



Broward MPO 40-Year Anniversary

Summit/Workshop
November 9, 2017

**Interchanges and Limited Access
Highway System**

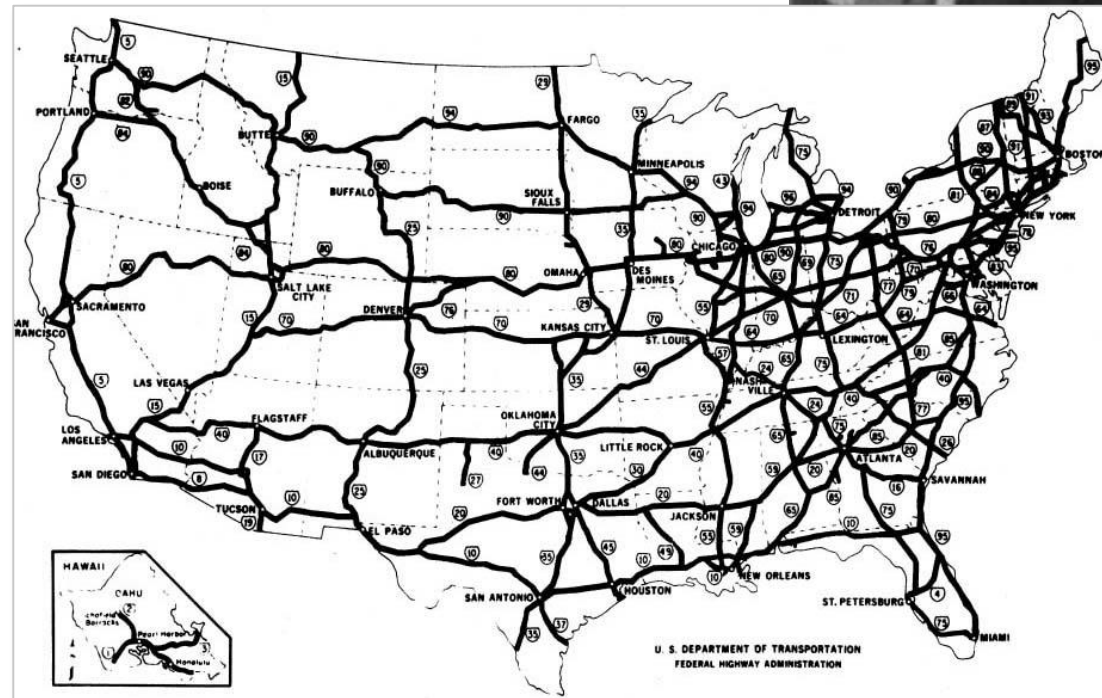


Major Broward Highway Systems Throughout the Decades (1950's to today)



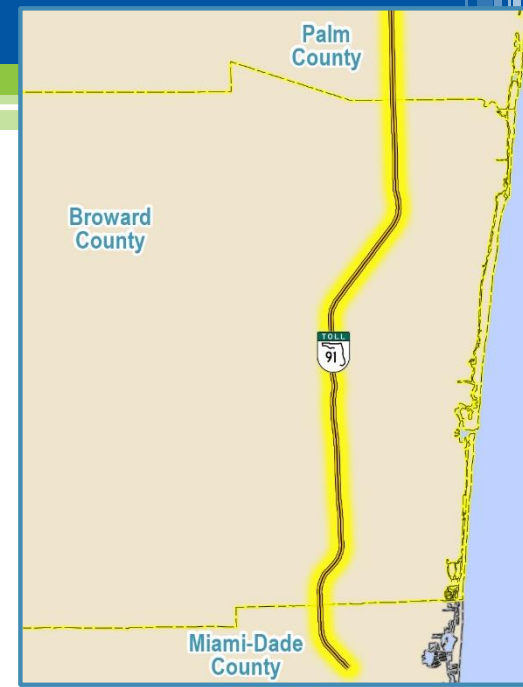
1950s

- Eisenhower Interstate Highway System (FAHA 1956)
- Florida Turnpike System (1957)





1950s - Florida's Turnpike Expansion



Miami terminus of the Sunshine State Parkway (Florida Turnpike) - Miami, Florida. 1957.



1960s

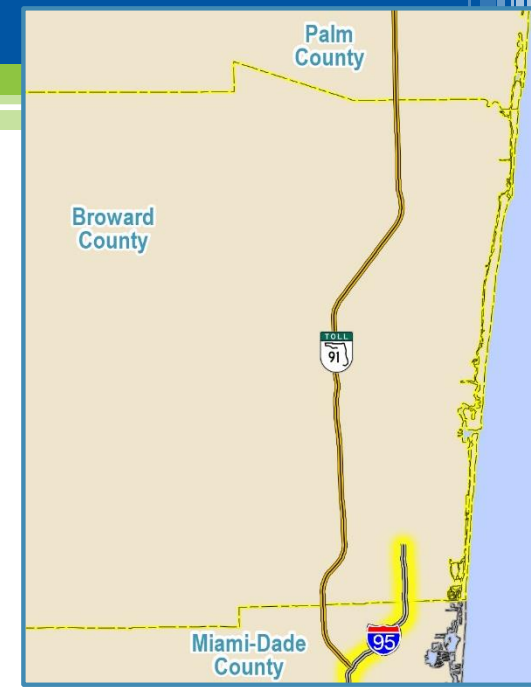
- I-95 Miami to south Broward



Interstate 95. 1960. Black & white photoprint. State Archives of Florida, Florida Memory.



Aerial view of Interstate 95, under construction - Miami, Florida. 1960. Black & white photograph. State Archives of Florida, Florida Memory.



