PROJECT DEVELOPMENT & ENVIRONMENT STUDY
SR 5/US-1 Federal Highway Bridge
From CR-A1A to Beach Road | Palm Beach County, Florida
Financial Project ID 428400-2-22-01 | ETDM# 14199

Palm Beach MPO Meetings
September 2016
The objectives of a PD&E study are to perform necessary social, environmental and engineering studies of a proposed transportation improvement to support decisions concerning if and where it should be built and what will be the basic design concepts.
History

- Feasibility Study – completed December 2014
- Current rehabilitation
  - Pile jacketing to reinforce 13 existing piles
  - Construction underway
Data Collection and Analysis
Existing Bridge

- Structurally deficient
  - Substructure rated “Poor”
  - Superstructure rated “Poor”
- Functionally obsolete
  - No sidewalks
  - No bicycle lanes
Existing Clearance

Existing Vertical Clearance - 25.0’

Existing Horizontal Clearance - 90.0’

Proposed Horizontal Clearance - 125.0’
PD&E Study Components

- Public Involvement
- Engineering
- Environmental
Public Involvement Meetings

- Elected Officials/ Agency Kickoff Meeting
  February 17, 2016

- Public Kick-off Meeting
  February 17, 2016

- **Alternatives Public Workshop** – September 20, 2016

- Public Hearing – early 2017
Engineering

- Data Collection and Analysis
- Bridge Structure
- Design Alternatives
Data Collection and Analysis

- Vehicular Traffic
- Boat Traffic for Jupiter Bridge
- Typical Section
Vehicular Traffic

<table>
<thead>
<tr>
<th>Daily Vehicle Trips</th>
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<tbody>
<tr>
<td>4-lane roadway or bridge can accommodate</td>
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- Estimated future year 2040 volume on SR 5 Bridge = 23,400
Proposed Approach Span Typical Section
Proposed Bascule Bridge Typical Section
Proposed Roadway Typical Sections

North of CR A1A to South of Federal Highway Bridge

North of Federal Highway Bridge to Jupiter Cove Dr.
Alternatives Analysis

- No Build Alternative
- Build Alternatives:
  - Vertical Alignment
    - 25’ bascule (same as existing)
    - 30’ bascule
    - 35’ bascule
    - 40’ bascule
  - Horizontal Alignment
    - Centerline same as existing
Data Collection and Analysis

Boat Traffic for Jupiter Bridge
Reduction in Openings Compared to Existing

<table>
<thead>
<tr>
<th>Vertical Clearance</th>
<th>Reduction</th>
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<tbody>
<tr>
<td>25’ (Same as Existing)</td>
<td>0%</td>
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<tr>
<td>30’</td>
<td>25%</td>
</tr>
<tr>
<td>35’</td>
<td>44%*</td>
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<tr>
<td>40’</td>
<td>49%</td>
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*From Tender Logs
Horizontal Alignment Alternative

Proposed Centerline Same as Existing
Horizontal Alignment Alternative

Bridge Only

Loxahatchee River

US 1
Maintenance of Traffic

Option 1

Close Bridge and Detour Traffic

Advantages

- Fast completion
- Less expensive
- No chance old bridge will settle
Maintenance of Traffic

Option 2

Phase Construction

Advantages

- Provide one lane of traffic in each direction at all times
- Less disruptive to residents and businesses adjacent to the bridge
Environmental

- Social and Cultural Environment
- Natural Environment
- Physical Environment
- Summarize results in Environmental Reports
Section 106 Consultation

- Section 106 of the Historic Preservation Act
- Cultural Resources Committee (CRC)
Environmental Reports

- Wetland Evaluation
- Endangered Species Biological Assessment
- Essential Fish Habitat Assessment
- Cultural Resources Assessment Survey - update
- Contamination Screening Evaluation
- Air Quality Memorandum
- Noise Study Report
# Project Schedule

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Begin Study</td>
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<td>Public Kick-off Meeting</td>
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<td>Public Input</td>
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<td>Develop Build Alternatives</td>
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<td>Alternatives Public Workshop</td>
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<td>Public Hearing</td>
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<td>No-Build and Build Alternatives Presented</td>
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<td>Study Complete/Location Design Concept Acceptance</td>
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What's Next

- Working Toward the Public Hearing
  - Select Recommended Build Alternative
  - Complete all report documentation

- Continuous Public Involvement
  - Palm Beach Metropolitan Planning Organization
  - Stakeholders
  - Project team available for presentations
Contact

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Comments