

ALTERNATIVES EVALUATION PRESENTATION



San Martin Boulevard over Riviera Bay Project Development & Environment (PD&E) Study

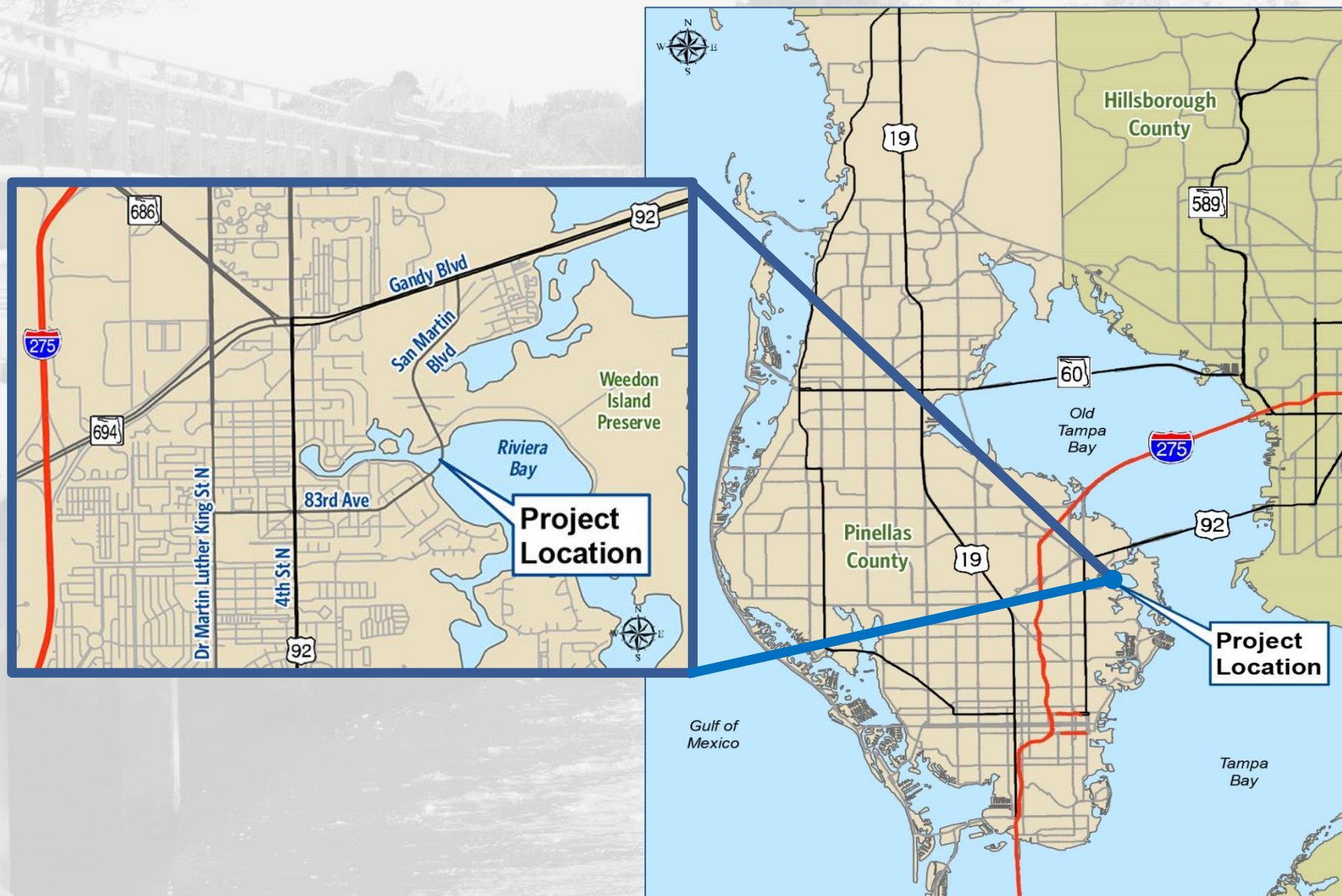
PROJECT IDENTIFICATION NUMBER
(PID): #001036A