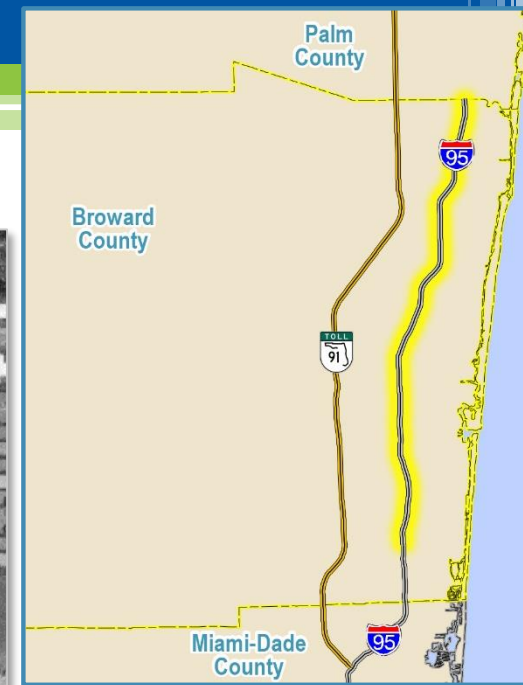


1970s

- I-95
Broward



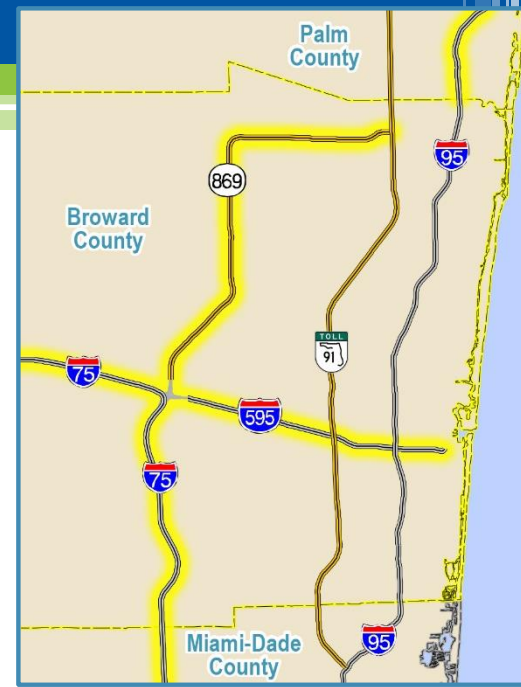
I-95 at Broward Boulevard





1980s

- I-75, I-595, Sawgrass Expressway



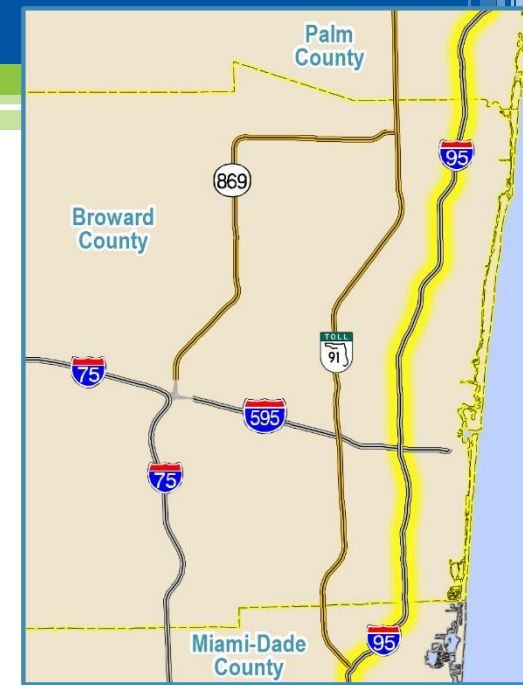


1990s

- Rebuild I-95 (HOV) throughout Broward County
- Tri-Rail service started (Traffic Control Mitigation for Interstate reconstruction)



I-95 at FLL



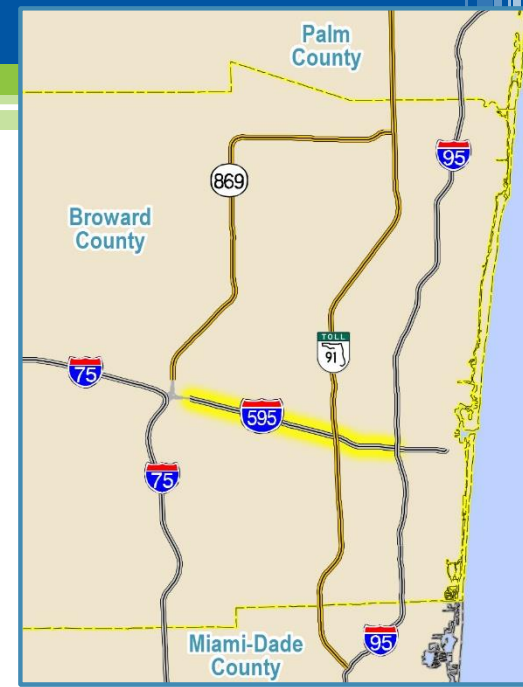


2000s

- Rebuild I-595 (595 Express)

