

# Big Carlos Bridge Project Development & Environmental Study



December 4, 2018



# Presentation Overview

- Summary of PD&E
- Alternatives Discussion
- Staff Recommended Alternative
- Discussion and Question
  - Do you concur with the Staff Recommendation of the 60-foot vertical clearance fixed span alternative as the replacement option for the Big Carlos Pass Bridge?



# Timeline

- **CIP Project Priority Approval** 2012/2013 CIP through 2016/2017 CIP
- **Board Workshop** identified Big Carlos Pass Bridge Replacement as #2 County transportation priority based on ranking criteria. **February 2, 2016**
- **Board Workshop** included Big Carlos Pass Bridge Replacement in Draft Capital Improvement Plan for construction in FY 20-21 **April 5, 2016**
- **Final Budget Hearing** approved as part of FY16-17 Budget in the 5-Year CIP for construction in FY20-21 **September 20, 2016**
- **PD&E Consultant Contract Approval** **September 20, 2016**
- **BoCC Workshop Presentation** **December 20, 2016**



# PD&E Status

- The Project Development & Environmental Study (PD&E) is a consultant prepared report necessary to assure compliance with the National Environmental Policy Act (NEPA) which in turn is necessary to be eligible for State and/or Federal funding.
- The PD&E data collection and public involvement tasks have been completed and the Build Alternatives have been identified.
- We are at the stage of the PD&E process that requires a recommended bridge alternative be selected to move forward with the next stages of the report.



# Big Carlos Pass Bridge PD&E Study Presentations to Elected Officials, Homeowners Associations, and Mariners

## **Elected Officials**

Lee County BoCC	12/20/2016
City of Bonita Springs	1/18/2017
Town of Fort Myers Beach	1/23/2017

## **Mariners**

CMCS Sailing Club	3/21/2017
Fort Myers Sailing Club	4/5/2017
Fishtail Marina	4/11/2017

## **Flyers sent for distribution to Mariners**

Bonita Bay	3/2017
Pelican Landing	3/2017

## **Public Informational Meeting**

1/18/2018

## **Homeowners Associations**

Beach Lovers Key Beach Club, Lovers Key Resort, Island Beach Club	1/17/2017
Islands End – four condominiums invited	1/19/2017
Marina Towers	1/19/2017
Waterside Master Assoc.	1/24/2017
Manatee Bay Beach Club	2/9/2017
Casa Marina II	2/13/2017
Palm Harbour Club	2/23/2017
Harbour Pointe	3/6/2017
Estero Island Taxpayers Assoc.	Cancelled
Estero Boulevard Improvements Assoc.	4/11/2017



# Alternatives

- No Build / Rehabilitation of the Existing Bridge
  - Extends the useful life for 20 years.
  - Maintains functionally obsolete and non-ADA compliant 3-foot sidewalks and non-crashworthy barriers.
  - Ultimately requires full bridge replacement at 20 years.
- 24-Foot Vertical Clearance Staffed Drawbridge with Upgraded Pedestrian and Safety Features
  - Most expensive build option based on initial capital cost and lifecycle cost
- 60-Foot Vertical Clearance Fixed Span Bridge with Upgraded Pedestrian and Safety Features
  - Least expensive build option based on initial capital cost and lifecycle cost



# Alternative Evaluation Matrix

Evaluation Factors	No-Build Alternative (Repair) ■	24-Foot Drawbridge Bay or Gulf Alignment	60-Foot Fixed Bridge Bay or Gulf Alignment
Vertical Navigation Clearance	24.5 feet	24.5 feet	60 feet
Horizontal Navigation Clearance	50 feet	50 feet	90 feet
<b>Estimated Project Costs (2017 Dollars) ■</b>			
Design (10% of Construction Cost)	\$2,448,000	\$5,059,000	\$4,012,000
Right-of-Way	\$0	\$0	\$0
Roadway Construction	\$0	\$2,085,000	\$5,426,000
Bridge Construction	\$24,478,000	\$48,509,000	\$34,695,000
CEI (10% of Construction Cost)	\$2,448,000	\$5,059,000	\$4,012,000
<b>Subtotal, Initial Capital Investment</b>	<b>\$29,374,000</b>	<b>\$60,712,000</b>	<b>\$48,145,000</b>
Bridge Lifecycle Maintenance & Operations	\$10,846,000	\$106,891,000	\$39,626,000
<b>Total Project Cost</b>	<b>\$40,222,000 ■</b>	<b>\$167,603,000</b>	<b>\$87,771,000</b>
<b>Life of Alternative</b>	<b>20 Years</b>	<b>75 Years</b>	<b>75 Years</b>

■ The No-Build Alternative bridge repairs will extend the useful life of the bridge by approximately 20 years, after which replacement will be required.