June 21, 2016



PROJECT LOCATION

SAN MARTIN BOULEVARD OVER RIVIERA BAY PD&E STUDY (#001036A)



PROJECT LIMITS & SCOPE

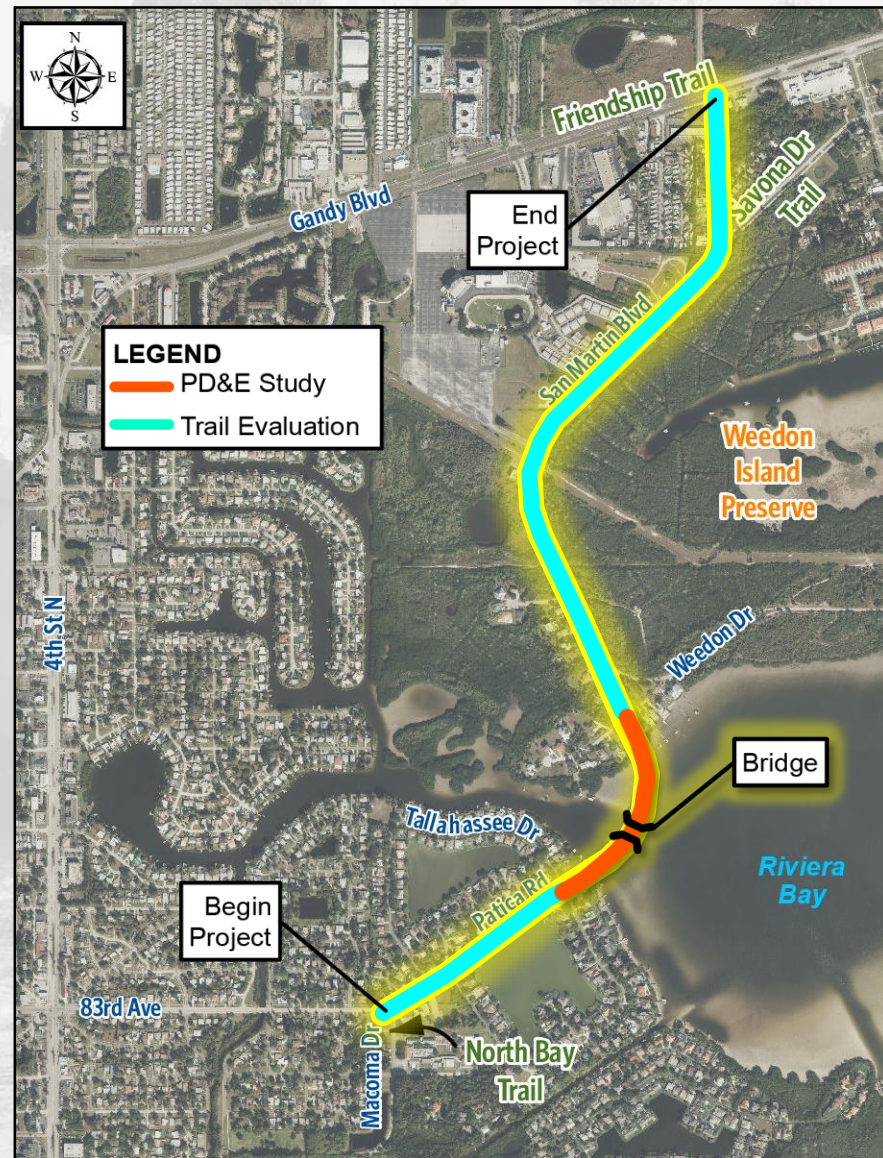
SAN MARTIN BOULEVARD OVER RIVIERA BAY PD&E STUDY (#001036A)

