

Industry Forum  
Request For Information  
(RFI-00920)



# SMART Plan Industry Forum Overview

- Miami-Dade County Department of Transportation and Public Works (DTPW)
- SMART Plan Request For Information (RFI) and Industry Forum Objective
- SMART Plan Available County Funding
- SMART Plan Project Overview
- Additional Project Information Resources
- Next Steps
- Q&A

# Miami-Dade County Department of Transportation and Public Works

- **GOAL:** Improve sustainability of our transportation networks as part of a wider goal of creating more vibrant, livable, sustainable and safe cities and improving the quality of life for our residents.
- Operates the 1st largest public transportation system in Florida and 14<sup>th</sup> in the U.S.
- Provide clean, safe, reliable and convenient public transportation service through transit:
  - Metrobus – 95 bus routes; over 58 million annual boardings
  - Metrorail – 25-mile dual-track, elevated rapid transit system; approx. 20 million annual boardings
  - Metromover – 4.4-mile people-mover system; approx. 9.5 million annual boardings
  - Special Transportation Service (STS) – door-to-door, accessible, shared-ride service for eligible customers; over 1.6 million annual boardings
- Maintains over 7,600 paved lane miles of roadway, 2,800 traffic signals, and 1 million traffic signs



Transit Systems



Traffic Engineering



Signals and Signs



Bike/Ped



METRORAIL



METROBUS



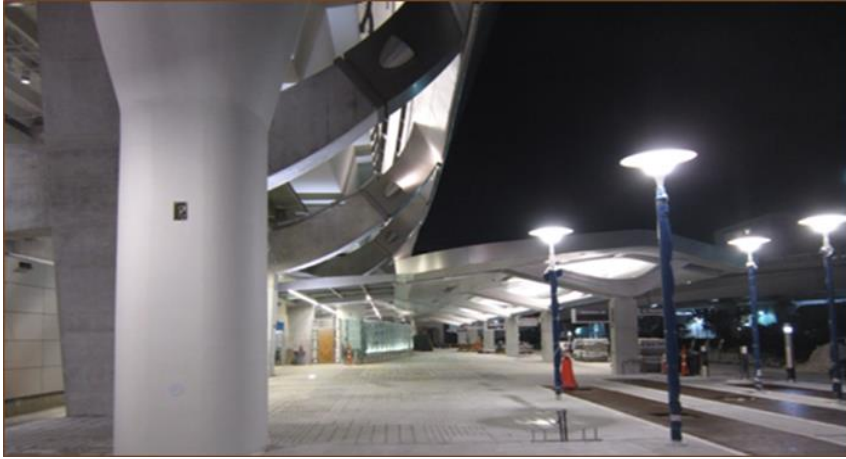
METROMOVER



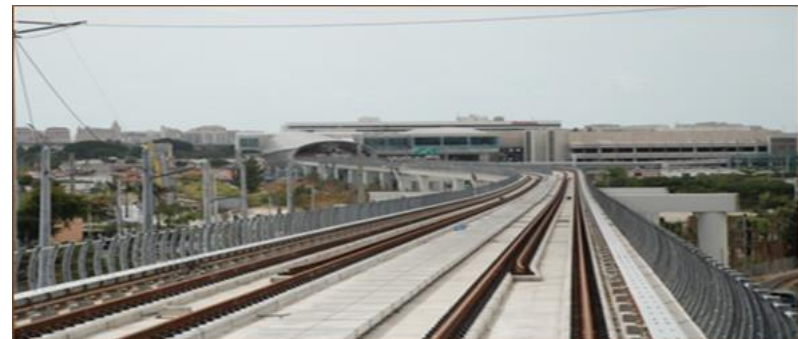
# Metrorail System



# AirportLink



- Opened for Revenue Service July 28, 2012
- 2.4 mile extension from Earlington Heights station to Miami International Airport (MIA) station at the Miami Intermodal Center (MIC)



# Metrorail System

- 23 station, elevated rapid transit system
- Approximately one mile apart
- Easily accessible





# Metromover System





# Metromover System

Automated People Mover

- 21 Stations





# Objectives of the SMART Plan Request For Information(RFI) and Industry Forum

Gain insight from private sector in order to:

- Accelerate the delivery of the corridor projects
- Attract private investment
- Implement projects via Alternative Delivery methods such as DB, DBF, or DBFOM
- Utilize private financing that leverages federal, state and county funding

# SMART Plan Overview - Background

- In 2002, Miami-Dade County voters approved a one-half percent local surtax to improve, among other things, rapid transit corridors within the county through the People's Transportation Plan (PTP).

| COUNTY  |   |
|---|---|
| County Transportation Expansion Question  |   |
| Shall the County implement the People's Transportation Plan including: Plans to build rapid transit lines to West Dade, Kendall, Florida City, Miami Beach and North Dade; expanding bus service; adding 635 buses; improving traffic signalization to reduce traffic backups; improving major and neighborhood roads and highways, including drainage; and funding to municipalities for road and transportation projects by levying a ½ percent sales surtax whose proceeds will be overseen by the Citizen's Independent Transportation Trust? |   |
| YES   | 134  |
| NO  | 135  |

# SMART Plan Overview - Background

- On February 16, 2016, the TPO Governing Board approved a policy to set as “highest priority” the advancement of rapid transit corridors and transit supportive projects for the county.



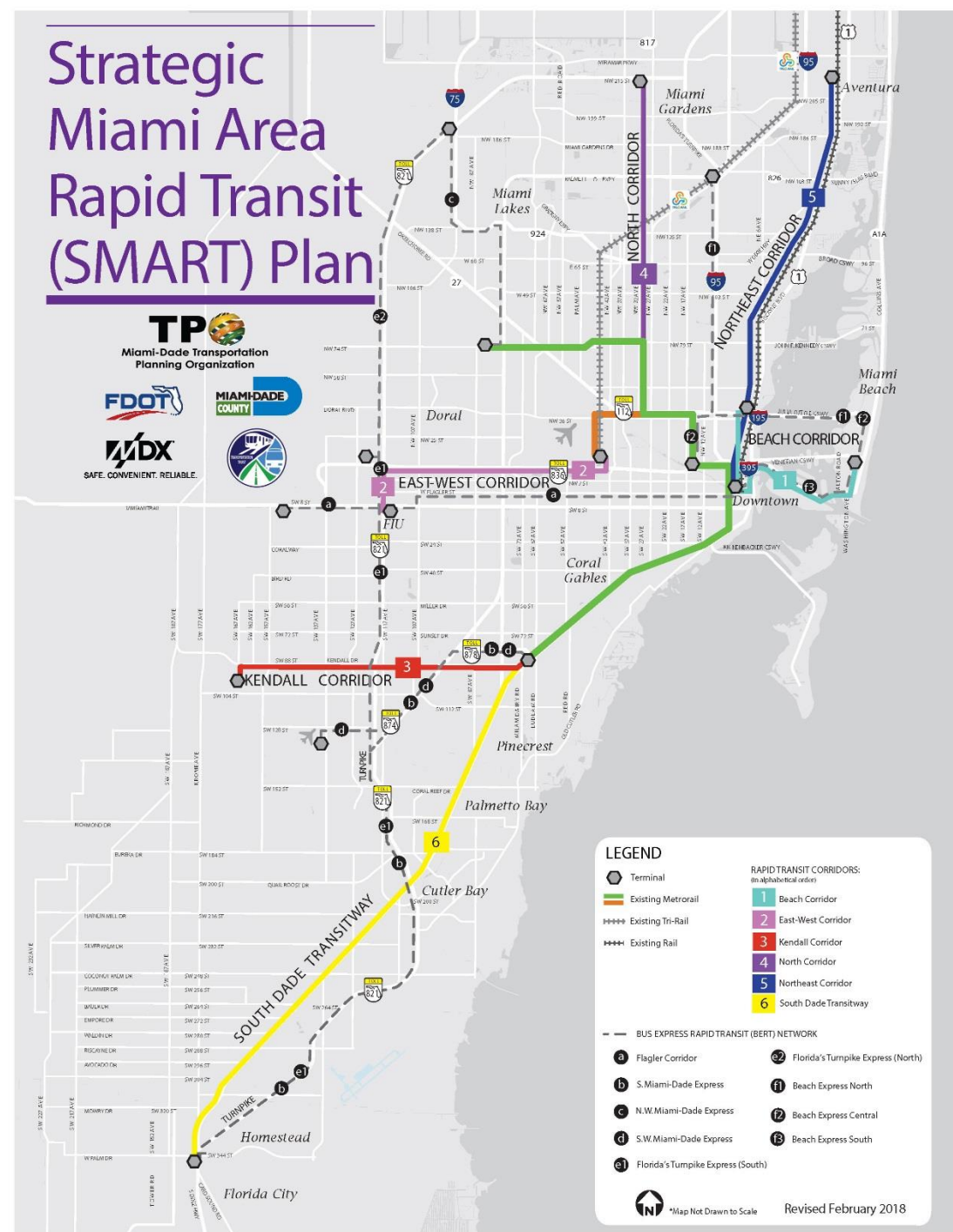
# SMART Plan Overview - Background

- On April 21, 2016, the Miami-Dade TPO Governing Board officially adopted and endorsed the proposed Strategic Miami Area Rapid Transit (SMART) Plan of six rapid transit corridors, along with a network system of Bus Express Rapid Transit (BERT) service.

# SMART Plan Overview - Background

- On October 19, 2017 the TPO prioritized the South and North Corridors to be implemented first.

# SMART Plan Overview - Map



# SMART Plan Project Overview

In 2016 the Project Development & Environment (PD&E) Studies began on the Six Rapid Transit Corridors

| Corridor Name                               | Corridor Length (miles) | NEPA Lead Agency |
|---|-------------------------|------------------|
| South Dade Transitway/South Corridor        | 20                      | DTPW             |
| North Corridor (NW 27 <sup>th</sup> Avenue) | 12                      | FDOT - 6         |
| Beach Corridor                              | 9.7                     | DTPW             |
| East-West Corridor                          | 11                      | DTPW             |
| Kendall Corridor                            | 10                      | FDOT - 6         |
| Northeast Corridor (Tri-Rail Coastal Link)  | 13.5                    | FDOT - 4         |



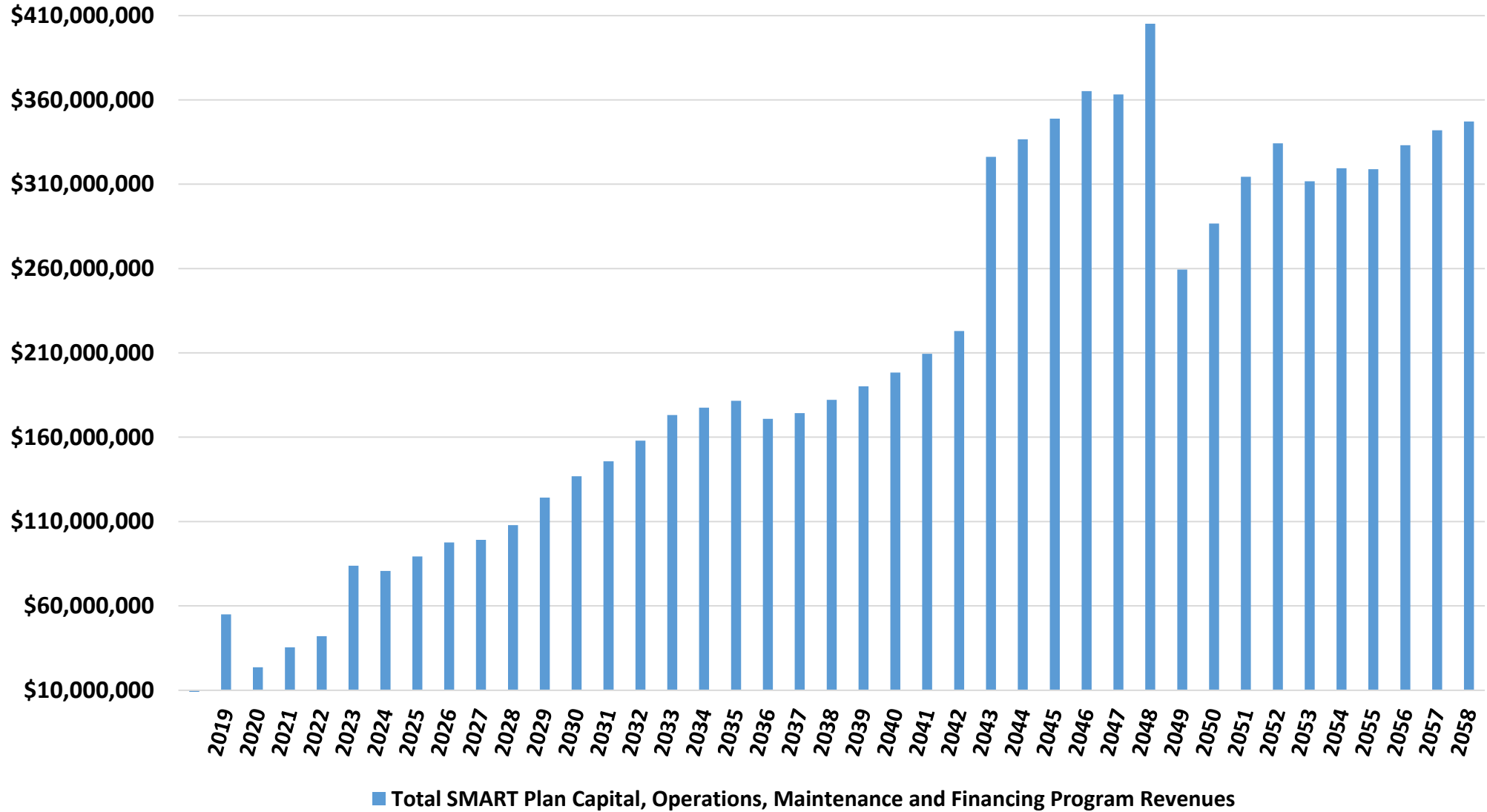
# SMART Plan Available County Funding

- Three Major Local Funding Sources for the SMART Plan
  - ½ cent Surtax
  - Transportation Infrastructure Improvement District (TIID) revenue
  - Joint Development Revenues

