



Florida Department of Transportation
District Four



I-95 AT SOUTHERN BOULEVARD (SR 80) ***Project Development and Environment Study***

Public Alternatives Workshop

Palm Beach County, Florida
Financial Project ID No.: 435516-1-22-02
ETDM No.: 14183

December 1, 2016
5:30 p.m. to 7:30 p.m.

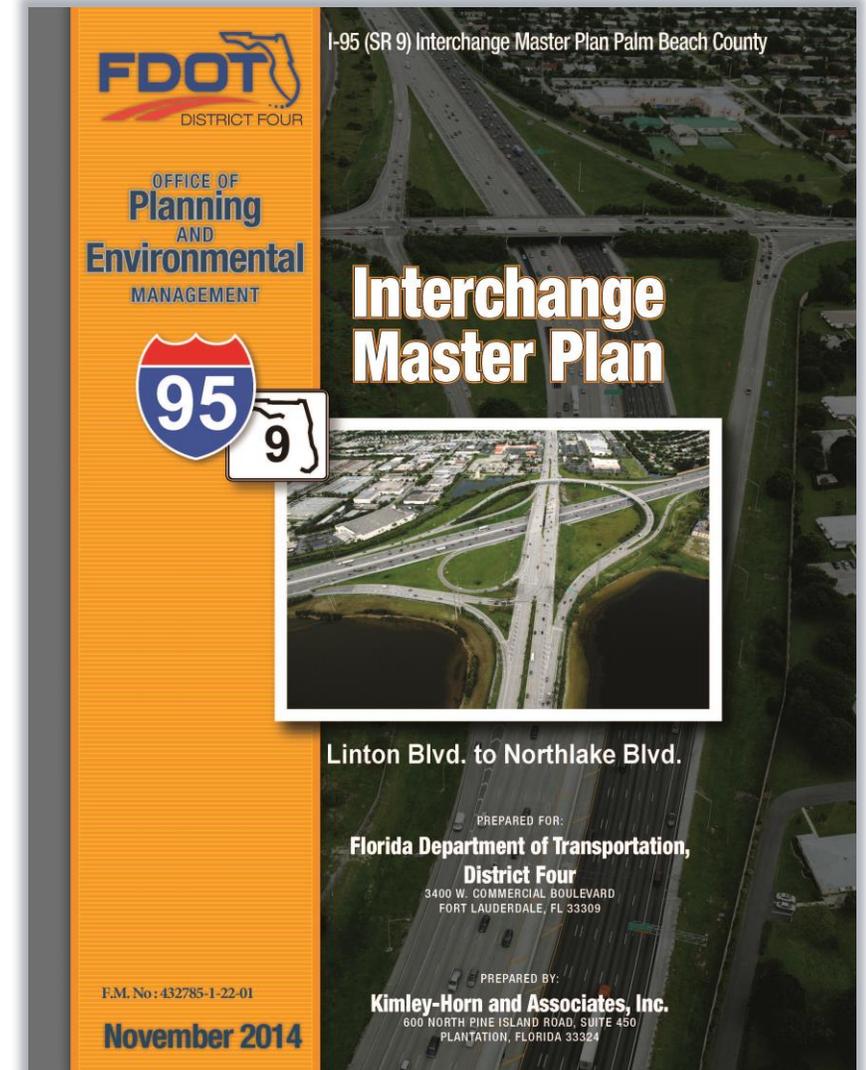


Presentation Outline

- Overview of Planning and Programming
 - I-95 Interchange Master Plan
 - Strategic Intermodal System (SIS)
 - Project Development Process
- Overview of I-95 at Southern Boulevard (SR 80) Project
 - Approximately half mile North and South of the Interchange and along Southern Boulevard from Australian Avenue to Parker Avenue
 - Anson Sonnett, P.E., Project Manager

SR 9 (I-95) Interchange Master Plan Palm Beach County

- Completed in December 2014
- Evaluated 17 interchanges
 - From Linton Boulevard to Northlake Boulevard
- Analyzed interchanges to determine existing and potential future deficiencies
 - Coordinated with Local Agencies and MPO
- Identified operational and safety needs
 - Developed short-term improvements
 - Developed long-term conceptual design alternatives
- Facilitated programming of future interchange studies and projects through the SIS program

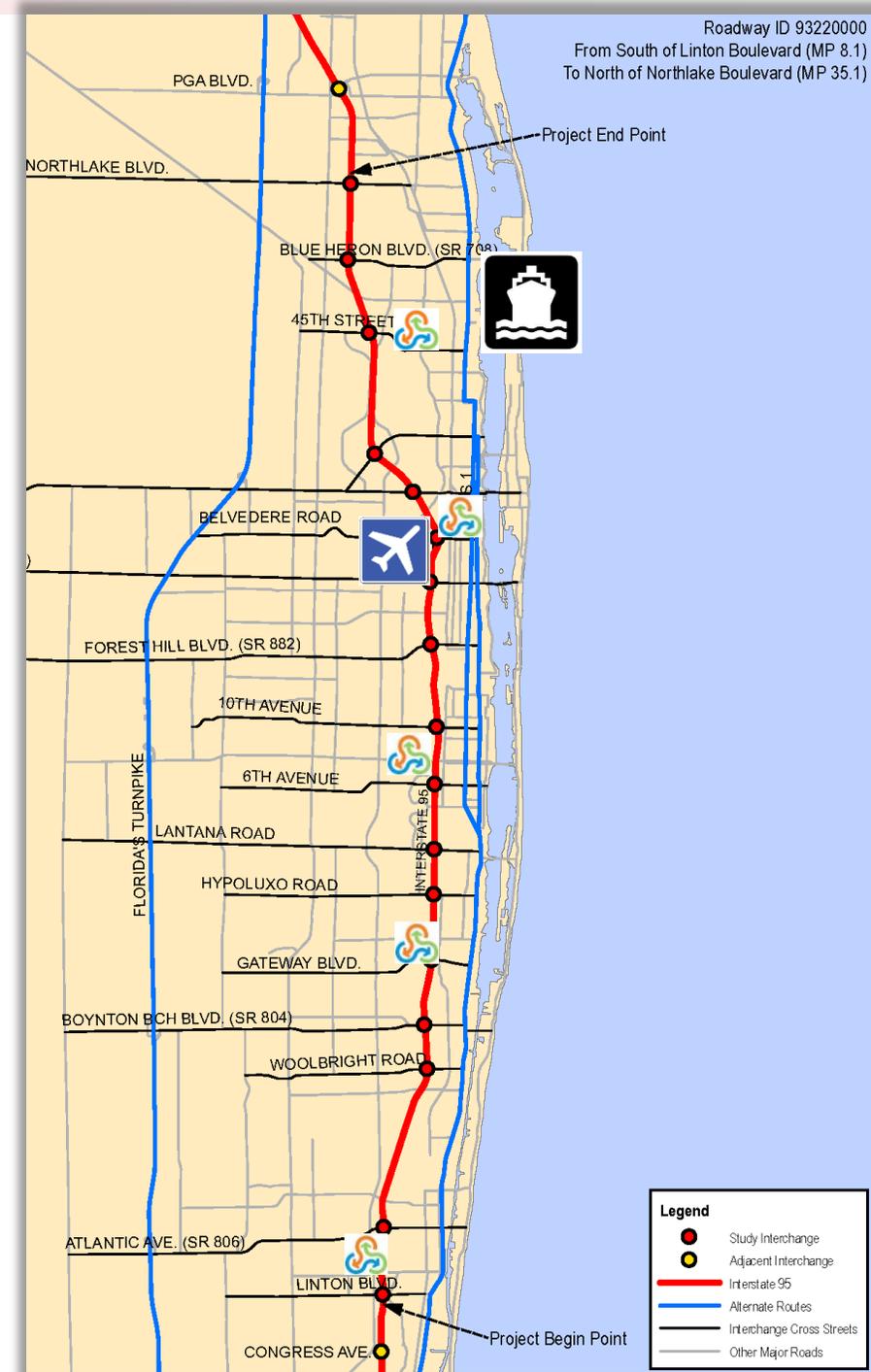


SR 9 (I-95) Interchange Master Plan Study Results

FDOT incorporated recommendations into:

- Design Projects
- PD&E Studies

FDOT programs PD&E Studies and Design Projects based on priority and SIS funding availability

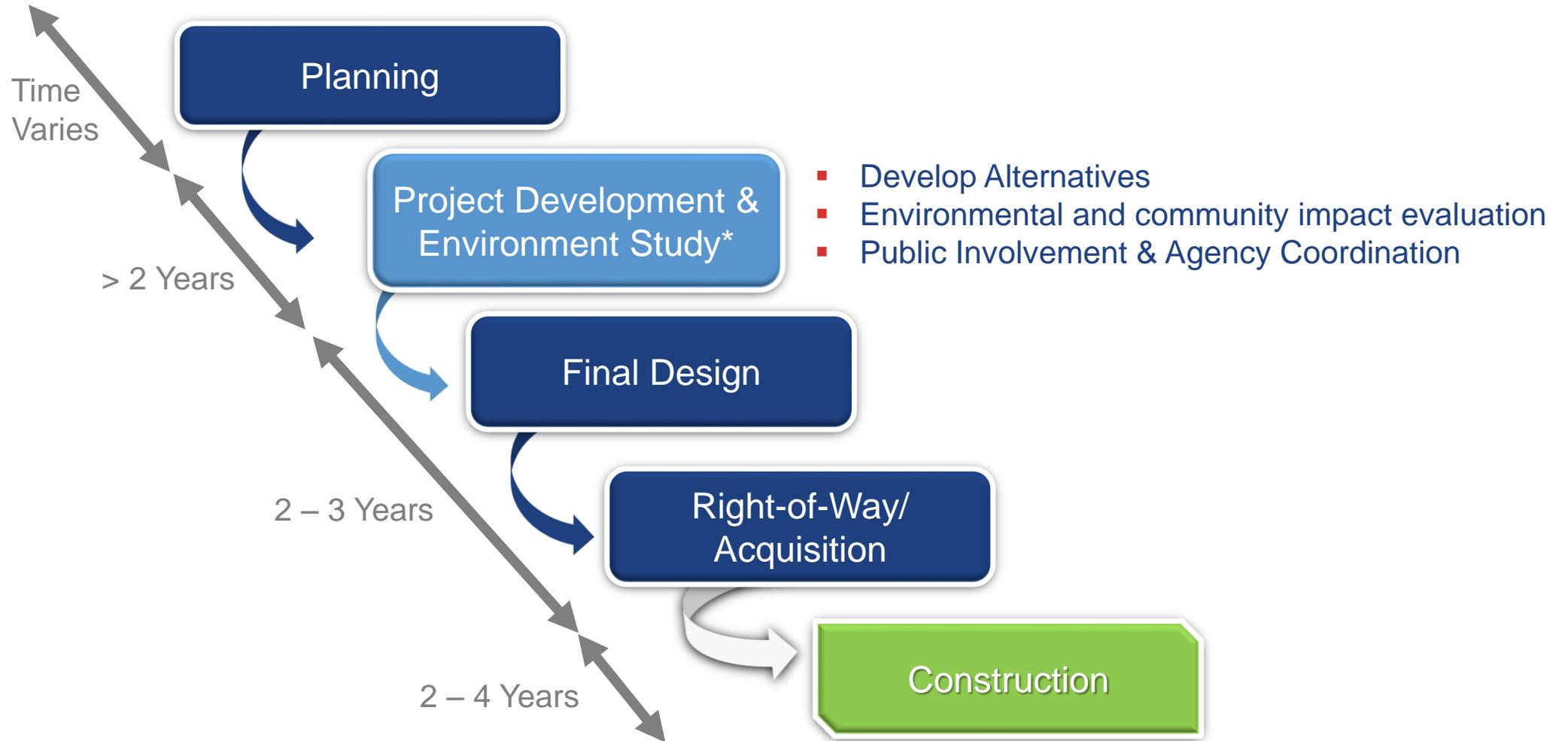


Strategic Intermodal System (SIS)

- Established by the Florida Legislature in 2003 (F.S. 339.61)
- State Funded Program
- Focuses state resources on transportation facilities most critical to statewide travel, including:
 - Interstates
 - Interchanges
 - Airports
 - Seaports
 - Spaceports
 - Rail
 - Highways of Interregional Significance
 - “Last Mile” Connectors
- SIS Planning Documents
 - First 5 Year Plan – projects funded in 5 Year work program
 - Second 5 Year Plan – planned projects years 6-10
 - SIS Cost feasible Plan – projects projected for years 11-25
 - SIS Multi Modal Unfunded Needs Plan



Project Development - Process Flowchart



The PD&E Study Process

- **Data Collection:**
 - A review of all existing conditions = COMPLETE
- **Engineering Analysis:**
 - Develop alternatives that meet the needs of the study area
- **Environmental Evaluations:**
 - Potential impacts to the social, natural and physical environments
- **Public Involvement:**
 - Continuous community outreach and stakeholder coordination