1. San Martin Blvd. over Riviera Bay Bridge Replacement PD&E Study

- Meet National Environmental Policy Act (NEPA) requirements
- Proposed Action:
 - Replace or rehabilitate the existing bridge to ensure safe traveling conditions for all road users
- Evaluate Alternatives
- Bridge Replacement on MPO's 2040 LRTP

2. North Bay Trail Extension Evaluation

- Evaluate Alignment Alternatives
- Evaluate Crossing Locations
- North Bay Trail extension on City's Trail Program & County Bike/Ped Master Plan



PUBLIC INVOLVEMENT

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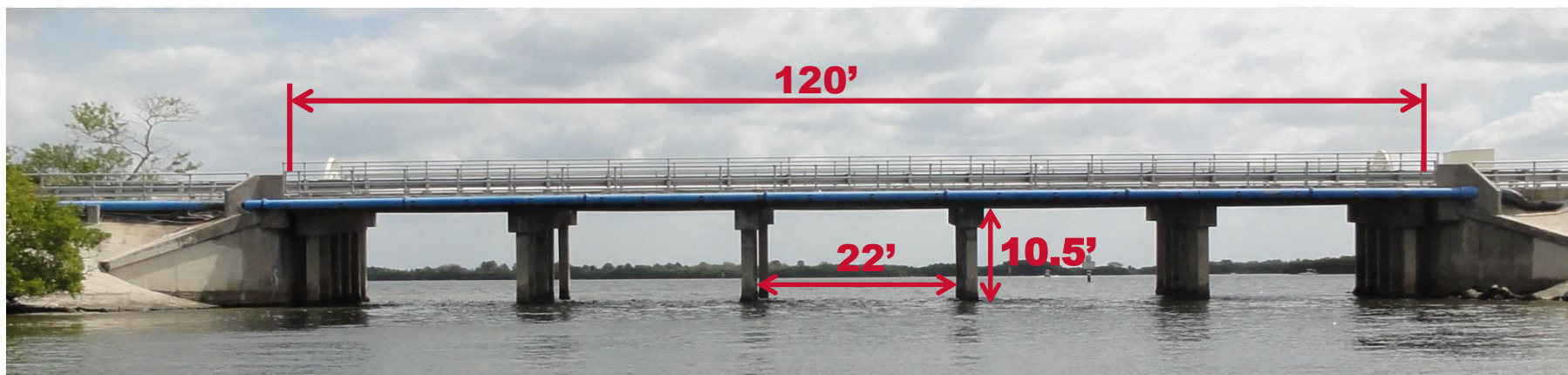
Informational Meetings

- 4/20/15 - MPO Pedestrian and Bicycle Committee
- 4/22/15 - MPO Technical Advisory Committee
- 4/23/15 - MPO Citizens Advisory Committee
- 5/5/15 - Board of County Commissioners
- 5/13/15 - MPO Board Meeting
- 5/21/15 - City of St. Petersburg City Council
- 7/14/15 - Public Kickoff Meeting
- July 2016 – Alternatives Public Workshop



