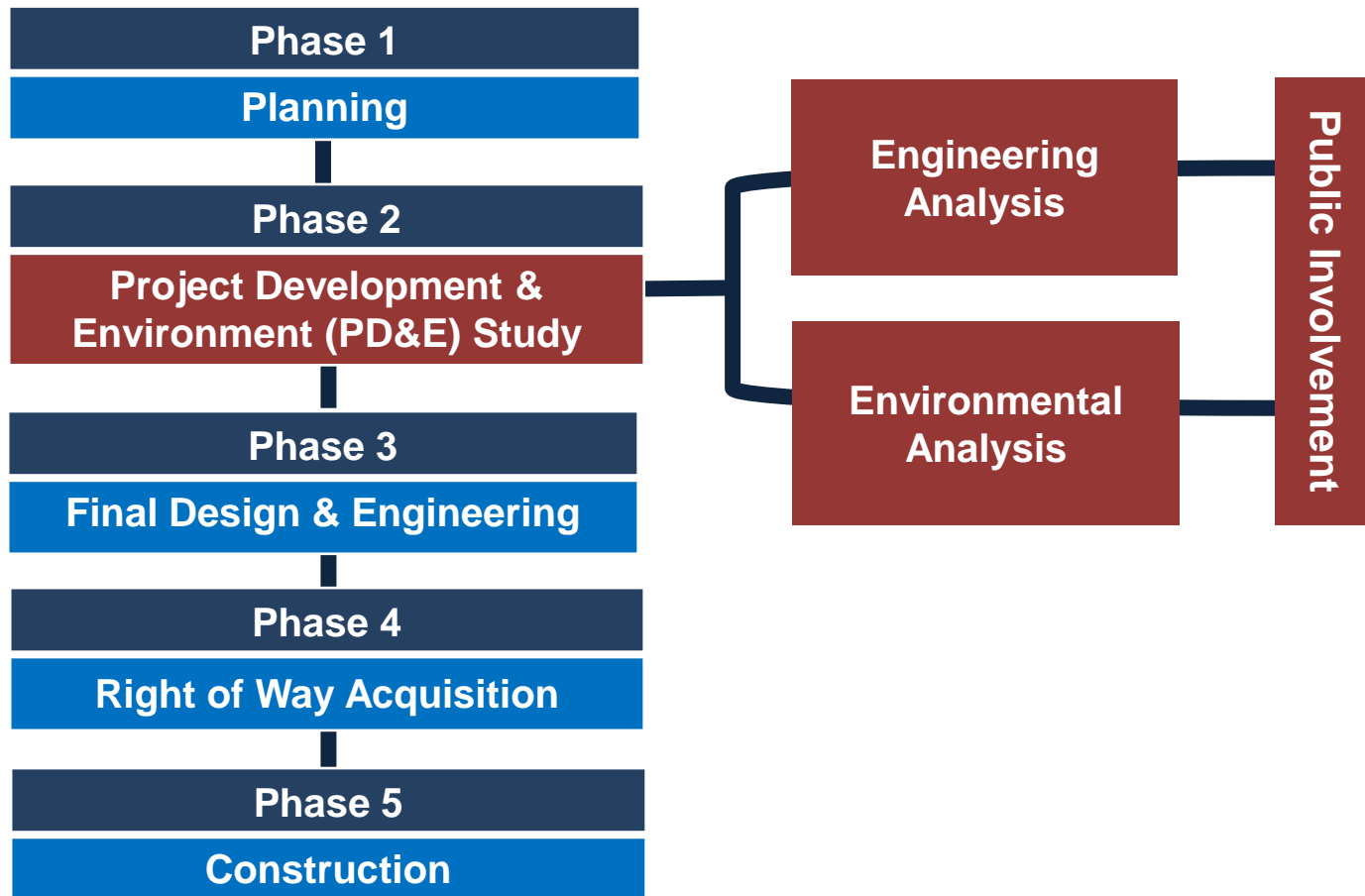


- Constructed in 1926
- Listed on the National Register of Historic Places
- Concrete arches
- Railings (replicated)
- Light poles (replicated)
- Oldest causeway in Florida
- Listed as Historic in the Cities of Miami and Miami Beach