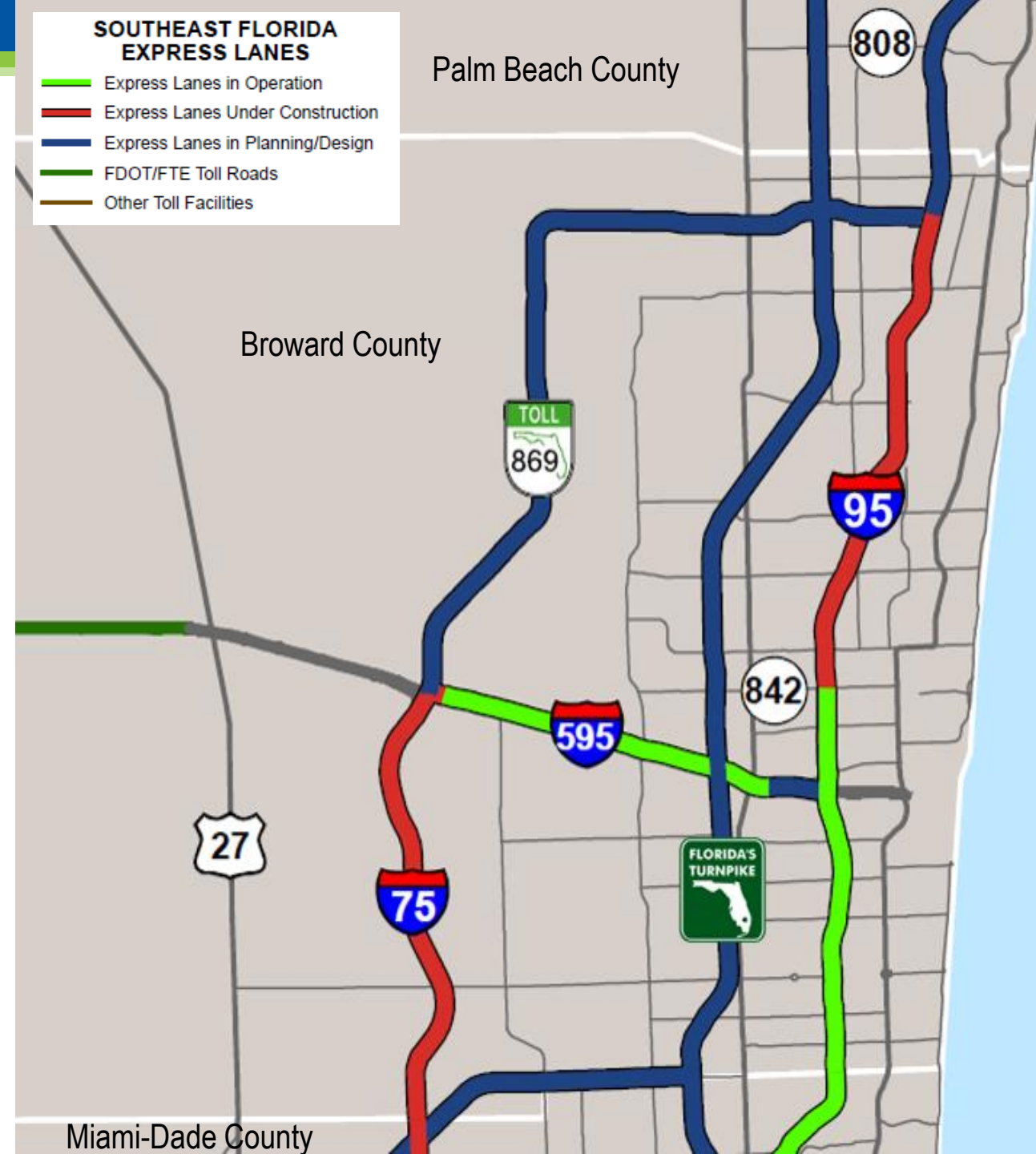


I-595 at Florida's Turnpike

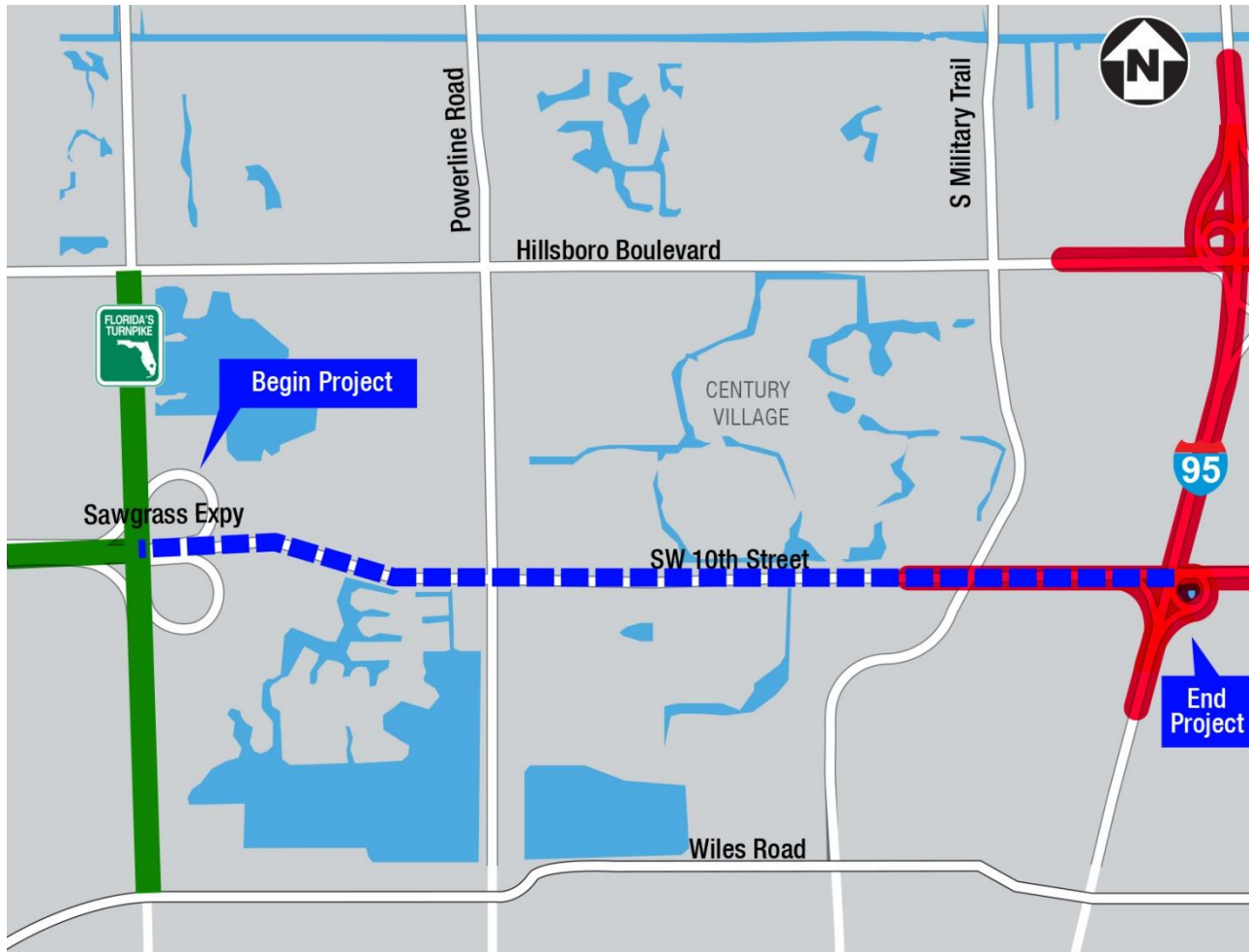


2010s and Beyond

- South Florida Express Lanes Network (95 Express Phase 1 and 2 approved through Urban partnership Agreement in 2007)



SW 10th Connector



*Three PD&E's
One Vision*

Interchanges

System-to-System

- I-95 at I-595
- I-75/I-595/Sawgrass Expressway
- I-595/Florida's Turnpike
- Florida's Turnpike at Sawgrass Expressway
- I-95/SW 10th St (under Study)

