



Florida Department of Transportation
District Four



**SW 10th Street Connector &
I-95 from SW 10th Street to Hillsboro Boulevard
Project Development and Environment Studies
Alternatives Public Workshop, April 24, 2018**



FM # 439891-1-22-02, ETDM #14291

FM # 436964-1-22-01, ETDM #14244

Alternatives Public Workshop

- FM 439891-1, SW 10th Street Connector between Florida's Turnpike / Sawgrass Expressway to I-95 PD&E Study
- FM 436964-1, I-95 from SW 10th Street to Hillsboro Boulevard PD&E Study
- Adjacent Studies
 - Sawgrass Expressway



Broward MPO: Community Oversight Advisory Team (COAT)

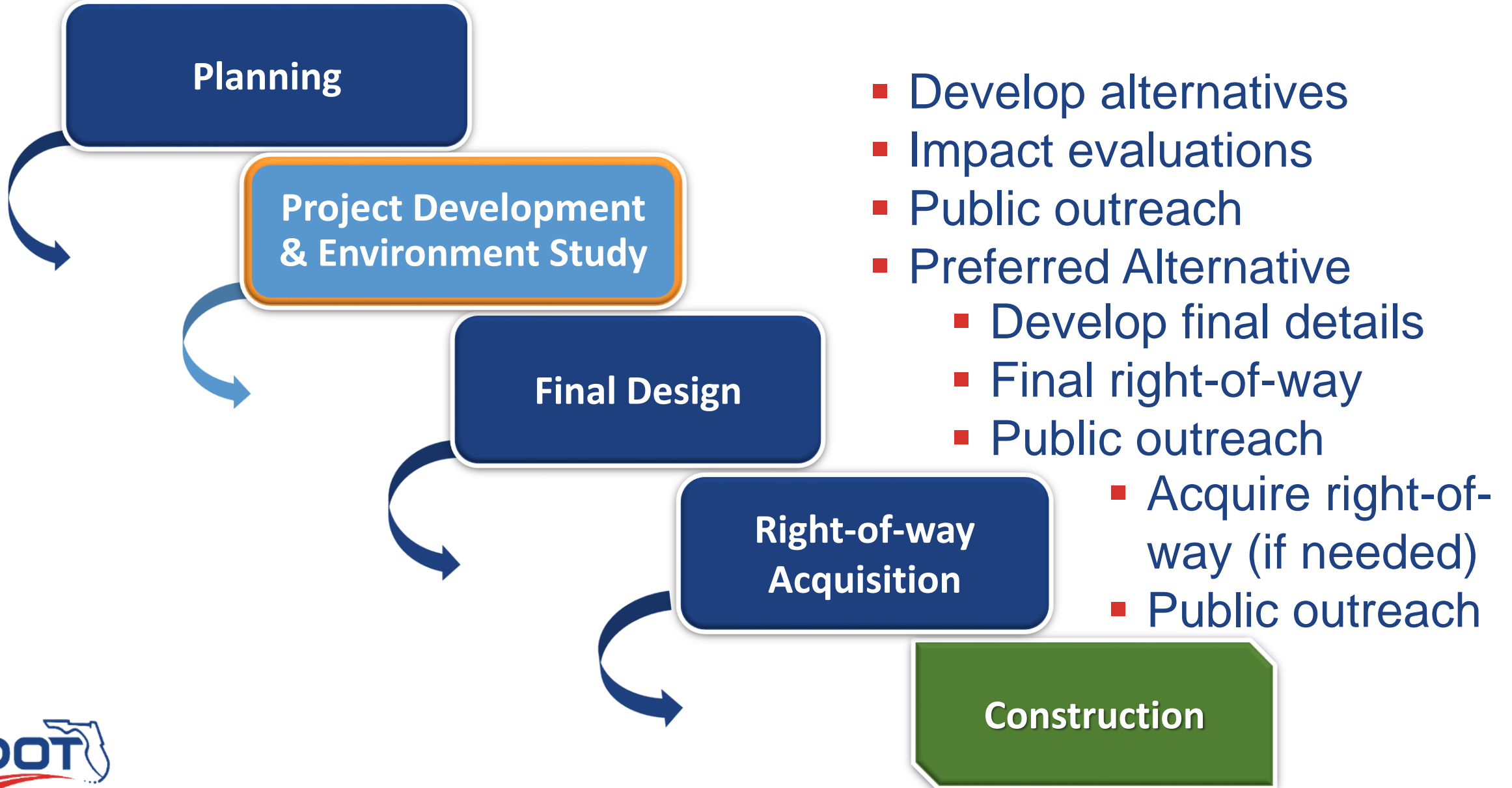
- Community Oversight Advisory Team
- Outreach to the community
- Provided recommendations
 - 18 main, 15 sub categories = 33 total
 - 29 apply to the SW 10th Street Connector
- Recommendations have been updated
 - Available in display room



COAT Recommendations				FDOT
Recommendation Number	Recommendation	Notes	Status	
1	Creatively determine if an engineering solution which is environmentally feasible can be provided to improve safety of 10th Street and provide an efficient traffic solution between Sawgrass / Turnpike and I-95 while maintaining quality of life. Include Near term solutions. 3.1. Signal timing improvements - current technology.	Minimizing environmental impacts while improving operations, safety and connectivity are all part of the purpose and need of the study and will be addressed in each of the alternatives. Near term solutions include signal timing improvements and other Transportation Systems Management and Operations (TSMO) type improvements. 3.1 The signals have been optimized by Broward County along SW 10th Street. However, this does cause additional delays for the north and south moving traffic. 3.2 Adaptive signal technology does not improve the flow of traffic when the roadway is at or over capacity. Adaptive signals alone won't solve the traffic and congestion problem. However, adaptive technologies will be built into the alternatives and the latest technology is used for the improvements. 3.3 Each of the concepts being evaluated include a 4 lane managed facility and a 4 lane local roadway.	Being evaluated.	
3	3.2. Adaptive Signal Technology 3.3. Additional Traffic Lanes		Signal timing improvements are complete. Other recommendations are being evaluated.	
4	Include a below-grade expressway with at-grade local access roads. 4.1. Include extending below-grade expressway, west of westerly residential roadway connection to 10th Street. 4.2. Include extending below-grade expressway as close to Military Trail as possible that would allow Military Trail intersection to remain at grade (No overpass of Military Trail over Expressway).	4.1 This has been determined to be not feasible due to the proximity to the Turnpike overpass and future planned improvements at the interchange. 4.2 Military Trail will remain at-grade. The managed lanes are required to go over Military Trail.	Complete.	
5	Minimize, and attempt to eliminate, use of above grade overpass where adjacent to residential areas.	This is an on-going effort with each of the alternatives.	Being evaluated.	
2	Improve safety while maximizing improvements to traffic flow of 10th Street and roadway intersections and expressway interchanges. 2.1. to include Public Safety accessibility	Operational improvements and safety are included in the purpose and need of the study and has been addressed in all of the alternatives.	Complete.	

COAT Recommendations				FDOT
Recommendation Number	Recommendation	Notes	Status	
6	6.1. Improve residential access to 10th and expressways from Wareways, Independence Bay, Century Village, Wareford Homes, Wareford Courtyards, and the Renaissance (plus ring home).	This is part of the purpose and need for the study. Project alternatives are being developed by FDOT to evaluate this recommendation.	Being evaluated.	
7	6.2. Improve commercial access to 10th and expressways for Newport Center, Public Distribution, Palm Trails Plaza, 10th Street strip mall, industrial area along SW 50th Street, Sawgrass Promenade		Being evaluated.	
13	6.3. Improve Sawgrass Expressway and Turnpike connection to I-95	Project alternatives are being developed by FDOT to evaluate this recommendation.	Being evaluated.	
16	Encourage improved access to expressway and 10th Street from local roads east of I-95.	Park and Ride lot locations were evaluated on a regional basis and this corridor was determined to not be a candidate for a Park and Ride location. Coordination with local transit authorities will take place to encourage the implementation of express bus service.	Being evaluated.	
8	If tolling is planned for expressway, locate toll stations so as not to adversely affect local roadway network.	There has been no decision regarding the location of the toll gantry locations on SW 10th Street as of 4/1/2018. This is TDD. Every effort will be made to minimize local roadway effects. Coordination is taking place with the Turnpike.	Being evaluated.	
11	Encourage Mass Transit and carpooling alternatives.	This feature will be evaluated as part of the below-grade alternative. Pedestrian and bike facilities are included in all alternatives.	Being evaluated.	
	Create a Gateway to North Broward by maximizing landscaping along 10th Street and north and south along adjacent connecting roadways, including landscape buffers and berms (by using native species).	The FDOT has created 2 stand-alone landscaping projects to occur after the construction of the SW 10th Street Connector.	Being evaluated.	
	11.1. Explore use of revenue generated by tolls for maintenance of landscaping and table-top parks.	11.1 The recommendation for the use of tolls will need to be further explored.	Being evaluated.	