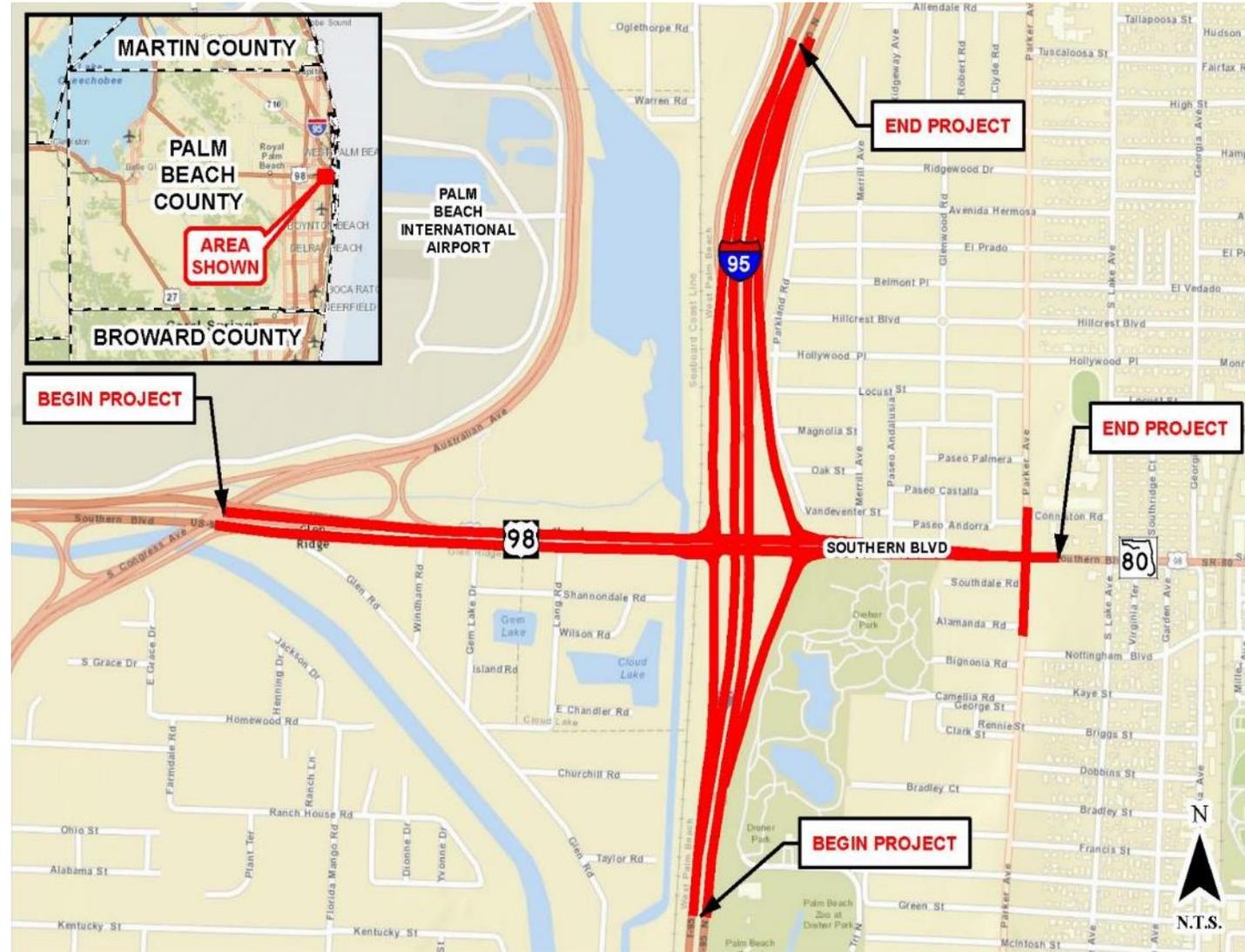


A continuous community outreach process is integrated into every step of the project to ensure that the corridor residents, businesses, the traveling public and other interested parties have meaningful opportunities for participation throughout the PD&E Study.

Study Area

Location:

- I-95 at Southern Boulevard (SR 80) Interchange
- West Palm Beach, Glen Ridge, Cloud Lake
- Southern Boulevard from Australian Avenue to Parker Avenue



Purpose and Need for the Study

- Enhance overall traffic operations at the Southern Boulevard (SR 80) Interchange
- Improve capacity and meet future travel demand resulting from:
 - Population growth
 - Employment growth



Purpose and Need for the Study

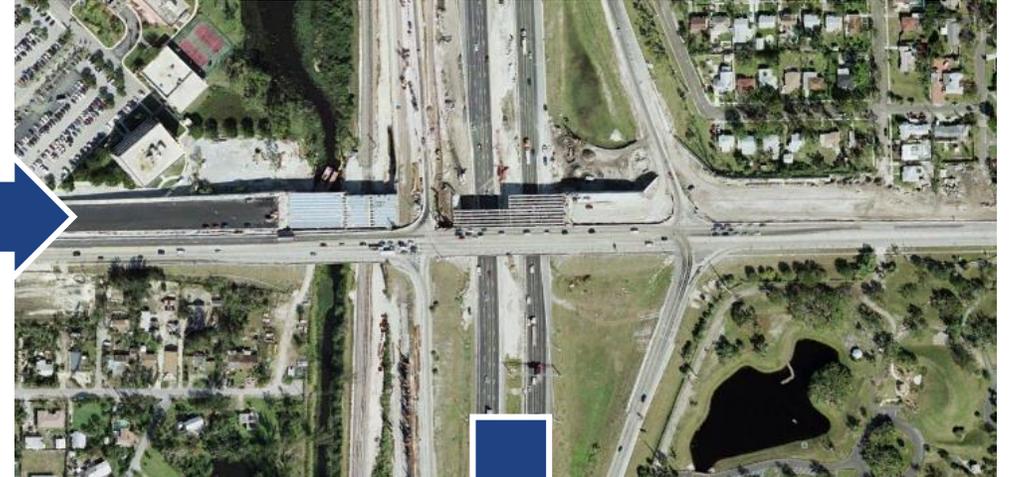
- Emergency Evacuation
- Consistent with local transportation plans
 - Palm Beach MPO 2040 Long Range Transportation Plan



PROJECTS FUNDED WITH STRATEGIC INTERMODAL SYSTEM & TURNPIKE REVENUES						2015-2040	2015-2019	2020	2021-2025	2026-2030	2031-2040
Map No.	Facility Name	From	To	Improvement	Total Capital Cost (Million\$)						
Proposed Strategic Intermodal System Improvements											
H-9	I-95	@ Donald Ross Rd		Interchange Improvement	\$4.5	C					
H-25	I-95	@ Blue Heron Blvd		Interchange Improvement	\$2.8	B/C					
H-65	I-95	@ Linton Blvd		Interchange Improvement	\$20.9	C					
H-64	I-95	@ Atlantic Ave		Interchange Improvement	\$9.4	D/B/C					
H-69	I-95	@ Spanish River Blvd		New Interchange	\$81.9	B/C					
H-44	Southern Blvd/SR 80	L-8 Canal	Crestwood/Forest Hill Blvd	Widen 4L to 6L	\$26.3	B/C					
H-1	SR 710	Martin/PBC Line	W of Indiantown Rd	Widen 2L to 4L	\$10.0	D/B/C					
H-6	SR 710	W of Indiantown Rd	W of Post Highway Rd	Widen 2L to 4L	\$41.3	D/B/C					
H-29	SR 710	W of Congress Ave		Widen 2L to 4L	\$42.0	B/C					
H-710	SR 710	Austrian		Widen 2L to 4L	\$73.0	D/B/C					
H-67	I-95 Managed Lanes			Add Managed Lanes	\$167.0	D/C	C	C			
H-57	I-95			Interchange Improvement	\$87.9	D		B/C			
H-46	I-95			Interchange Improvement	\$136.7	D		C			
				Widen 4L to 6L	\$35.3	D		B/C			
				Widen 4L to 6L	\$63.3			C			
				Interchange Improvement	\$86.7	D			C		
				Interchange Improvement	\$97.7			D/B	B/C		
				Interchange Improvement	\$150.1				D/B/C		
				Interchange Improvement	\$53.3				D/B/C		
				Interchange Improvement	\$71.4				D/B/C		
				Interchange Improvement	\$73.9				D/B/C		
				Interchange Improvement	\$86.7				D/B	C	
				Managed Lanes	\$56.4			D	B	C	
				Widen 4L to 6L	\$59.6						B/C
Improvements											
				to 6L	\$296.2				D/B/C		
				to 6L	\$274.9				D/B/C		
				8L	\$297.8				D/B/C		
				age	\$113.1						D/B/C



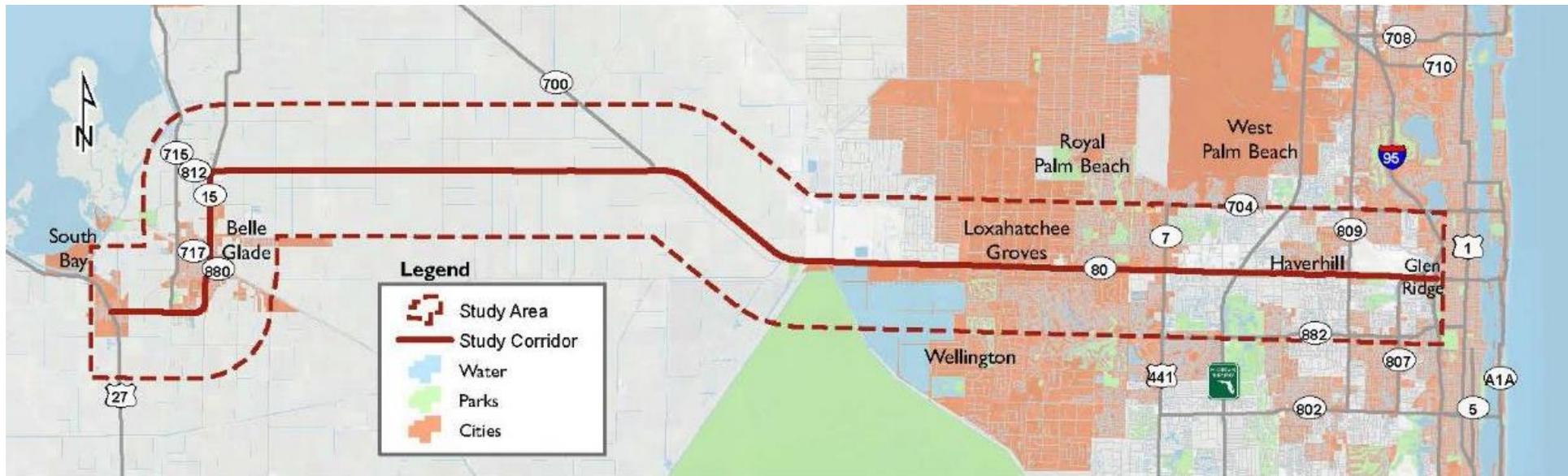
Previous Improvements to I-95 / SR 80



- Bridge Over I-95
- SR 80 Widening

Adjacent Studies

- SR 80 Corridor Action Plan (www.sr80actionplan.com)
- Began Summer 2015; Complete by Fall 2017
- 45-mile segment of SR 80 (US 27 to I-95)
- Study Purpose: Develop Action Plan
 - Improve traffic, freight operations, safety, and accommodations for pedestrians, bicyclists, and transit riders



