COMMISSION AGENDA:
1.27.15 #17

Pinellas County

OFFICE OF ENGINEERING & TECHNICAL SUPPORT

MEMORANDUM

TO: The Honorable Chair and Members of the Board of County Commissioners

THROUGH: Mark S. Woodard, County Administrator

FROM: Kevin J. Becotte, P.E., Director of Engineering & Technical Support

DISTRIBUTION: David E. Scott, P.E., Assistant County Administrator

SUBJECT: Dunedin Causeway Bridges Project Development and Environment (PD&E) Study Kick-off Presentation

DATE: January 27, 2015

This presentation introduces the PD&E process for the rehabilitation or replacement of the existing Dunedin Causeway Bridges, and is in accordance with Section 4.5 of the consultant agreement. The presentation also provides the opportunity for discussion of the project needs, alternatives to be considered, and allows for public and local government input.

The consultant agreement for the PD&E Study was approved by the Board of County Commissioners (Board) on November 18, 2014 with URS Corporation Southern. The study includes the Main Bascule Bridge, connecting Ward Island to Dunedin Causeway, and the fixed Tide Relief Bridge, which connects Dunedin Causeway with Honeymoon Island.

The study began in December 2014 and is anticipated to be completed in December 2016. A number of alternatives for the Main Bascule Bridge will be evaluated, including the following:

- No Build
- Rehabilitation of the Existing Bridge
- Replacement with a New Movable Bridge
- Replacement with a New High-Level Fixed Bridge

The following alternatives will be evaluated for the Tide Relief Bridge:

- No Build
- Rehabilitation of the Existing Bridge
- Replacement with a New Fixed Bridge with Similar Vertical Clearance

The focus of the study will be improvements to the two existing bridges. Improvements to the roadway between the bridges and to the beach areas will not be evaluated.

This presentation has been given to the following MPO Advisory and citizen groups:

- MPO Technical Coordinating Committee – December 3, 2014
- MPO Citizens Advisory Committee – December 4, 2014
- MPO Bicycle Pedestrian Advisory Committee - December 15, 2014
- City of Dunedin Ad Hoc Advisory Committee - January 13, 2015
- MPO Board – January 14, 2015

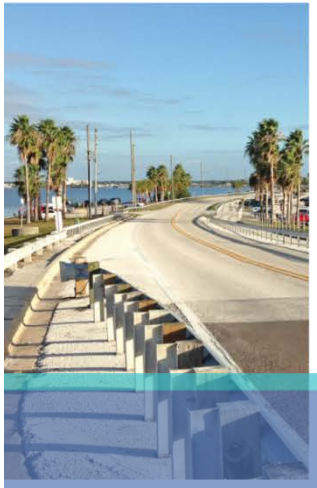
The presentation is scheduled to be made to the City of Dunedin Commission on February 5, 2015.

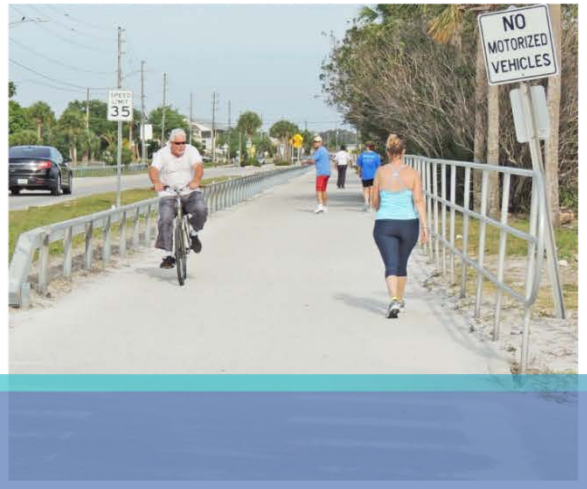
Pinellas County

Dunedin Causeway
Project Development and Environment Study

RFP No. 134-0092-NC(RM)

KICK-OFF PRESENTATION





Board of County Commissioners Meeting
January 27, 2015

URS

Project Limits

Begin Project

State Park

Honeymoon Island State Park, west of Royal Stewart Arms Parkway east to the intersection of Gary Place/Gary Circle on Ward Island