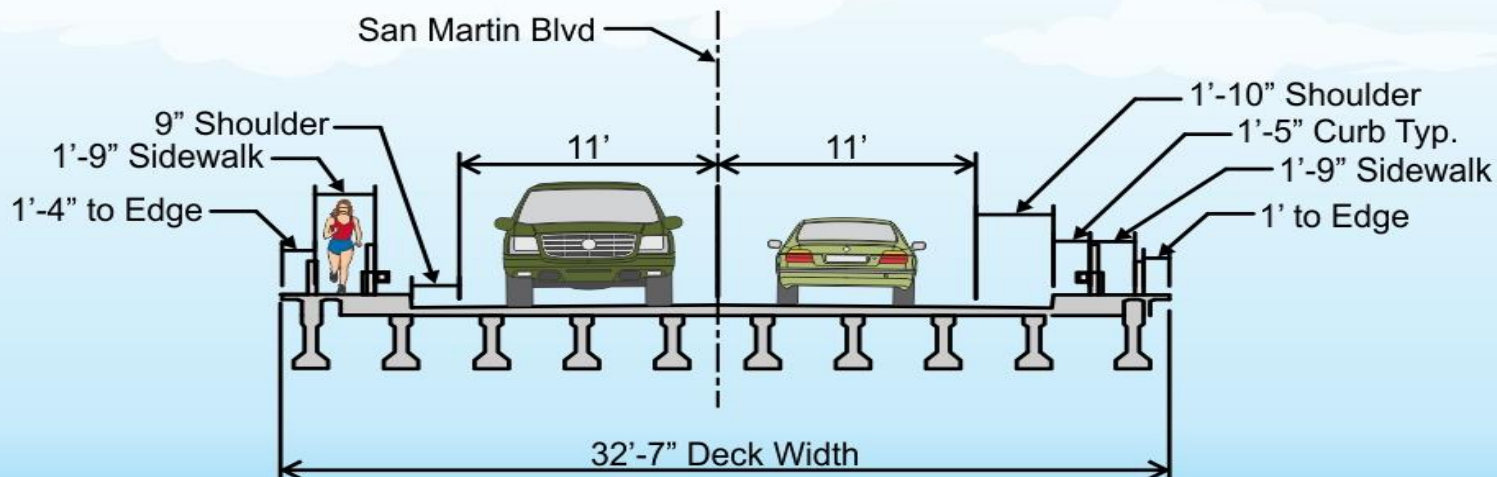
EXISTING BRIDGE CONDITION

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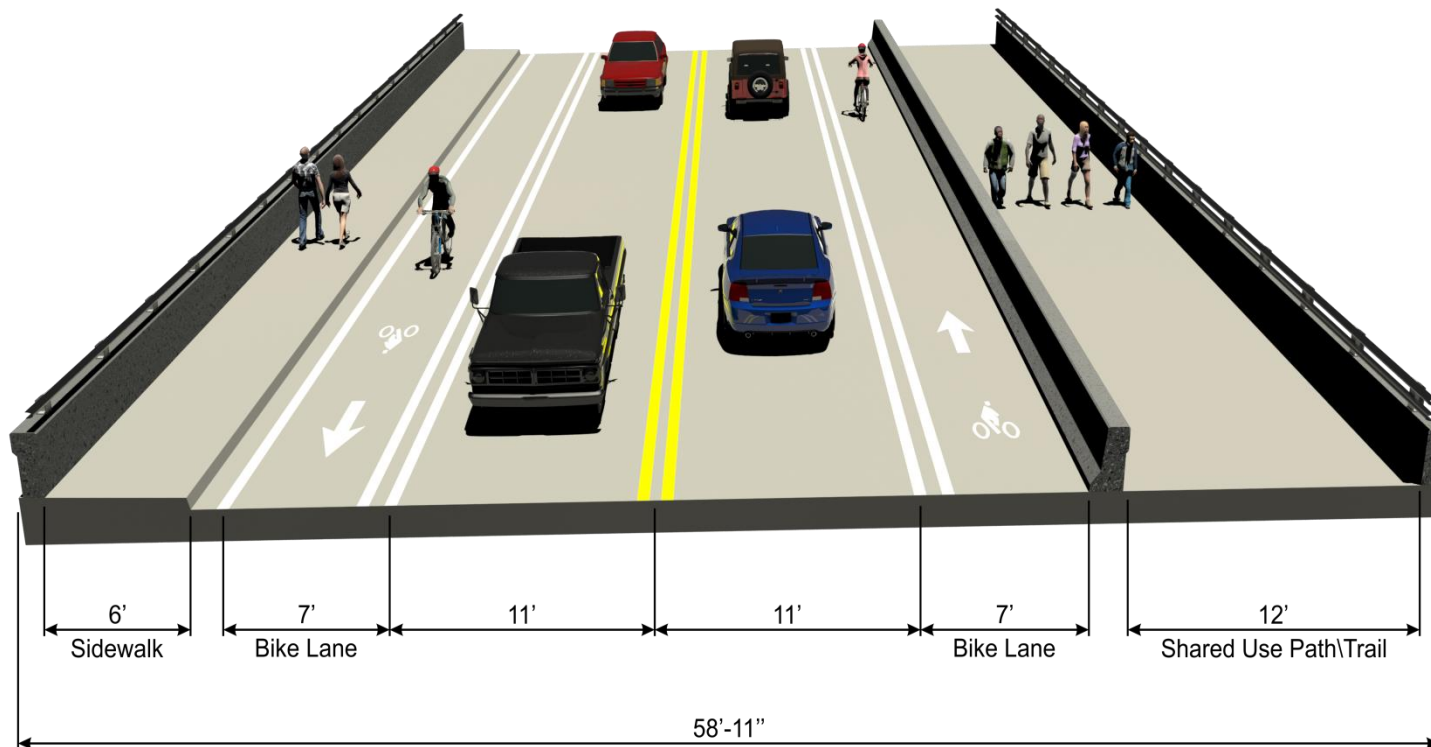
- **Bridge Built in 1962**
- **Existing Bridge Length = 120 ft.**
- **Vertical Clearance = ± 10.5 ft.**
- **Horizontal Clearance = 22 ft.**
- **2015 FDOT Bridge Inspection Report**
 - Sufficiency Rating = 65.2
 - Rating < 80 – May Warrant Rehabilitation or Replacement
- **Scour Critical**