Adjacent Studies

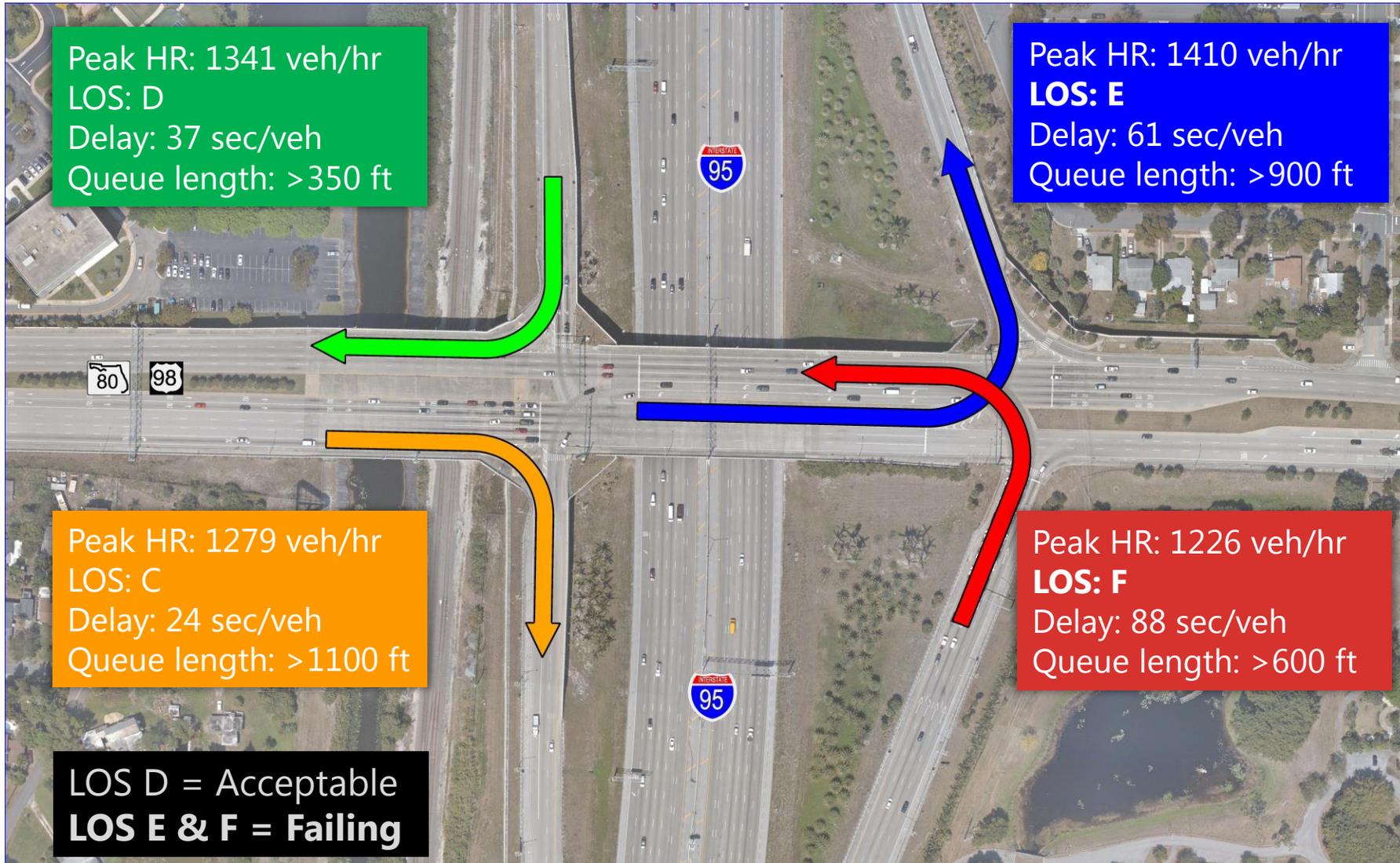
- I-95 Managed Lanes Master Plan
- Began Spring 2016; Complete by Spring 2018
- 65-mile segment of I-95
- Study Purpose: Master Plan Study
 - Identify long-term capacity needs along I-95
 - Develop managed lane design concepts
 - Ensure level of service standard is achieved