Approximately 2.0 miles long

End Project

Ward Island

Project Need – Bridge Condition

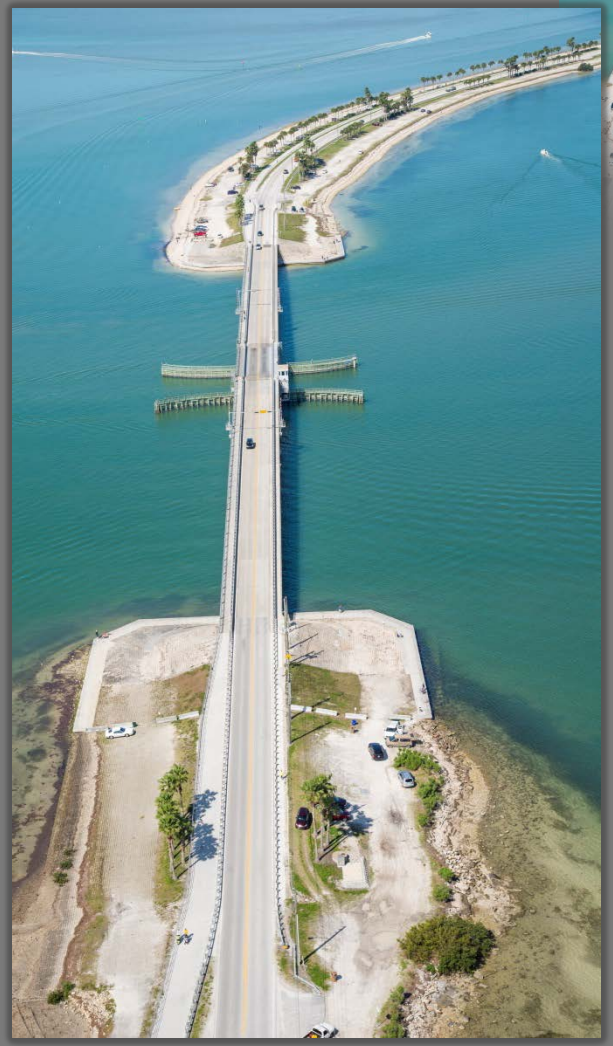
- Relief Bridge (#150067)
  - Sufficiency Rating- 58.0 / 100
  - Year Built -1963 (51 years old)
  - Functionally Obsolete
    - Deck Width – "Intolerable"
    - Substandard Bridge Rails
    - Narrow Multi-Use Path – 6 ft
  - Substandard Capacity to Resist Wave or Vessel Impact Damage
  - Scour Critical

Project Need – Bridge Condition

- Main Bridge (#150068)
  - Year Built 1963 (51 years old)
  - Sufficiency Rating: 48.6 / 100
  - Functionally Obsolete
    - Deck Width – Intolerable
    - Substandard Bridge Rails
    - Narrow Multi-Use Path – 6 ft
  - Substandard Capacity to Resist Wave or Vessel Impact Damage
  - Ongoing Maintenance and Repair Affects Reliability
  - Scour Critical

Project Scope

- Relief Bridge / Main Bridge Alternatives
  - No Build
  - Rehabilitation
  - Replacement



Project Goal

URS

Overview of NEPA

National Environmental Policy Act of 1969

- Federal Highway Administration (FHWA) Approval Assures NEPA Compliance
  - Final Authority – Approval of Preferred Alternative
  - Approval required if federal funds are used
  - Approval required to qualify for future federal funding