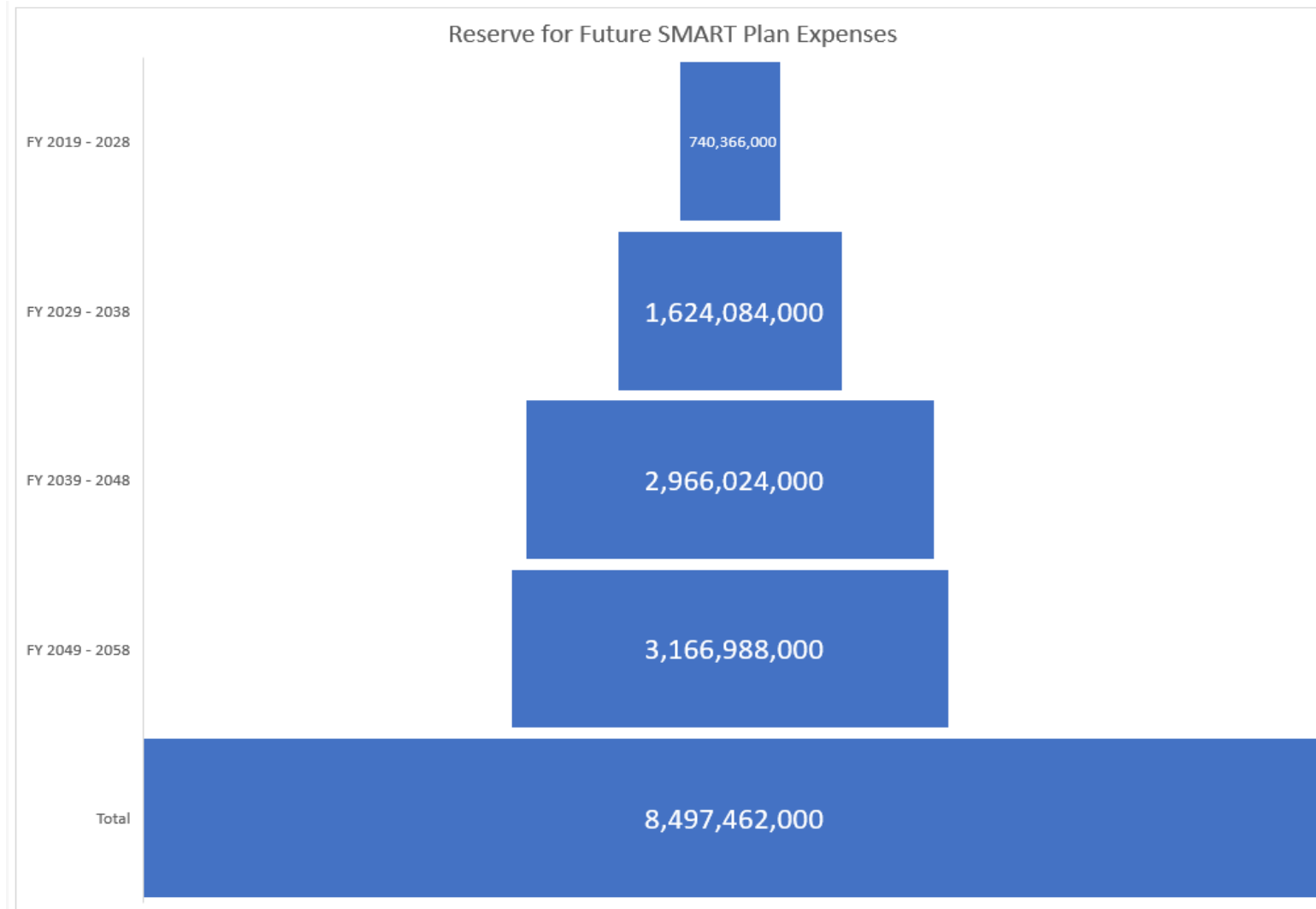
# SMART Plan Available County Funding

- Total available local funding through 2058:
  - \$8.5 billion in Year of Expenditure (YOE)
  - \$2.7 billion Net Present Value (using 5% discount rate)

## POTENTIAL AVAILABILITY OF LOCAL SMART PLAN REVENUES



# Reserve for Future SMART Plan Expenses

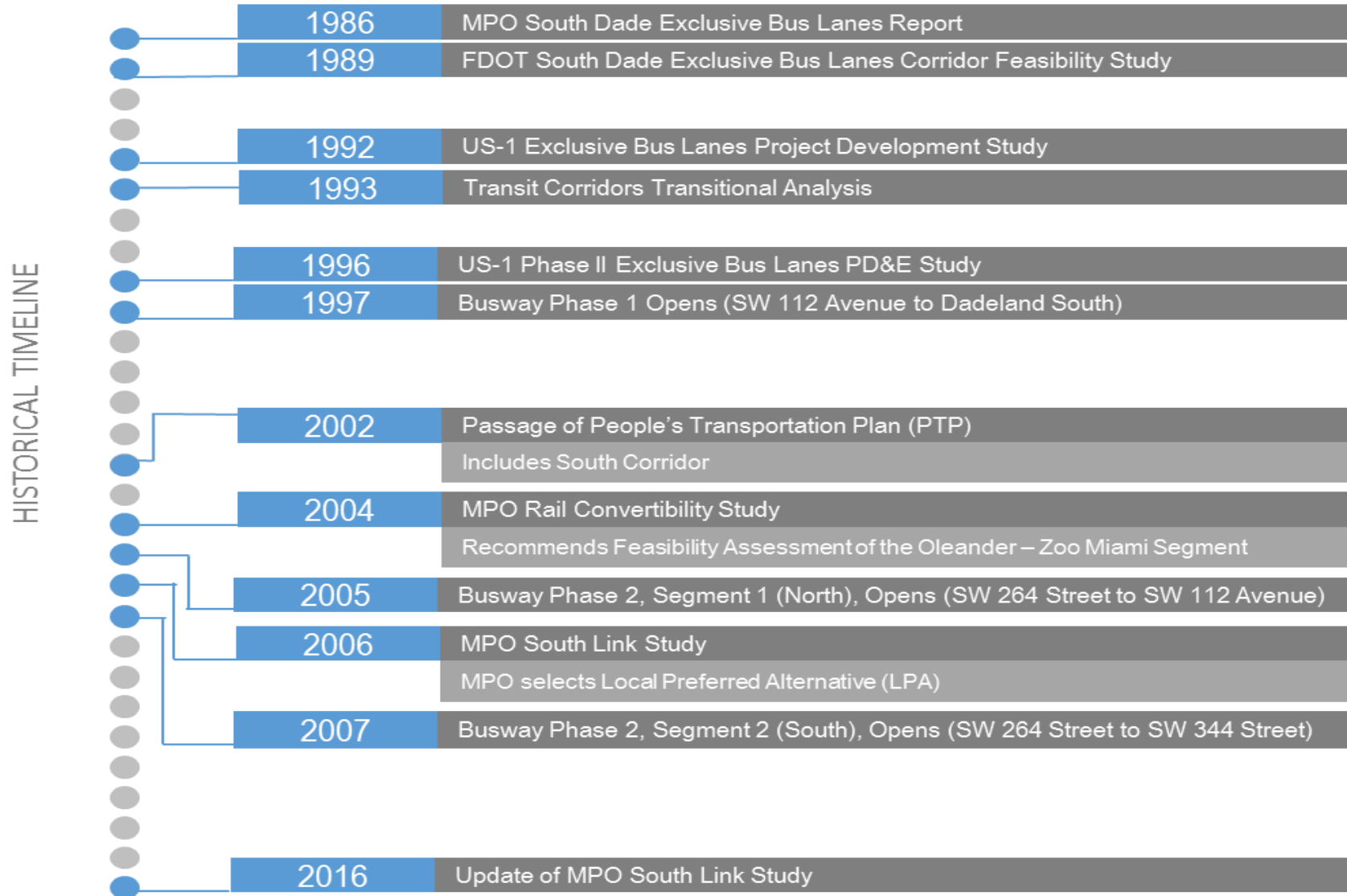


# South Dade Transitway/South Corridor

- Study Limits: Florida City to Dadeland South Metrorail station
- Length: 20 Miles
- Unique Markets: Colleges, hospitals, and major malls
- Connection to existing Metrorail system



# South Dade Transitway/South Corridor



# South Dade Transitway/South Corridor

## Mode Alternatives



Bus Rapid Transit (BRT)



Autonomous Vehicle



Heavy Rail Transit (HRT)



Light Rail Transit (LRT)



# Dadeland South Station (North Terminus of South Corridor)





# South Dade Transitway/South Corridor



Dadeland South Bus Terminal Station



# South Dade Transitway/South Corridor



Transitway Typical Section



# South Dade Transitway/South Corridor



US-1 Runs Parallel To Transitway



# Metrorail Transition To At-Grade



# Recommended Alternative

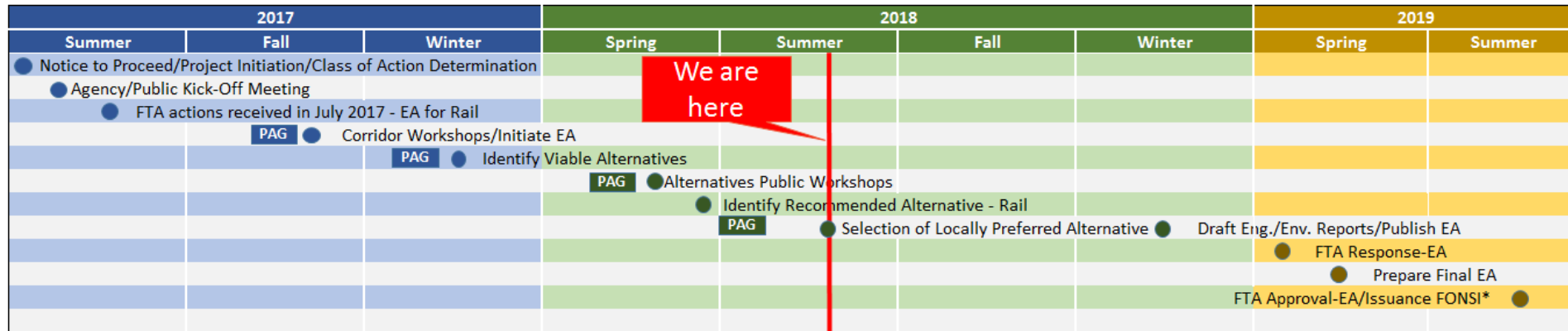
## Why BUS RAPID TRANSIT ?