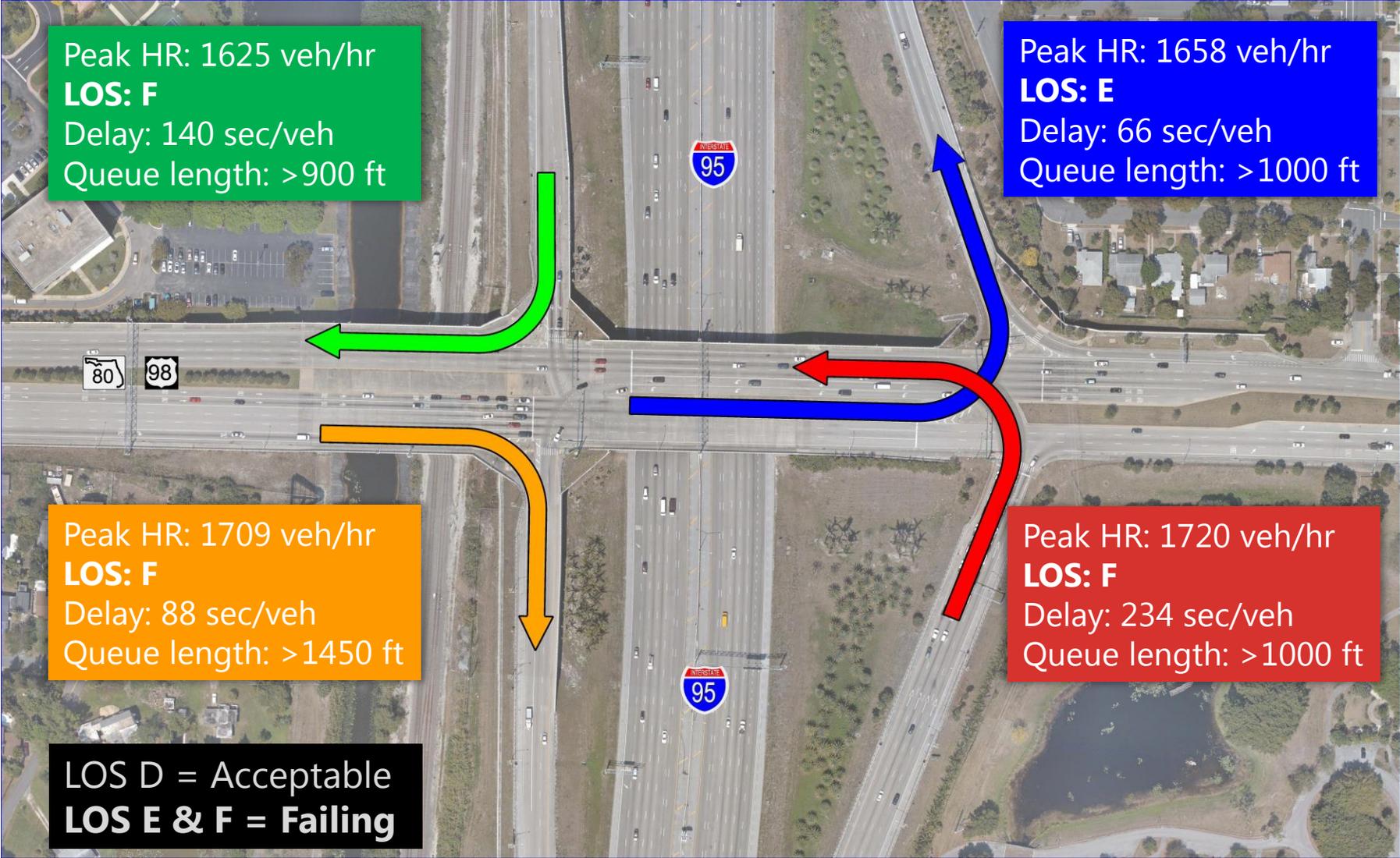
Existing Traffic Conditions on SR 80



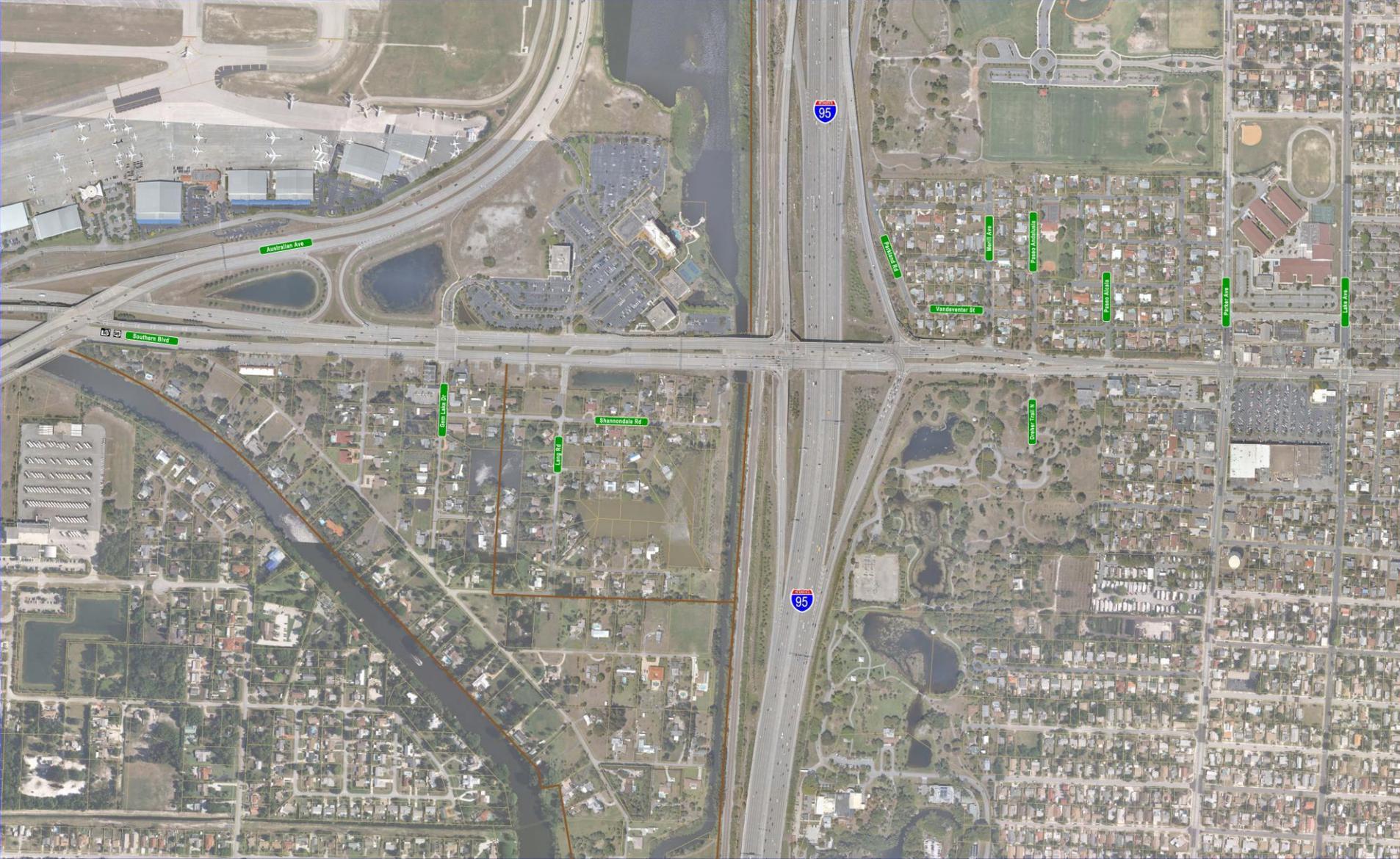
Current Year (2015) Traffic



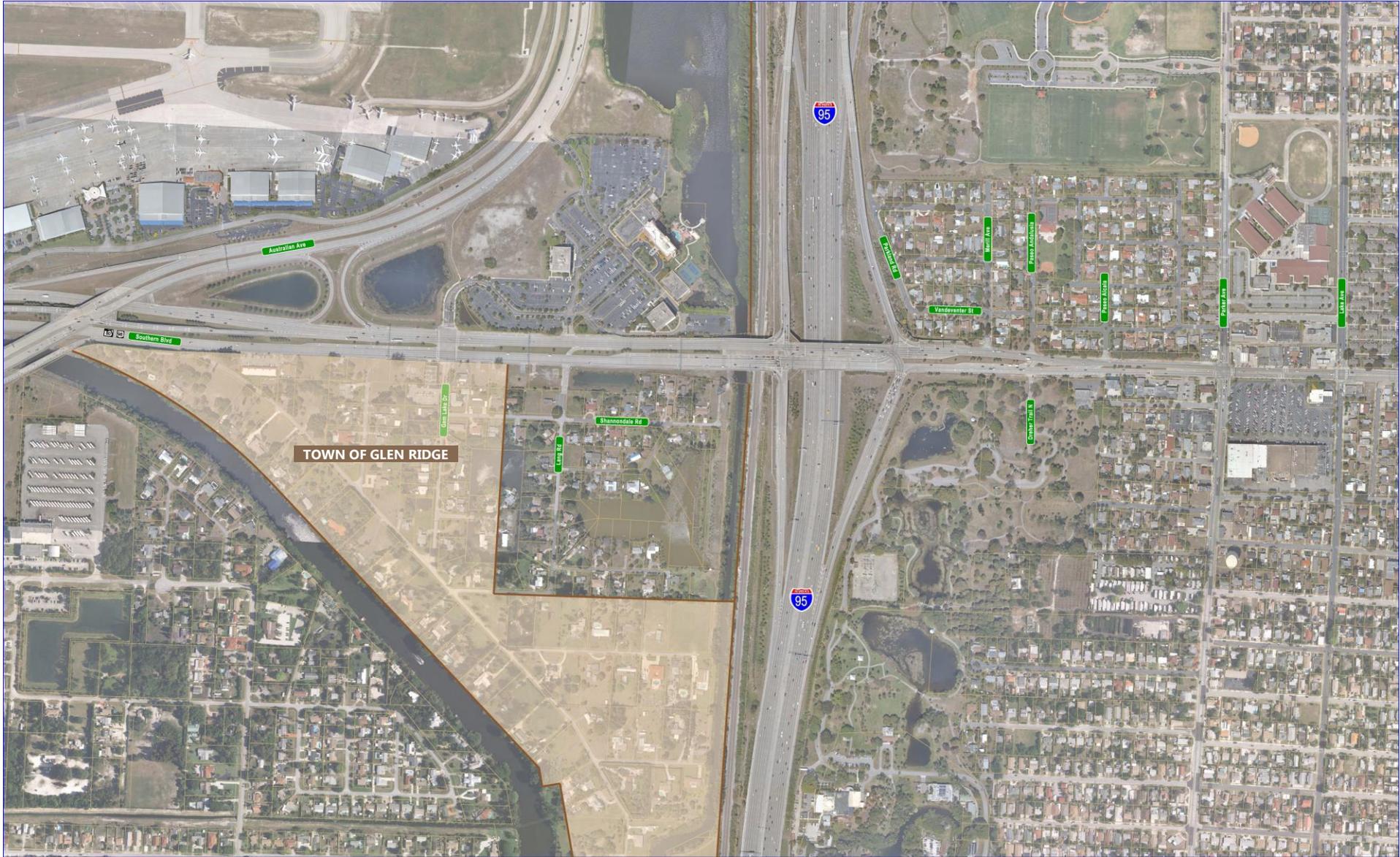
Design Year (2040) Traffic – No Build



Existing Conditions



Area Features: Glen Ridge



Area Features: Cloud Lake



Area Features: Palm Beach County



Area Features: Vedado Historic District



Area Features: Dreher Park



Alternatives Analysis

- Meet future travel demand
- Avoid or minimize impacts to the community and environment
- Developed / refined with input from the public, local governments and environmental agencies
- Criteria for comparison of alternatives:
 - Community and environmental impacts
 - Costs for design and construction, operational behavior and lifespan, right-of-way acquisition, etc.



Interchange Configurations Evaluated...

- Diverging Diamond
- SPUI
- Cloverleaf
- Partial Clover Leaf
- Hybrids
- Other Flyover Combinations

**... BUT DISCARDED DUE TO
RIGHT-OF-WAY IMPACTS**



No Build Alternative

- No improvements to the existing facility
- Traffic conditions will continue to deteriorate
- Congestion and delay will increase