FDOT PD&E Process – Assures compliance with NEPA

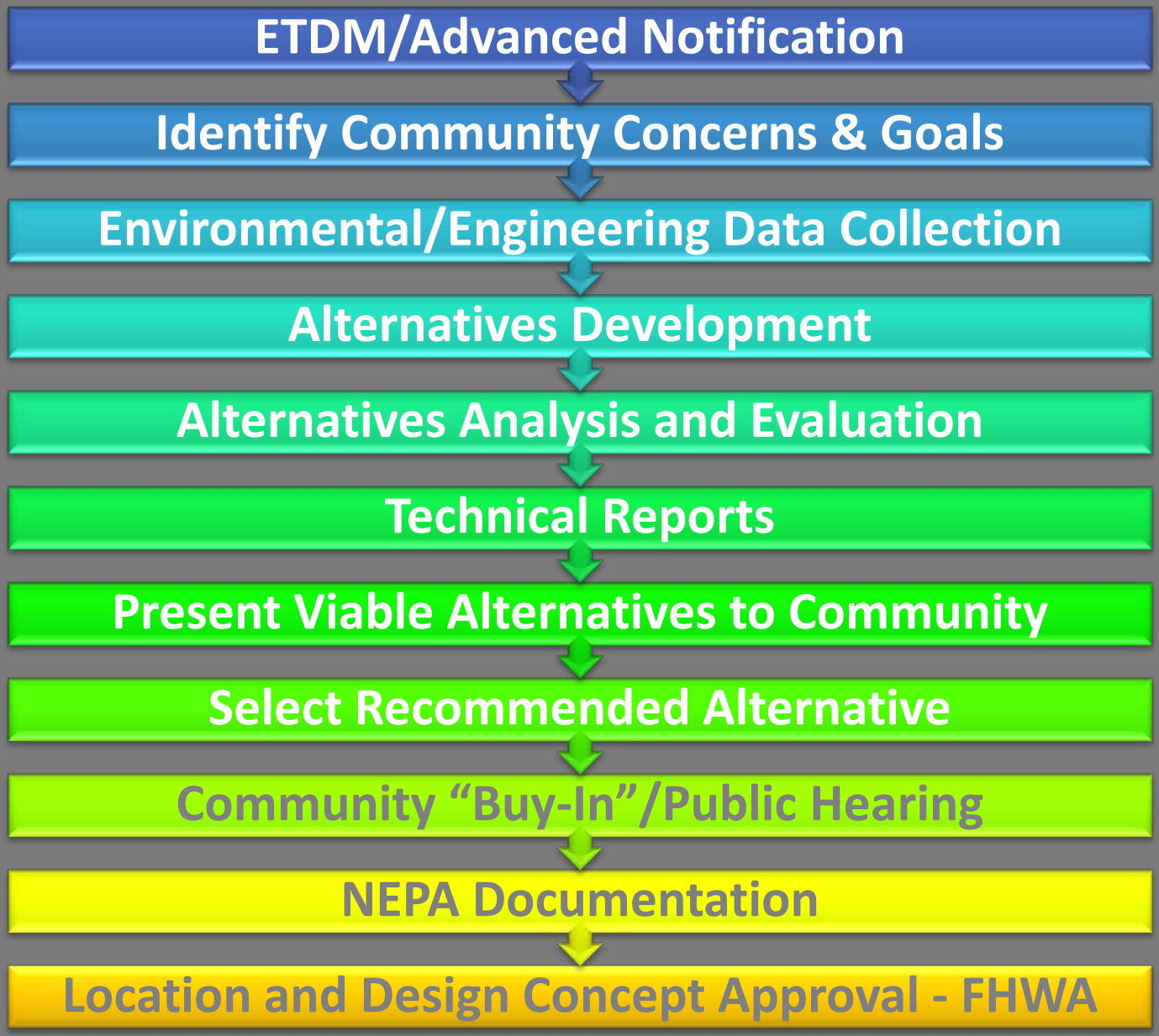
Overview of NEPA

FHWA NEPA Process

"The FHWA NEPA project development process is an approach to balanced transportation decision making that takes into account the potential impacts on the human and natural environment and the public's need for safe and efficient transportation."

Source: FHWA Website

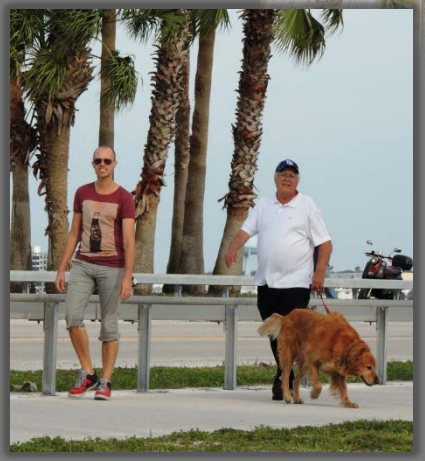
Overall Project Approach



Key Issues - Community Involvement

Wide Range of Stakeholders

- Pinellas County
- City of Dunedin
- Residents
- Boaters
- Local Visitors /Tourists
- Business Owners
- Honeymoon Island State Park
- Emergency Services
- Pinellas Trail Users