Project Development Process Flowchart



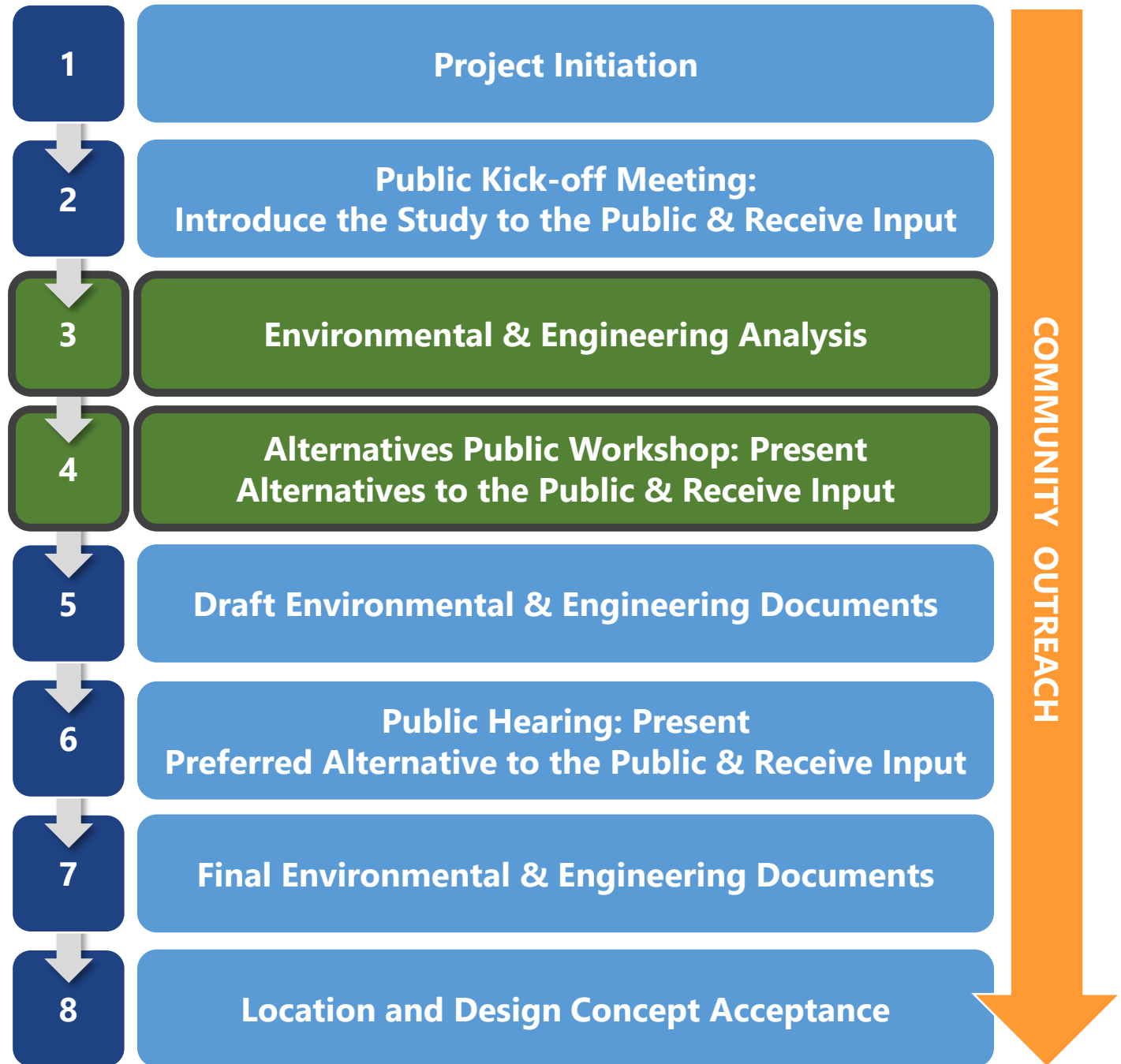
So What Is a PD&E Study?

- Process to satisfy National Environmental Policy Act (NEPA) requirements for transportation projects
- Social, environmental, and engineering evaluations
- Many details developed to conceptual engineering level
- Identify a Preferred Alternative
- Public and agency outreach



The Process

- Data Collection
- Engineering Analysis
- Environmental Evaluations
- Community Outreach



Purpose and Need – SW 10th Street Connector

- 🔑 Improve connectivity of SIS and limited-access facilities
- 🔑 Address local SW 10th Street needs
- 🔑 Address safety and operational issues
- 🔑 Enhance emergency response and evacuation
- 🔑 Enhance social demand, intermodal and economic development



Regional Connectivity

- Close the managed lanes network gap to improve mobility
- Support and encourage economic vitality



Regional Managed Lanes Network Gap



Existing/Future Regional Managed Lanes Network

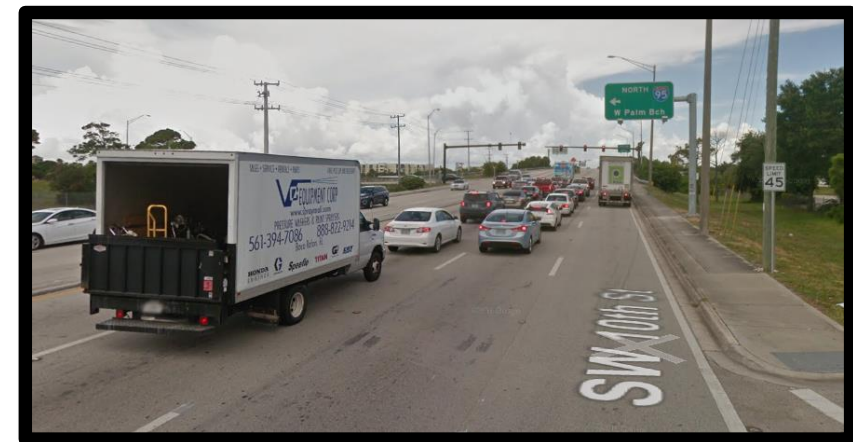
Purpose and Need – I-95 PD&E Study

Primary Need

- Capacity / Operational Deficiencies
- Safety – Higher than average crash rate

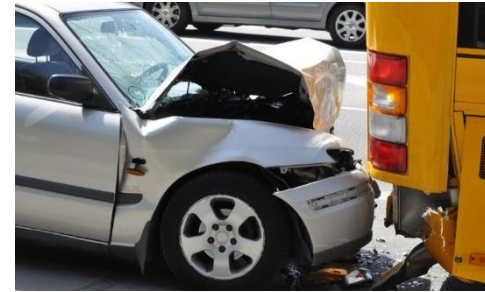
Secondary Considerations

- Evacuation and emergency services
- Transportation demand
- System connectivity