Build Alternatives Considered



Alternative 1



Alternative 2

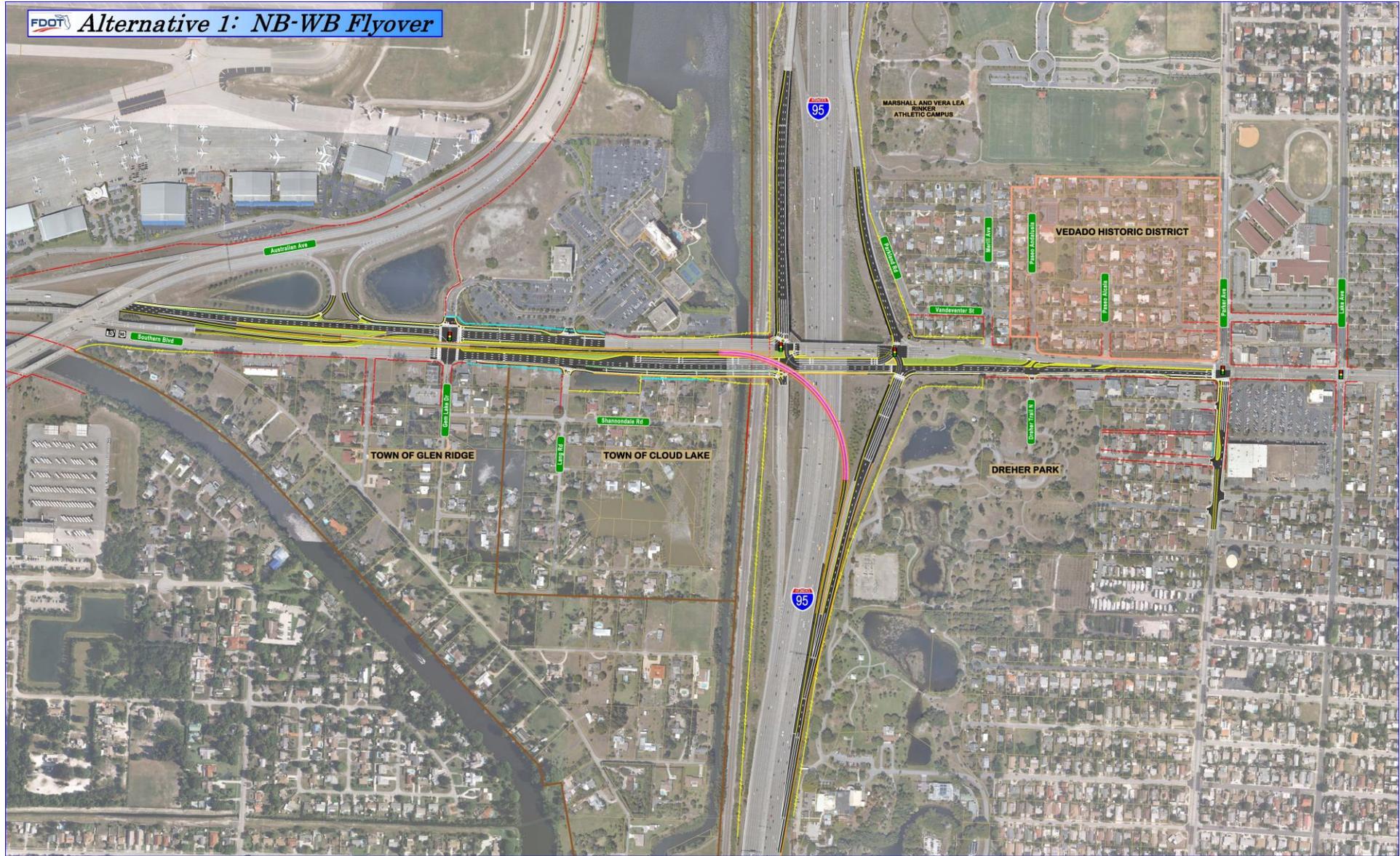


Alternative 3

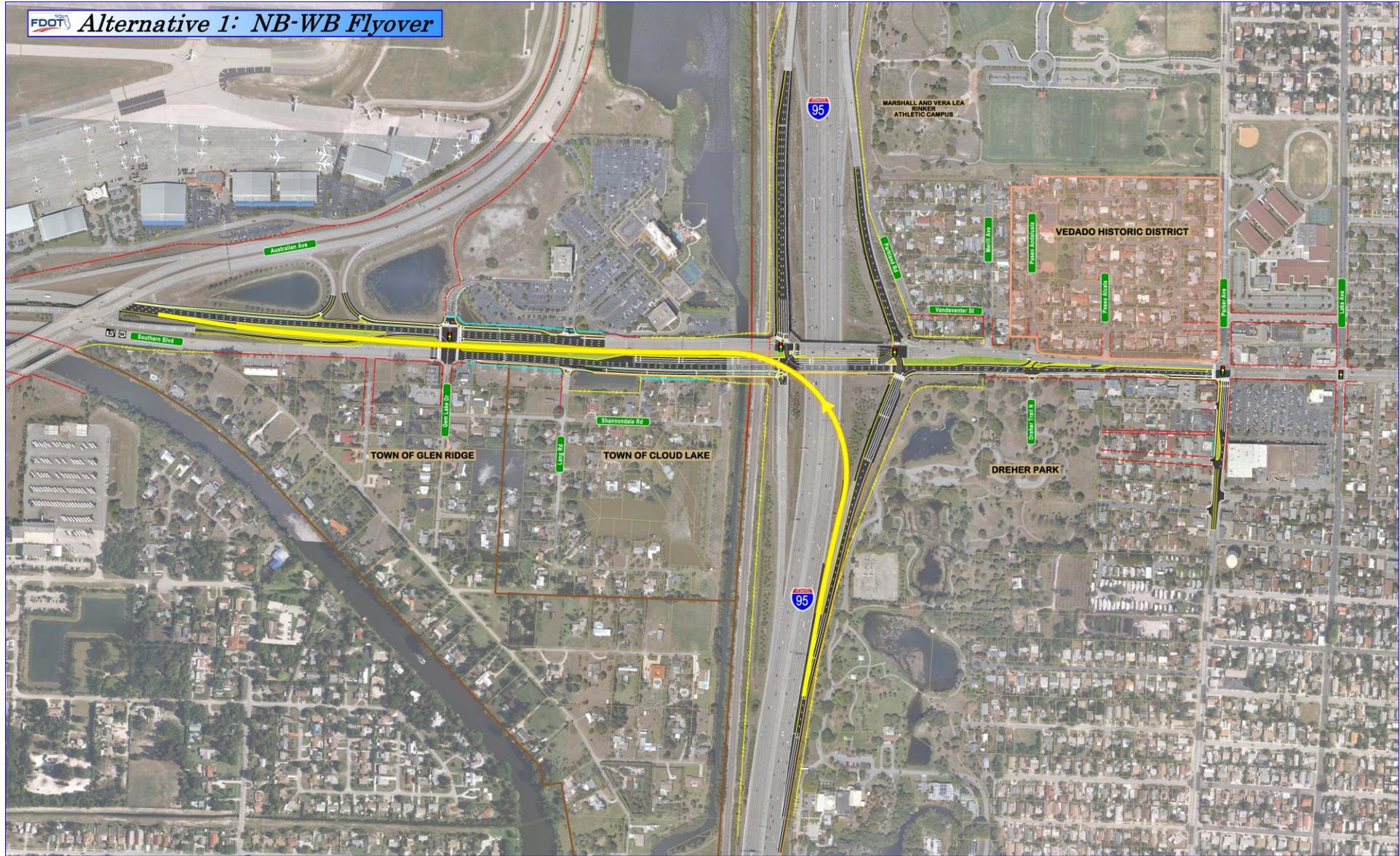


Alternative 4

Alternative 1: NB I-95 Flyover to WB SR 80



Alternative 1: NB I-95 Flyover to WB SR 80

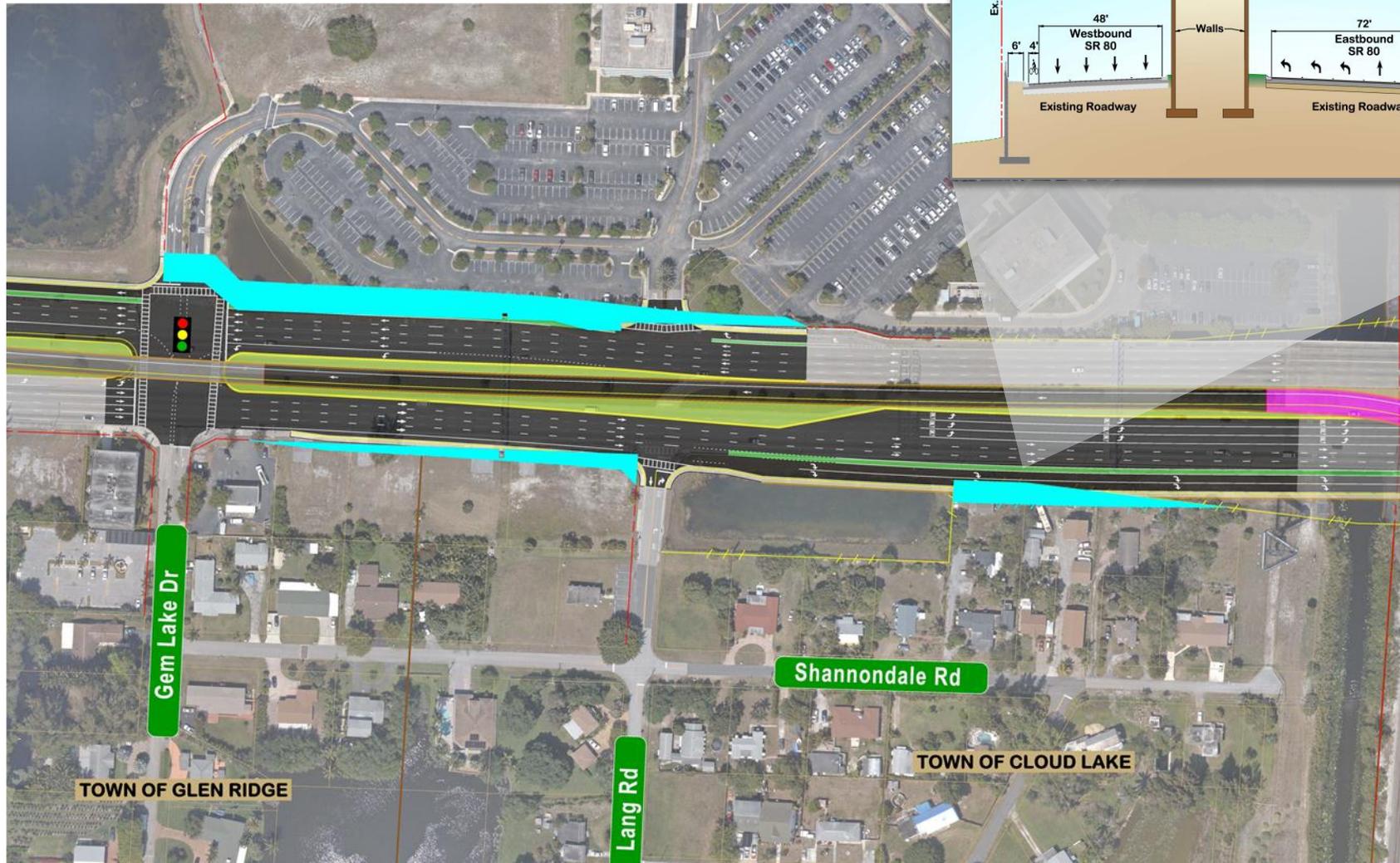


Alternative 1: SR 80 West of I-95

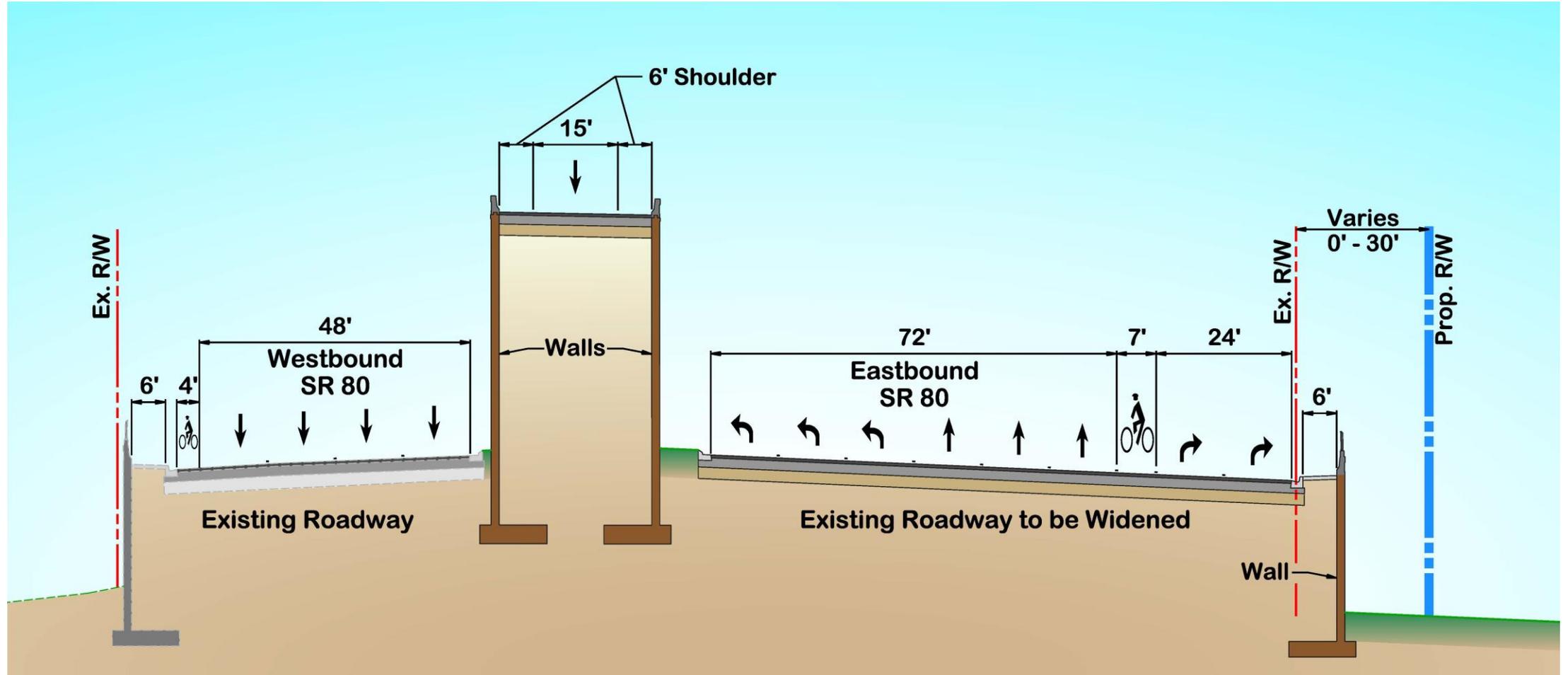


Alternative 1: SR 80 West of I-95

- Requires right-of-way 
 - West of I-95, north and south side of SR 80



Alternative 1: SR 80 West of I-95 – Typical Section



Alternative 2: NB I-95 Flyover to WB SR 80 & EB SR 80 Flyover to NB I-95



Alternative 3: EB SR 80 Flyover to NB I-95



Alternative 3: EB SR 80 Flyover to NB I-95

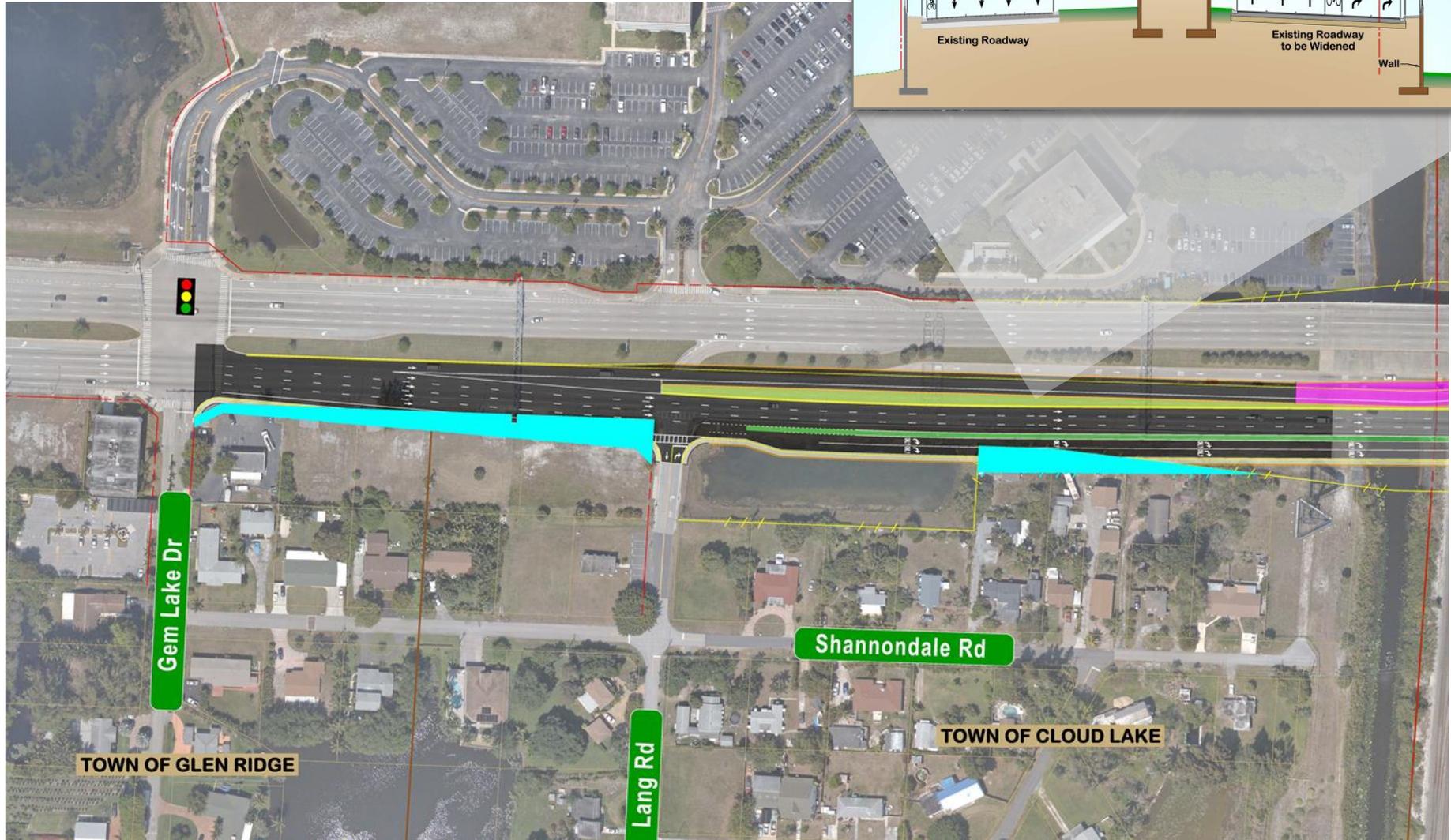
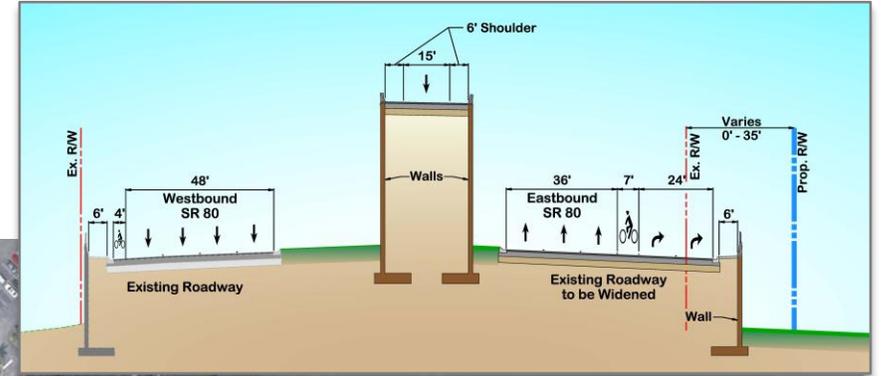