- Same or better travel times than Rail (with crossing gates)
- Right sized solution for projected ridership
- Greater Flexibility than Rail (vehicles can go off corridor)
- Federal & State Funding Opportunity
- Helps Corridor Increase Ridership towards future rail
- Implements elements needed for rail
- Iconic Stations that encourage Economic Development and Transit Oriented Development (TOD)
- Affordable (20% of the capital cost of Rail and 25% of the O&M)
- Begin Operation in 3 to 4 Years
- Minimal impact during construction



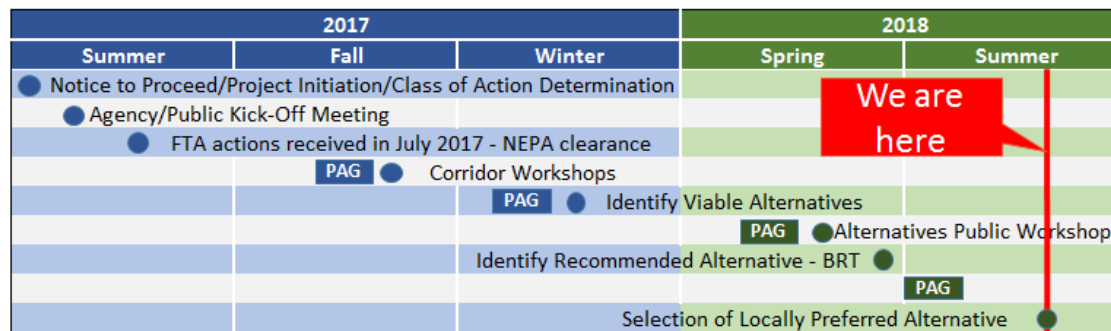
# NEPA Study Schedule: Rail vs. Bus Rapid Transit

## Typical Schedule Rail<sup>1</sup>



<sup>1</sup>DTPW has received EA Class of Action determination for Rail **(Begin HRT service in approximately 8 to 10 years)**

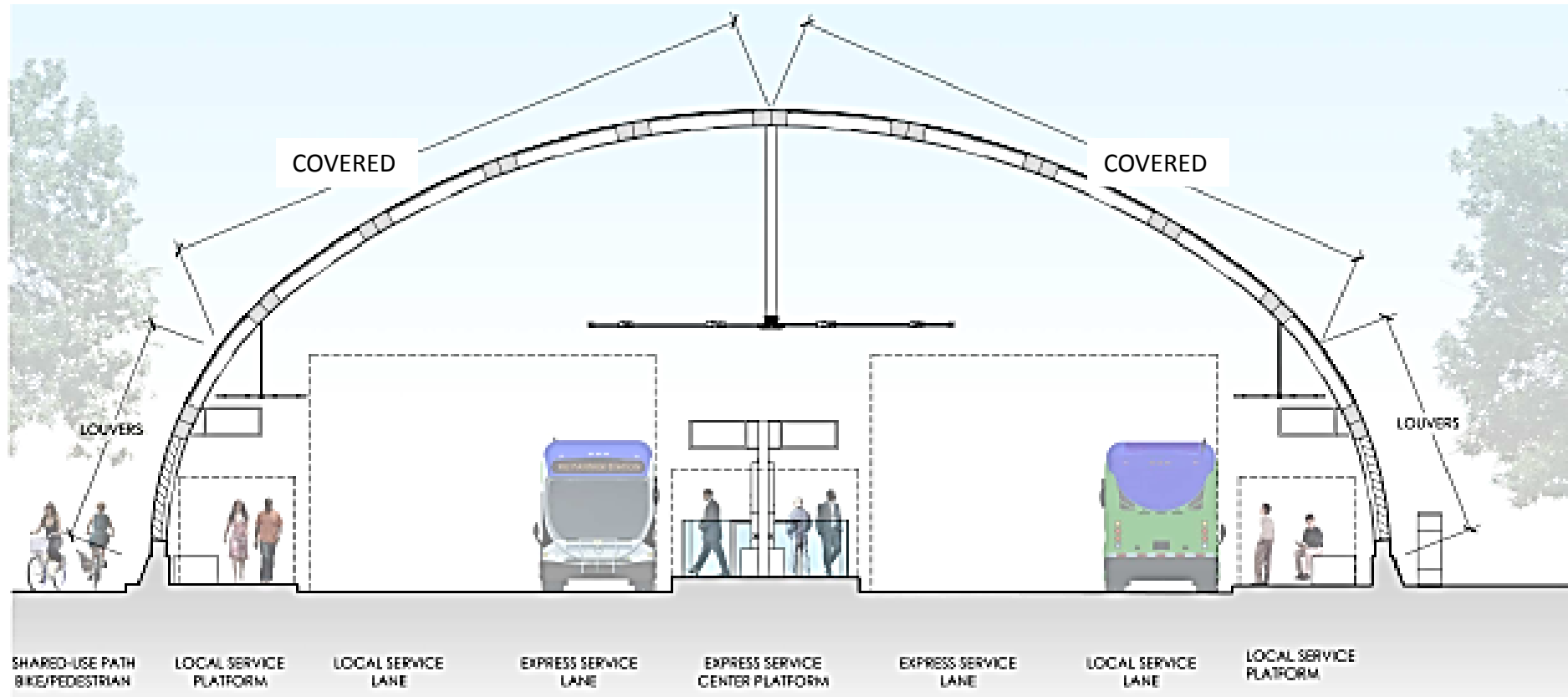
## Typical Schedule BRT<sup>2</sup>



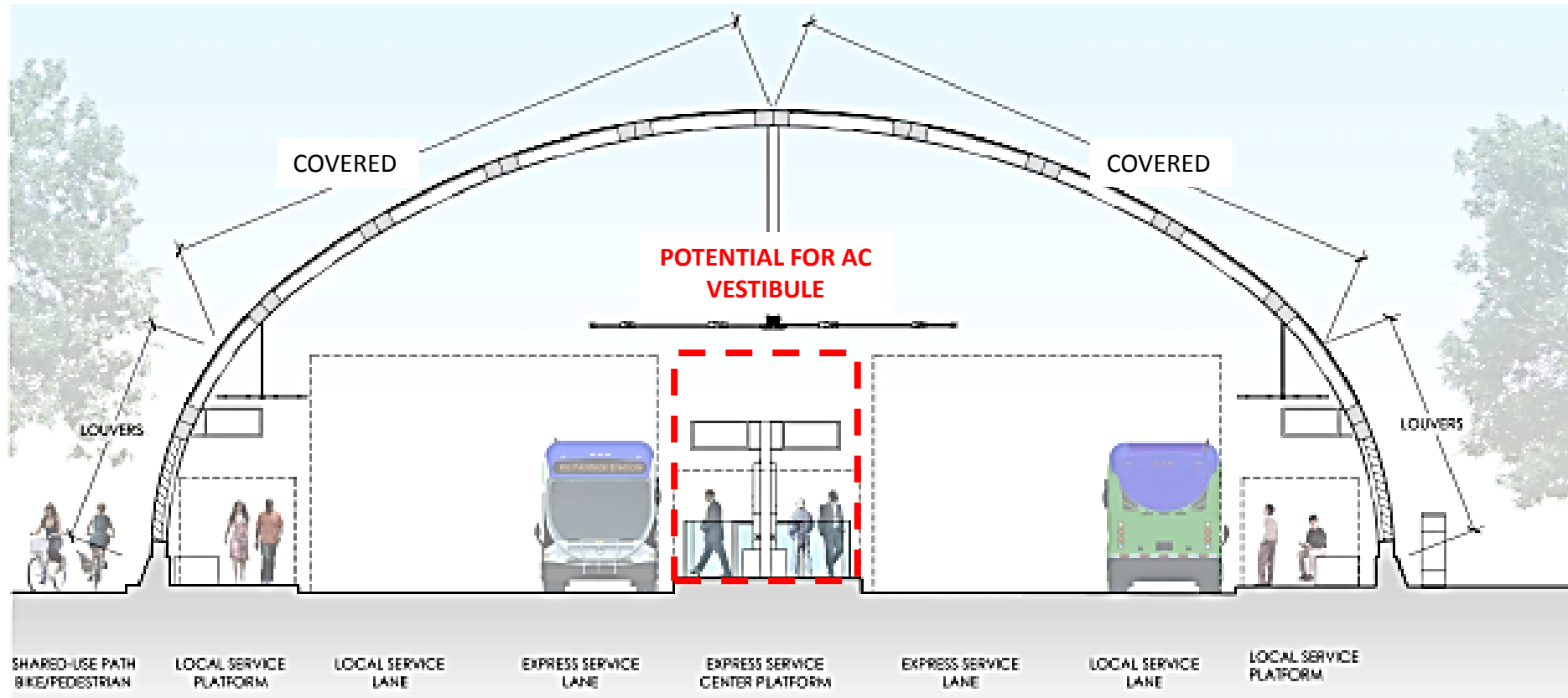
<sup>2</sup>DTPW has received NEPA clearance from FTA for BRT **(Begin BRT service in approximately 3 to 4 years)**