🔑 Safety

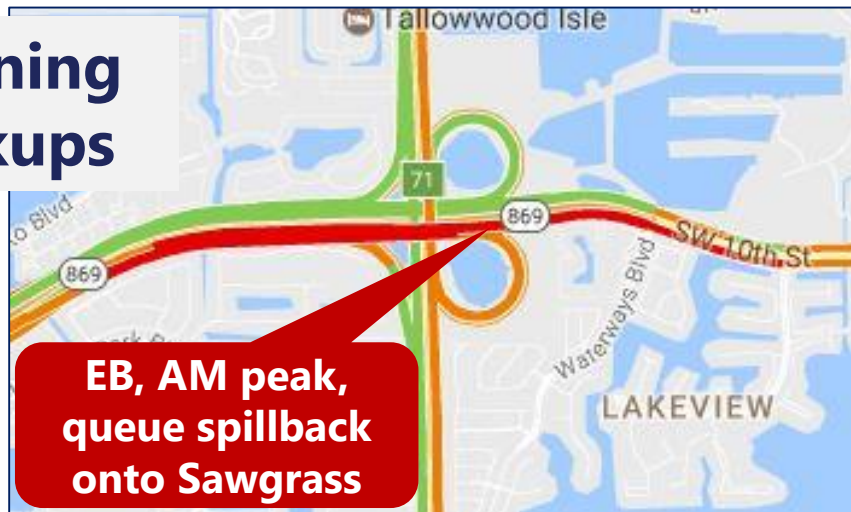
- Higher than average crash rate



🔑 Traffic Back Ups

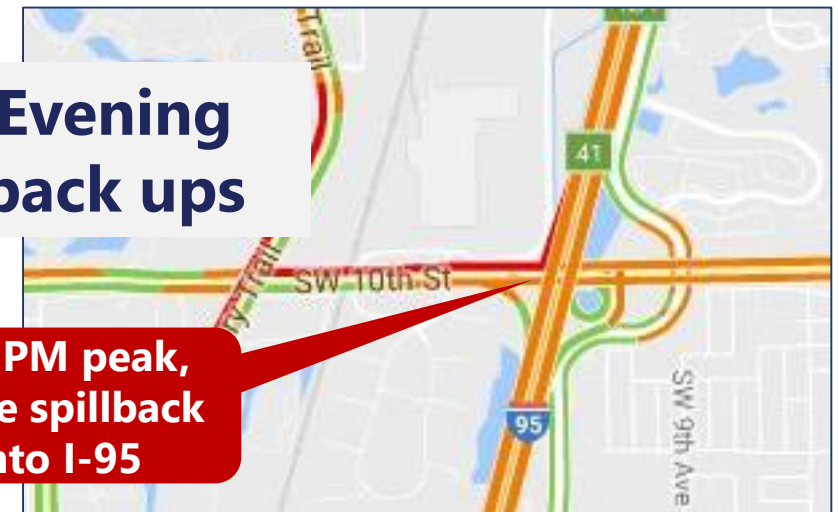


**Morning
backups**



**EB, AM peak,
queue spillback
onto Sawgrass**

**Evening
back ups**

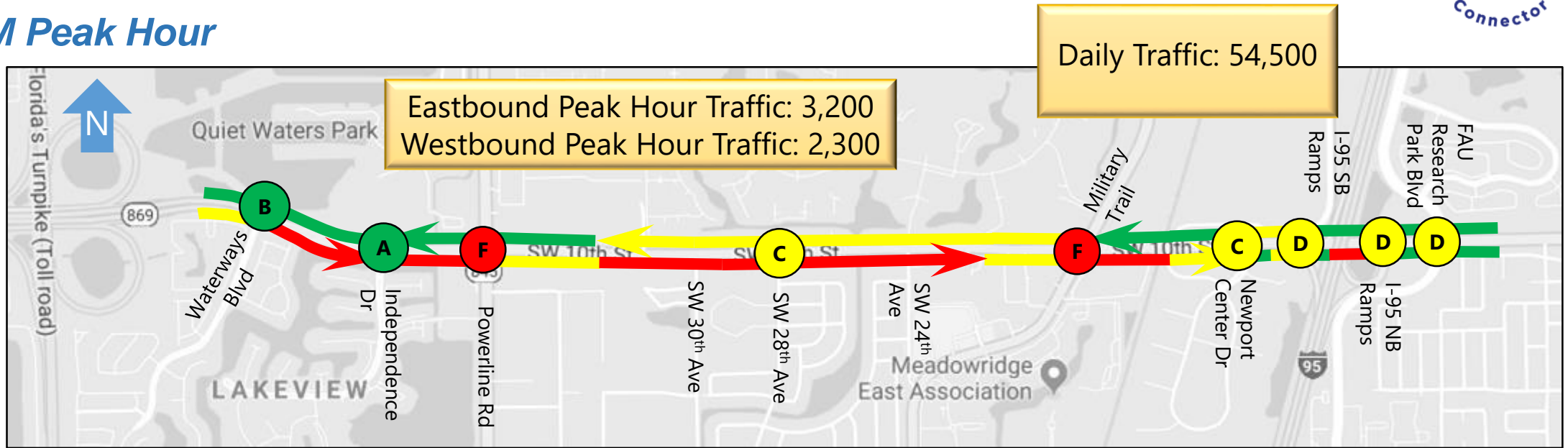


**WB, PM peak,
queue spillback
onto I-95**

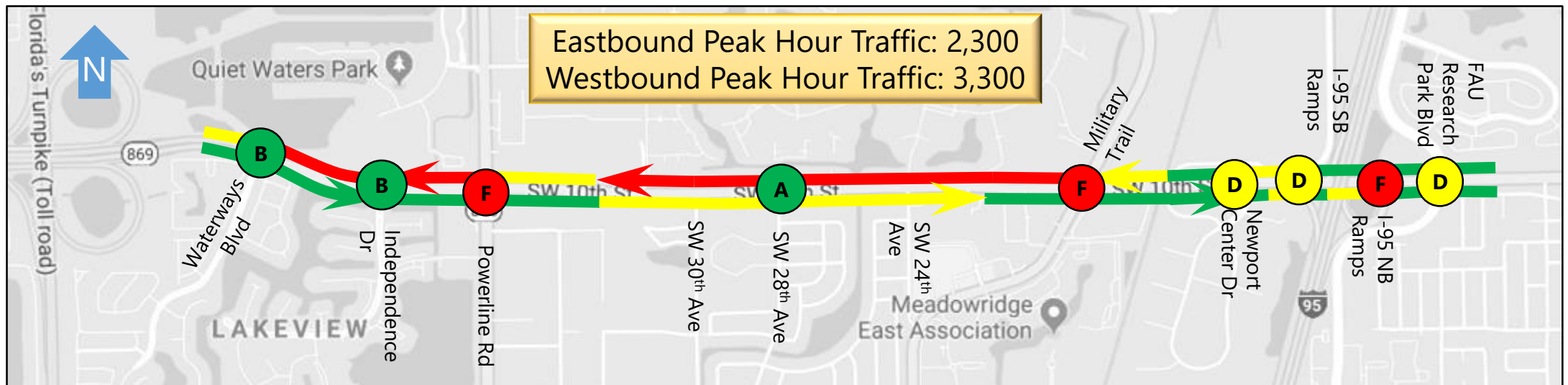
2016 Traffic Operations



AM Peak Hour



PM Peak Hour

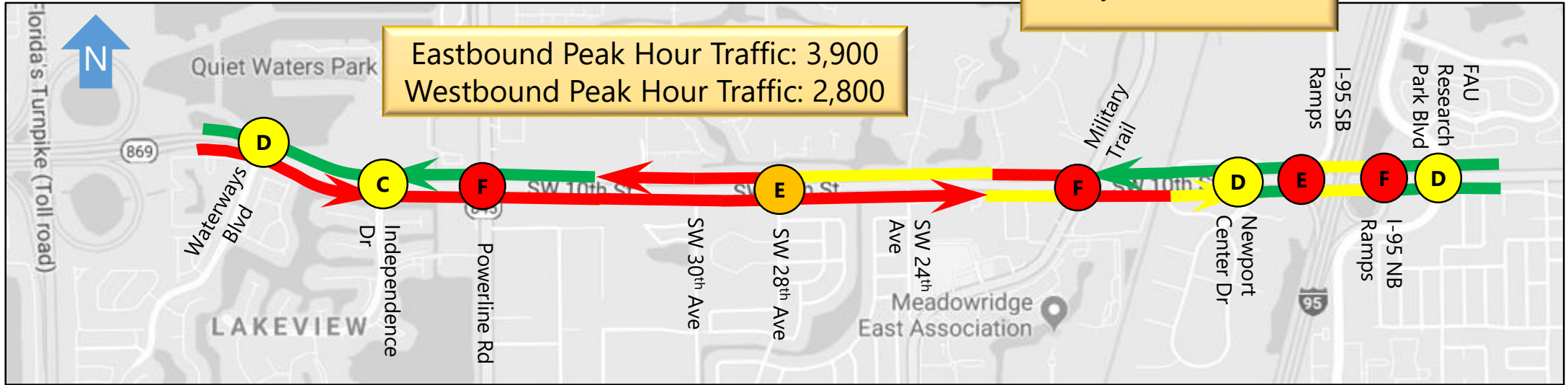


2040 Traffic Operations - No Build Alternative

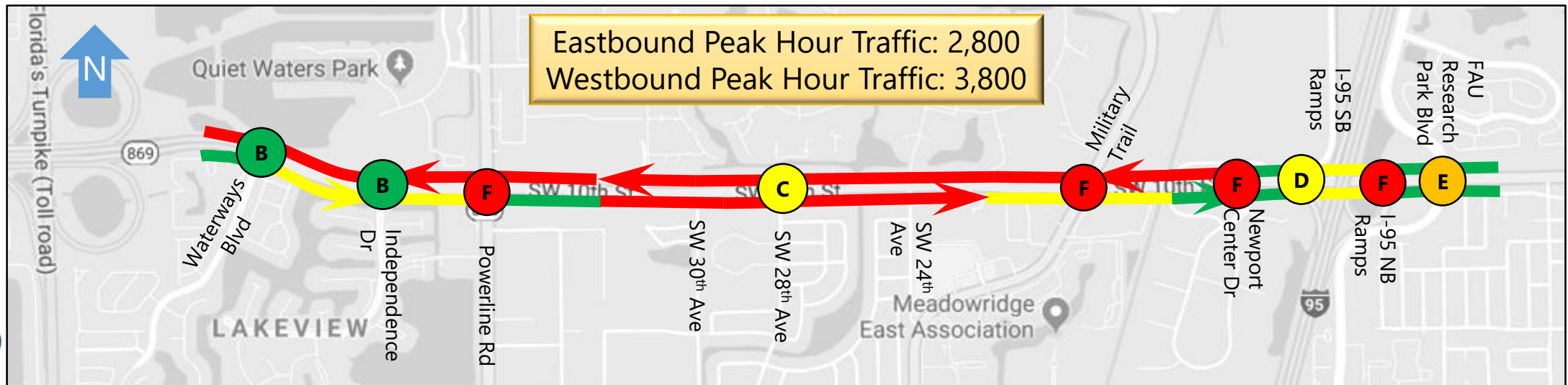
No Interchanges and No SW 10th Street Improvements



