



Session Goal

Learn & discuss about project topics not covered in the breakout sessions. Participants are encouraged to ask questions or provide input on any topics regarding the project.



Capital Improvement Grant (CIG) Program



WARD BROWARD COMMUTER RAIL (BCR)

PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

□ Roadway Traffic Analysis at:

- Representative worst case railroad crossings on eastwest roads
- Proposed station locations

Evaluation of Existing, No-Build, and Build Alternatives

□ Step-By-Step Process

- Identify traffic analysis locations and collect data
- Estimate future traffic demand
- Perform traffic operational analysis
 - Intersection's level of service
 - Queuing length analyses



FDOT



| or: | | dB (A) | |
|------------------|----------------|--------|----------------------------------|
| | Extremely Loud | 120 | Aircraft at take off |
| ther location | | 110 | Car horn |
| n Florida Rail | | 100 | Subway |
| | Very Loud | 90 | Truck, motorcycle |
| | | 80 | Busy crossroads |
| ools, Libraries, | Loud | 70 | Noise level near a motorway |
| | Moderate | 60 | Busy street through open windows |
| | | 50 | Light traffic |
| our) monitoring | | 40 | |
| or impacts | Faint | 30 | Quiet room |
| ement | | 20 | |
| GIIIGIIL | | 10 | Desert |
| | | 0 | Earing threshold |
| | | | |

Determine potential noise and vibration impacts for

- New commuter rail service along FEC Corridor
- Proposed stations
- Maintenance facility at Hialeah Rail Yard or another location
- Pompano Connection from FEC RR to the South Florida Rail Corridor
- Evaluate sensitive sites such as Residences, Schools, Libraries, Parks

□ Determine existing noise levels

- Perform short-term (1 hour) and long-term (24 hour) monitoring
- Existing noise levels will determine the criteria for impacts

Evaluate Potentially Impacted sites for noise abatement

- Quiet Zones
- Noise barriers

BROWARD PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

Social Environment

- Social Resources
- Economic
- Land Use Changes
- Mobility
- Aesthetic Effects
- Relocation
- Recreational Section 4(f) (Parks and Preserves)

Cultural Environment

- Historic Resources
- Archaeological Resources
- Involves Coordination with the State Historic Preservation Officer

Natural Environment

- Wetlands
- Protected Species
- Essential Fish Habitat

FDOT

- Water Resources
- Floodplains
- Special Designations

Physical Environment

- Farmlands
- Noise
- Air Quality
- Contamination

Back to Topics



Old Fort Lauderdale Village Historic District



Pedestrian Crossing North of the New River Bridge

Looking South at New River Bridge



Avoidance/Minimization taken into consideration in alternatives development

| New River Crossing Right-of-Way Comparison | | | | | | | |
|---|-------------------|--------------|--|--|--|--|--|
| Alternative | Number of Parcels | Impact Acres | | | | | |
| Low-Level Bridge | 26 | 0.32 | | | | | |
| Mid-Level Bridge | 65 | 3.30 | | | | | |
| High-Level Bridge | 65 | 3.30 | | | | | |
| Tunnel | 88 | 3.64 | | | | | |

CAPITAL COST ASSUMPTIONS

≤50% FEDERAL FUNDS

ппп

 Subject to Federal Transit Administration recommendation and Congressional appropriation.

25% STATE FUNDS

 Subject to FDOT approval and future allocation in the Work Program.

≥25% LOCAL FUNDS

County and Municipal Government funds, other local funds, and private sector investment.

OPERATING COST ASSUMPTIONS

 Operations and Maintenance (O&M) costs are assumed to be funded from fares, local sources, and items such as advertising and sponsorship revenue.

- In order to qualify for federal funds, the project must meet the FTA's cost effectiveness evaluation criteria.
- To meet cost effectiveness criteria the NRC may need to be removed from the cost effectiveness calculation and may require separate funding.



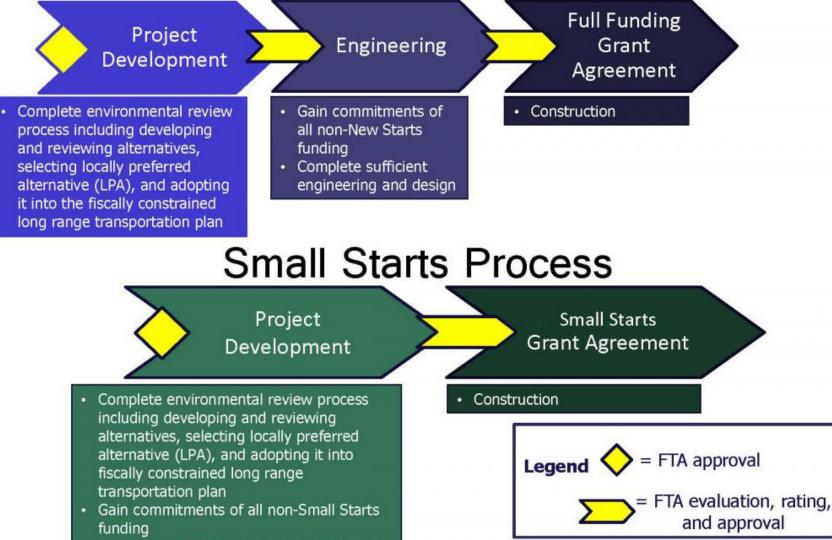
Infrastructure Investment and Jobs Act (IIJA) – New act may provide the opportunity for additional funds.