Alternative 3: SR 80 West of I-95

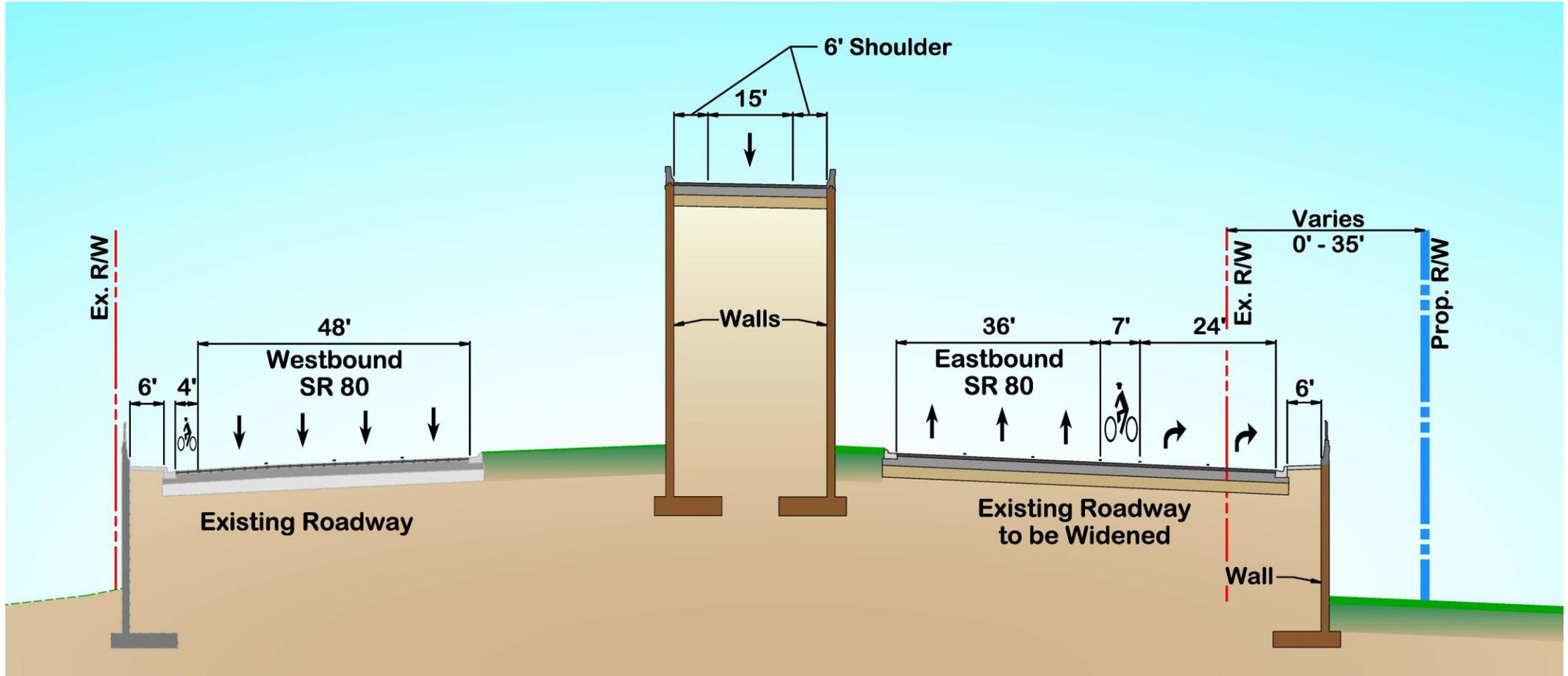


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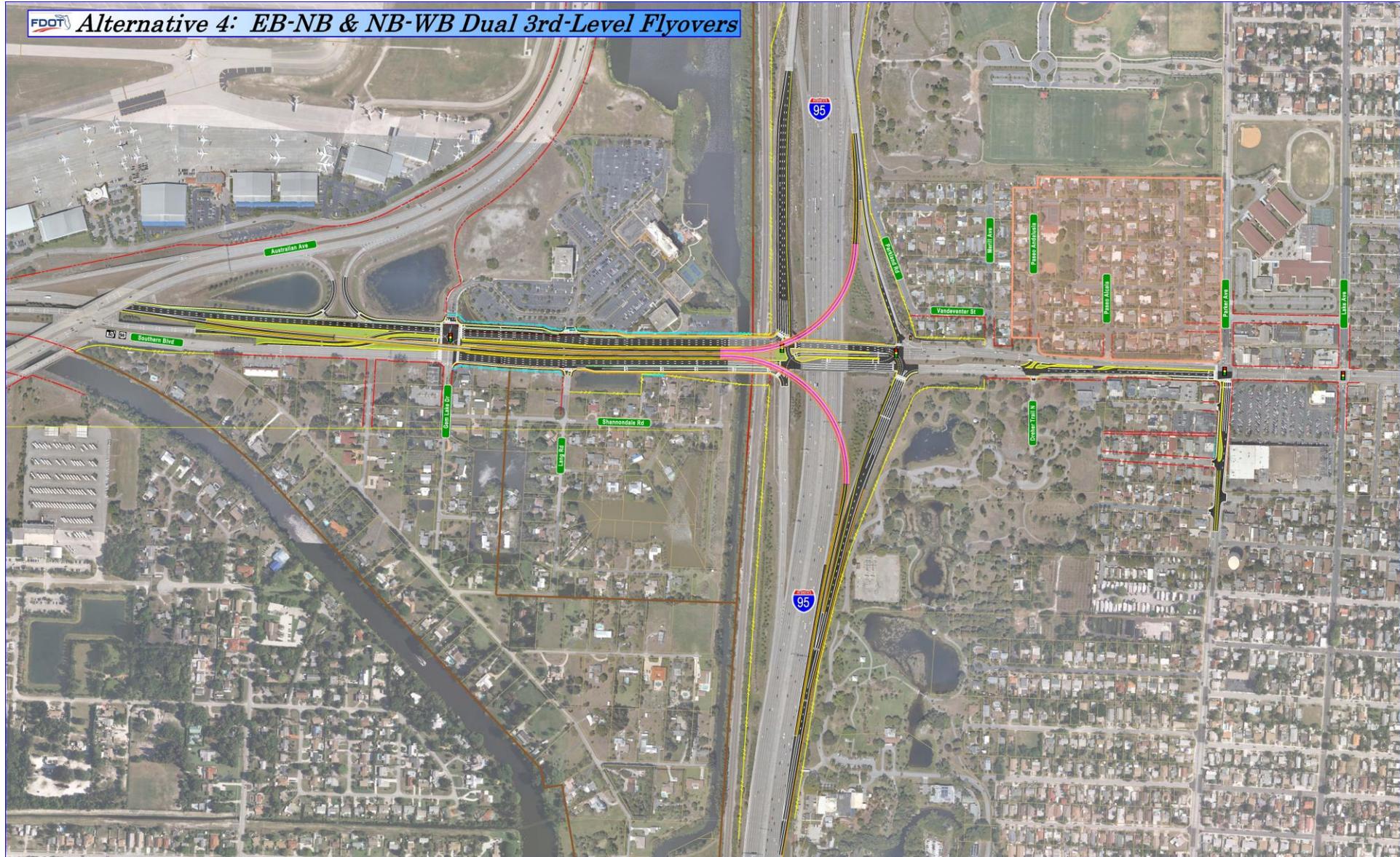
- Requires right-of-way 
 - West of I-95, south side of SR 80



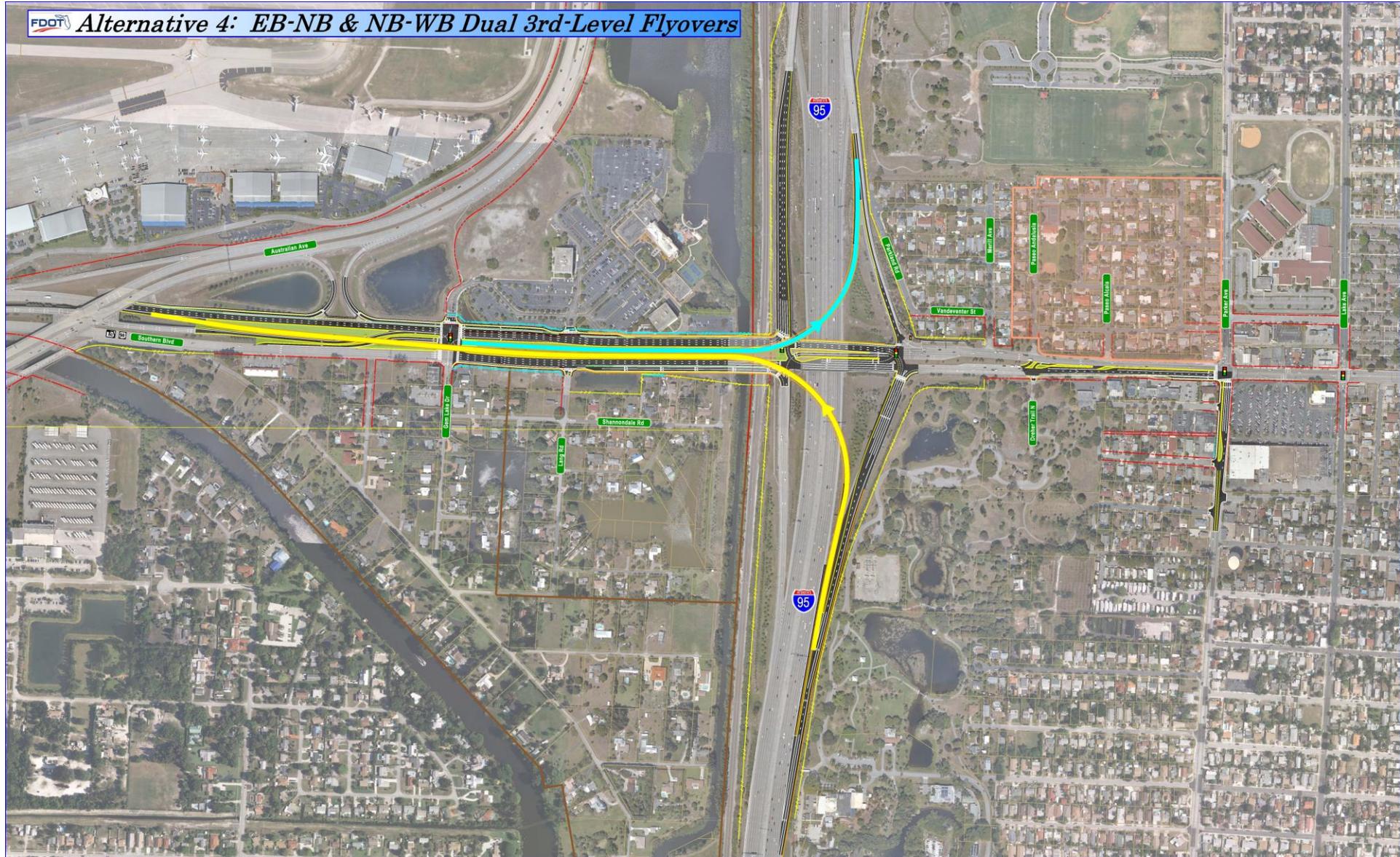
Alternative 3: SR 80 West of I-95 – Typical Section



Alternative 4: NB I-95 Flyover to WB SR 80 & EB SR 80 Flyover to NB I-95



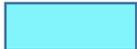
Alternative 4: NB I-95 Flyover to WB SR 80 & EB SR 80 Flyover to NB I-95

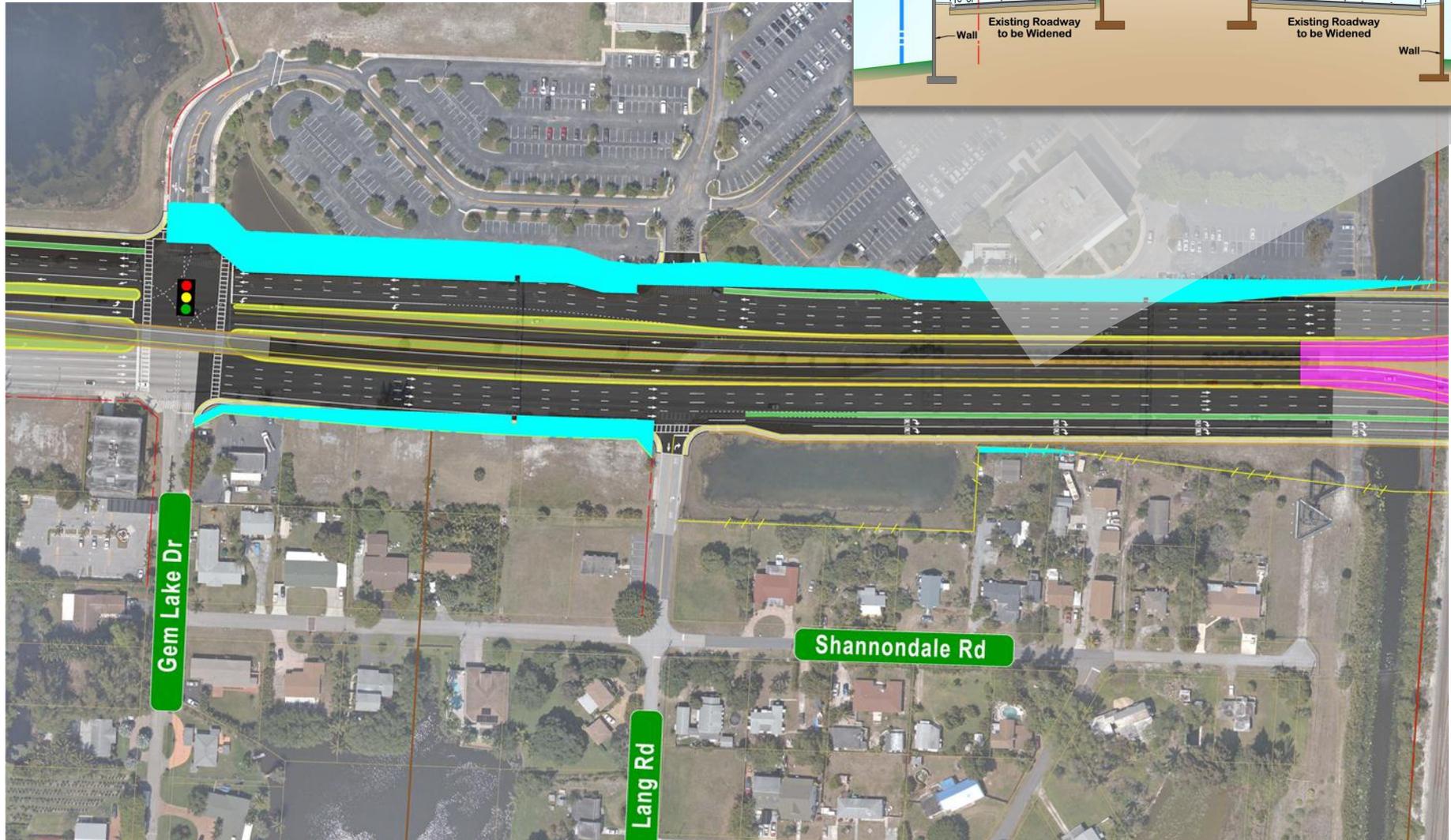
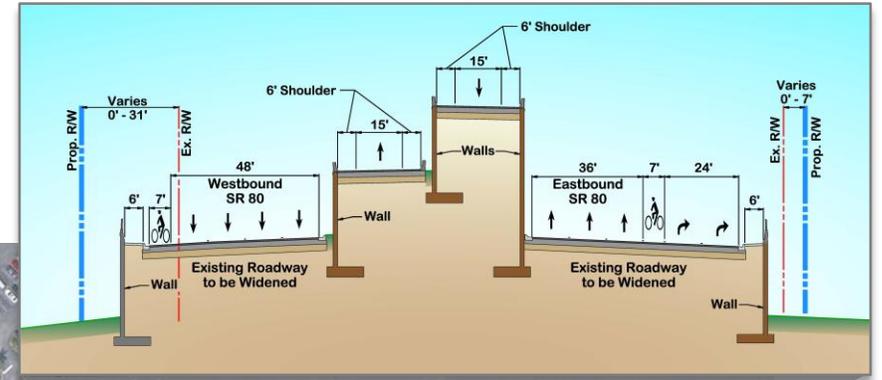