Community Groups

- Dunedin Causeway Bridge Ad Hoc Advisory Committee
  - Causeway and Coastal Waterway Committee
  - Dunedin Causeway Preservation Group
  - Dunedin Beach Civic Association
    - Ward Island Condominium Residents
    - Mediterranean Manor (on Alt US 19)
  - Royal Stewart Arms Condominiums
    - 7 separate HOAs
    - 450 units
  - Waterfront Task Force
    - More than 30 community groups/businesses represented

Community Concerns

- Direct Involvement/Representation during Study
- Preservation of Beach and Unique Recreational Access
- Preservation/Enhancement Natural Beauty
- Bicycle/Pedestrians Facilities on Bridges
- Potential Visual Impacts

Community Involvement Approach

- Solicit Input Early
  - Initial Community Kick-Off Meeting to Identify Concerns
  - Initial Meeting with Local Governments/Agencies
- Dunedin Ad-Hoc Advisory Committee
  - Key Community Representatives
- Provide Clear, Accurate and Timely Information
  - About the PD&E Process
  - Costs and Potential Impacts of Alternatives
  - Computer Renderings/Animations

Community Involvement Approach

- Alternatives Workshop
- Project Website
- Newsletters
- Post Information at State Park
- Post on Organization Websites
- Stakeholder Group Meetings
- Public Hearing

Key Issues - Environmental

- Wetlands and Essential Fish Habitat
  - Conduct Seagrass Surveys
  - Minimize Seagrass- Wetland Impacts
  - Develop Mitigation

Key Issues - Environmental

Wildlife and Habitat

- Surveys
- Early Agency Coordination
- Coordination with Honeymoon Island State Park
- Protected Species
  - Manatees
  - Nesting Sea Turtles
  - Wading Bird Rookeries

Key Issues - Environmental

Cultural Resources

- Main Bridge and Tide Relief Bridges

Not likely eligible for listing in the National Register of Historic Places

Causeway -(Manmade Island)

Low Archaeological Potential

- Maritime Archeological Survey may be Required

Major Historic Florida Seaport

Key Issues - Environmental

Noise

- Conduct Noise Study
- Noise Sensitive Sites
  - Residences
  - Recreational Areas

Key Issues - Environmental

Potential Section 4(f) Recreational Lands

- Pinellas Trail
- Recreational Areas on Causeway
- Rotary Park
- Honeymoon Island State Park

Key Issues - Engineering / Design

- Limit Impacts to the Recreation and Natural Areas
- Maintain Recreational Access
- Avoid Utility Relocations
- Maintain Evacuation Route
- Identify Cost Effective Solution
- Enhance Trail Connectivity across Causeway
- Roadway Improvements Limited to Bridge Approaches

Key Issues – Relief Bridge

- Alternatives
  - No-Build
  - Rehabilitation
  - Replacement

- Vertical Profile – Slightly Higher than Existing
  - Above Wave Crest – Wave Vulnerability
  - Above Salt Spray – Corrosion Protection

Relief Bridge Horizontal Alignment

Options include:

- Existing Alignment
- Partial Offset North
- Partial Offset South

Partial Offset to the South

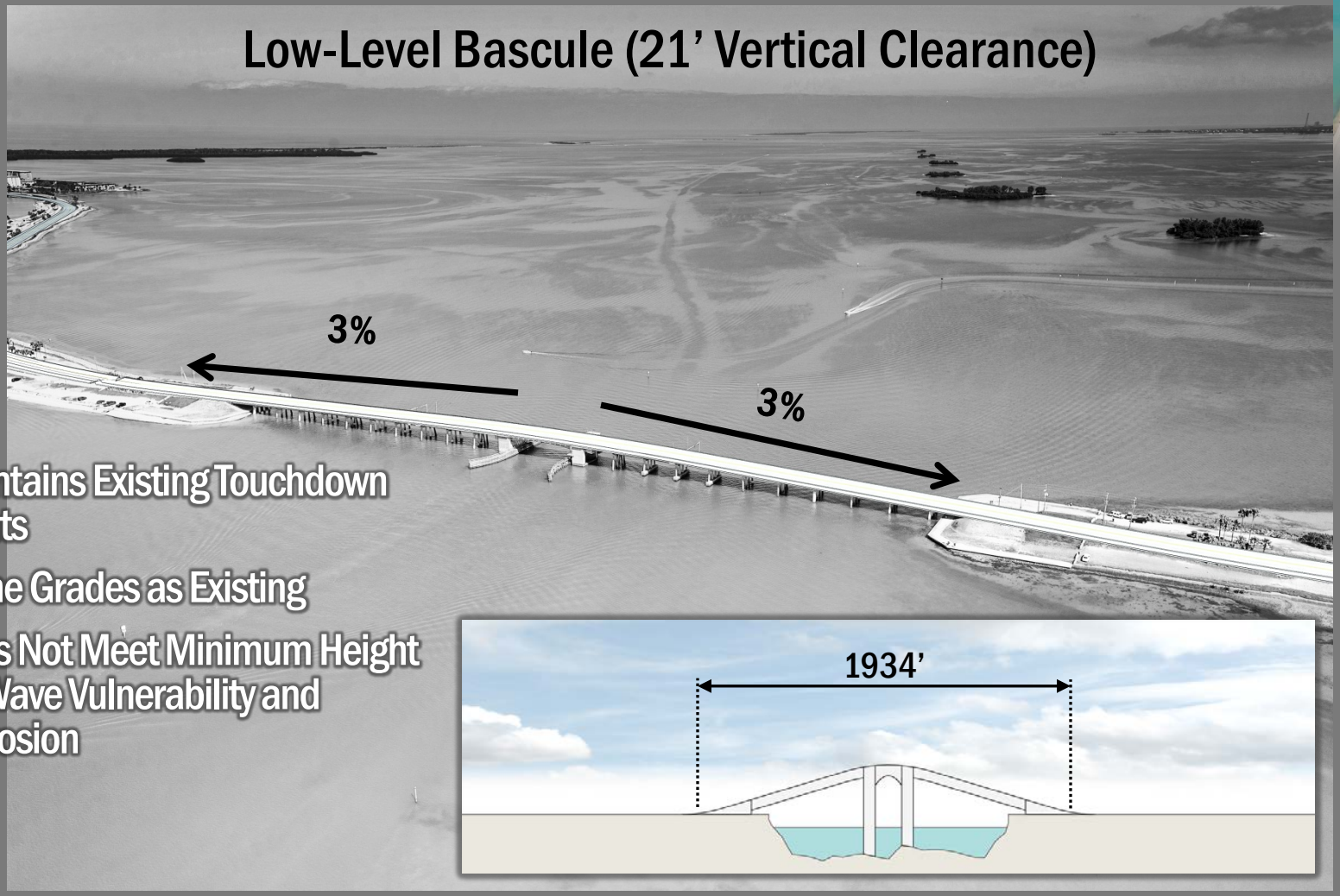
- Maintains 2 Lanes of Traffic During Construction
- Avoids Right-of-Way Impacts
- Avoids Utility Impacts

Key Issues – Main Bridge

- Alternatives
  - No-Build
  - Rehabilitation
  - Replacement
- Vertical Alignment Options
  - Low-Level Bascule Bridge
  - Mid-Level Bascule Bridge
  - High-Level Fixed Bridge