EXISTING TYPICAL SECTION



- **Two Lane Five Span (24 ft. spans) Flat Slab Bridge**
- **Functionally Obsolete**
 - Narrow Shoulders
 - No ADA compliant walkways
- **No bicycle lanes**

CONCEPTUAL BRIDGE TYPICAL SECTION



- **40 mph Design Speed / 35 mph Posted Speed**
- **Two Lane Bridge – No increase in capacity**
- **Provision for bike lanes and shared use path**
 - 7' lanes are considered due to being in urban area and bike volumes
 - 12' shared use path considered based on analysis and adjacent trails

OVERVIEW OF ALTERNATIVES

No Build Alternative

- Being considered for NEPA
- Delays improvements to later date
- Requires ongoing maintenance

Proposed Build Replacement Alternatives

- **Left (West) Shifted Alignment**
- **Centered Alignment**
- **Right (East) Shifted Alignment**
- **Highest Feasible Profile Reconstruction Alternatives (Fixed –Span)**
 - Increases clearance over channel
 - Eliminates impacts to adjacent neighborhoods

BUILD REPLACEMENT ALTERNATIVE REVIEW EXISTING BRIDGE ALIGNMENT



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BUILD REPLACEMENT ALTERNATIVE REVIEW LEFT SHIFTED



SAN MARTIN BOULEVARD OVER RIVIERA BAY PD&E STUDY (#001036A)