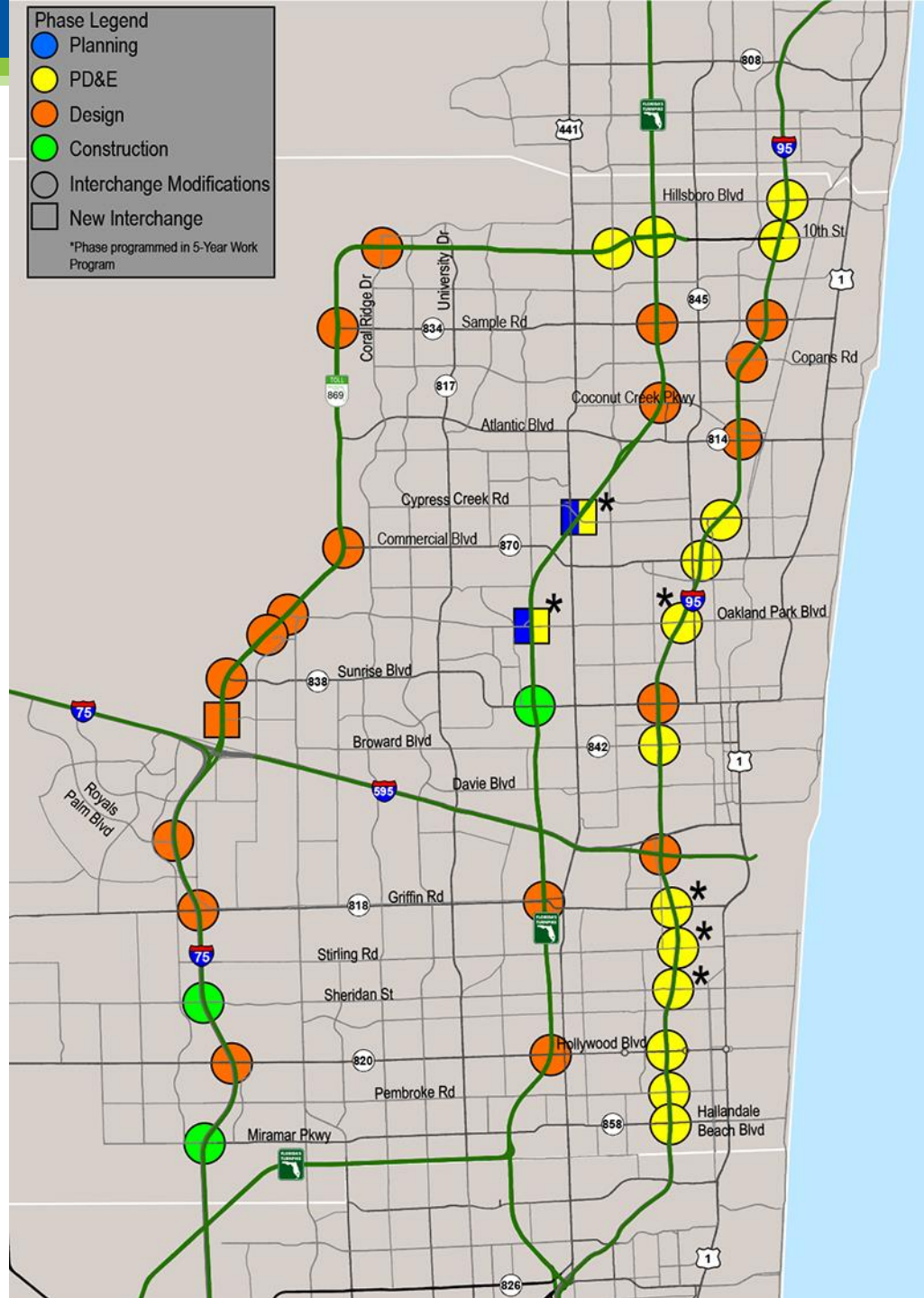
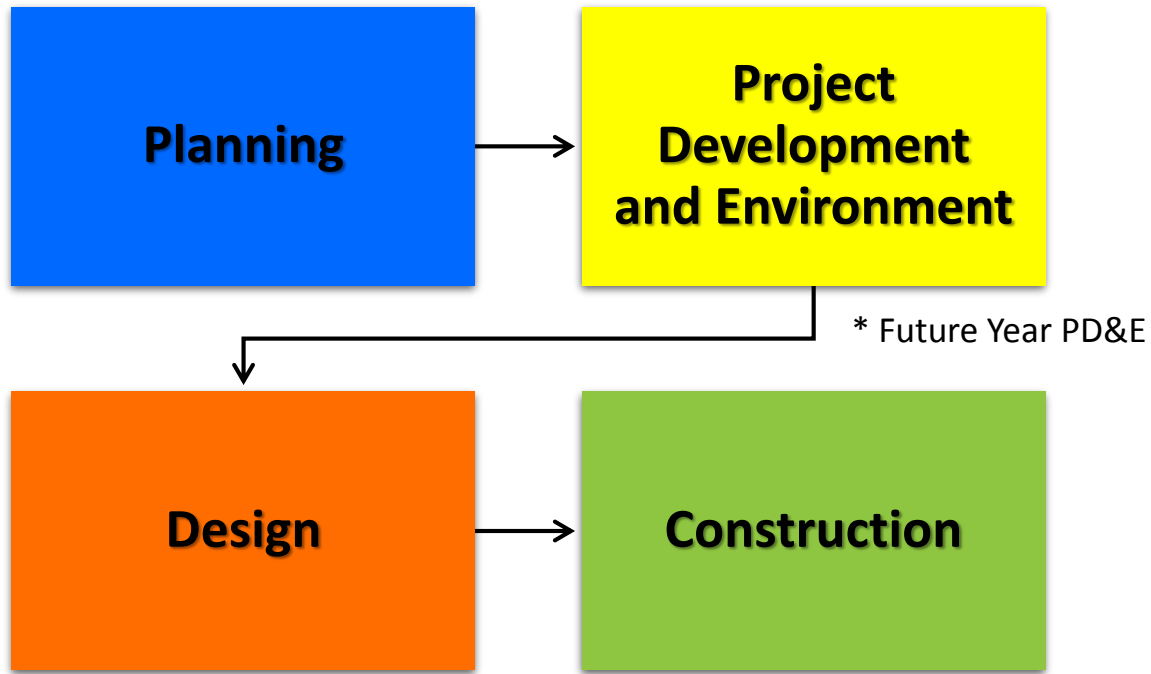
I-75/I-595/Sawgrass Expressway Interchange



I-95 at I-595

Service Interchanges

Current Development Status

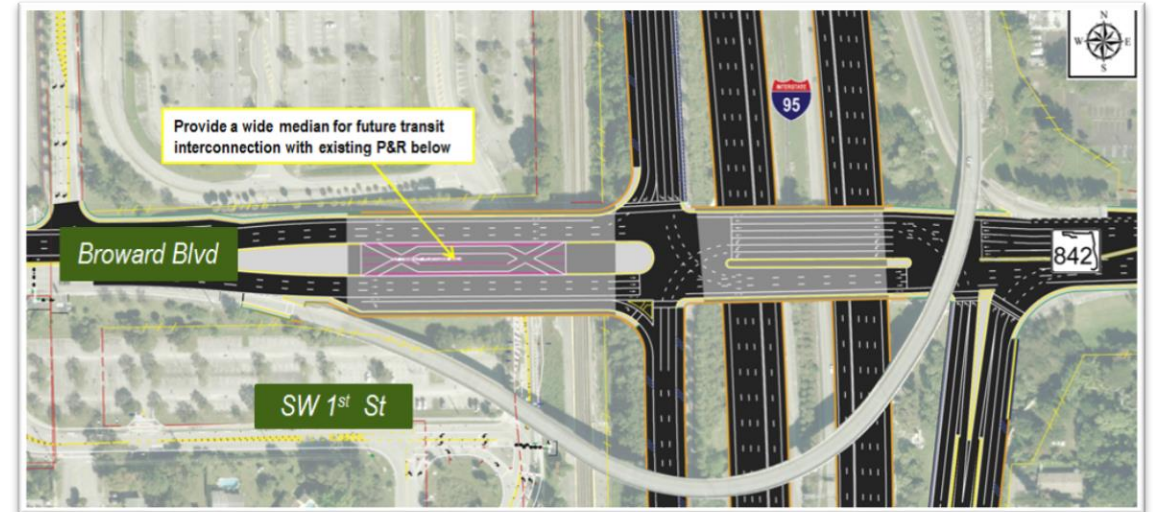


Service Interchanges

- Redesign of interchange ramps and nearby intersections
- Use of “innovative” design techniques



Sawgrass Express DDI



I-95 at Broward Blvd.