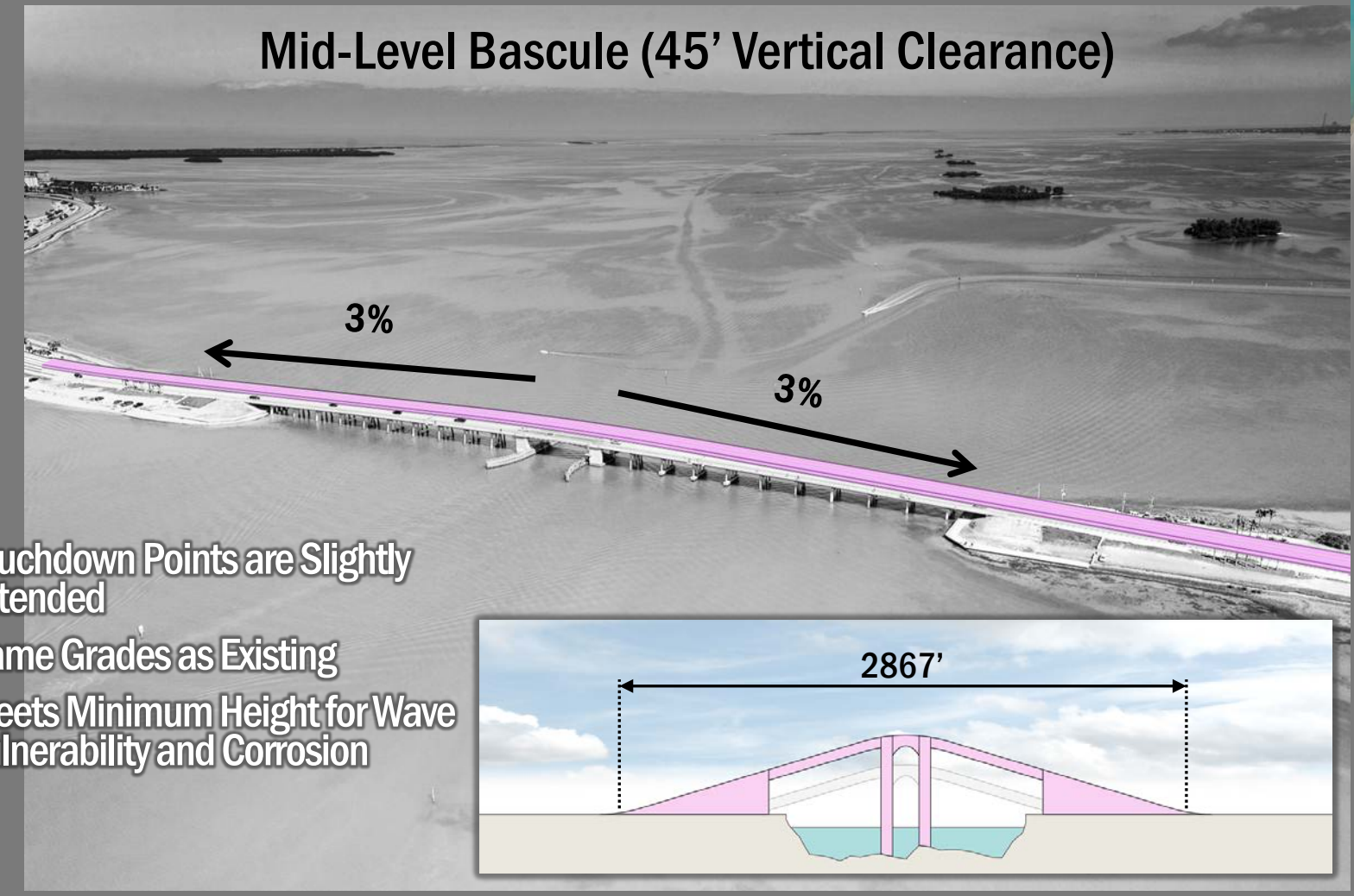
Main Bridge Vertical Alignment Options

Low-Level Bascule (21’ Vertical Clearance)



- Maintains Existing Touchdown Points
- Same Grades as Existing
- Does Not Meet Minimum Height for Wave Vulnerability and Corrosion