AM Peak Hour



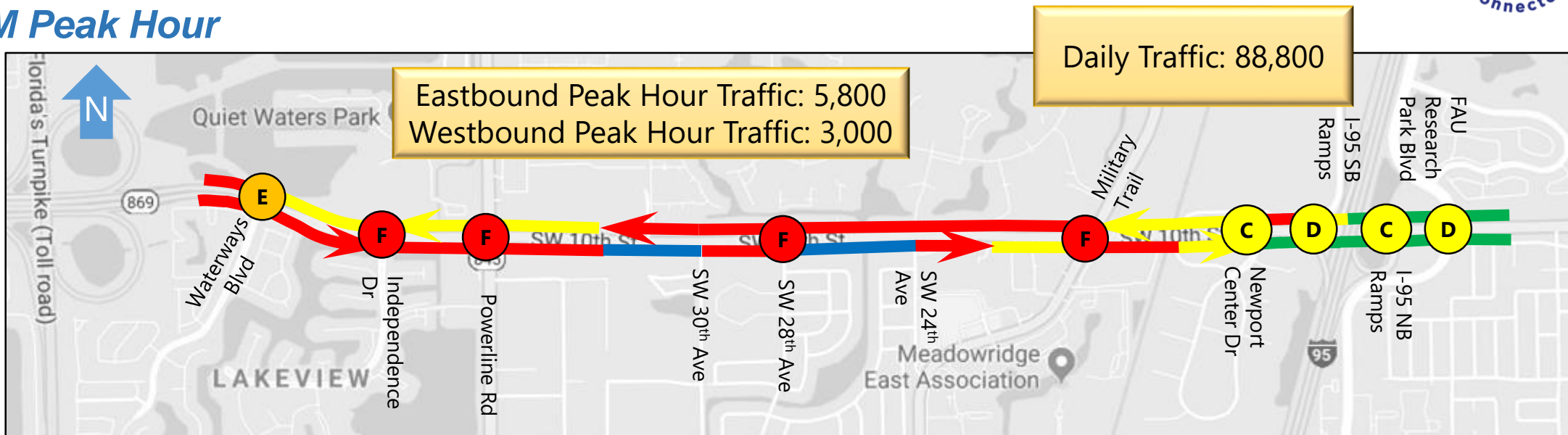
PM Peak Hour



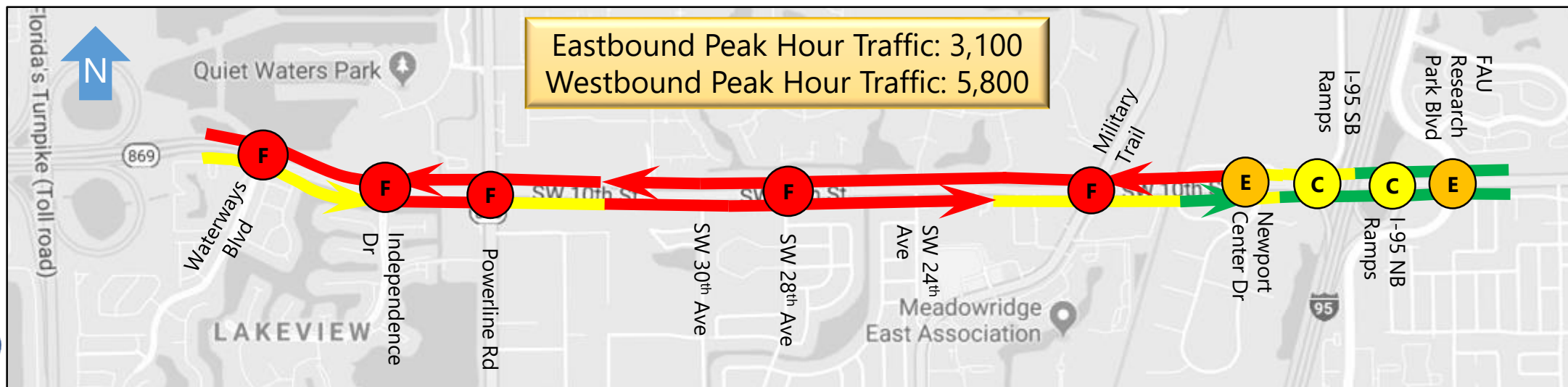
2040 Traffic Operations - Improvements with Interchanges Only (I-95, Sawgrass, Turnpike Managed Lanes & Interchange Improvements)



AM Peak Hour



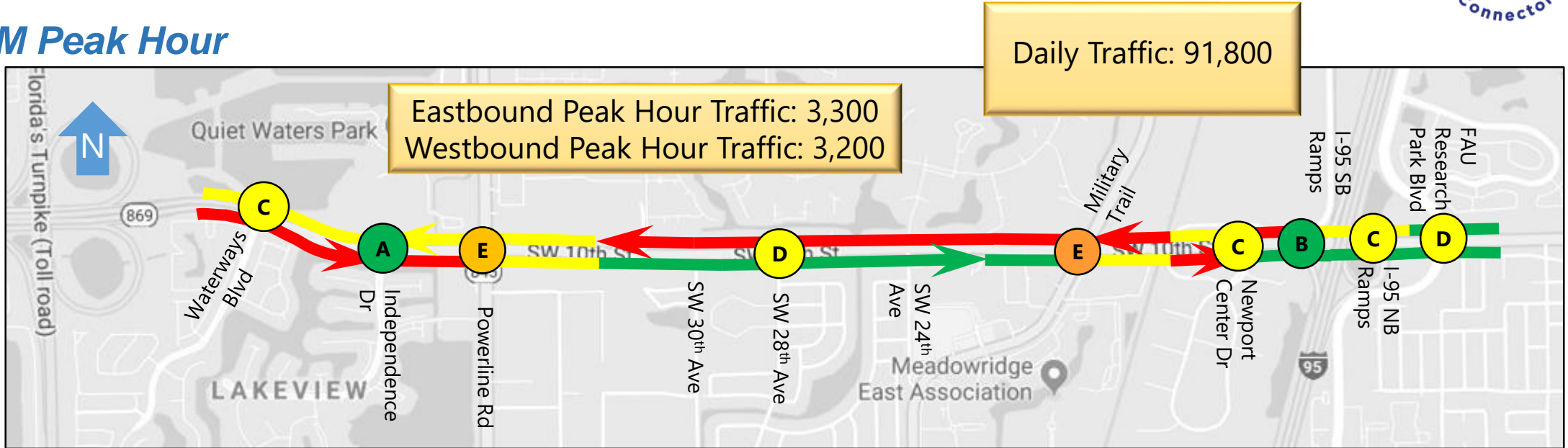
PM Peak Hour



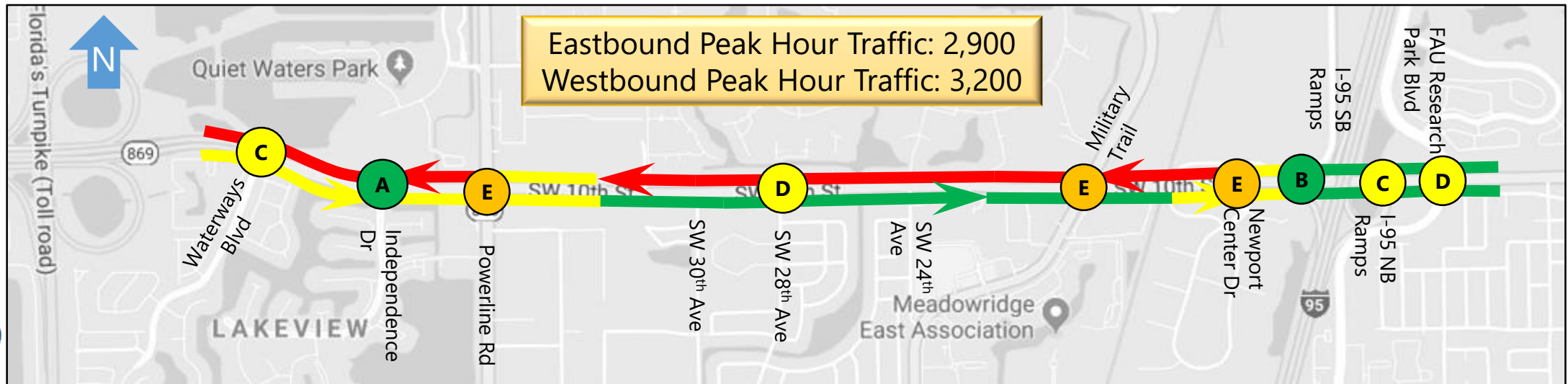
2040 Traffic Operations - Build Alternative