Interchange Evaluation Considerations

-  Project Cost
-  Natural Environment
-  Social & Economic Environment
-  Physical Environment
-  Cultural Environment
-  Traffic Operations & Safety

Express Lanes

Express Lanes

- Congestion Management Through Dynamic Tolling
- Efficient Use of Remaining Capacity



Provide Drivers with Travel Choices



Offer a More Predictable Travel Time



Deliver a Long-Term Solution to Manage Congestion



Reduce Fuel Consumption



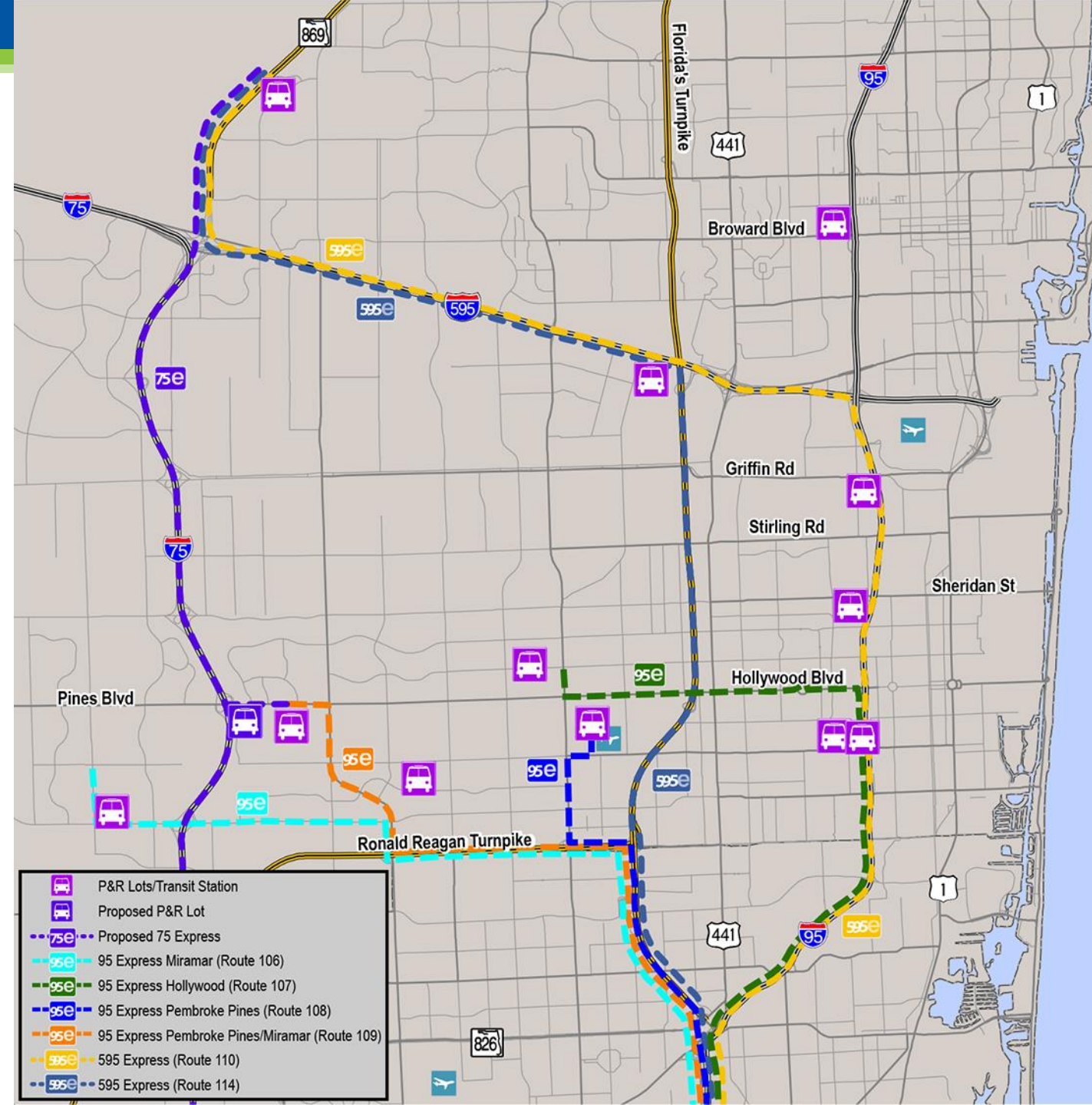
Decrease Air Pollution



Provide Transit Options

Express Bus and P&R Program

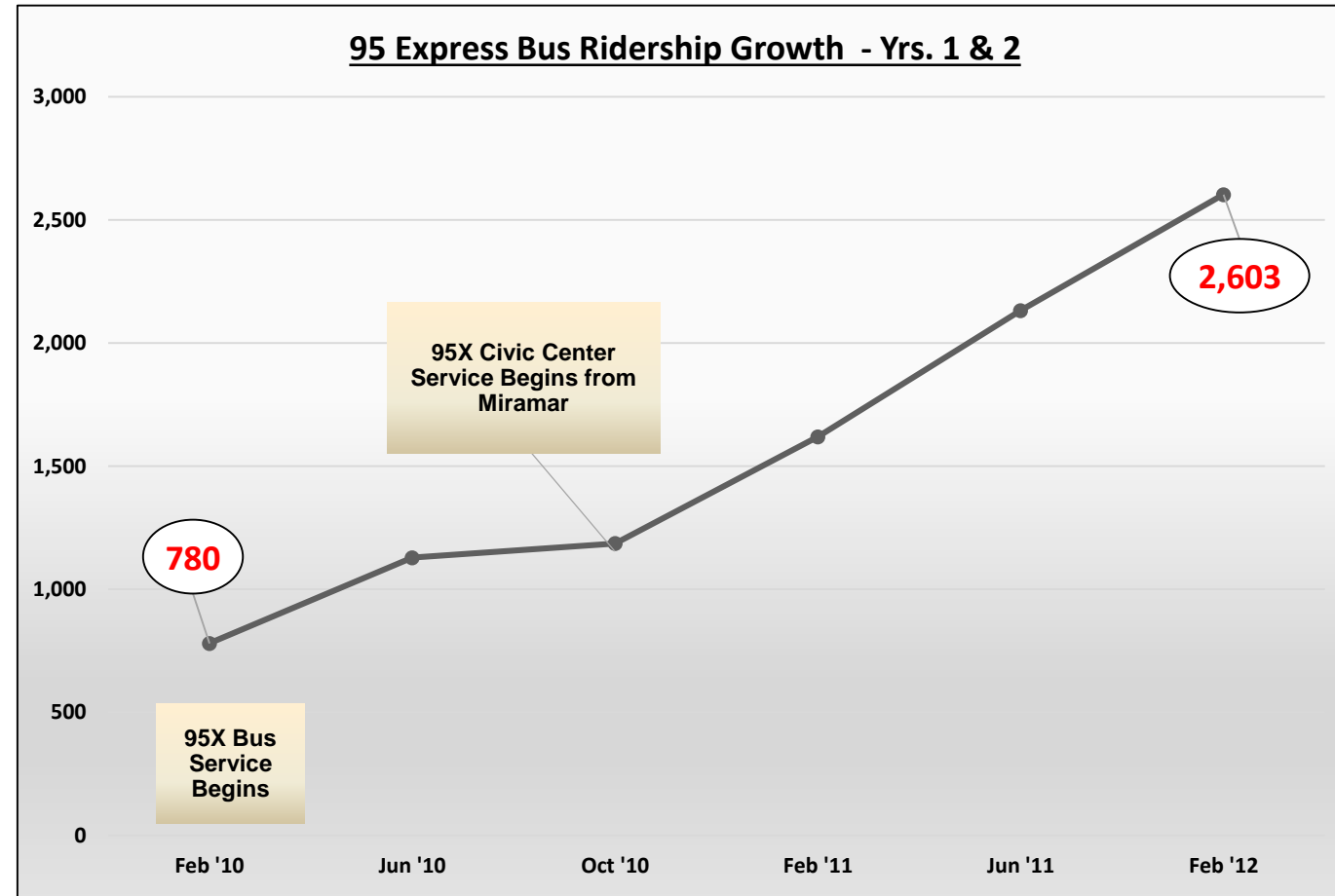
- 95 Express
- 595 Express
- 75/Palmetto Express