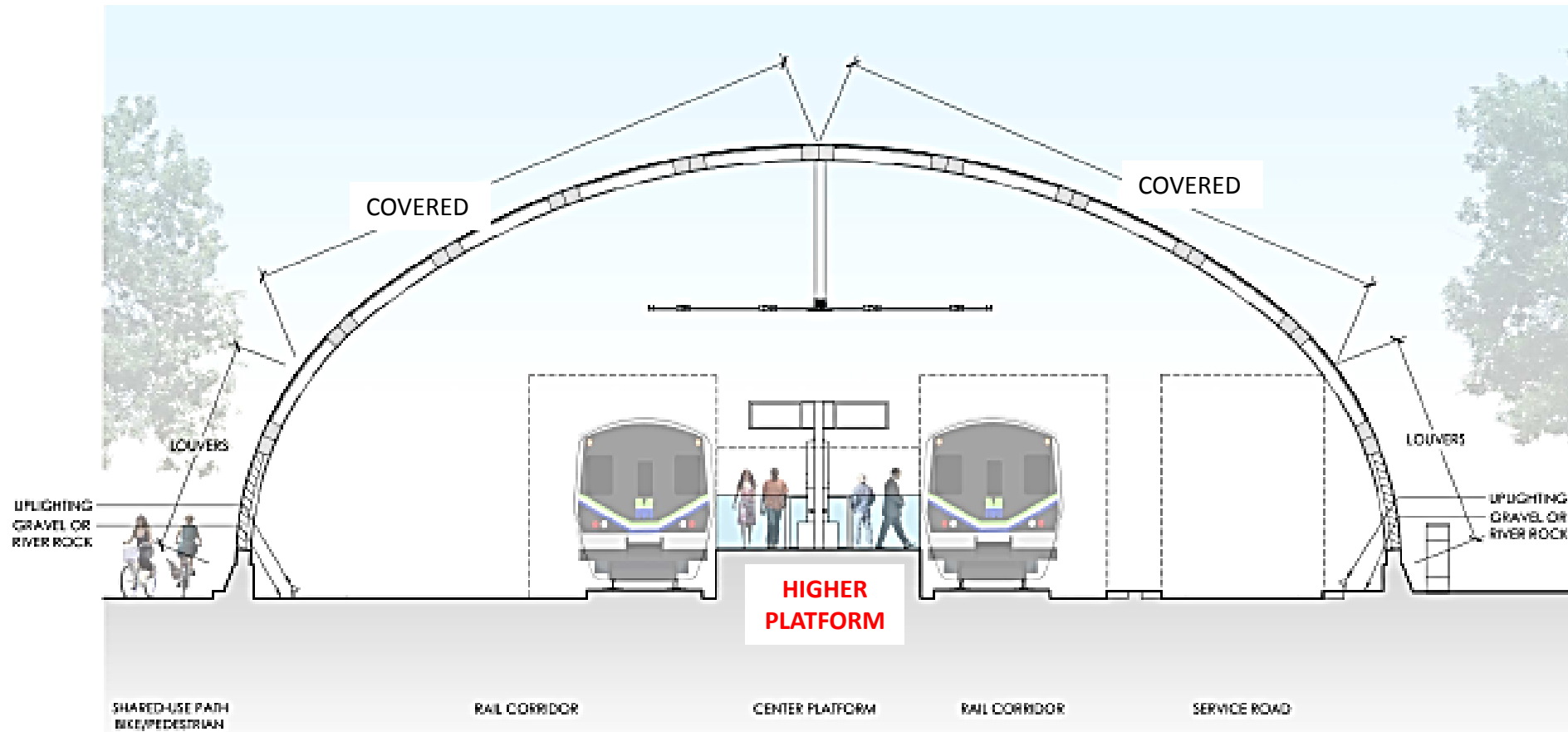
# Typical Alternatives - BRT



# Typical Alternatives - BRT

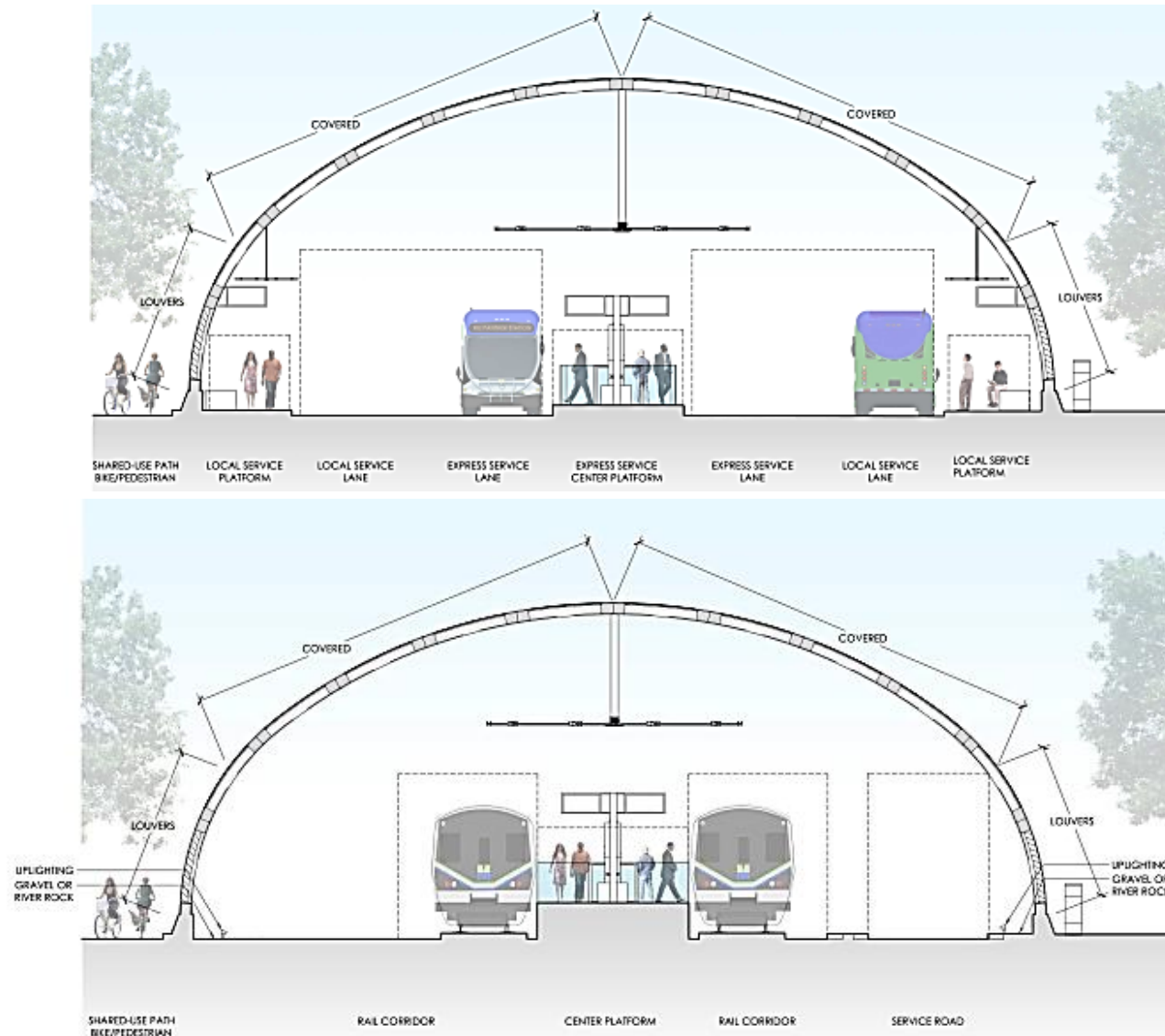


# Typical Alternatives - HRT

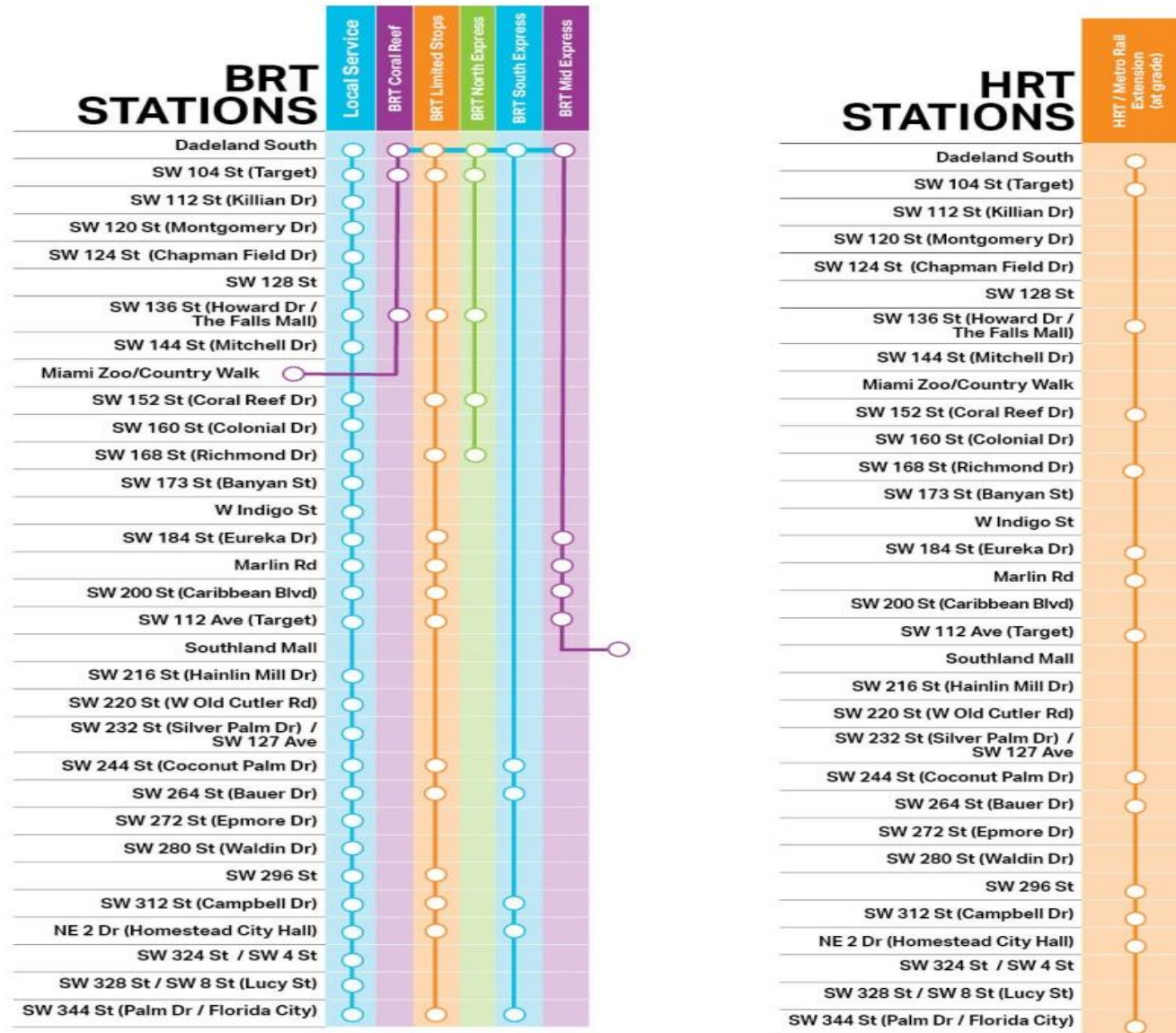


# Typical Alternatives

When converting to rail, stations would be lengthened and platform will be raised

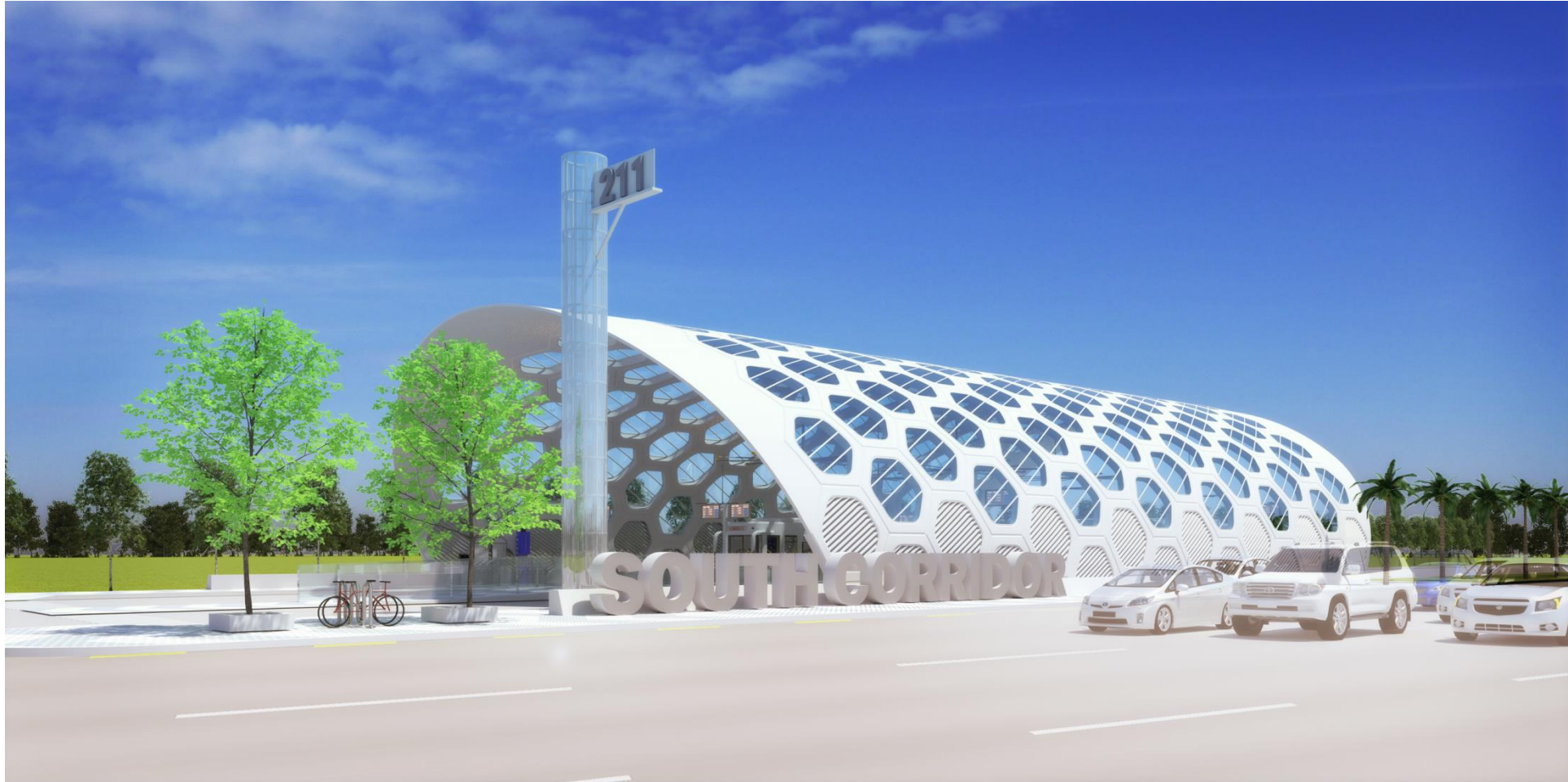


# Proposed Operation Plans





# Preliminary Station Renderings (BRT)





# Preliminary Station Renderings (BRT)





# Preliminary Station Renderings (HRT)





# Preliminary Station Renderings (BRT)



- ❖ Glass Vestibule potential for A/C
- ❖ Electric Buses can be used to service the corridor

# Preliminary Station Renderings (HRT)





# SMART Plan Cost/Funding Available



| Mode                      | Capital Cost (\$2017 Million) | Yearly O&M (Million)* | O&M Pro Forma Impact Through 2057** | New Transit Ridership by 2040 |
|---------------------------|-------------------------------|-----------------------|-------------------------------------|-------------------------------|
| Bus Rapid Transit         | <b>\$243</b>                  | <b>\$15</b>           | <b>\$865M</b>                       | <b>10,000 to 11,000</b>       |
| H Rail Transit (at-grade) | <b>\$1,332</b>                | <b>\$67</b>           | <b>\$4.2B</b>                       | <b>16,000 to 18,000</b>       |

\* O&M costs do not include circulator/feeder buses that would be required for HRT to serve all original stations

\*\* Net of Fare Box Revenue



# BRT and HRT use of Conceptual Financial Plan Funds



Rapid Transit Corridor Conceptual Financial Plan funding available for  
Capital, Financing, O&M and Replacement over 40 years

\$8.457 billion

| Project Capital Costs                                  | BRT           |      | HRT           |      |
|--|---------------|------|---------------|------|
| Capital Costs 2017\$                                   | 243,000,000   |      | 1,332,000,000 |      |
| Funding Assumptions YOE\$                              | 283,000,000   | 100% | 1,556,000,000 | 100% |
| 1. FTA Grant   | 100,000,000   | 35%  | 778,000,000   | 50%  |
| 2. FDOT  | 92,000,000    | 33%  | 389,000,000   | 25%  |
| 3. PTP Funds   | 92,000,000    | 33%  | 389,000,000   | 25%  |
|  | BRT           |      | HRT           |      |
| Annual Operating and Maintenance Cost \$2017           | 15,000,000    |      | 67,000,000    |      |
|  |               |      |               |      |
| Operating and Maintenance Costs, through 2058 in YOE\$ | 1,051,000,000 |      | 4,502,000,000 |      |