AM Peak Hour



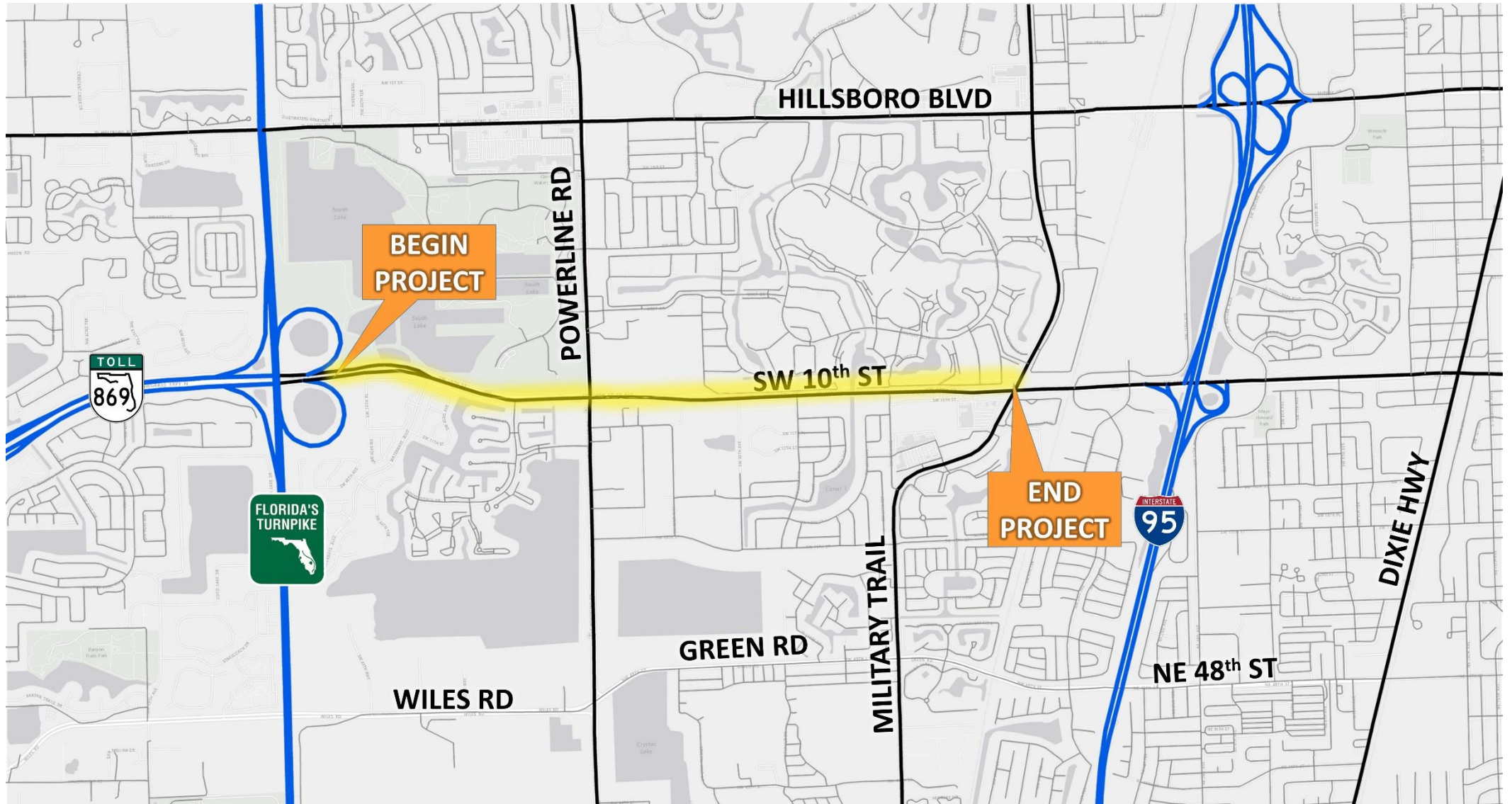
PM Peak Hour



2040 Build Alternative Performance

- Reduces east and west travel times
- 40% less total signalized intersection delay than No Build
- More than 30% of total traffic using managed lanes instead of local lanes
- 30,000 more trips per day in the corridor can be accommodated

Alternatives Considered: SW 10th Street Connector



Alternatives Analysis

- 🔑 Develop/refine with input from the public, local governments and agencies
- 🔑 Meet purpose and need
- 🔑 Avoid or minimize impacts to the community and environment
 - Evaluation matrix for comparison
 - In the display room
 - No Build Alternative



Alternatives Analysis SW 10th Street Connector

1

- Two facilities to be evaluated
 - Managed Lanes
 - *Entrance / exit ramp locations between Powerline Road and Military Trail*

🔑 *Limits of the below-grade section continues to be evaluated*

2

- Local roadway
 - *Lower-speed*
 - *Bicycle lanes*



Sidewalks




Access for businesses and communities



Center Alignment Alternative

- Managed Lanes in the center with local SW 10th Street on either side as a frontage road

 Limits of the below grade section continue to be evaluated



Northern Alignment Alternative

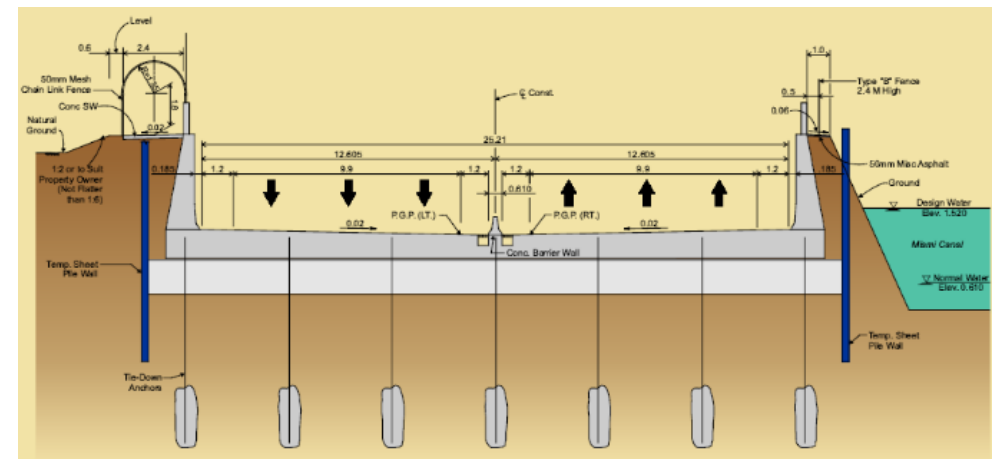
- Managed Lanes on the north side with local SW 10th Street on the south side



Limits of the below grade section continue to be evaluated

Construction of Depressed Section

- Extensive utility relocation required
- 3-5 year construction time (not counting utility work)
- Dewatering ponds required
- Potential business relocations at Powerline Road