Express Bus and P&R Program

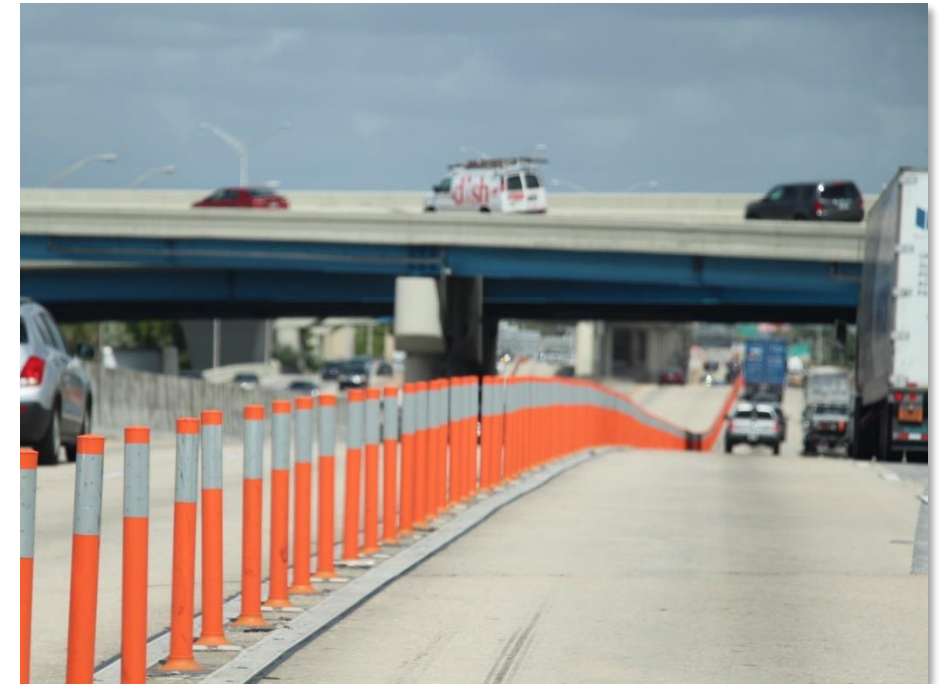
- In the first two years of service, ridership increased over 230%
- Total person throughput in the Express Lanes increased between 16 to 20%* during peak period

**I-95 monitoring report from 2012*



Safety Considerations

- Use of 5' Spacing for Express Lane Markers (“Plastic Poles”)
- Fall 2016 implementation 95 Express Phase 1 (downtown Miami to the Golden Glades):
 - Express Lane Marker replacement is down 92%
 - Lane Diving is down 87%
 - Crashes within facility are down 31%
 - Express Lanes volume has increased by 1.2%



Ramp Signaling

- Operational Technique to Control the Rate of Traffic Entering an Expressway
- Improves the Flow of Traffic Along Mainline System
- Real-Time Monitoring to Avoid Backups on the Entrance Ramps and Cross-Streets
- All Service Interchanges - Hallandale Beach Blvd. to Linton Blvd. (95 Express Phase 3 Implementation)



Incident Management/Operations

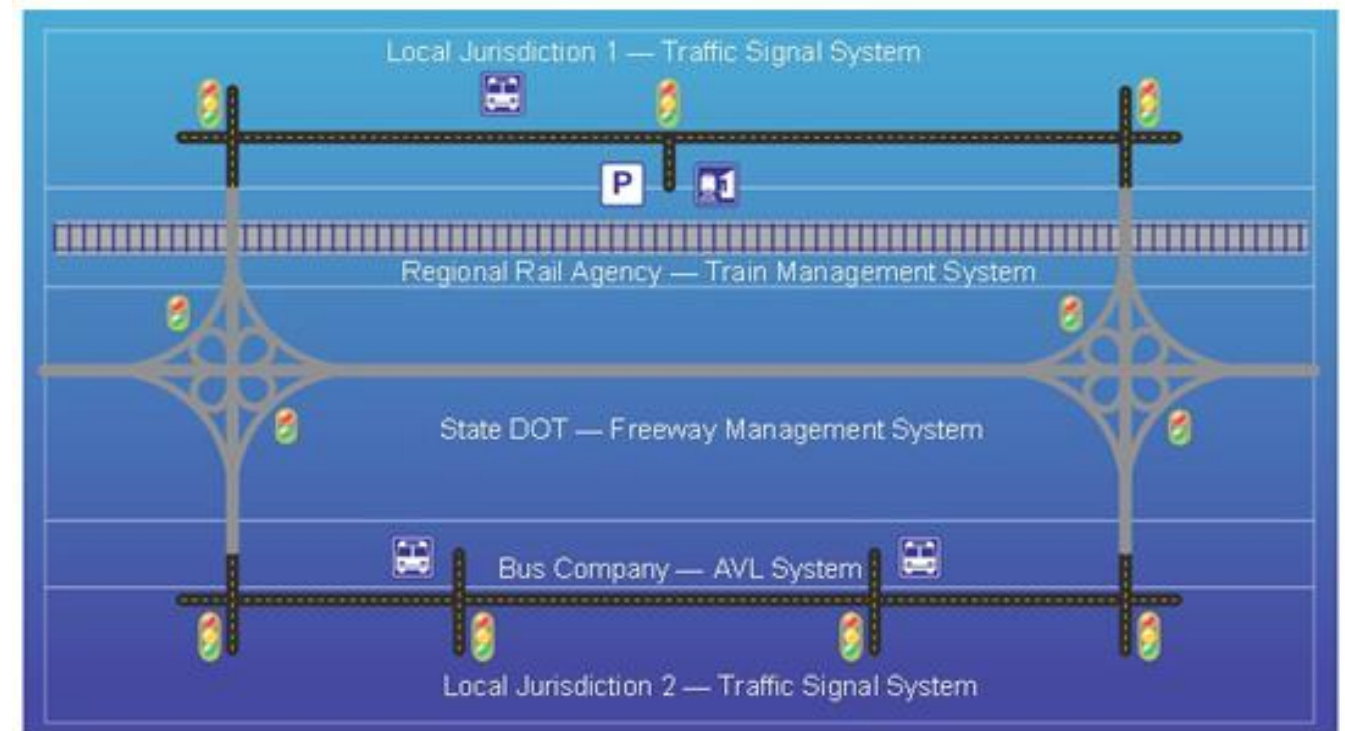
- Road Rangers
- FHP Enforcements
- Regional Transportation Management Center Active Operations