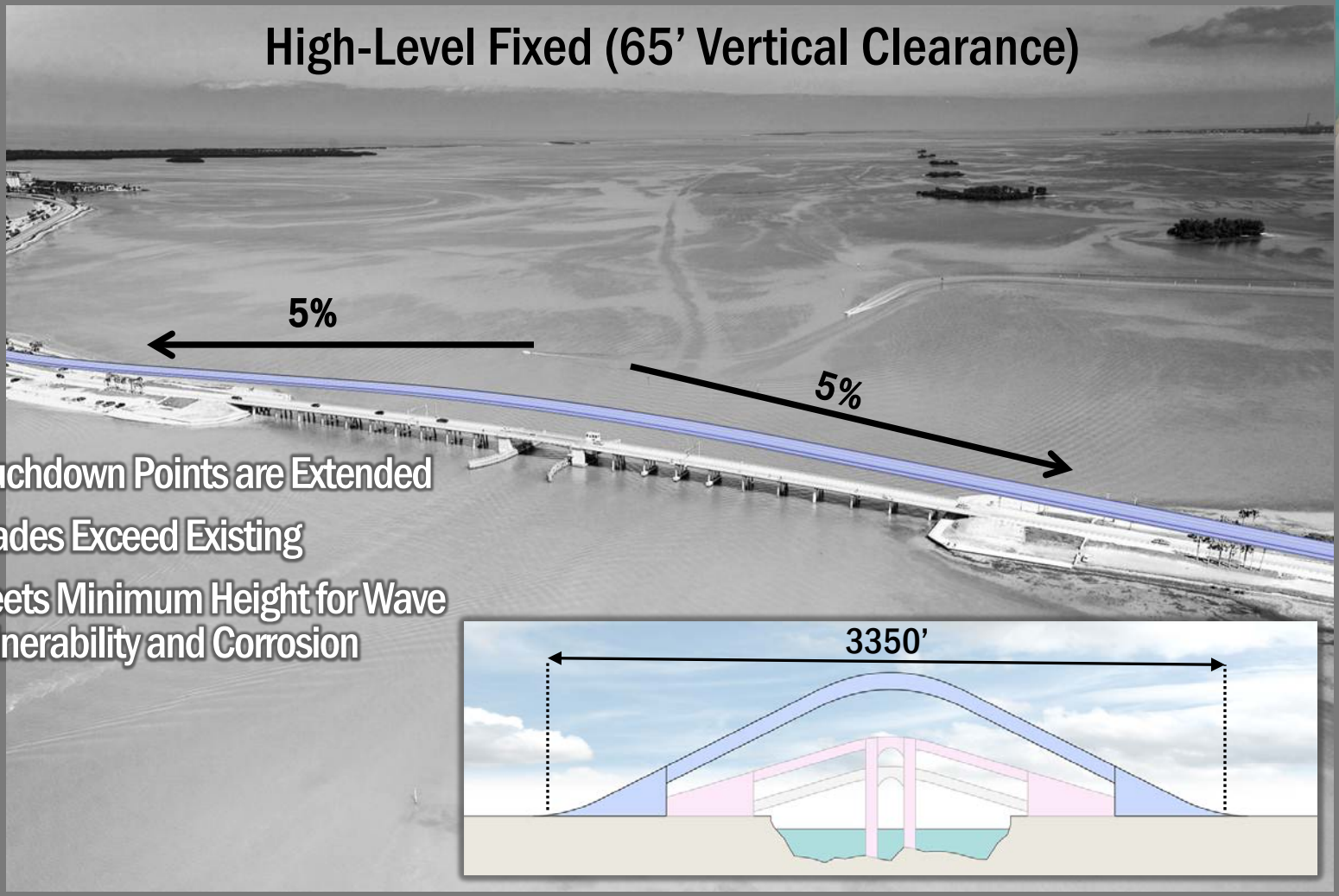
Main Bridge Vertical Alignment Options



- Touchdown Points are Slightly Extended
- Same Grades as Existing
- Meets Minimum Height for Wave Vulnerability and Corrosion

Main Bridge Vertical Alignment Options

High-Level Fixed (65’ Vertical Clearance)



- Touchdown Points are Extended
- Grades Exceed Existing
- Meets Minimum Height for Wave Vulnerability and Corrosion

Main Bridge Horizontal Alignments

Full Offset to North

- Impacts City Water Main and Force Main Utilities
- Impacts Recreation Areas on North Side
- Increases Recreation Areas on South Side