Google earth

Imagery Date: 2/12/2016 27°51'04.47" N 82°37'28.68" W elev. 0 ft eye alt 883 ft

BUILD REPLACEMENT ALTERNATIVE REVIEW CENTERED



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BUILD REPLACEMENT ALTERNATIVE REVIEW RIGHT SHIFTED



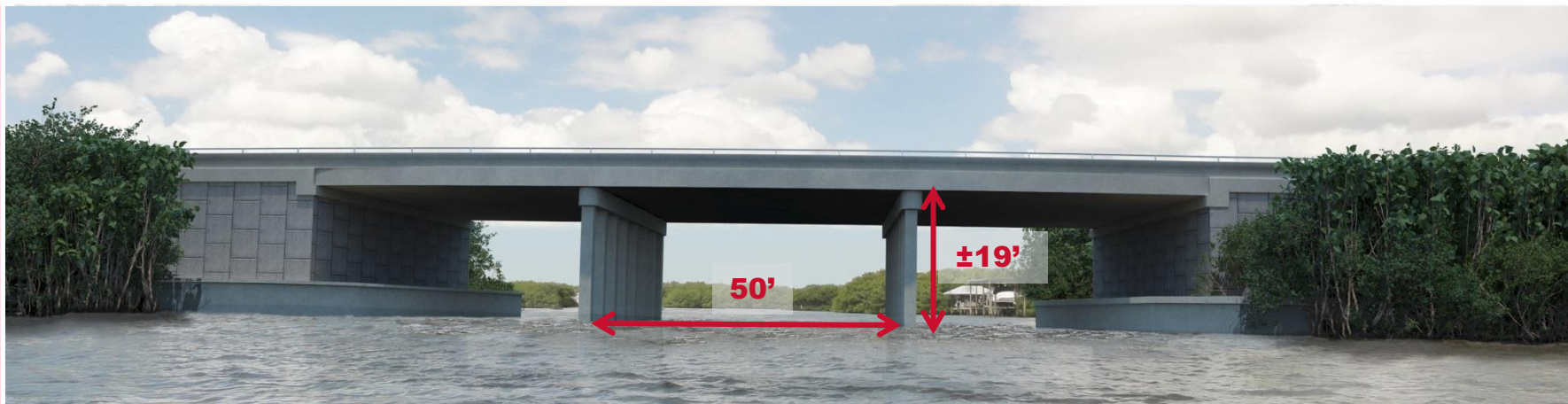
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Google earth