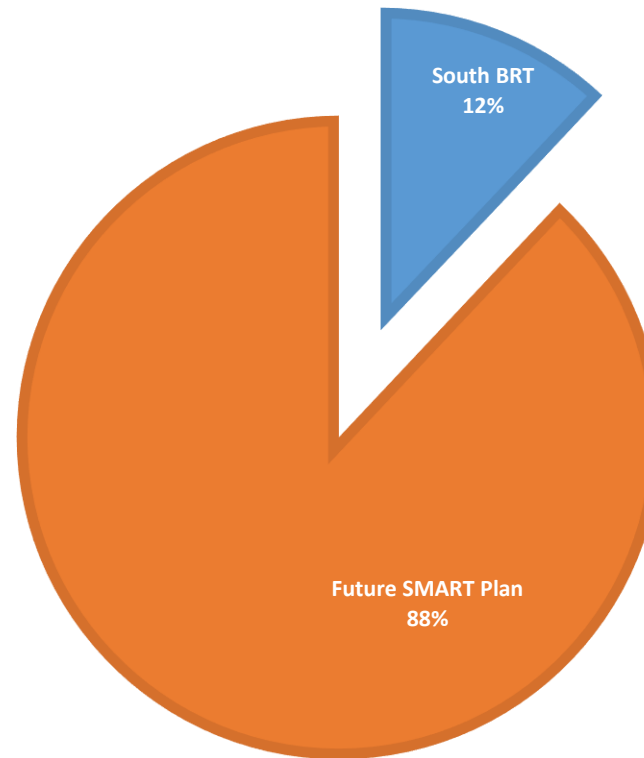
# BRT and HRT use of Conceptual Financial Plan Funds



|  |                      |                      |
|--|----------------------|----------------------|
|  | <b>BRT</b>           | <b>HRT</b>           |
| <b>Replacement Costs</b>               | <b>58,000,000</b>    | <b>1,263,000,000</b> |
|  | <b>BRT</b>           | <b>HRT</b>           |
| <b>Plan Fund Usage</b>                 | <b>92,000,000</b>    | <b>739,000,000</b>   |
| Capital Cost including financing       |                      |                      |
|  | <b>BRT</b>           | <b>HRT</b>           |
| <b>Fund usage through 2058</b>         | <b>1,201,000,000</b> | <b>6,504,000,000</b> |
| Farebox Revenues                       | (186,000,000)        | (274,000,000)        |
| <b>Fund Utilization net of Farebox</b> | <b>1,015,000,000</b> | <b>6,230,000,000</b> |
| Percentage Utilization of Funds        | <b>12.0%</b>         | <b>73.7%</b>         |
| <b>Remaining for SMART Plan</b>        | <b>7,442,000,000</b> | <b>2,227,000,000</b> |

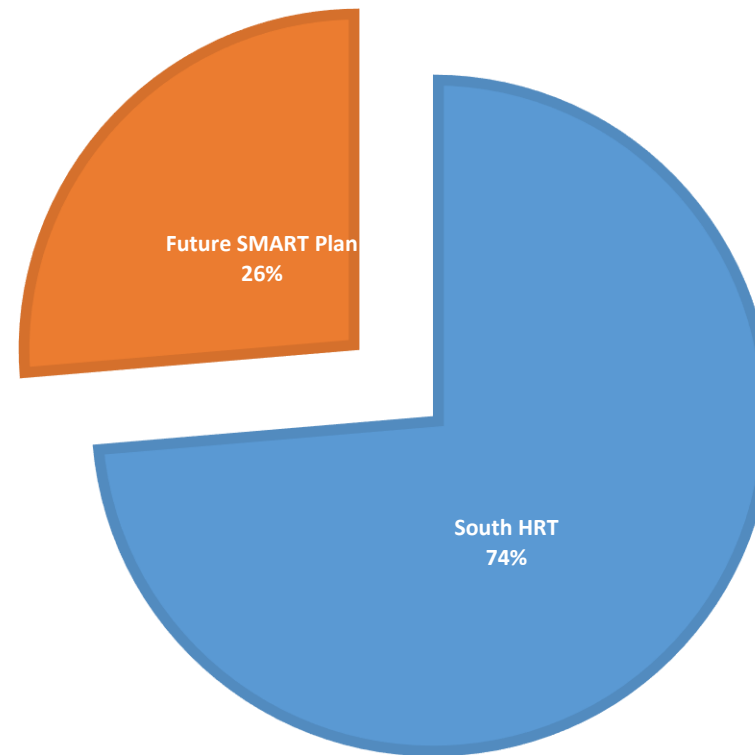
# Reserve for Future SMART Plan Expenses

RESERVE FOR FUTURE SMART PLAN EXPENSES



# Reserve for Future Smart Plan Expenses

RESERVE FOR FUTURE SMART PLAN EXPENSES



# Recommended Alternative



## Why BUS RAPID TRANSIT ?

- Same or better travel times than Rail (with crossing gates)
- Right sized solution for projected ridership
- Greater Flexibility than Rail (vehicles can go off corridor)
- Federal & State Funding Opportunity
- Helps Corridor Increase Ridership towards future rail
- Implements elements needed for rail
- Iconic Stations that encourage Economic Development and Transit Oriented Development (TOD)
- Affordable (20% of the capital cost of Rail and 25% of the O&M)
- Begin Operation in 3 to 4 Years
- Minimal impact during construction





# South Dade Transitway/South Corridor

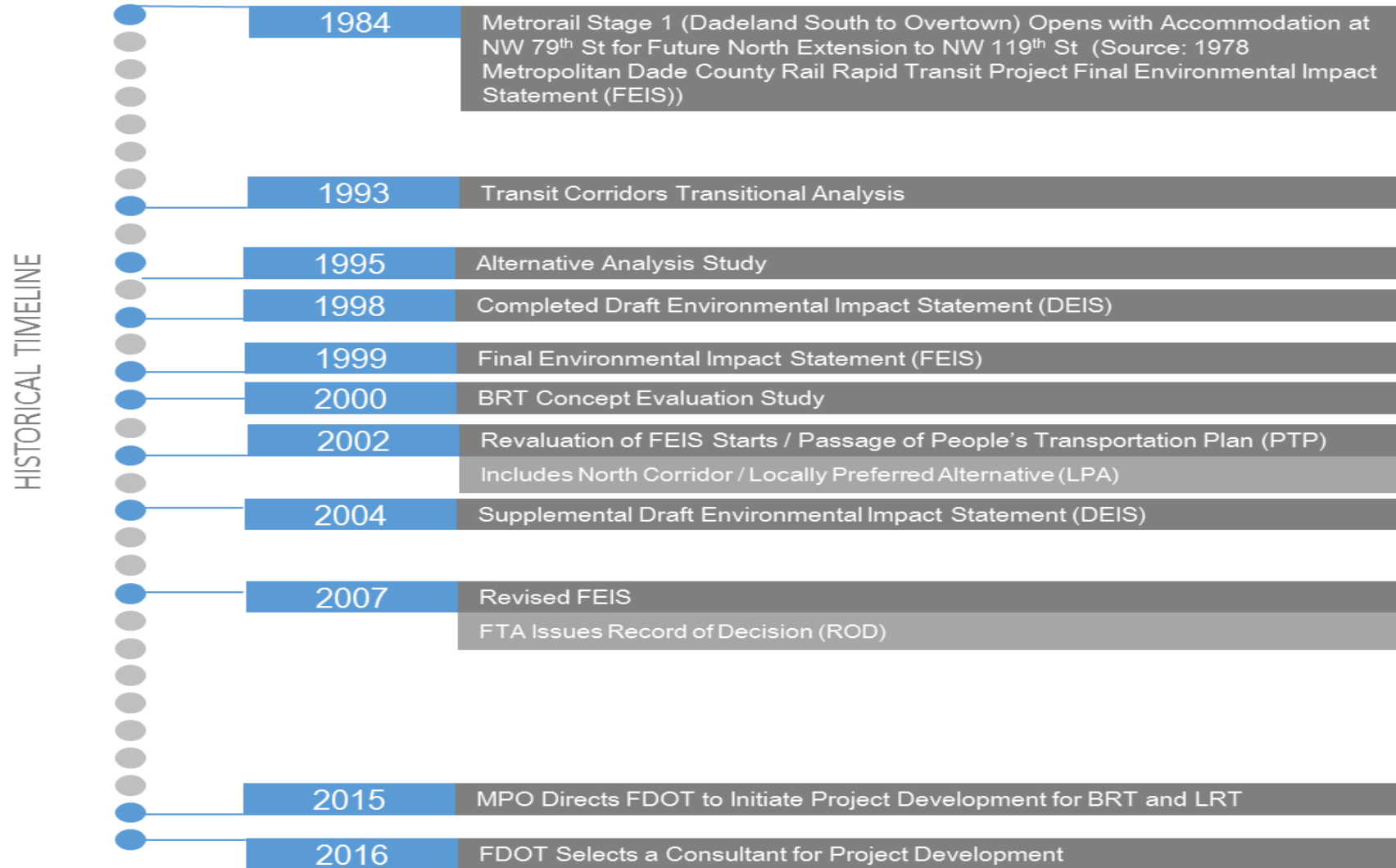
- Project Schedule
  - Summer 2017 – FTA Class of Action Determination
    - BRT: NEPA Cleared
    - Rail: Environmental Assessment (EA)
  - Summer 2018 – Identify Recommended Alternative
  - Late August 2018 – TPO Selection of Locally Preferred Alternative (LPA)
  - 4<sup>th</sup> Quarter 2019 – FTA FONSI (If rail is selected as LPA)

# North Corridor

- Study Limits:
  - SR 112/Airport Expressway from the Miami Intermodal Center (MIC) to NW 38<sup>th</sup> Street
  - SR 817/NW 27<sup>th</sup> Avenue from NW 38<sup>th</sup> Street to SR 852/NW 215<sup>th</sup> Street
- Length: 12 miles
- Unique Markets: Intercounty, colleges, special event venues

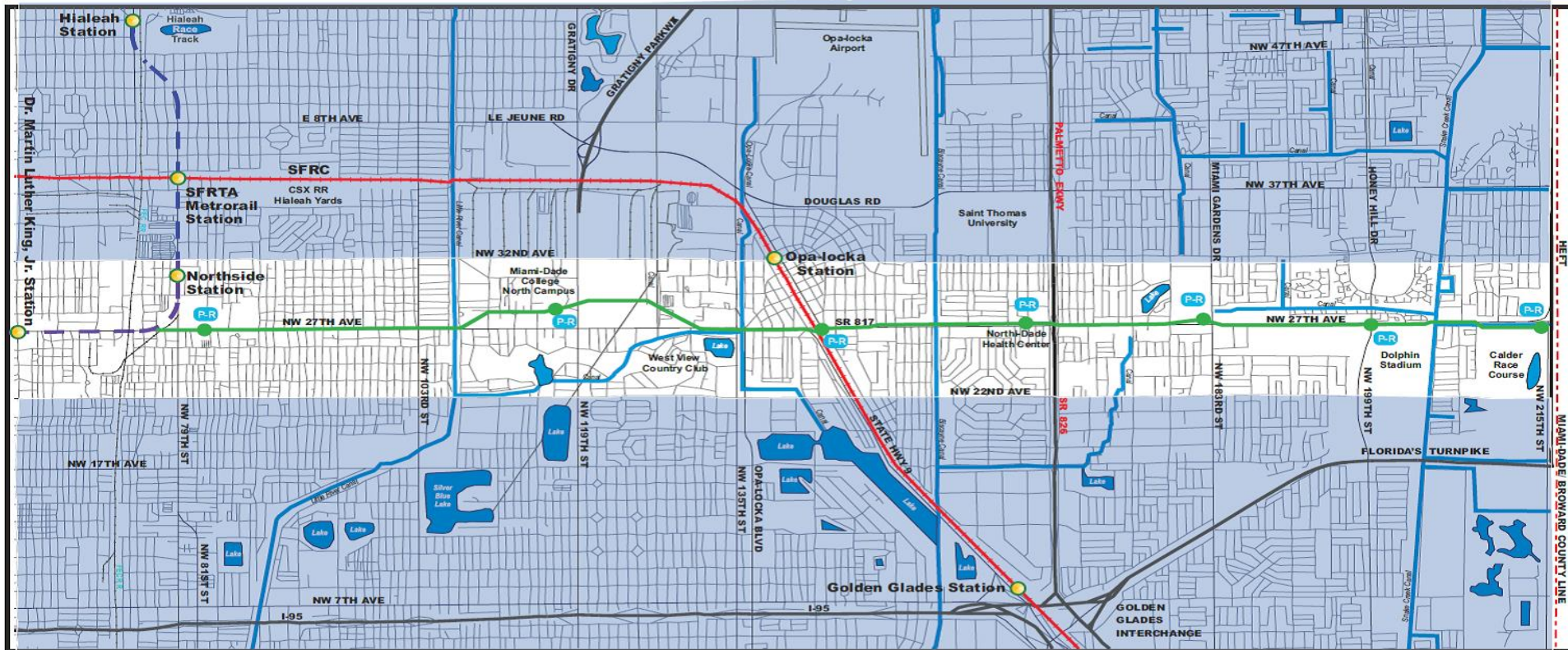


# North Corridor



# North Corridor

## Miami North Corridor FEIS 2007

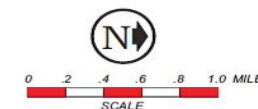


### LEGEND

- Station
- Stage 1 Metrorail
- Build Alternative Alignment
- Build Alternative Station
- Park and Ride
- Corridor