Main Bridge Horizontal Alignments

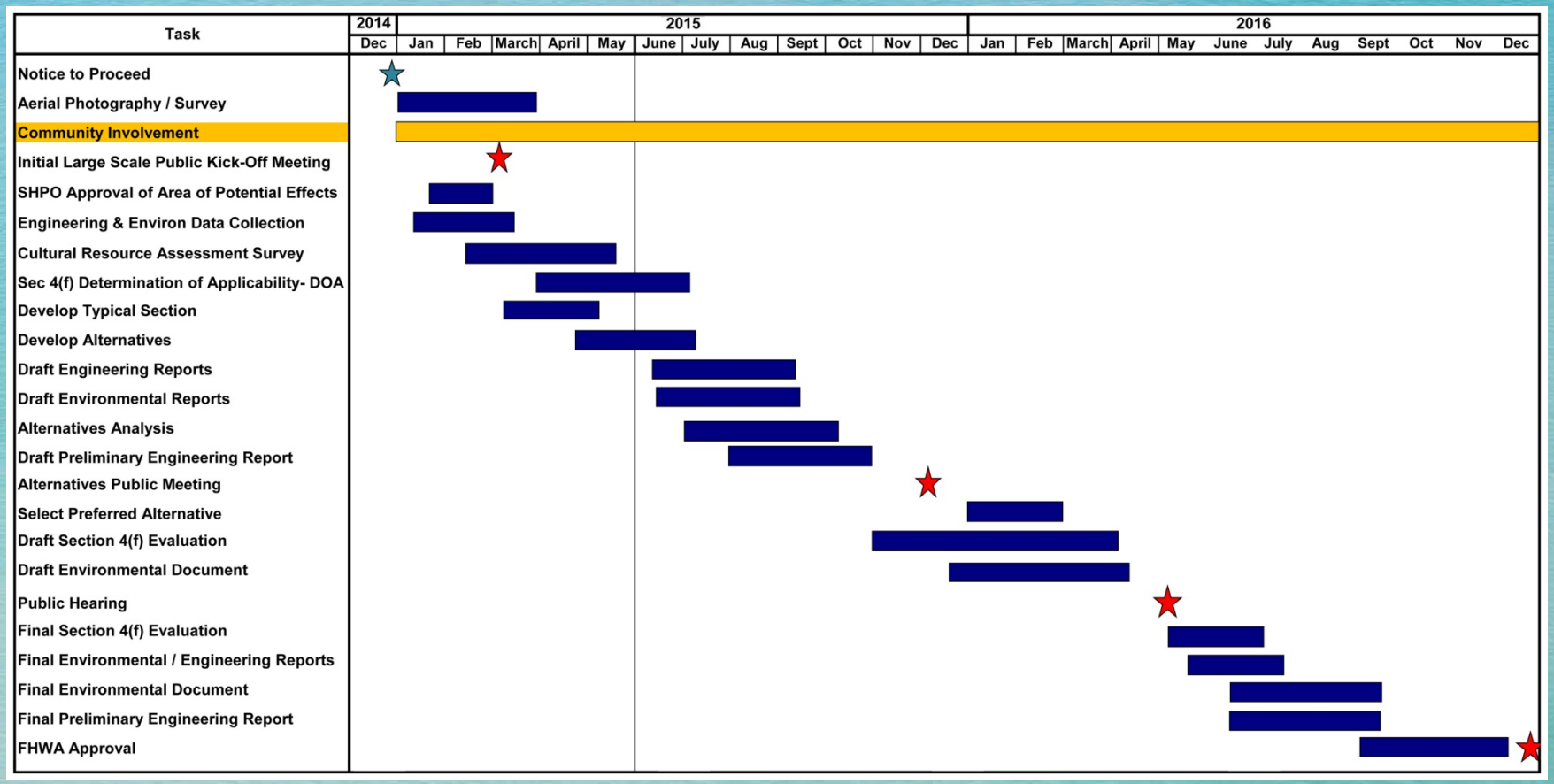
Full Offset to South

- Possible Impacts to Gas Main
- Impacts Recreation Areas on South Side
- Increases Recreation Area on North Side

Main Bridge Horizontal Alignments

- Existing Alignment (w/Temporary Bridge)
  - Temporary Impacts to Recreation Areas
  - Temporary Wetland Impacts
- Reduces Permanent Impacts
- Avoids Utility Impacts

Schedule – 24 Months



Questions & Answers