Back to Topics

BROWARD COMMUTER RAIL (BCR



New Starts and Core Capacity Process



FOOTO BROWARD BROWARD COMMUTER RAIL (BCR) PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

Back to Topics



- Formal FDOT process to ensure that consideration is given to environmental impacts, social impacts, public input, engineering design, and project costs
- Required to satisfy the National Environmental Policy Act and maintain eligibility for federal funding
- □ Involves engineering analysis and environmental evaluation
- □ Includes public outreach and public participation
- Includes data collection, ridership and traffic forecasts, rail operating plan, alternatives development, engineering and environmental analyses, and documentation
- Preparation of preliminary engineering and environmental documentation for federal or state environmental action

Project Schedule

BROWARD COMMUTER RAIL (BCR) PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY



FDOT

Community Outreach

A continuous community outreach process is integrated into every step of the project to ensure that the corridor residents, businesses, the traveling public, and other interested parties have meaningful participation in the process.

BROWARD COMMUTER RAIL (BCR)

• FDOT

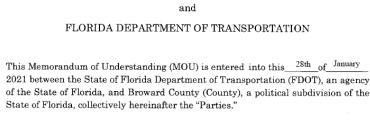
- Managing the PD&E Study (FTA Lead Agency, USCG Co-operating Agency)
- Environmental analysis of Commuter Rail on FEC Railroad
- o Operational analysis of Commuter Rail on FEC Railroad
- Aventura to Deerfield Beach including Pompano Crossover
- Technical Recommendations for Station Locations

$\circ\,$ Alternatives Analysis for the New River Crossing

- East/west traffic analysis for crossings and stations
- Incorporate the necessary rail, signaling, safety, communications as well as passenger stations and amenities
- o Maintain eligibility for federal funding
- Public engagement & stakeholder coordination

• Broward County

- Stakeholder outreach and station locations
- Track access, design/construction and O&M agreements
- $\circ\,$ Identify local share of capital costs and annual O&M funds
- Draft financial plan



MEMORANDUM OF UNDERSTANDING

Between

BROWARD COUNTY

IN WITNESS WHEREOF, the Parties hereto have made and executed this MOU: BROWARD COUNTY, through its BOARD OF COUNTY COMMISSIONERS, signing by and through its County Administrator, authorized to execute same by Board action on the <u>12+40</u> day of <u>Jandaly</u>, $20\underline{a}$, and <u>Department of Tran</u>, signing by and through its <u>Dir(Cfar</u>, duly authorized to execute same.

BROWARD COUNTY, by and through its County Administrator STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

leven C. Braun, P.I

DIRECTOR OF TRANSPORTATION DEVELOPMENT DATE: 1/28/2021 | 3:52 pm est

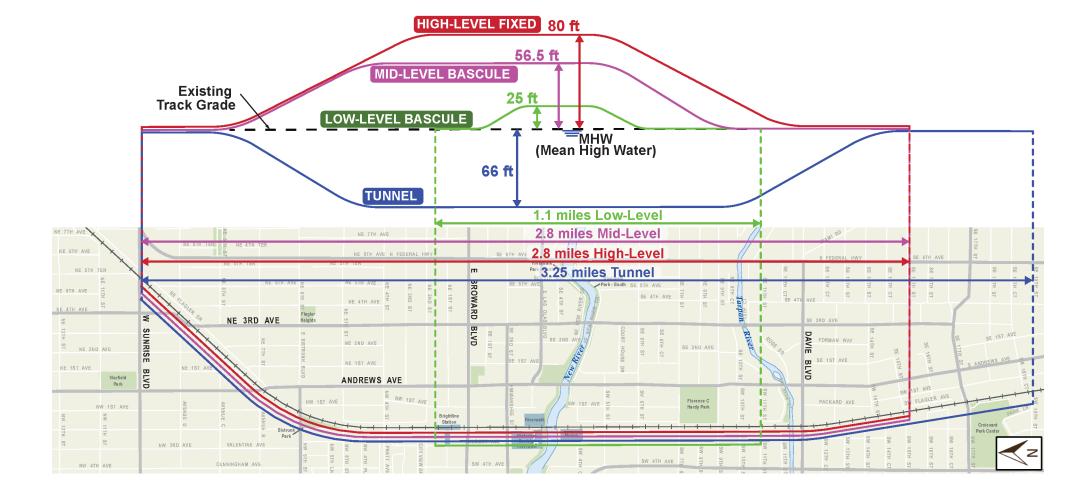
TAMARA BRANNON

Print Name

FOOT BROWARD BROWARD COMMUTER RAIL (BCR) PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