MIAMI-DADE  
COUNTY  
TRANSIT

Figure 2-10  
Build Alternative





# North Corridor

## Mode Alternatives



**Bus Rapid Transit (BRT)**



**Light Rail Transit (LRT)**



**Heavy Rail (HRT)**

# Dr. Martin Luther King, Jr. Metrorail Station NW 27 Avenue & NW 62 Street





# Dr. Martin Luther King, Jr. Metrorail Station



# Dr. Martin Luther King, Jr. Metrorail Station Guideway Looking North



# North Corridor

## NW 27<sup>th</sup> Avenue & NW 75<sup>th</sup> Street





# North Corridor

## Existing Typical Sections For NW 27<sup>th</sup> Avenue



Four-lane section from NW 41<sup>st</sup> to NW 79<sup>th</sup> Streets



# North Corridor

## Existing Typical Sections For NW 27th Avenue



Six-lane section NW 103<sup>rd</sup> to NW 215<sup>th</sup> Streets

# North Corridor

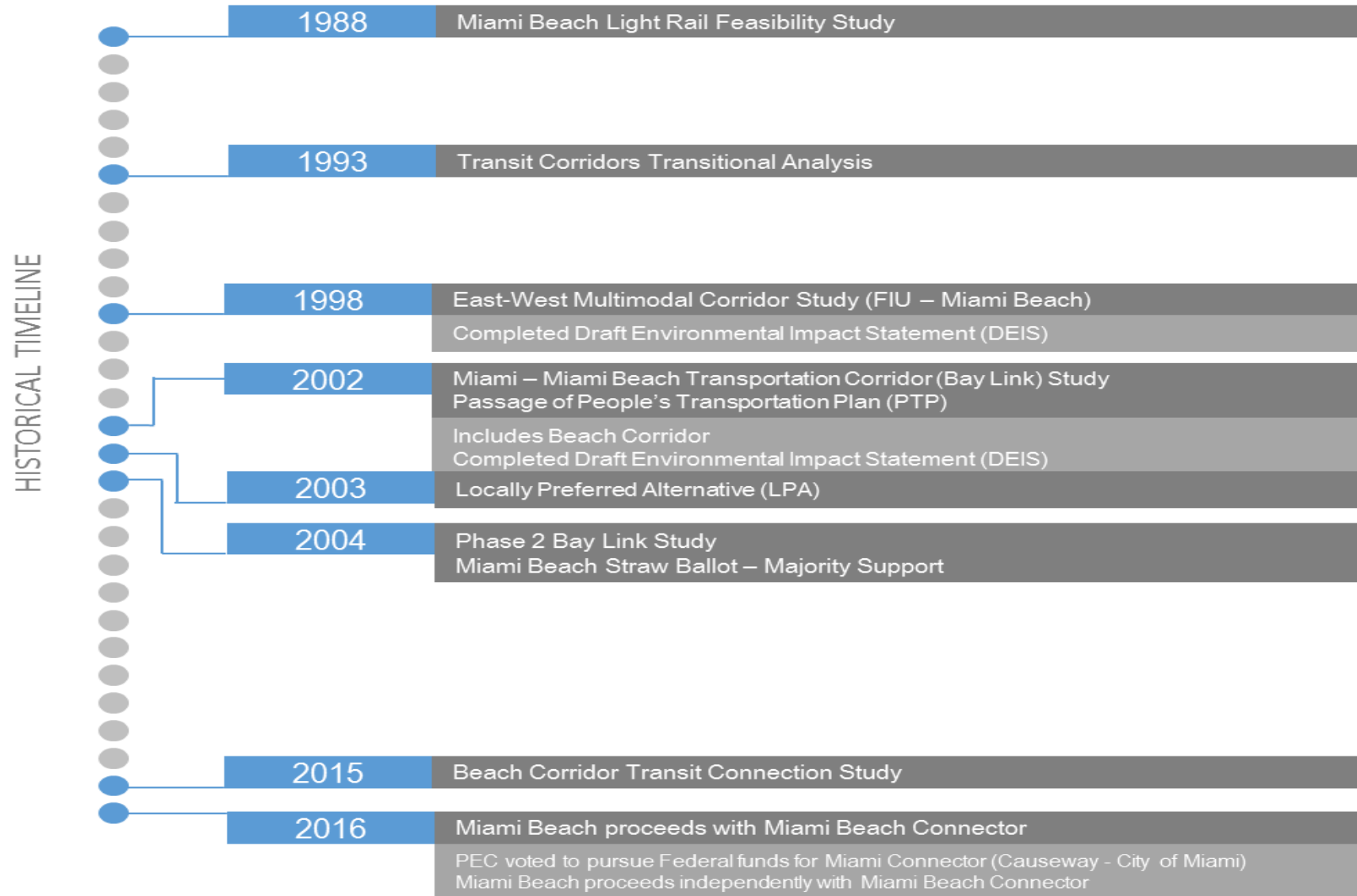
- Project Milestone Schedule
  - 4<sup>th</sup> Quarter 2018 - Identify Recommended Alternative
  - 4<sup>th</sup> Quarter 2018 - TPO Selection of Locally Preferred Alternative (LPA)
  - 1<sup>st</sup> Quarter 2019 - FTA Class of Action Determination
  - 3<sup>rd</sup> Quarter 2019 - FTA FONSI

# Beach Corridor

- Study Limits: Miami Design District to Miami Beach Convention Center
- Length: 9.7 Miles
- Unique Markets: Hotels, colleges, major employment centers, and special event venues
- Connection to existing Metrorail, Metromover, and Brightline



# Beach Corridor





# Beach Corridor

## Mode Alternatives



Automated People Mover Vehicle  
(APM)



Light Rail Transit  
(LRT)



Autonomous  
Vehicle



Bus Rapid Transit  
(BRT)



Heavy Rail Transit  
(HRT)



Monorail



Aerial Cable Transit (ACT)



Personal Rapid Transit  
(PRT)

# Museum Park Metromover Station





# Beach Corridor (I-395 Bridge)



# Beach Corridor (MacArthur Causeway & PortMiami)





# Beach Corridor (Alton Rd & 5th St)



# Beach Corridor (Washington Ave & 5th St)





# Beach Corridor (North Miami Ave)





# Beach Corridor (North Miami Avenue)





# Beach Corridor

- Project Milestone Schedule
  - 2<sup>nd</sup> Quarter 2019 – Identify Recommended Alternative
  - 3<sup>rd</sup> Quarter 2019 – TPO Selection of Locally Preferred Alternative (LPA)
  - 3<sup>rd</sup> Quarter 2019 - FTA Class of Action Determination
  - 4<sup>th</sup> Quarter 2020 - FTA Record of Decision (ROD)

# East-West Corridor

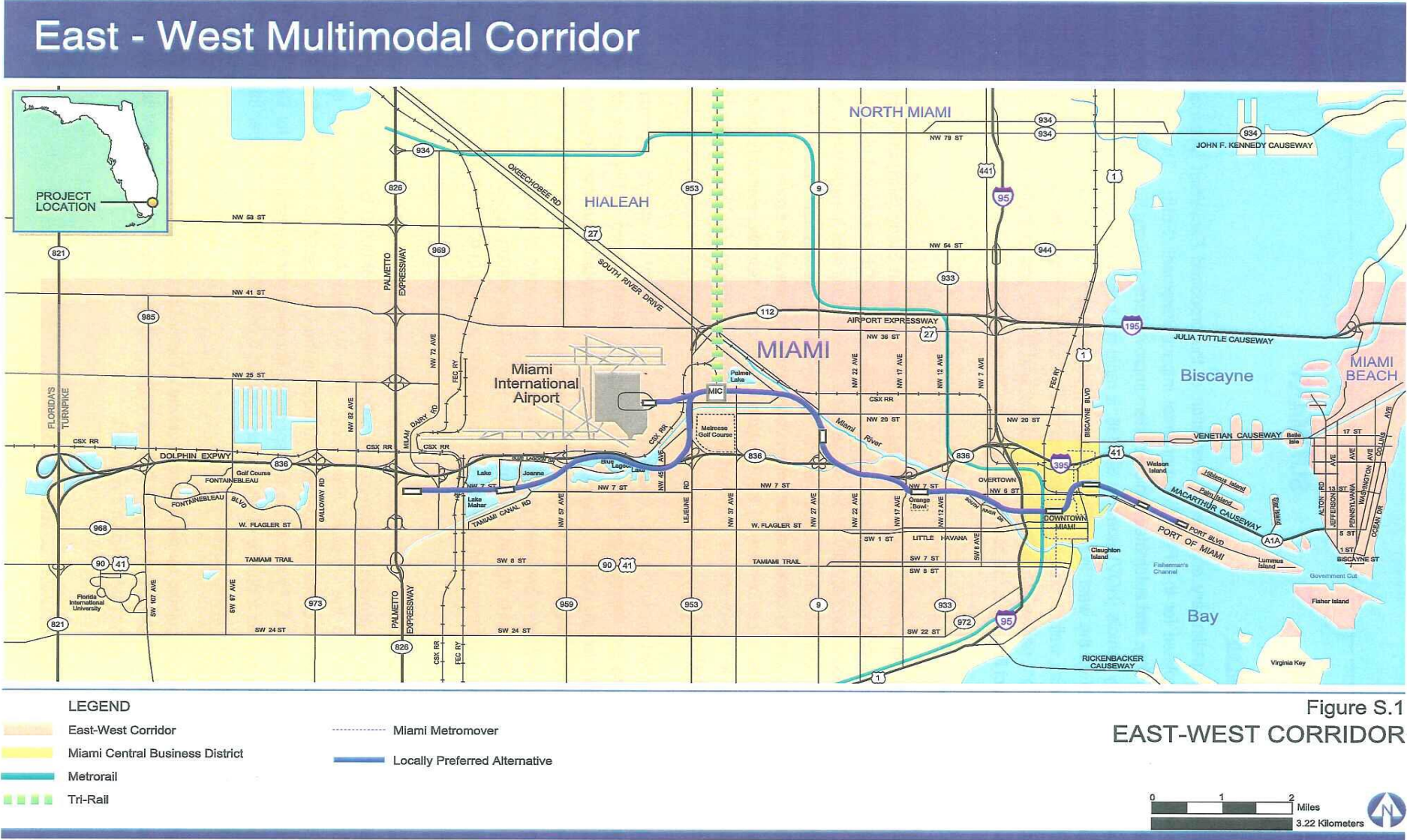
- Study Limits: Florida International University (FIU) to Miami Intermodal Center (MIC) at Miami International Airport (MIA)
- Length: 11 Miles
- Unique Markets: Colleges, major malls, major employment centers, and MIA
- Connection to existing Metrorail



# East-West Corridor



# Original East-West Corridor LPA 1998





# East-West Corridor

## Mode Alternatives



Bus Rapid Transit (BRT)



Light Rail Transit (LRT)



Commuter Rail



Heavy Rail Transit (HRT)



Autonomous  
Vehicle

# East-West Corridor

- Terminal: Miami Intermodal Center (MIC) at Miami International Airport MIA)