Advantages / Disadvantages of Depressed Section

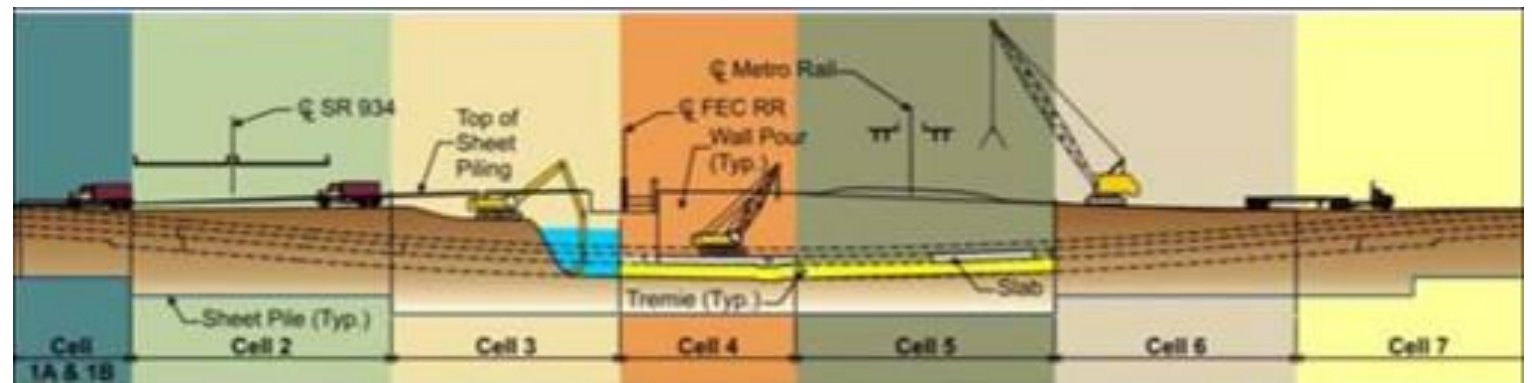
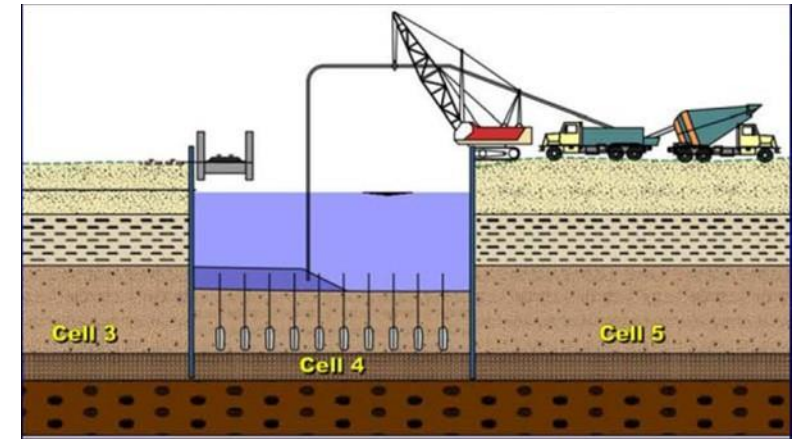
■ Advantages

- May be less visually obtrusive
- Opportunities for landscape lids
- Potentially improves noise attenuation

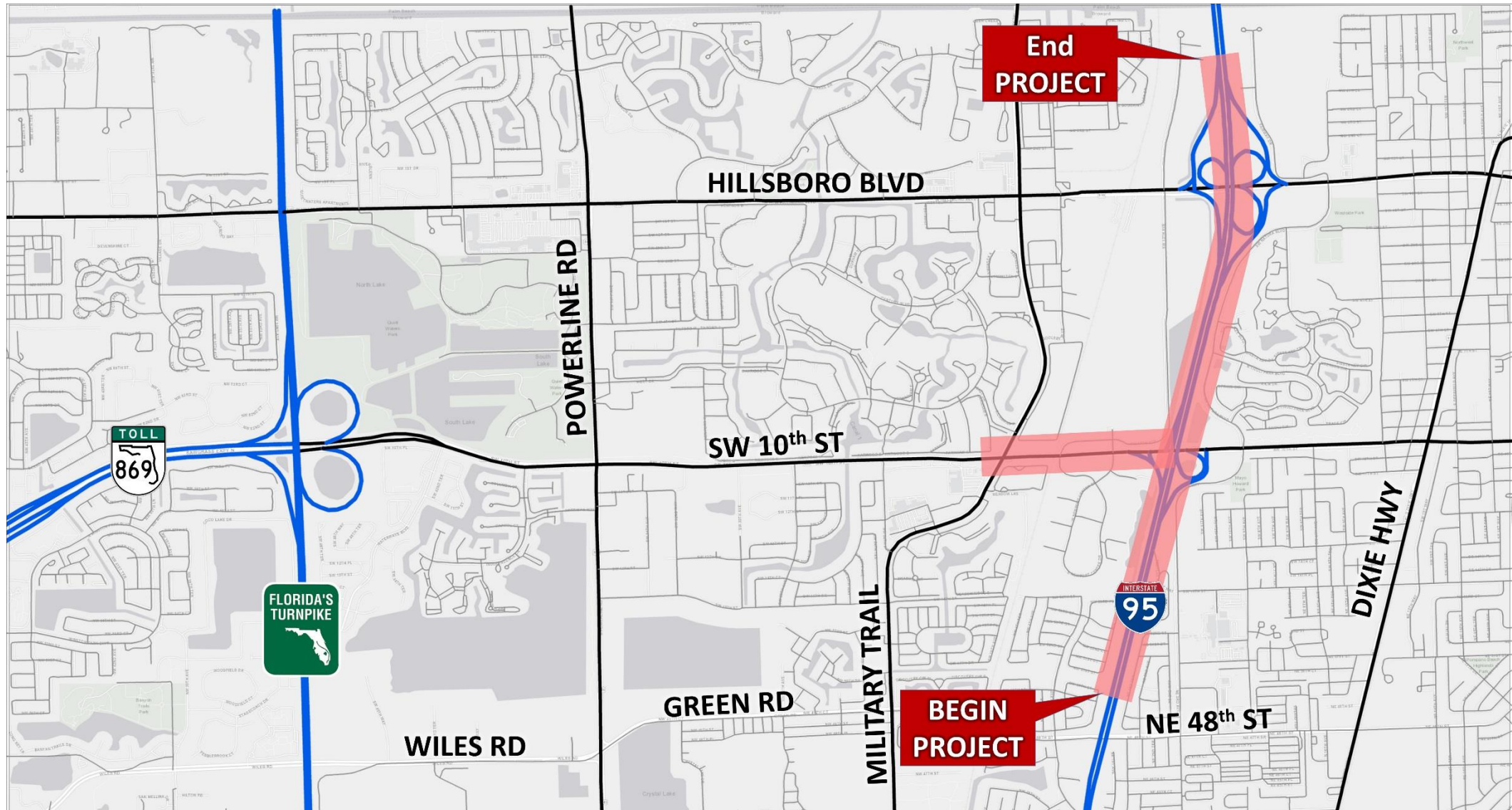
Please see evaluation matrices in the display room for more details.

■ Disadvantages

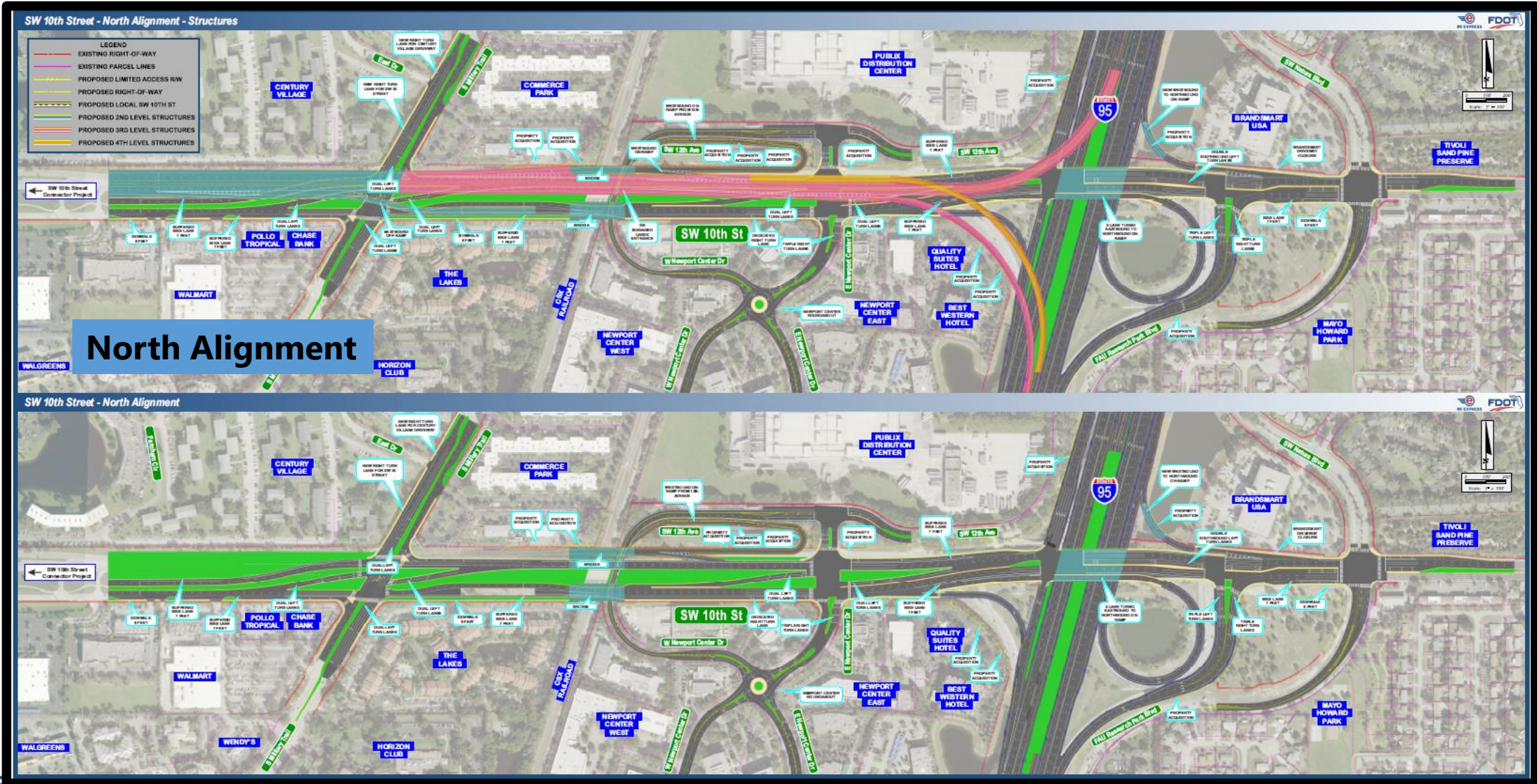
- Requires extensive utility relocations
- Requires dewatering ponds / pumps
- Extended, complicated construction
- More costly than conventional roadway projects
- Potential business relocations at Powerline Road
- Permanent pumps / stations