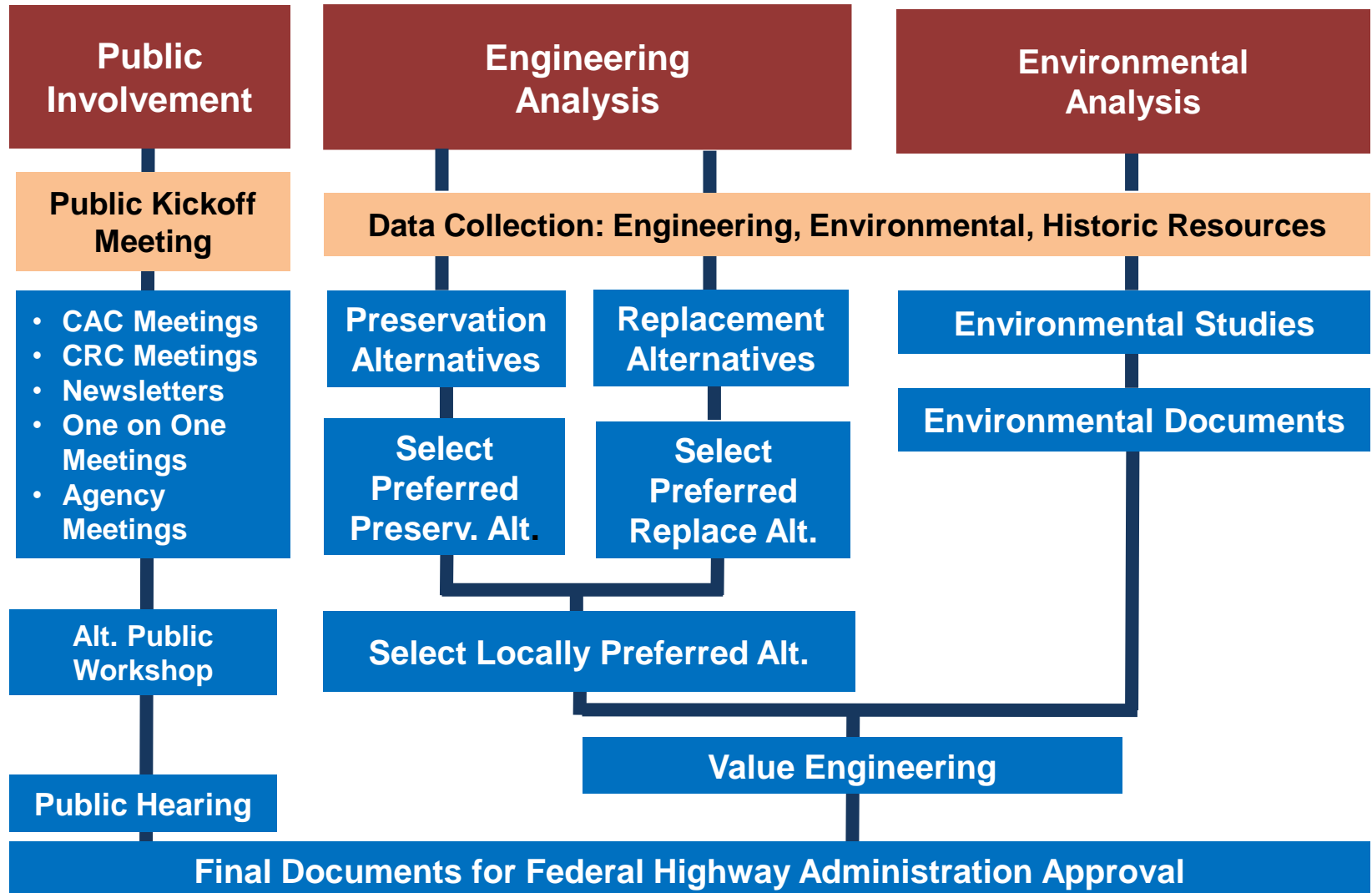
- Investigate all alternatives including the “Do Nothing” alternative
- Feasible and Prudent Alternatives
  - Rehabilitation
  - Replacement
- Section 106 Evaluation of Adverse Effects – Avoidance, Minimization or Mitigation of Adverse Effects



## Transportation Project Development Process



## PD&E Process



## GOALS:

- Engage in early, continuous and sound public involvement opportunities throughout the planning and program process
- Provide timely information to citizens, affected public agencies, representatives of transportation agencies, private sector transportation entities and other interested parties

## KEY ISSUES:

- Navigational impact
- Noise
- Maintenance of Traffic (MOT)
- Potential loss of historic designation
- Accessibility including emergency responders, garbage pick-up and utilities
- Connectivity

## STAKEHOLDER GROUPS

- Home Owner's Associations
- Community Advisory Committee (CAC)
- Cultural Resource Committee (CRC)
- Elected Official Outreach
- Other Stakeholders

## MEETINGS

- Meetings, workshops and one-on-one listening sessions

## ONLINE

- Project webpage – Updates posted weekly  
[www.fdotmiamidade.com/venetianbridgestudy](http://www.fdotmiamidade.com/venetianbridgestudy)
- Efficient Transportation Decision Making (ETDM)  
<https://etdmpub.fl-a-etat.org/est/#12756>