# SR836 WB Approaching NW 57 Avenue





# SR836 WB Approaching NW 72 Avenue





# SR836 WB Approaching NW 82 Avenue



**MDX PROJECT No. 83629**  
SR 836 Interchange Modifications at 87th Avenue  
SR 836 WB approaching NW 82nd Ave.

**EAC**  
General Engineering Consultant to the  
Miami-Dade Expressway Authority  
Smith Aerial Photos 05.08.18



# SR836 WB Approaching NW 97 Avenue





# SR836 – Dolphin Park & Ride





# Panther Station Bus Terminal Florida International University



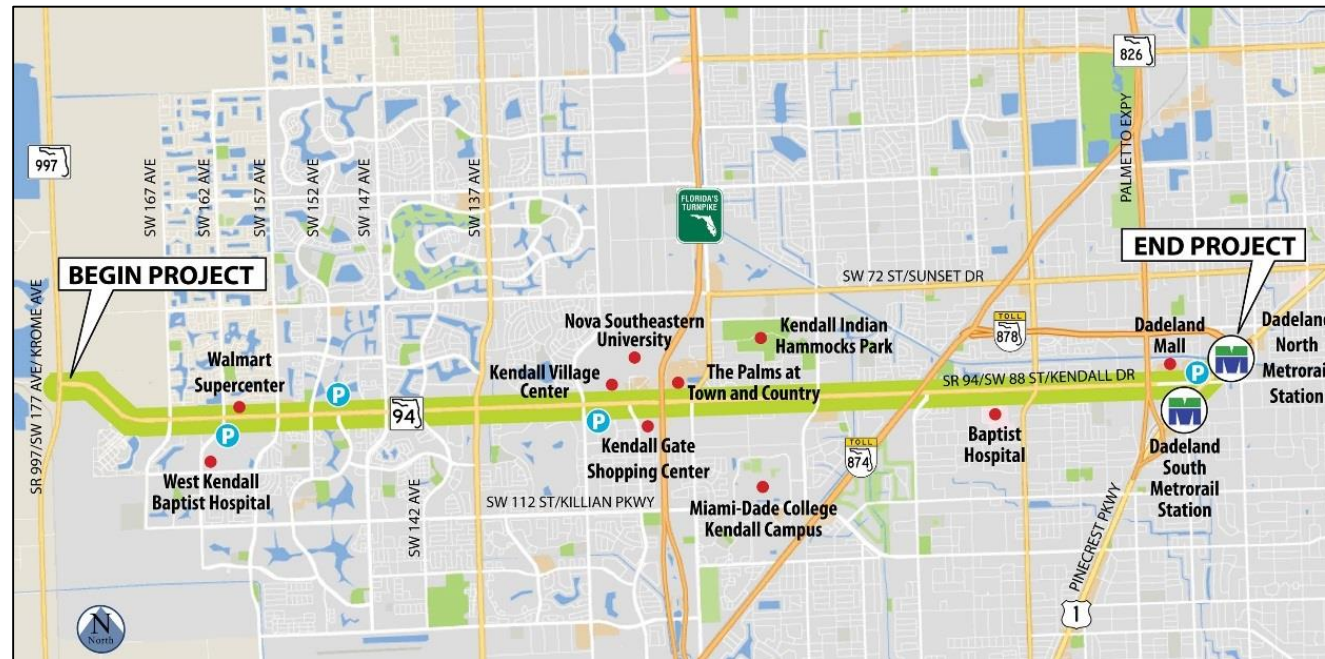


# East-West Corridor

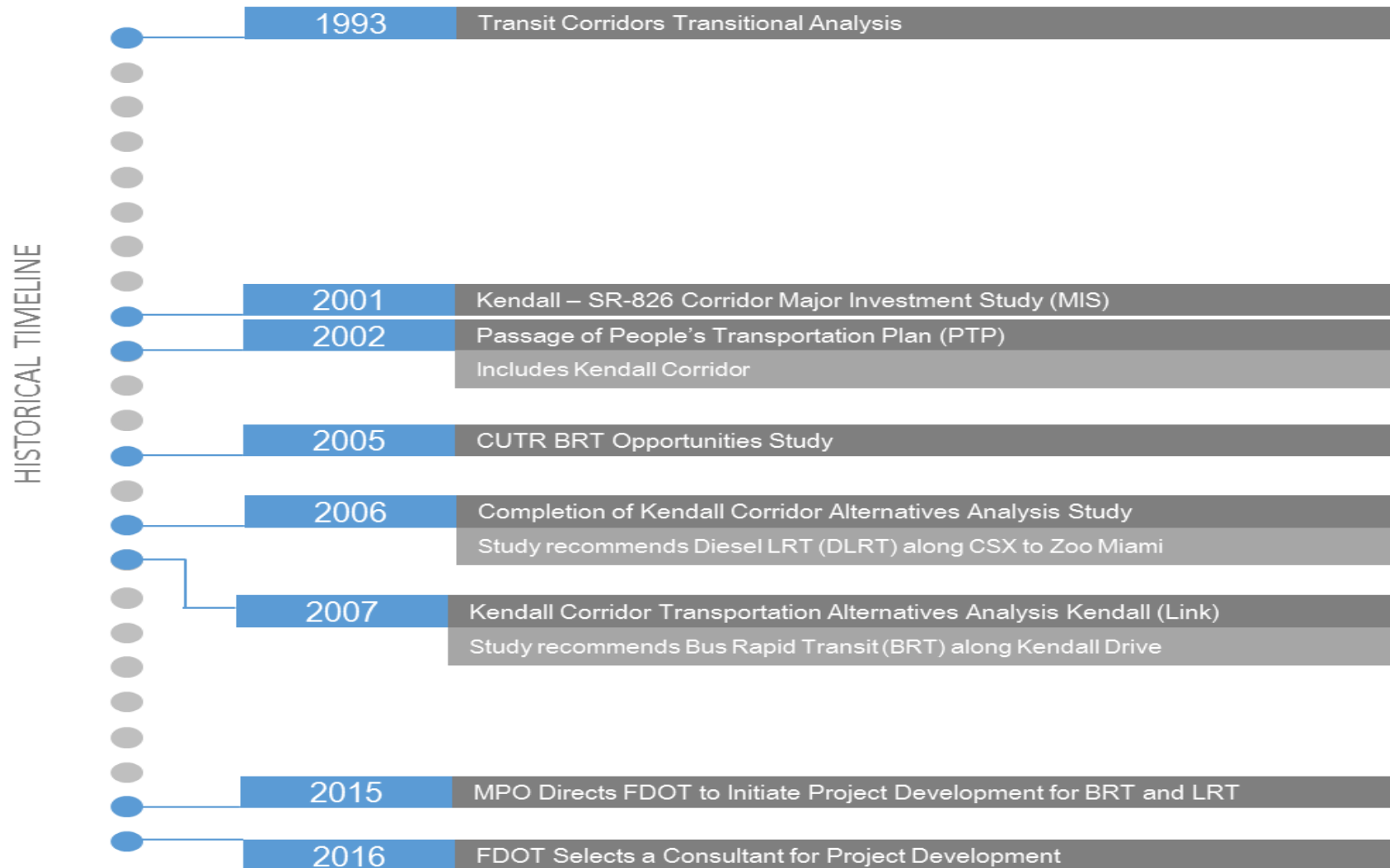
- Project Milestone Schedule
  - 4<sup>th</sup> Quarter 2018 - Identify Recommended Alternative
  - 1<sup>st</sup> Quarter 2019 - TPO Selection of Locally Preferred Alternative (LPA)
  - 2<sup>nd</sup> Quarter 2019 - FTA Class of Action Determination
  - 2<sup>nd</sup> Quarter 2020 - FTA FONSI

# Kendall Corridor

- Study Limits: SR 94/Kendall Drive/SW 88th St. from SR 997/Krome Ave./SW 177th Ave. to Dadeland North Metrorail Station
- Length: 10 Miles
- Unique Markets: Local communities, major malls, and hospitals



# Kendall Corridor





# Kendall Corridor

## Mode Alternatives



**Bus Rapid Transit (BRT)**



**Light Rail Transit (LRT)**



**Heavy Rail Transit  
(HRT)**

# Kendall Corridor (6 Lanes)

## Kendall Dr. & Dadeland Boulevard





# Kendall Corridor (6 Lanes)

## Kendall Dr. & SW 103 Avenue





# Kendall Corridor (6 Lanes)

## Kendall Dr. & SW 157 Avenue



# Kendall Corridor

- Project Milestone Schedule
  - 4<sup>th</sup> Quarter 2018 - Identify Recommended Alternative
  - 4<sup>th</sup> Quarter 2018 - TPO Selection of Locally Preferred Alternative (LPA)
  - 1<sup>st</sup> Quarter 2019 - FTA Class of Action Determination
  - 4<sup>th</sup> Quarter 2019 - FTA FONSI

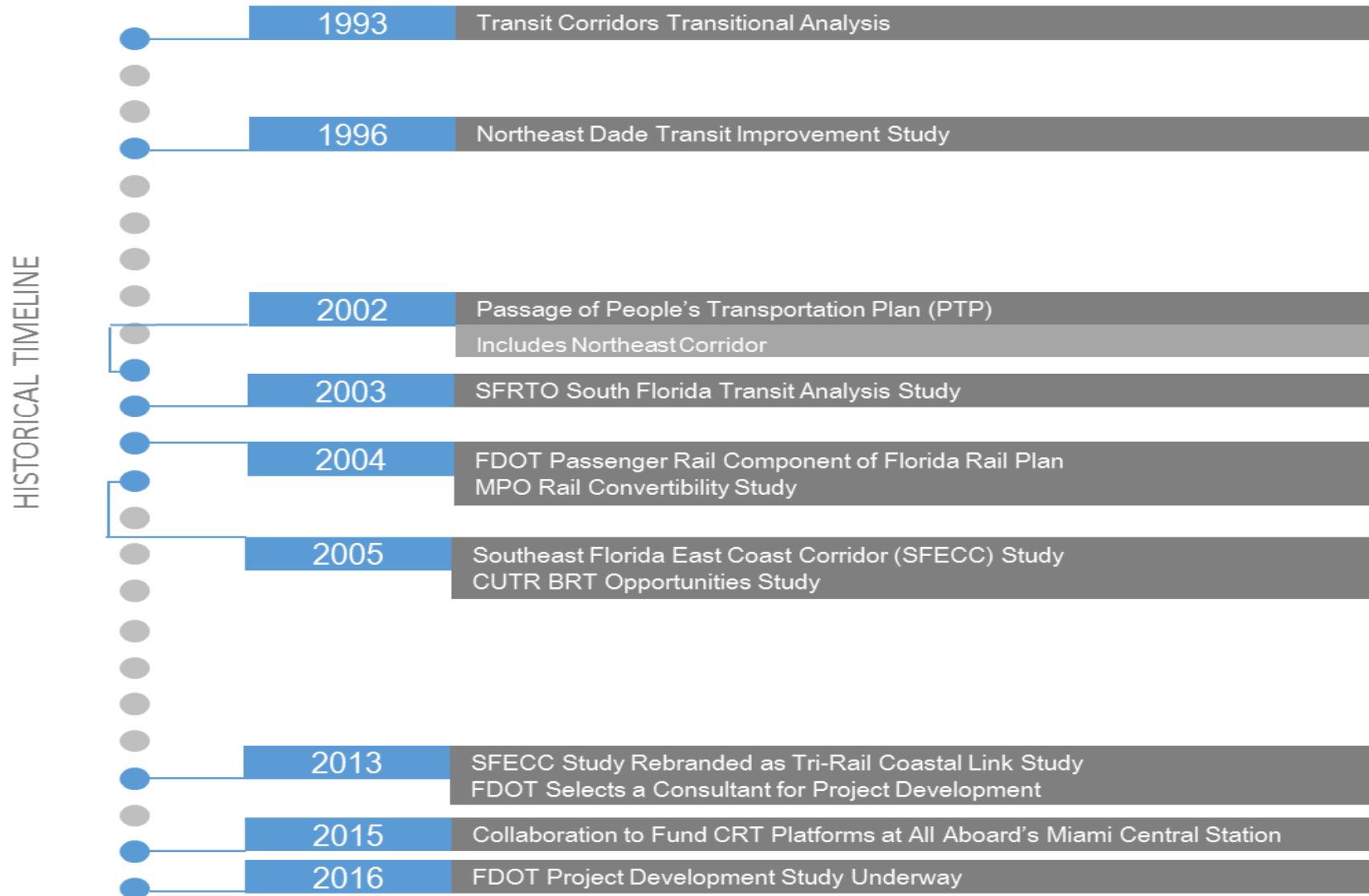
# Northeast Corridor

- Study Limits:
  - Downtown Miami to City of Aventura
- Unique Markets:
  - Regional destinations, major employment centers, and major malls
- Five additional stations:
  - Aventura
  - North Miami Beach
  - North Miami
  - Upper Eastside
  - Midtown/Design District