Back to Topics

Low-level Alternative - Bascule Bridge (25-foot clearance above water surface)
Mid-level Alternative - Bascule Bridge (56.5-foot clearance above water surface)
High-level Alternative - Fixed Bridge (80-foot clearance above water surface)
Tunnel Alternative (66 feet below water surface)





Back to Alternatives Overview

Back to Topics

□ Features

- 25 feet above water surface
- 1.1-mile overall length
- Bridge length = 1,400 feet
- Station remains at-grade
- Freight remains at-grade

- Accommodates approximately 90% of vessels when closed (Note: This does not accommodate 80% of the vessels from the Marinas)
- Minor impacts to existing station
- Closes SW 5th St
- Lowest construction cost
- Lowest construction impacts
- Bascule bridge requires operations and maintenance





Back to Alternatives Overview

Back to Topics

□ Features

- 56.5 feet above water surface
- 2.8-mile overall length
- Bridge length = 7,000 feet
- Elevated station
- Freight remains at-grade

- Accommodates approximately 99% of vessels when closed
- Requires elevated train station
- Closes SW 7th St
- Passenger trains pass over Broward Blvd
- Moderate construction cost
- Considerable construction impacts
- Bascule bridge requires operations and maintenance





Back to Alternatives Overview

Back to Topics

□ Features

- 80 feet above water surface
- 2.8-mile overall length
- Bridge length = 8,000 feet
- Elevated station
- Freight remains at-grade

- Accommodates 100% of vessels
- Requires elevated train station
- No street closures
- Passenger trains pass over Broward Blvd
- Moderate construction cost
- Considerable construction impacts
- No bascule bridge to operate and maintain



PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

Back to Alternatives Overview

FDO

Back to Topics

□ Features

- 66 feet below water surface
- 3.25-mile overall length
- Twin 25-foot diameter tunnels for 9,400 feet
- Underground station
- Freight remains at-grade

- Accommodates 100% of vessels
- Passenger trains pass under Broward Blvd
- Closes SW 15th St
- Highest construction cost
- Highest construction impacts
- Tunnel requires operations and maintenance





- □ Preliminary cost range represent the New River Crossing alternative limits only.
- □ The limits of the New River crossing alternatives range from 1.1 to 3.25 miles.
- □ The remaining 24-26 project miles are not included in these costs.

| New River Crossing Alternatives | Construction Cost Range (in Millions) | | |
|---|--|--|--|
| Low-Level Bascule Bridge (25 ft above water surface) | \$216 M to \$324 M | | |
| Mid-Level Bascule Bridge (56.5 ft above water surface) | \$400 M to \$600 M | | |
| High-Level Fixed Bridge (80 ft above water surface | \$407 M to \$611 M | | |
| Tunnel (66' below water surface) | \$1,640 M to \$2,460 M | | |



PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

FDOT BROWARD BROWARD COMMUTER RAIL (BCR)

| New River Crossing Alternatives Comparison | | | | | | | | | | |
|---|-------------------------|-----------------|-------------------|---|--|--|---|---|---|--|
| Alternative | Number Of Parcels | Impact Acres | Costs | Major Road Crossings | Bicycle/Pedestrian Facility Relocations | Passenger At-Grade Railroad Crossings | % of Time bridge is open during 9:00am – 4:30pm (Combined) | % of Boats NOT Passing (when Closed) (Surveyed 9:00 am – 6:00 PM) | Likely % of Vessels Delayed by a Closure (# of Vessels) | |
| Low-Level Bridge | 26 | 0.32 | \$216 – \$324 M | SW 5th Street (Railroad Crossing) | #1 – Planned LauderTrail #2a – Existing Trail #8 – Planned LauderTrail | 11 | 85% | 9% (38 boats > 21 ft) | 10% (4 boats) | |
| Mid-Level Bridge | 65 | 3.30 | \$400 – \$600 M | SW 7th Street (Railroad Crossing) SW 2nd Avenue (Between SW 10th Street and SW 11th Street) | #1 – Planned LauderTrail #7 – Complete Street Project | 6 | 85% | 1% (4 boats > 56.5 ft) | 10% (1 boat) | |
| High-Level Bridge | 65 | 3.30 | \$407 – \$611 M | SW 9th Street (Railroad Crossing – Vehicle Height Limitation) SW 2nd Avenue (Between SW 10th Street and SW 11th Street) | #1 – Planned LauderTrail | 4 | 91% Existing FECR Only | Existing FECR Only | 0% (0 boats) | |
| Tunnel | 88 | 3.64 | \$1.64 – \$2.46 B | SW 15th Street (Railroad Crossing) SW 2nd Avenue (Between SW 14th Street and SW 14th Court) (Between SW 16th Street and SW 16th Court) NE 5th Terrace (Intersection) | No Relocations | 2 | 91% Existing FECR Only | Existing FECR Only | 0% (0 boats) | |