ALTERNATIVES COMPARISON MATRIX

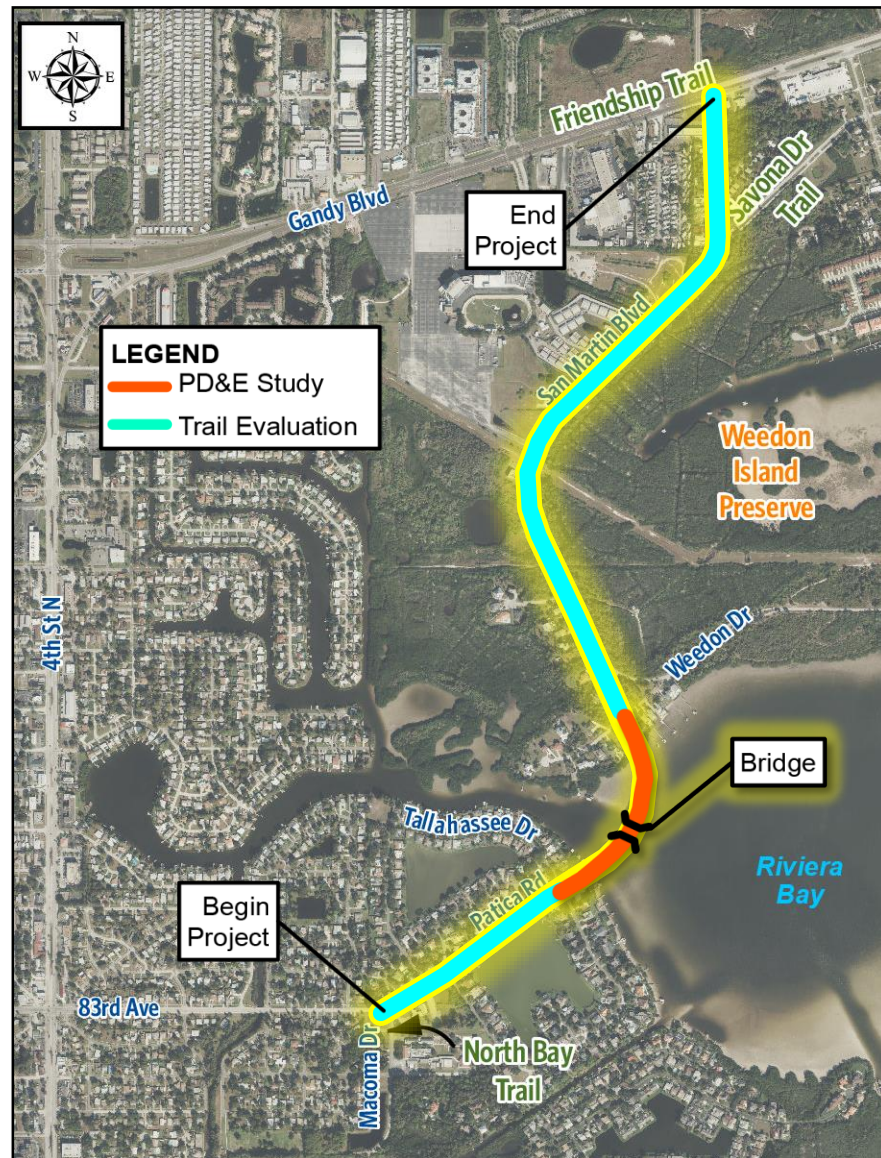
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Evaluation Criteria	No Build Alt.	Build Alternatives		
		Left-Shifted	Centered	Right-Shifted
Bridge Design				
Bridge Vertical Clearance	10.5'	19.3'	19.6'	19.4'
Bridge Span Length over Channel	24'	50'	50'	50'
Bridge Deficiencies Addressed	No	Yes	Yes	Yes
Above Critical Wave Height?	No	Yes	Yes	Yes
Social and Environmental Impacts				
Private Property/Land Acquisition	None	0.59 acres	0.59 acres	0.59 acres
Relocations	None	None	None	None
Archaeological/Historical Sites	None	None	None	None
Seagrass/Mangrove Impacts	0.000 / 0.000	0.000 / 1.343 acres	0.002 / 0.962 acres	0.018 / 0.559 acres
Utility Impacts	None	24" Force Main 12" Watermain	24" Force Main 12" Watermain	24" Force Main 12" Watermain
Construction Impacts				
Construction Duration	N/A	24 months	20 months	24 months
Offsite Detour?	None	No	Yes	No
Costs				
Total Project Costs (Millions)	\$0	\$12.290	\$11.373	\$13.753

NORTH BAY TRAIL EXTENSION EVALUATION

- **Study Limits**
 - Macoma Drive to Gandy Blvd (1.9 mi)
- **Determine Best Trail Configuration**
 - Consider East side vs. West side
 - Provide connectivity to adjacent trails and Weedon Island Preserve
 - Minimize environmental impacts
- **Evaluate Safe Locations for Trail Crossings**
 - Friendship Trail
 - Savona Drive Trail
 - Duke Energy Trail
 - Weedon Island
 - North Bay Trail Existing Terminus



TRAIL EVALUATION MATRIX

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Alternative	Estimated Costs (\$1,000s) ¹	Wetland and Surface Water Impacts (ac)	San Martin Blvd. Trail Crossing Locations				
			Macoma Drive	Weedon Island	Duke Energy Trail	Savona Drive Trail	Friendship Trail
East	\$844.4	0.93	X	X		X	X
West	\$920.1	1.53			X		X
Hybrid	\$806.7	0.93			X	X	X

¹ Total costs include the following: Mobilization (10%); Maintenance of Traffic (10%); Project Unknowns (20%); Preliminary Engineering and Design (7%) & Construction Engineering & Inspection (7%).

SCHEDULE

■ Project Schedule

- Public Alternatives Workshop **July 18, 2016**
- Board to Select Recommended Alternative Fall 2016
- Public Meeting (If Needed) Spring 2017
- Study Complete Summer 2017



QUESTION & ANSWER



CONTACT INFORMATION

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