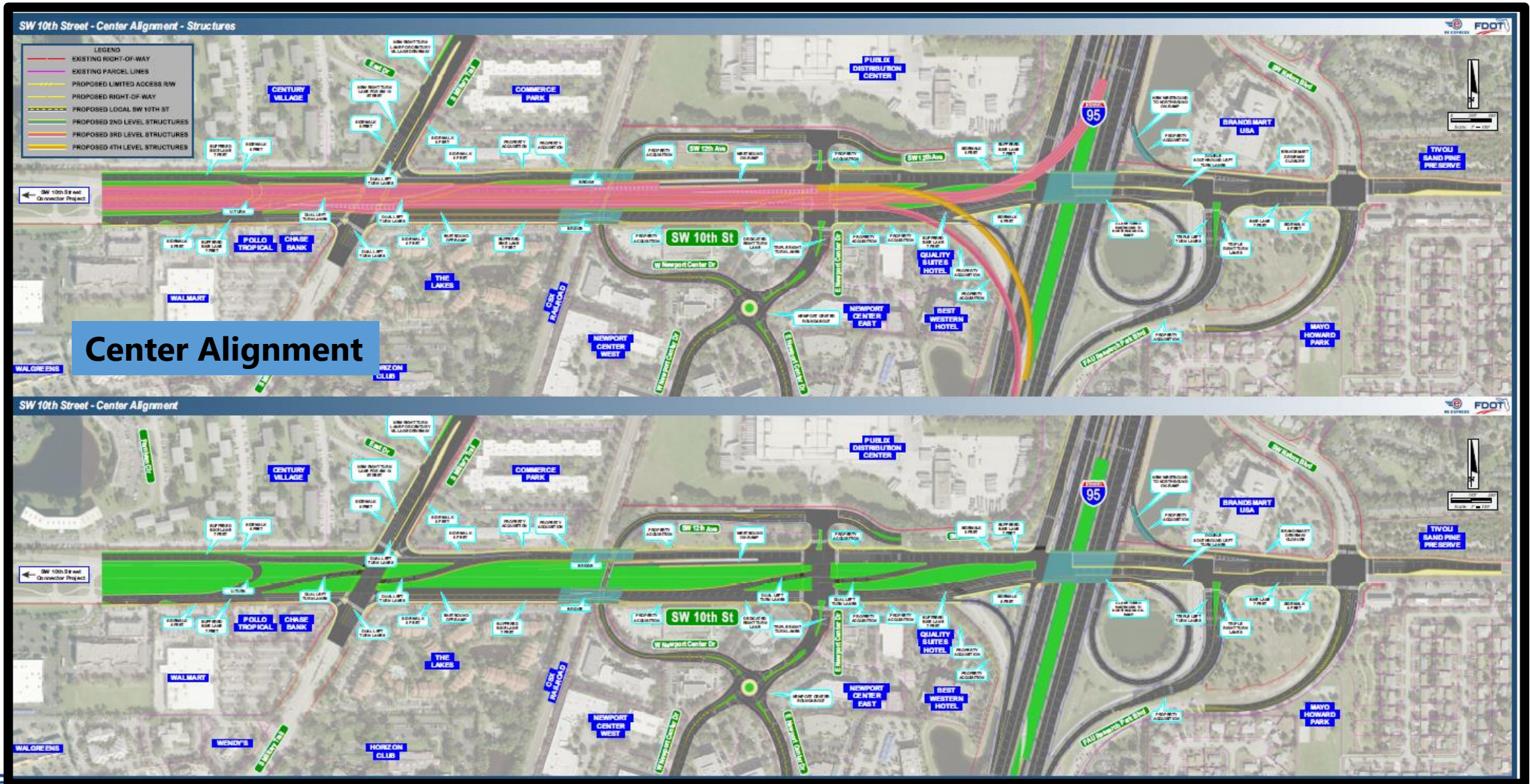
Alternatives Considered: I-95 PD&E Improvements



Alternatives Considered: I-95 Interchange at SW 10th St.



Alternatives Considered: I-95 Interchange at SW 10th St.



Military Trail Intersection - Looking North



Managed Lanes

Eastbound Ramp

EB SW 10th Street

Military Trail

Alternatives Considered: I-95 Mainline



Environmental Analysis



Natural Environment

- **Wetlands and Surface Waters**
 - Surface Waters – Canals, ponds, drainage – Anticipate only minor impacts
 - No wetland impacts anticipated

- **Threatened and Endangered Species**
 - Project not within in USFWS Critical Habitat
 - Project within Core Foraging Area of Wood Stork Colonies and within USFWS Consultation Area – Everglades Snail Kite
 - Bald eagle nest – Quiet Waters Park
 - No state or federal listed species observed
 - Anticipate no adverse impact



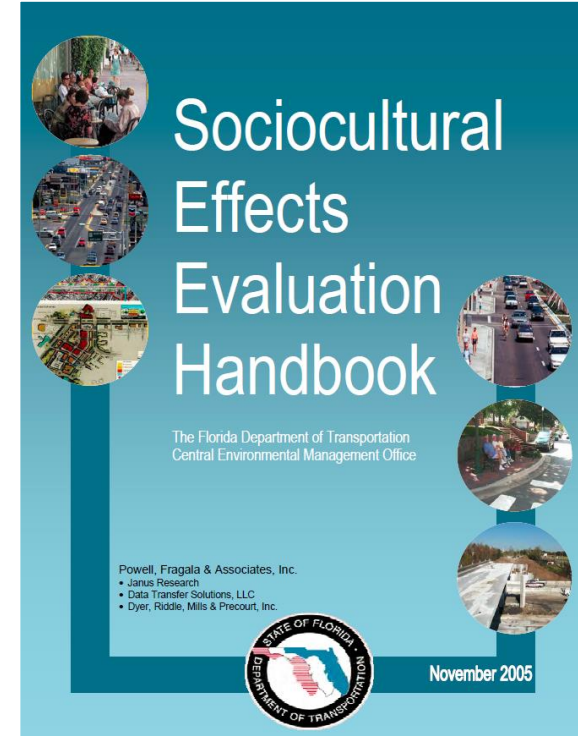
- **Natural Resource Evaluation Prepared**

Environmental Analysis



Cultural and Socio-Cultural Environment

- Historic and archaeological - anticipate No Adverse Effect
- Section 4(f)
 - Crystal Heights Park – North
 - Quiet Waters Park
 - Mayo Howard Park
 - Oveta McKeithen Recreational Complex
 - Tivoli Sand Preserve
 - Willie James Linear Park
- No permanent use anticipated
- Potential temporary use
 - *Section 4(f) Determination of Applicability (DOA)*
 - *Anticipate Section 4(f) de minimis*
- Multimodal accommodations



Environmental Analysis

🔑 Physical Environment

- Contamination Screening Evaluation
 - SW 10th St.
 - *Seventeen (17) potential sites*
 - *No significant concerns*
- Air Quality
 - Air Quality Screening
 - Reduced congestion = improved air quality



