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 Typical Section
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 Meeting –
  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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<tr>
<td>Estimated future year 2040 volume on SR 5 Bridge</td>
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</table>
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 Opening 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>
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<tr>
<td>35’</td>
<td>44%*</td>
</tr>
<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
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