# Northeast Corridor



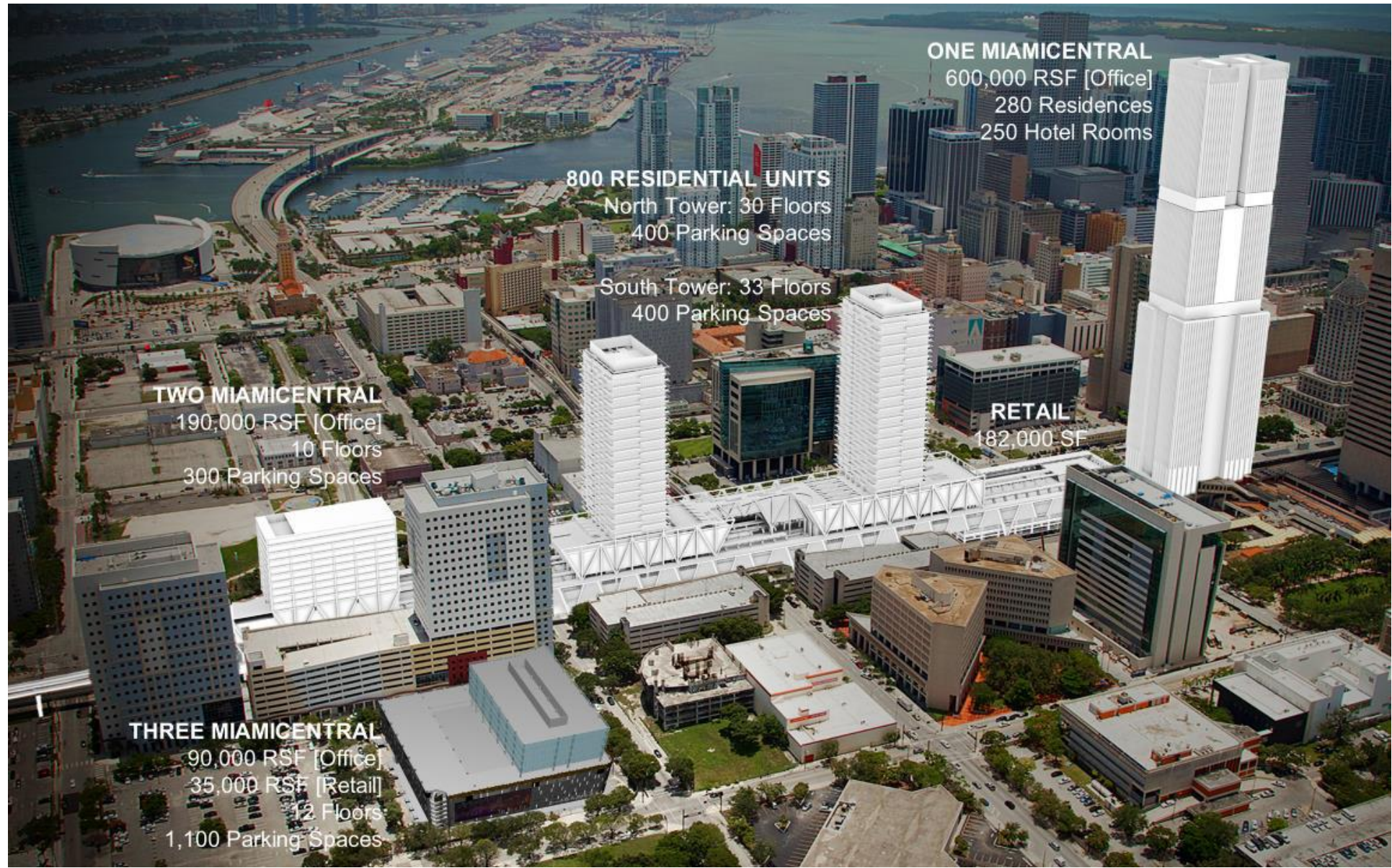
# Northeast Corridor

## Mode Alternative



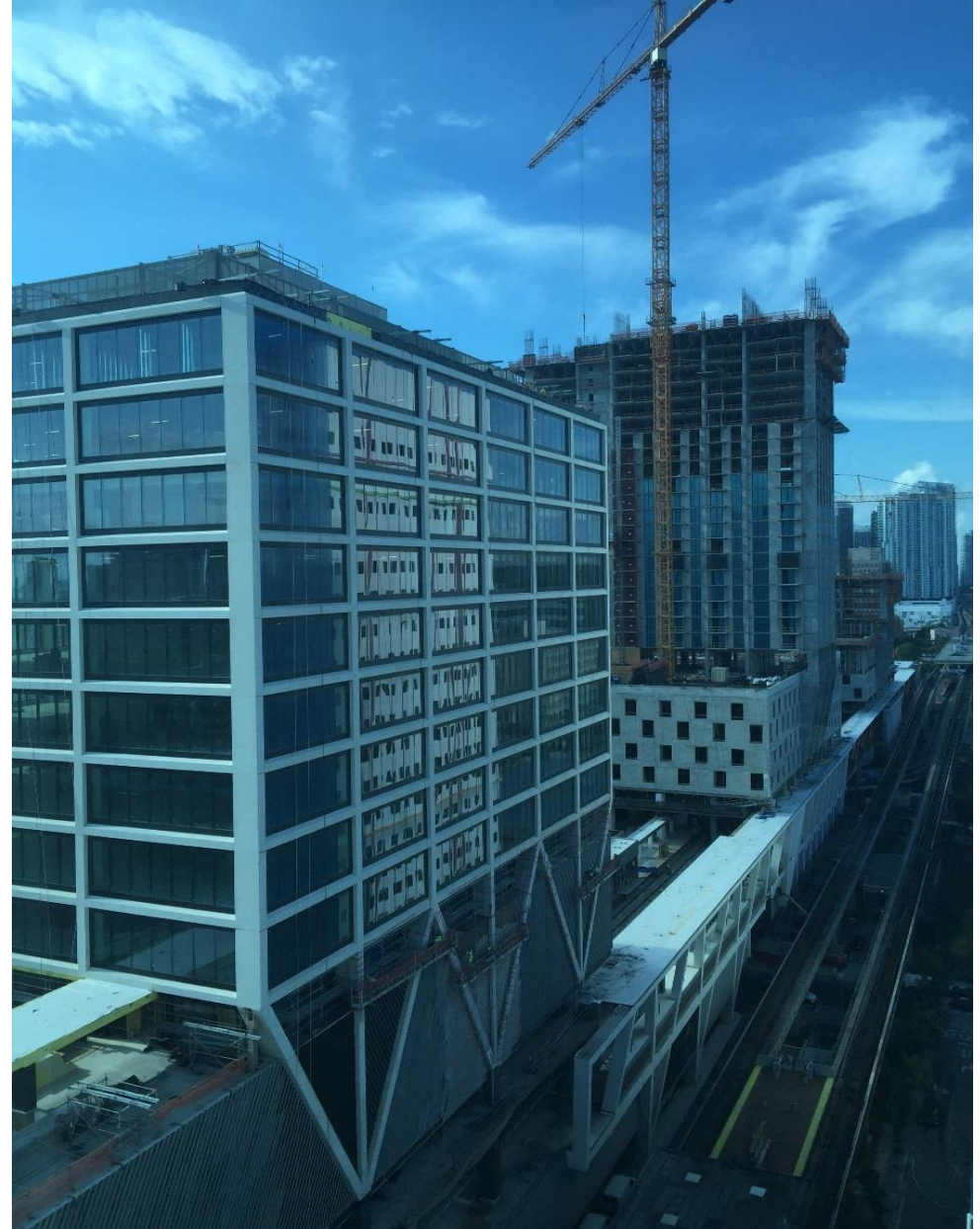


# Northeast Corridor (Miami Downtown Station)

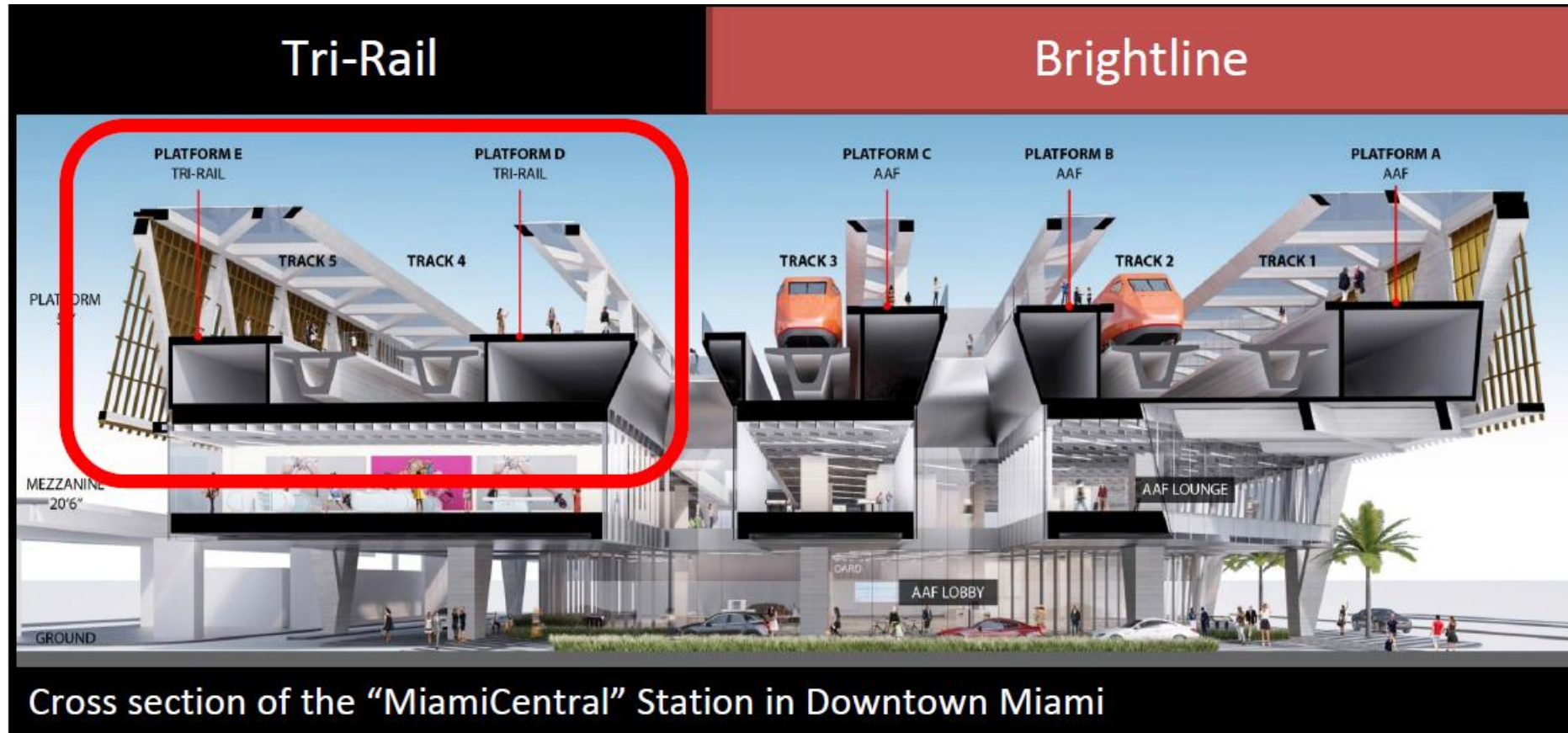




# Brightline (All Aboard Florida)



# Northeast Corridor





# Northeast Corridor

## FEC NE 79<sup>th</sup> Street Looking South





# Northeast Corridor

## FEC NW 163<sup>rd</sup> St Looking North



# Northeast Corridor

- Project Status:
  - NEPA effort +30% complete
- Next Steps:
  - Negotiate FEC Access Agreement and Operations/Maintenance
  - Project Development – pending access agreement & local financing plan



# Project Information Resources

- Project Websites:
- SMART Plan: [www.MiamiSmartPlan.com](http://www.MiamiSmartPlan.com)
- Beach Corridor: <https://www.miamidade.gov/transit/smart-plan-beach-corridor.asp>
- East West Corridor: <https://www.miamidade.gov/transit/smart-plan-east-west-corridor.asp>
- Kendall Corridor: <http://www.fdotmiamidade.com/kendallrapidtransit.html>
- North Corridor: <http://www.fdotmiamidade.com/27thAvenueRapidTransit.html>
- Northeast Corridor: <http://tri-railcoastallinkstudy.com/>
- South Corridor: <https://www.miamidade.gov/transit/smart-plan-south-dade-transit-way-corridor.asp>



# Additional Project Information Resources

- Additional information available to the general public:
  - County Owned Parcel Inventory List – 2017 (available at <https://www.miamidade.gov/transit/library/parcel-inventory-list.pdf>)



# Next Steps

- One-On-One Meetings July 30<sup>th</sup> -Aug 1<sup>st</sup>
- Deadline for Questions Aug 3<sup>rd</sup>
- Responses to the RFI due on Aug 24<sup>th</sup>
- County staff will review responses
- Provide preliminary findings and recommendations to the next available Transportation Planning Organization (TPO) meeting

# Questions and Answers