Alternative 4: SR 80 West of I-95

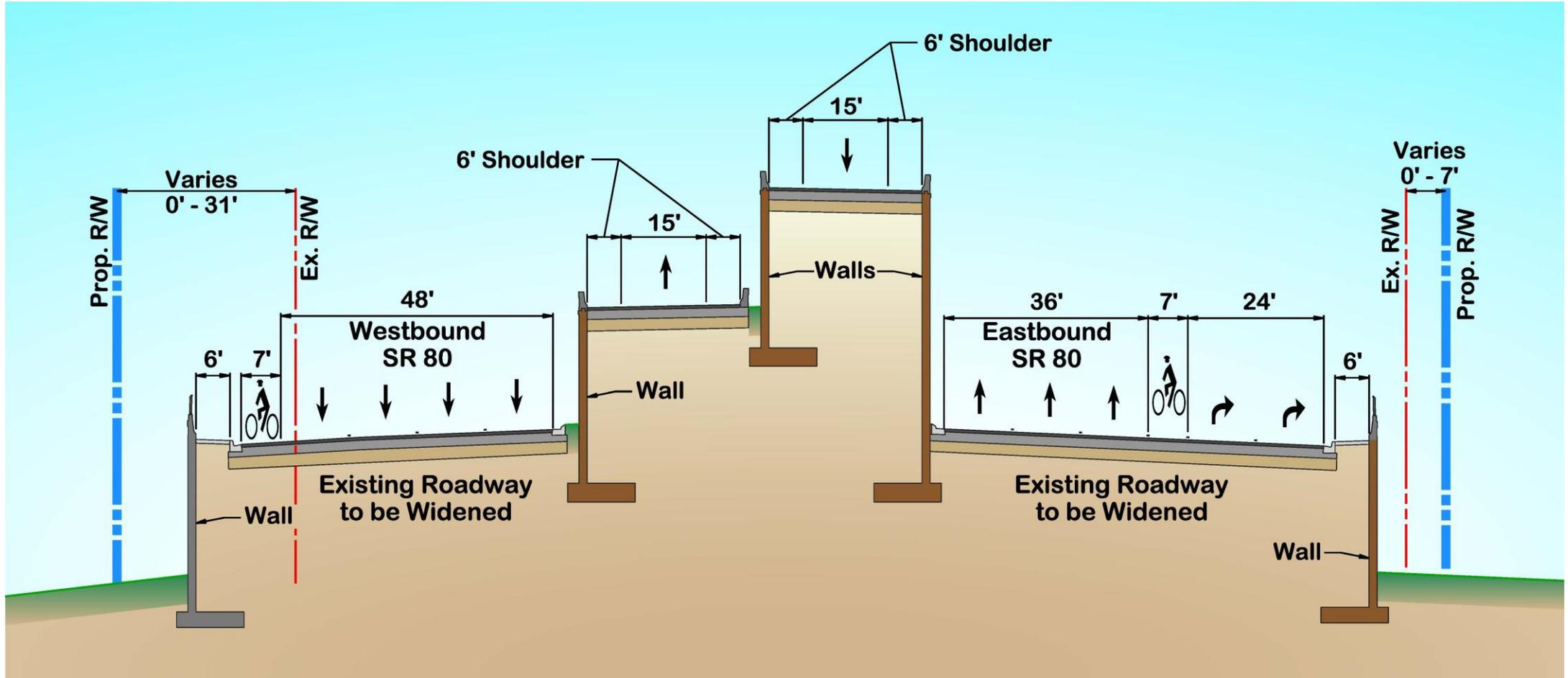


Alternative 4: SR 80 West of I-95

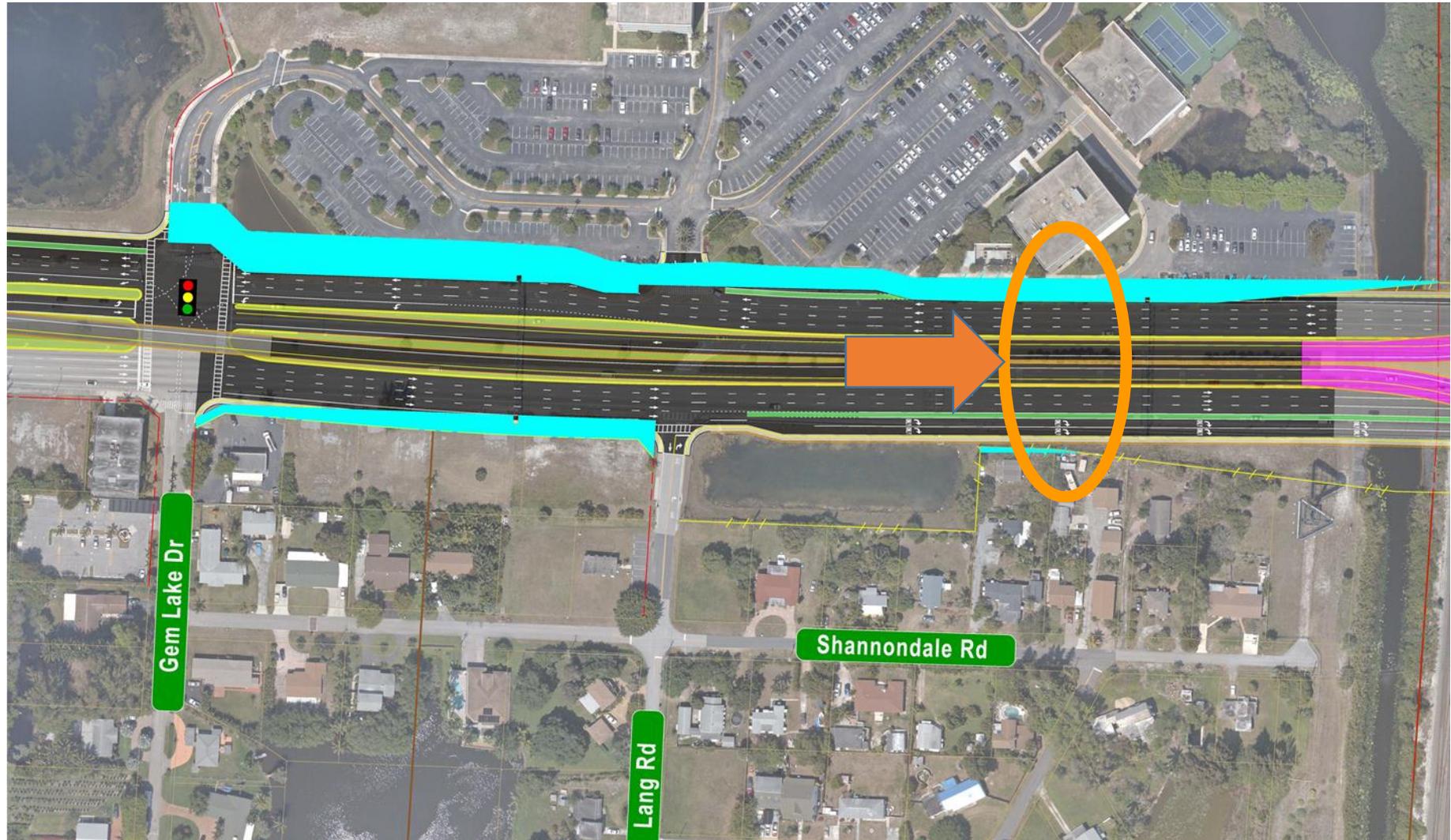
- Requires right-of-way 
 - West of I-95, north and south side of SR 80



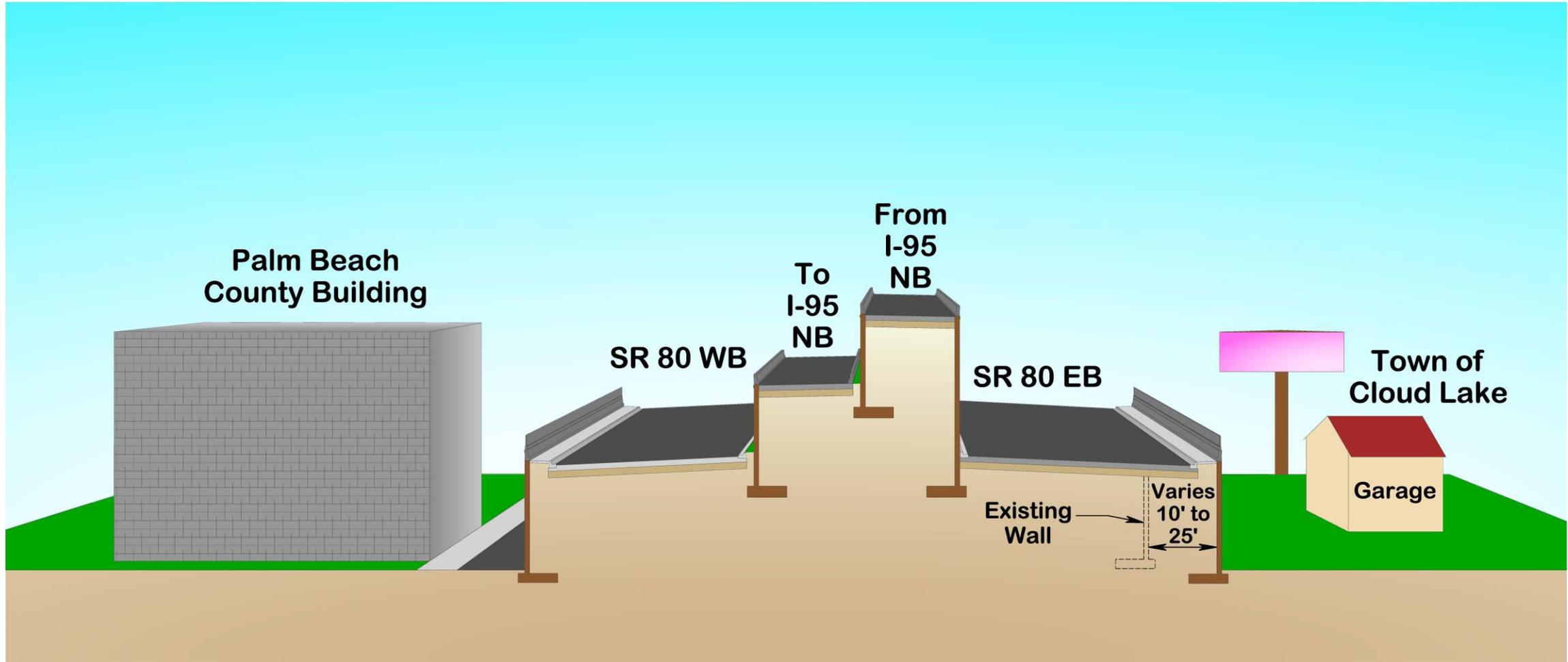
Alternative 4: SR 80 West of I-95 – Typical Section