■ Costs are estimated for the life of the alternative using a 4% inflation rate.

■ Cost for 20-year life of the No-Build Alternative. Total 75-year cost with bridge replacement at the end of the 20-year life of the No-Build Alternative is:

- (a) \$183M if replaced with a 60-Foot Fixed Bridge, or
- (b) \$276M if replaced with a 24-Foot Drawbridge.





# Artist Renderings

## Viewed from Lovers Key Beach Club



Drawbridge from Beach Level

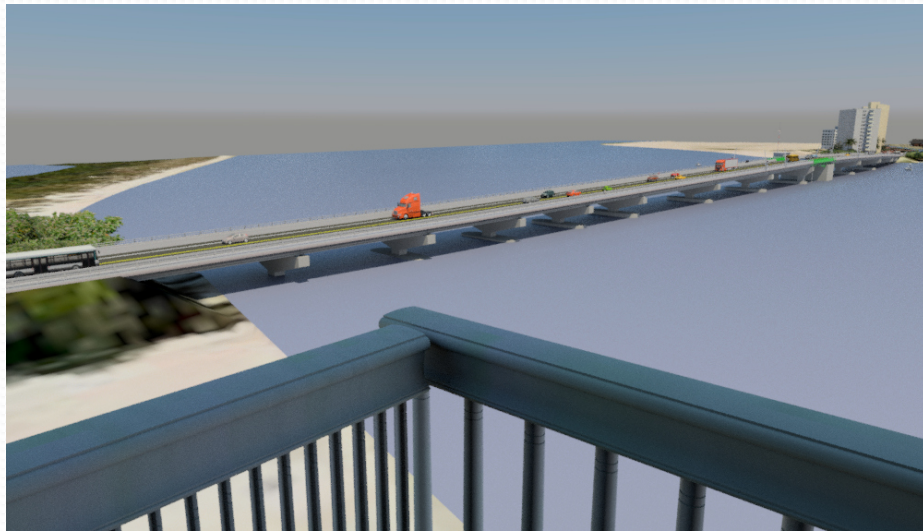


Fixed Bridge from Beach Level

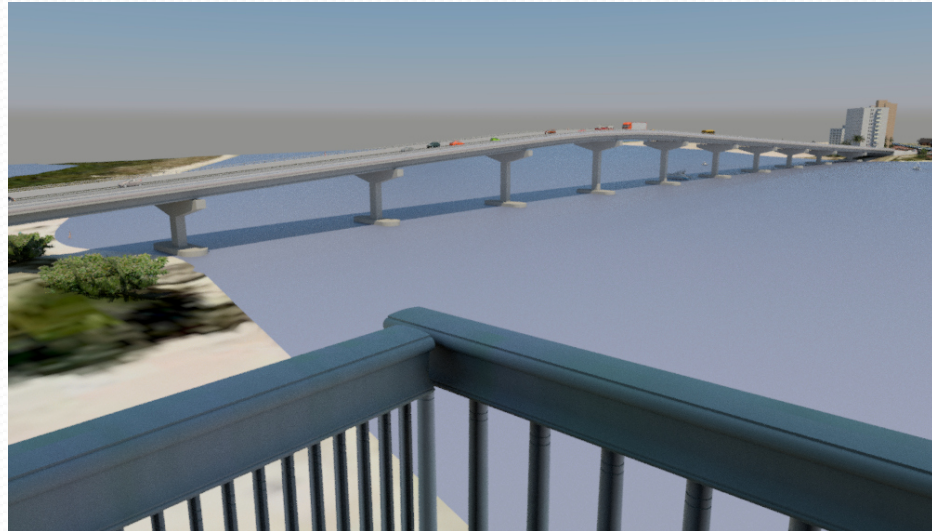


# Artist Renderings

## Viewed from Lovers Key Beach Club



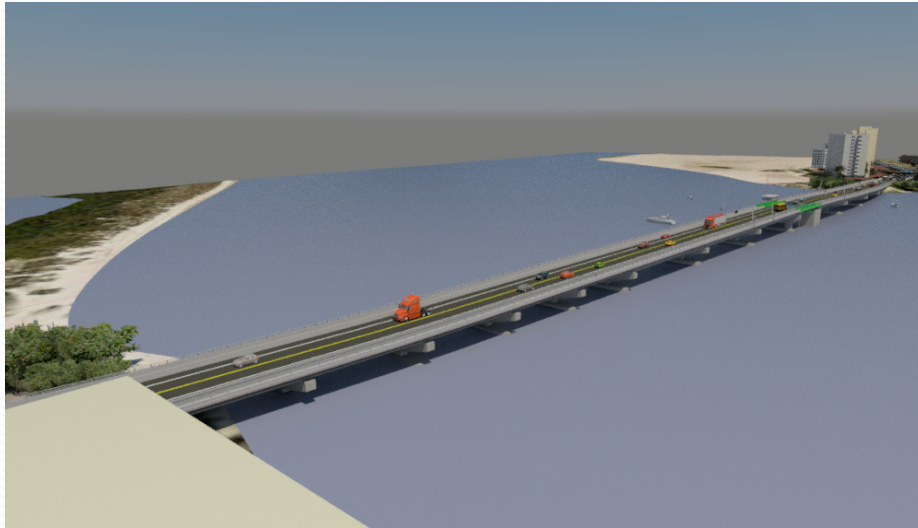
Drawbridge from 7<sup>th</sup> Floor



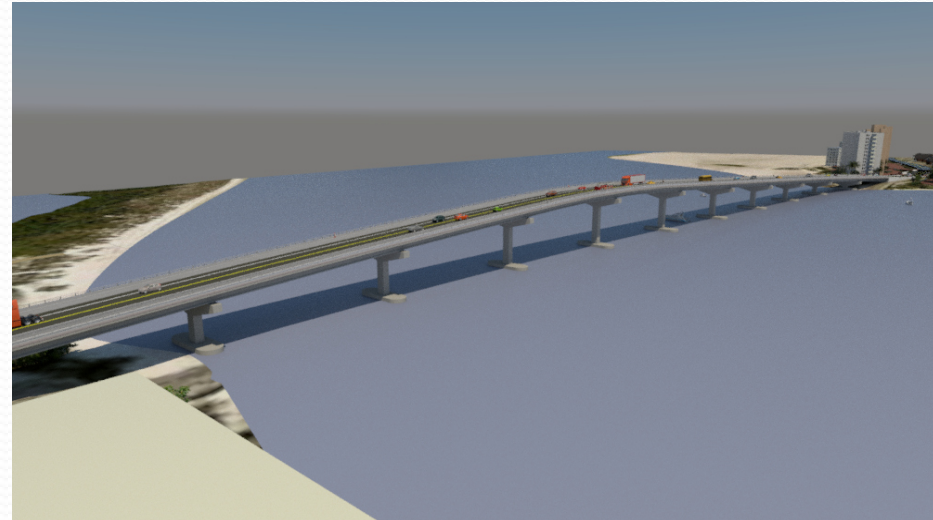
Fixed Bridge from 7<sup>th</sup> Floor

# Artist Renderings

## Viewed from Lovers Key Beach Club



Drawbridge from Top Floor



Fixed Bridge from Top Floor

# Staff Recommendation

## Preferred Alternative

Lee County Engineering Staff and our consultants recommend the 60-foot vertical clearance fixed span bridge built to the Gulf side of the existing bridge.

- Lowest initial capital cost
- Lowest long-term operating and maintenance cost
- Most durable structure for marine environment
- Most effective evacuation selection for both vehicles and vessels



# Next Steps

- BoCC Agenda item approval of selected alternative at the December 18<sup>th</sup> meeting.
- Finalize the PD&E Report.
- Hold Public Hearing.
- Final FDOT Approval – Project is then eligible for funding
- Design ----→ **Construction FY 2021/2022**





# Question

Do you concur with the Staff Recommendation of the 60-foot vertical clearance fixed span alternative as the replacement option for the Big Carlos Pass Bridge?