## PROJECT NEWSLETTERS

- 12 newsletters developed and distributed to the community
- Will provide timely updates on the project

## CLOSE COORDINATION WITH THE AFFECTED NEIGHBORHOODS

- Venetian Causeway Neighborhood Alliance
- Miami Beach Chamber of Commerce
- Venetian Islands Homeowners' Association
- City of Miami Beach
- City of Miami



## Preserve Bridges

- Structurally sound
- Maintainable
- Ensure public's safety (rehabilitate to meet current standards)
- Goal is to Retain National Register of Historic Places Eligibility

## Replacement

- Acknowledge significant historic characteristics of Causeway and significant Adjacent Resources
- Design to current standards

## Design Criteria

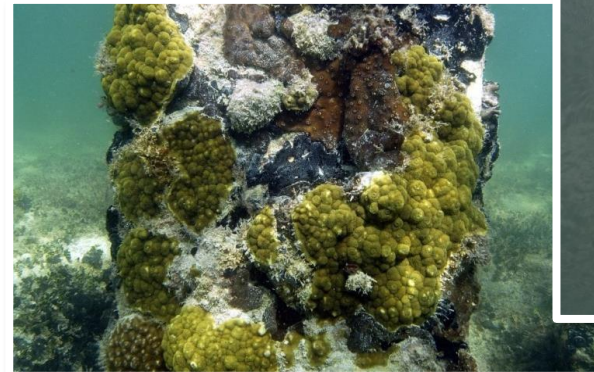
- FDOT's Plans Preparation Manual (PPM) / Florida's Green Book
- FDOT's Traffic Handbook
- Americans with Disabilities Act (ADA)
- FDOT's Structures Design Guidelines (SDG)
  - Vessel Collision
  - Wave Vulnerability
- FDOT's Drainage Manual
  - Coastal Hydraulics
  - Bridge Hydraulics Report (BHR)

## Environmental Designations

- Biscayne Bay Aquatic Preserve
- Outstanding Florida Water
- Class III Waters
- Navigable Waters of the United States



- Essential Fish Habitat Designation
- Federal Listing of Johnson Seagrass, Small Tooth Sawfish and Several Coral Species
- Greater Manatee Protection Measures
- Historic Bridges
- Efficient Transportation Decision Making (ETDM)



## PD&E STUDY INITIATED

**SUMMER 2014**

## PUBLIC KICKOFF MEETING

**SUMMER 2014**

- *This meeting will introduce the project and the study to the public and provide an opportunity to solicit questions, comments, and suggestions.*

## ALTERNATIVES PUBLIC WORKSHOP

**SUMMER 2015**

- *At the Alternatives Public Workshop, the project alternatives that were developed will be presented to the public. The public's feedback and input will be solicited at the workshop.*

## PUBLIC HEARING

**WINTER 2016**

- *At the Public Hearing, the selected project alternative will be presented to the public.*

## COMPLETE PROJECT DEVELOPMENT & ENVIRONMENT STUDY

**SPRING 2017**



## FDOT CONTACT

**Project Manager: Dat Huynh, PE**

Email: [Dat.Huynh@dot.state.fl.us](mailto:Dat.Huynh@dot.state.fl.us)

Phone: 305-470-5217

## ONLINE

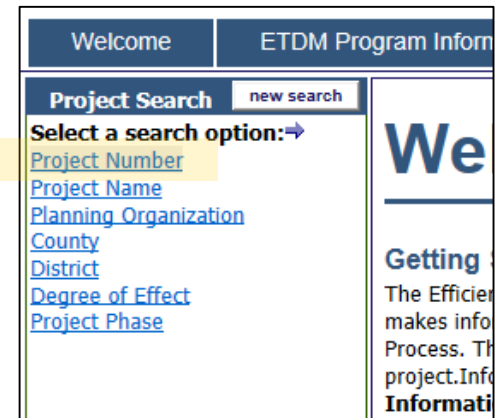
- Project webpage – Updates posted weekly

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

- Efficient Transportation Decision Making (ETDM)

<https://etdmpub.fl.a-etat.org/est/>

- Click on Project Number on left hand menu
- Type in 12756
- Click “Go” or press Enter



The screenshot shows a web interface with a top navigation bar containing 'Welcome' and 'ETDM Program Information'. Below this is a 'Project Search' section with a 'new search' button. A dropdown menu is open, listing search options: 'Project Number' (highlighted), 'Project Name', 'Planning Organization', 'County', 'District', 'Degree of Effect', and 'Project Phase'. To the right of the search section, there is a large 'We' and a 'Getting' section with text about the efficient process.