Noise Analysis – SW 10th Street Connector & I-95

- **Key Concern**

- Future noise levels
- Adjacent communities may require noise abatement

- **Noise-Sensitive Sites**

- Seven residential communities
- Century Village
- The Lakes at Deerfield
- Tivoli Park
- Natura



Detailed Noise Analysis

- Noise-sensitive sites identified
- Noise levels measured along both project corridors
- Noise modeling analysis being performed
- Results available Fall 2018

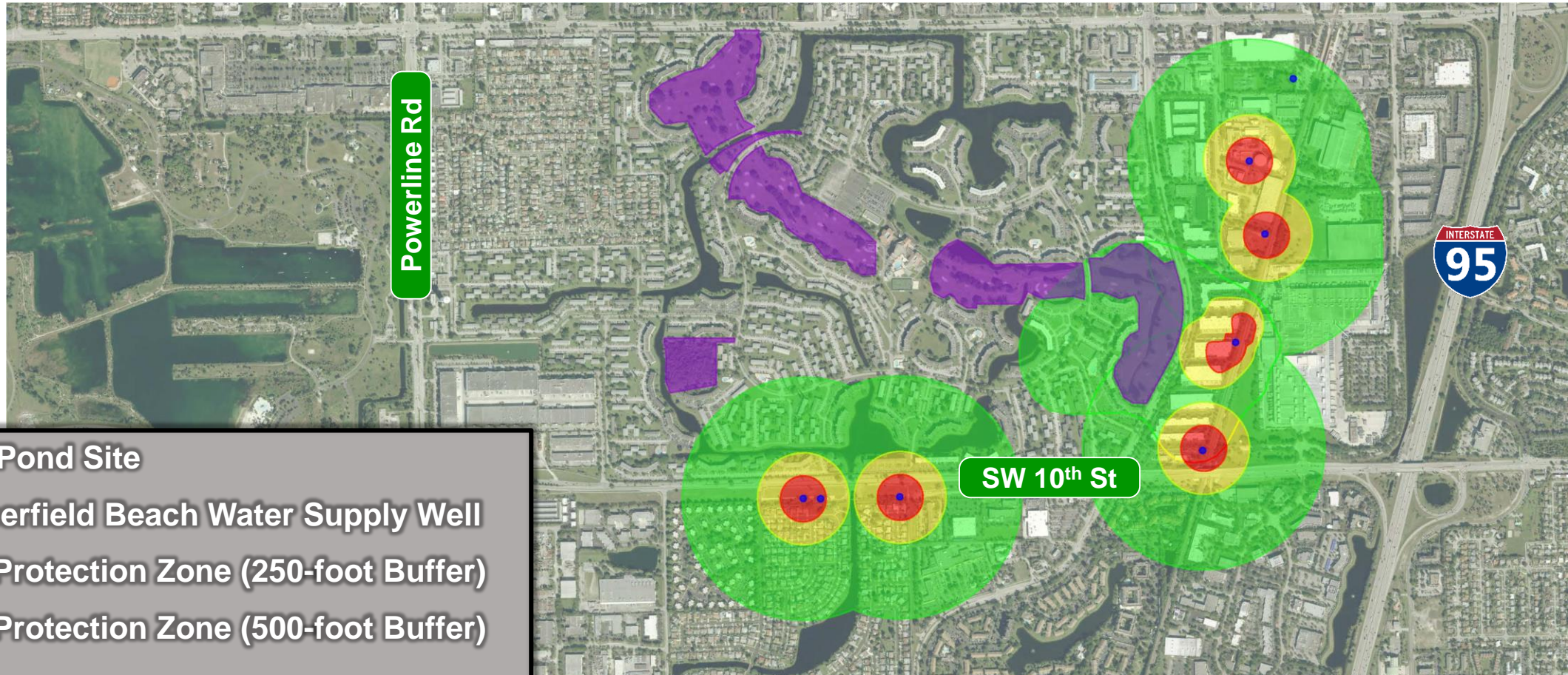
- SW 10th St.: 7 residential, 3 recreational, 1 commercial
- I-95: 10 non-residential sites (hotel, parks / trails, restaurant, daycare, & medical office)

 = Residential
 = Commercial



Deerfield Beach Wellfield

- Groundwater modeling to be performed this summer



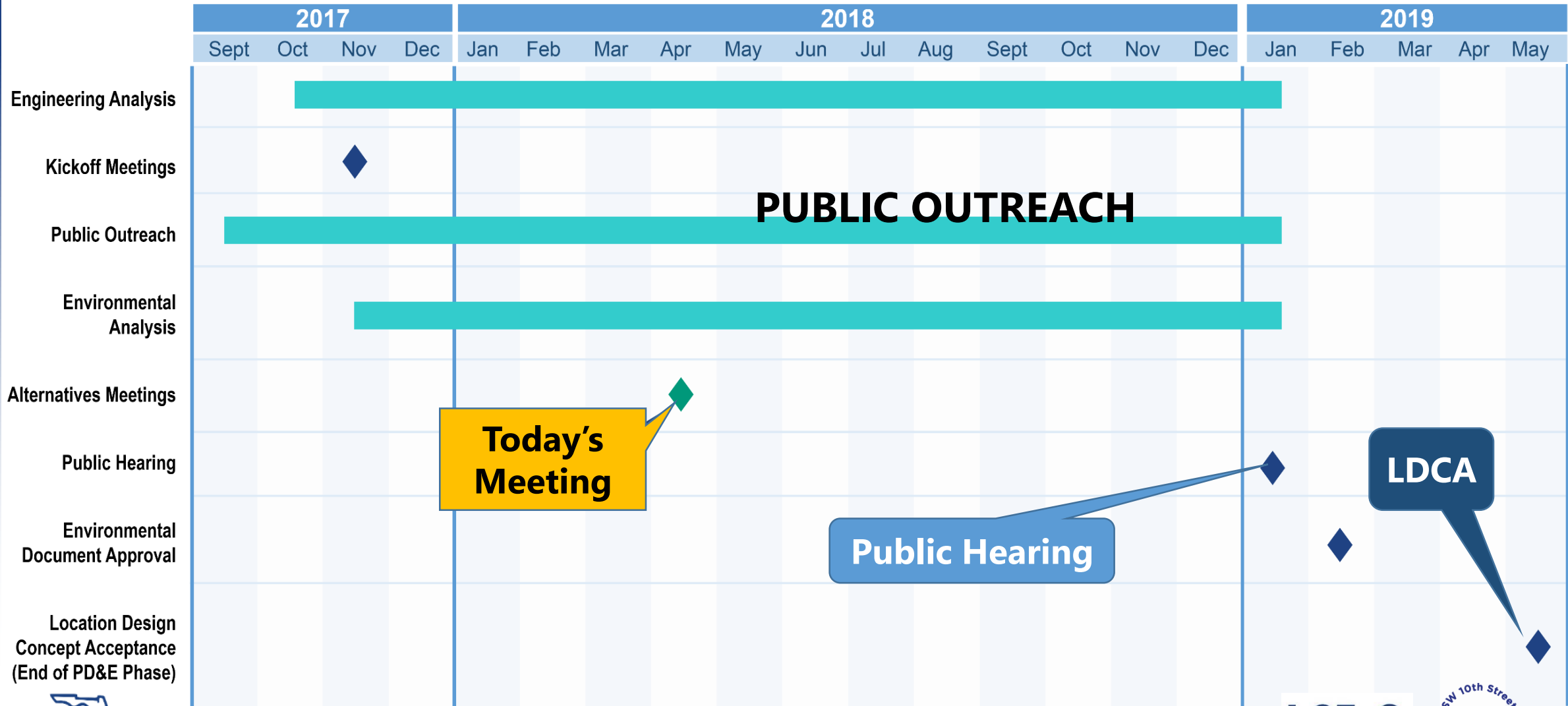
-  Potential Pond Site
-  City of Deerfield Beach Water Supply Well
-  Wellfield Protection Zone (250-foot Buffer)
-  Wellfield Protection Zone (500-foot Buffer)
-  Wellfield Protection Zone (1,320-foot Buffer)

Future Landscape Projects

- SW 10th Street from Powerline Road to West of Military Trail
 - After roadway construction
- I-95 from South of SW 10th Street to the Broward / Palm Beach County Line
 - After roadway construction



Schedule: SW 10th Street Connector and I-95, SW 10th Street to Hillsboro Boulevard PD&E Studies



Next Steps...

- PD&E
 - Continue alternatives development
 - Continue community outreach
 - Alternatives Public Workshop: Today
 - Public Hearing: early 2019
 - LDCA: May 2019
- Design - mid 2019
- Construction - Currently funded in 2025
- Tell us what you think by taking the survey, writing a comment card, or both!!





Thank You!

www.sw10street.com