What's Next/Future of Major Highways

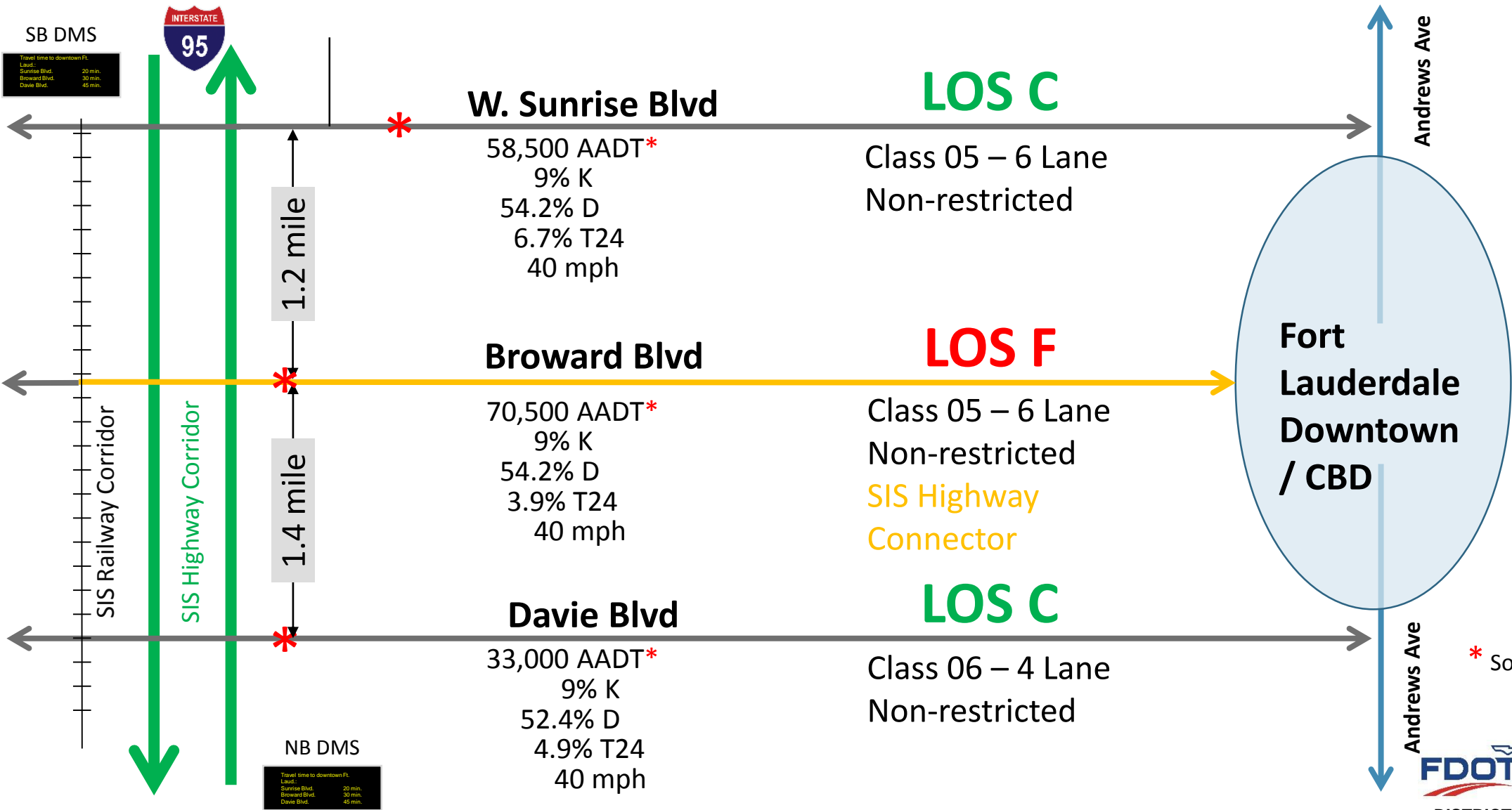
Integrated Corridor Management (ICM)

- Freeway Management System
 - Incident management
 - Traveler information
 - Managed lanes
 - Ramp Signals
 - ITS devices
- Arterial Management System
 - Active Arterial Management
 - Transit Signal Priority
 - Queue Jump
 - Pedestrian and Bicycle features
 - Traveler Information
 - Dynamic Signal Retiming
 - Adaptive Traffic Control
 - ATMS devices
- Rail Systems



Vision: Transportation system is managed holistically as an integrated system

Integrated Corridor Management – Travel Time Info



* Source: FDOT FTI 2014

Integrated Corridor Management – Travel Time Info

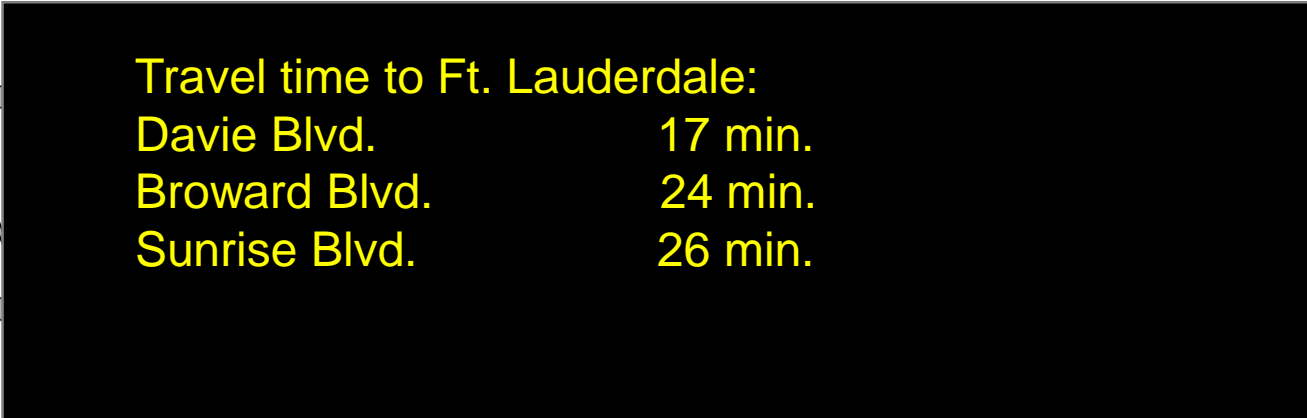


Travel time to downtown Ft. Lauderdale.:

Sunrise Blvd.	14 min.
Broward Blvd.	22 min.
Davie Blvd.	25 min.

The image shows a black rectangular sign with yellow text. The sign is flanked by two stylized bridge structures with vertical supports and diagonal beams. The text on the sign provides travel time information for three different locations.

SB I-95 Dynamic Message Sign



Travel time to Ft. Lauderdale:

Davie Blvd.	17 min.
Broward Blvd.	24 min.
Sunrise Blvd.	26 min.

The image shows a black rectangular sign with yellow text. The sign is flanked by two stylized bridge structures with vertical supports and diagonal beams. The text on the sign provides travel time information for three different locations.

NB I-95 Dynamic Message Sign

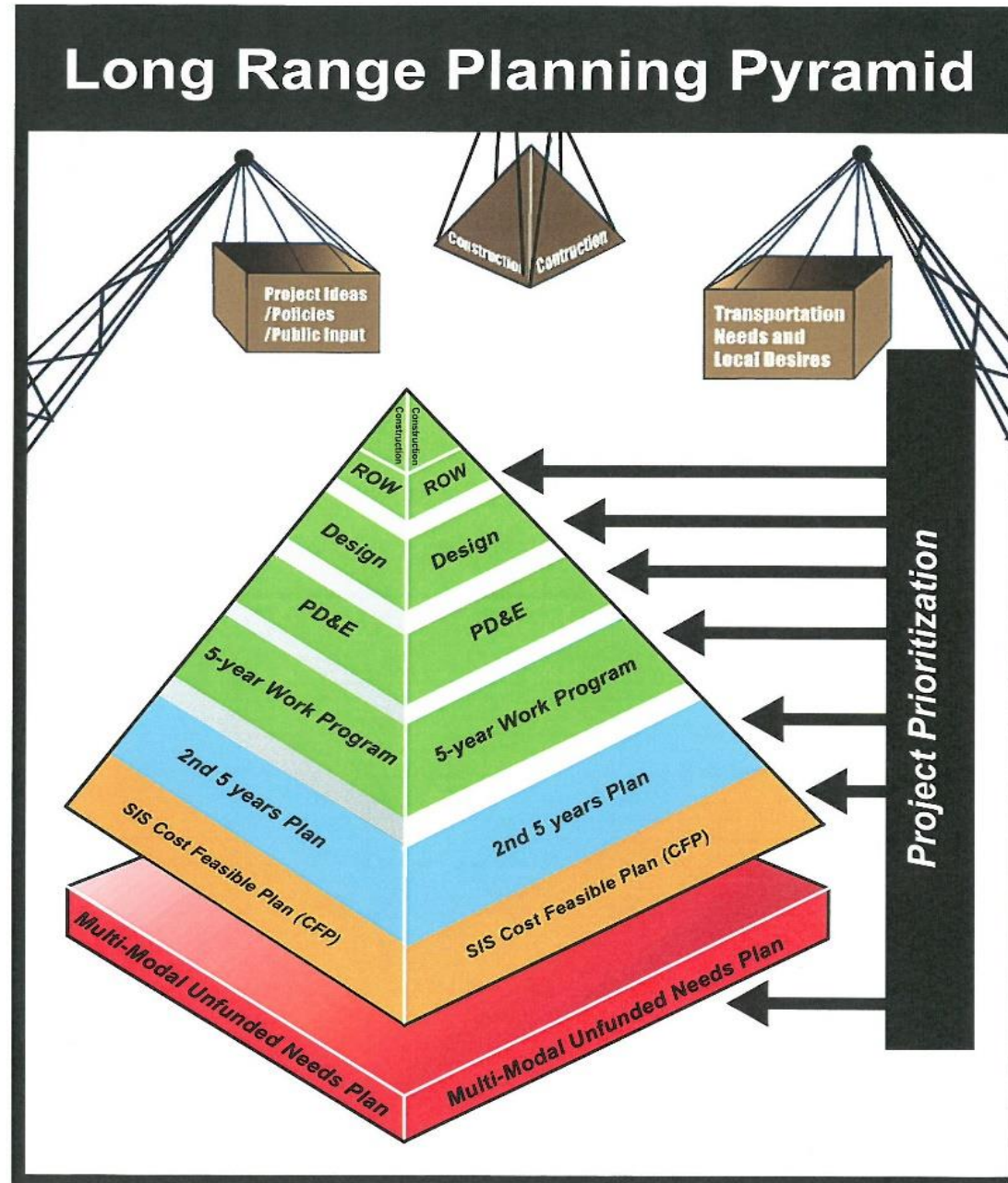
FDOT Connected/Autonomous Vehicle (CAV) Initiatives

- SunTrax – CAV Test bed
- Driver Assisted Truck Platooning Pilot
- Miami International Airport Freight CAV Pilot

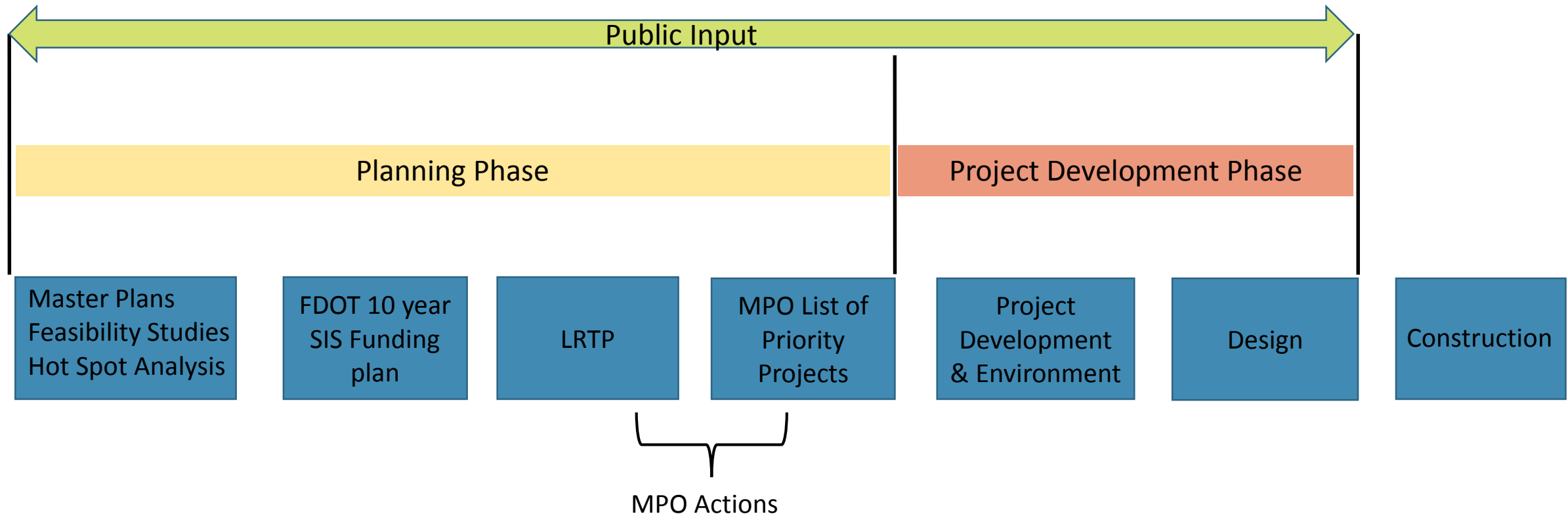


How can the MPO Board Help / Call to Action

Project Planning and Development Process



Strategic Intermodal System (SIS) Planning and Programming Process



*FDOT SIS plan included in LRTP by reference

Questions/Answers