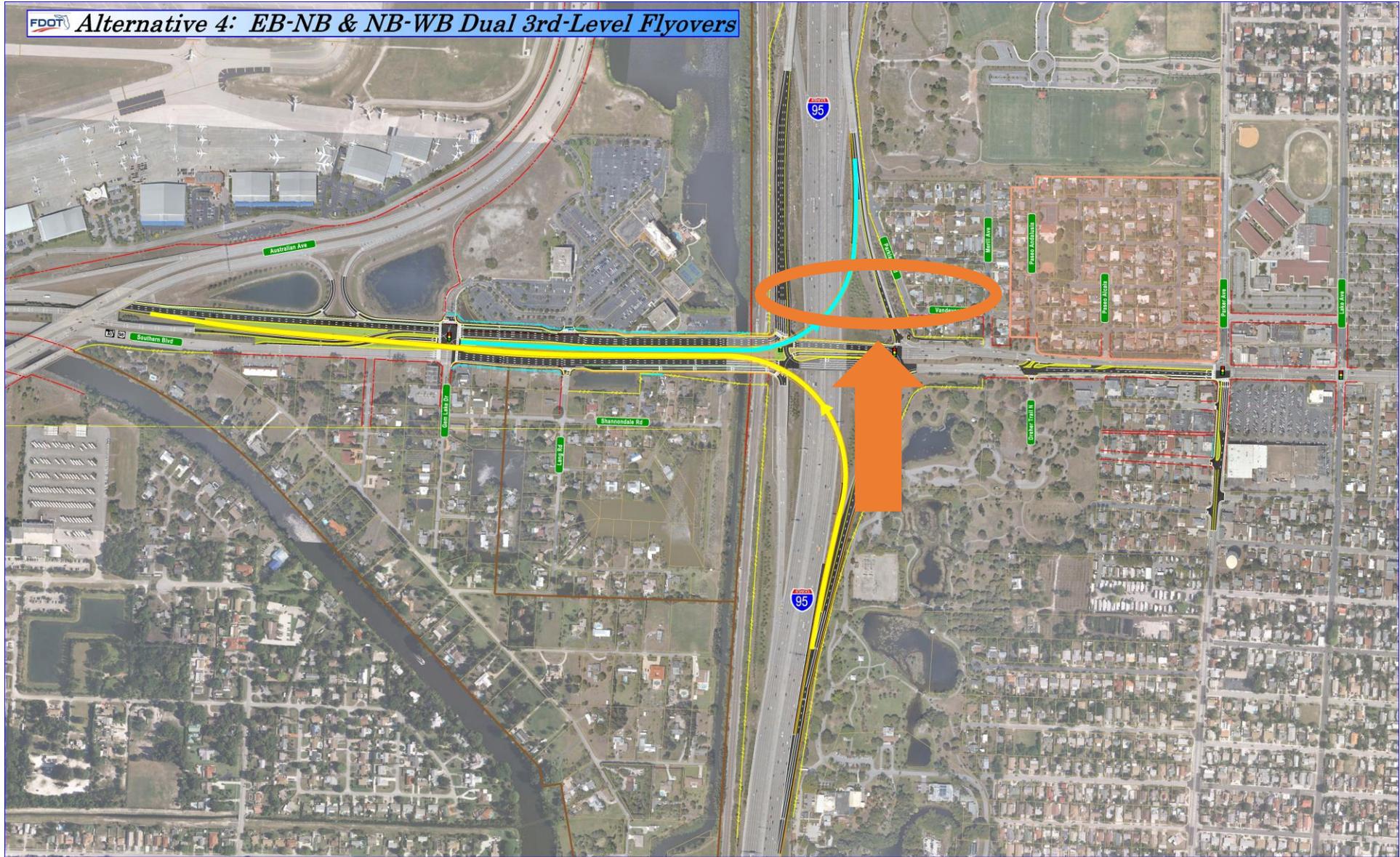
Alternative 4: Perspective View Area on SR 80 Looking East



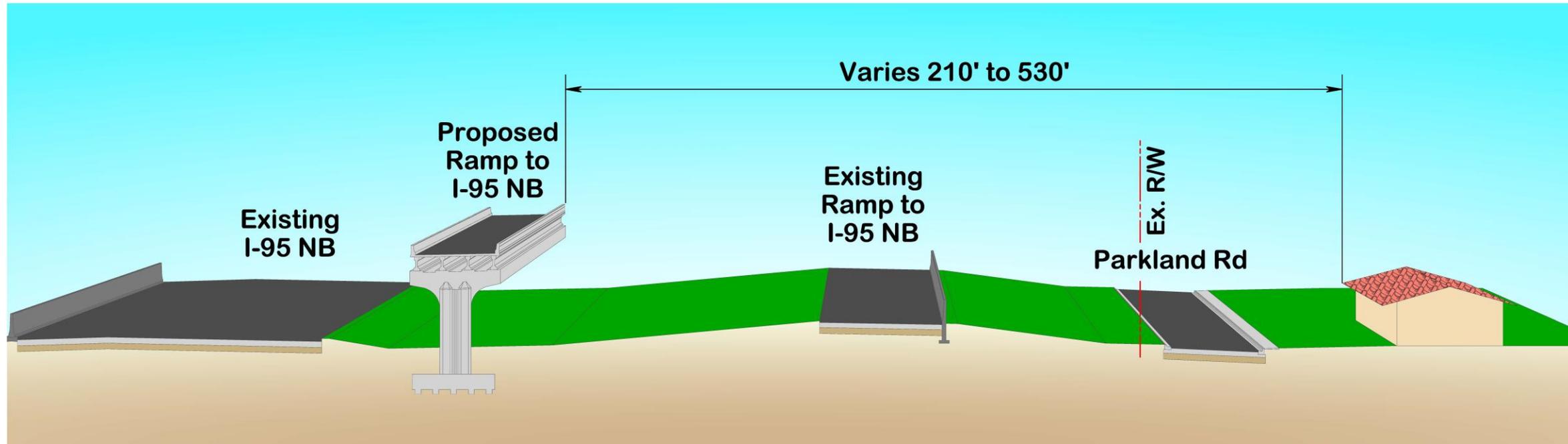
Alternative 4: Perspective View on SR 80 Looking East



Alternative 4: Perspective View Area on I-95 Looking North



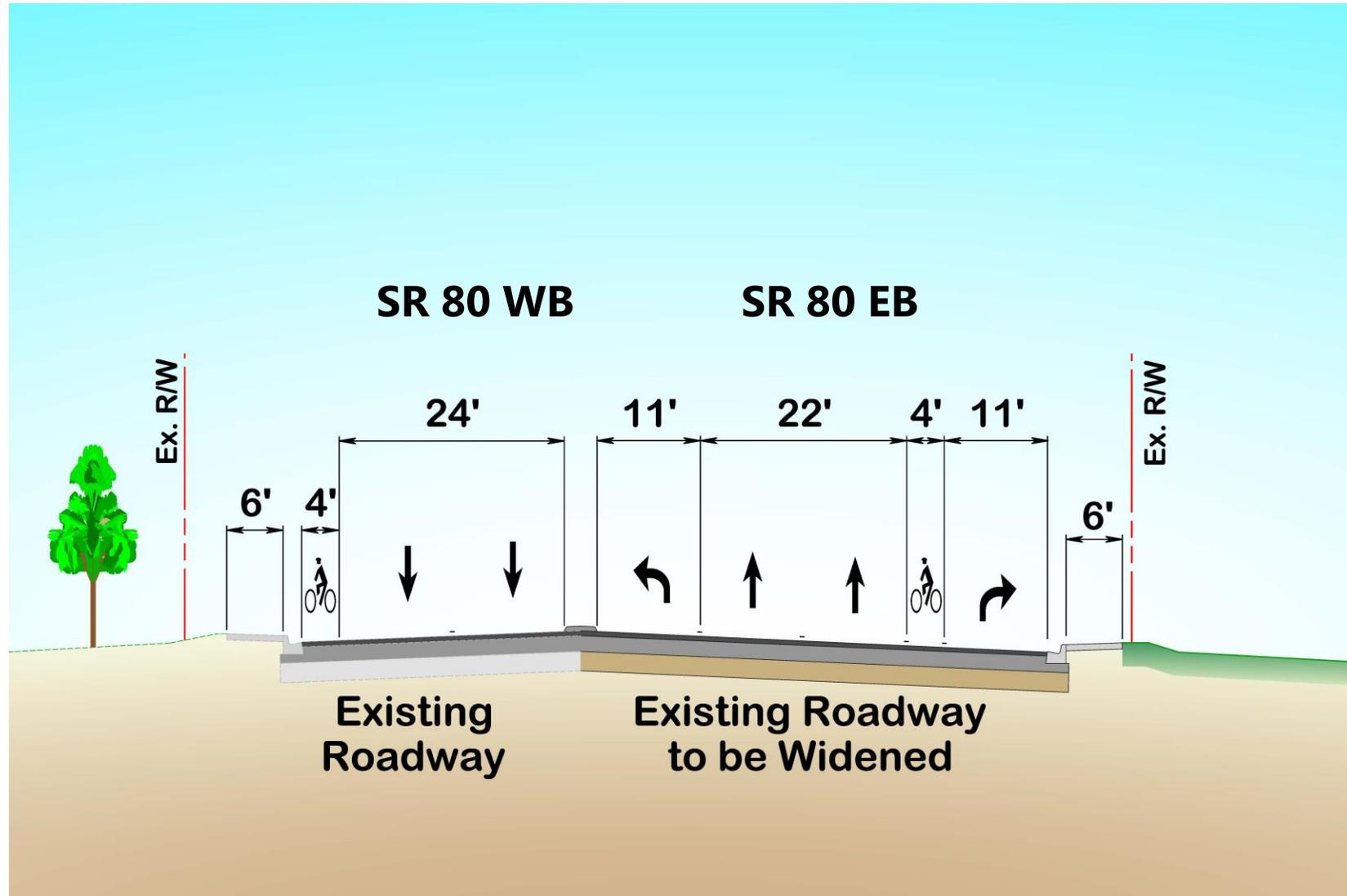
Alternative 4: Perspective View on I-95 Looking North



All Alternatives: SR 80 (East of I-95) at Parker Ave



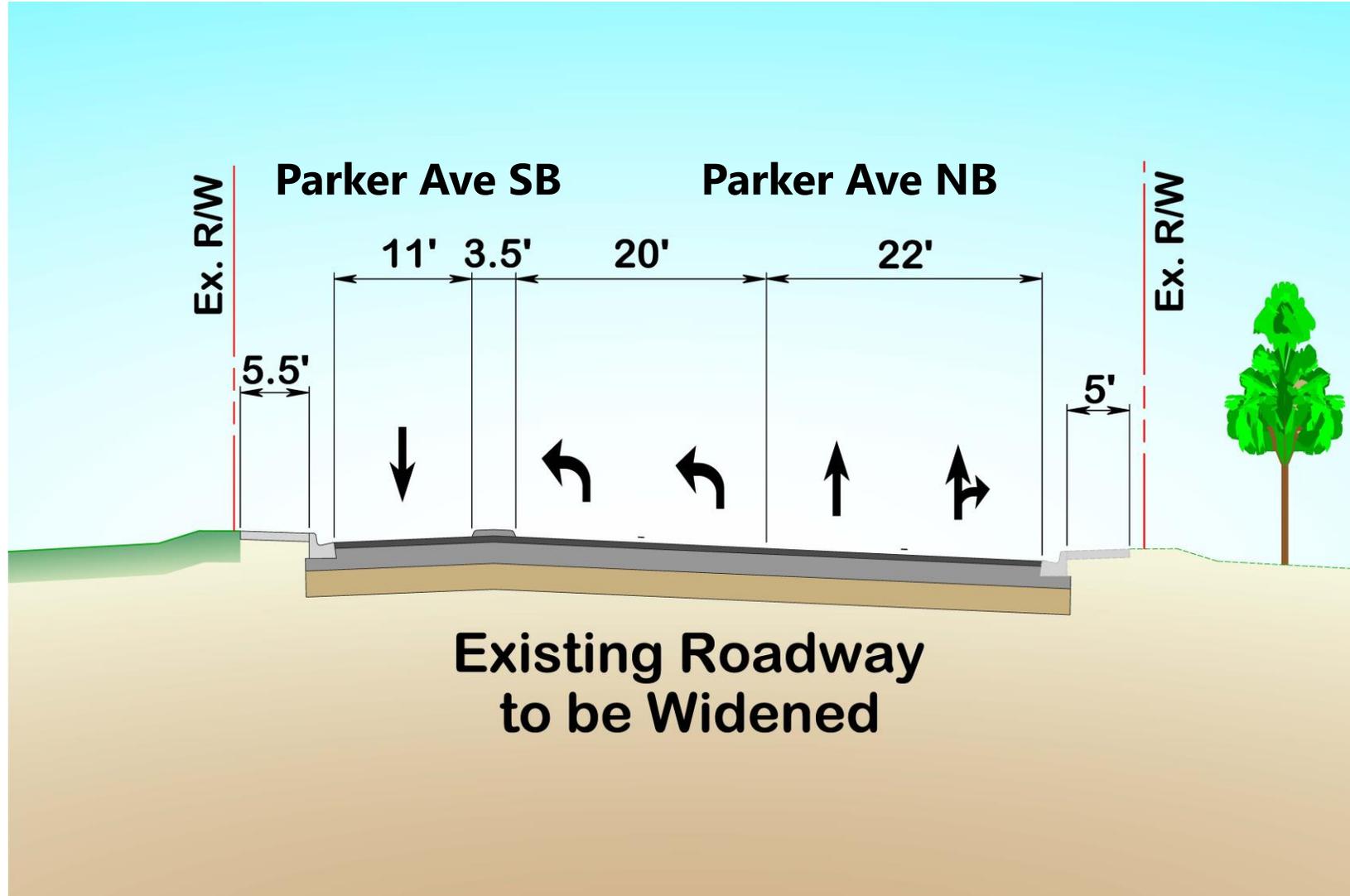
All Alternatives: SR 80 (East of I-95) at Parker Avenue



All Alternatives: Parker Avenue



All Alternatives: Parker Avenue

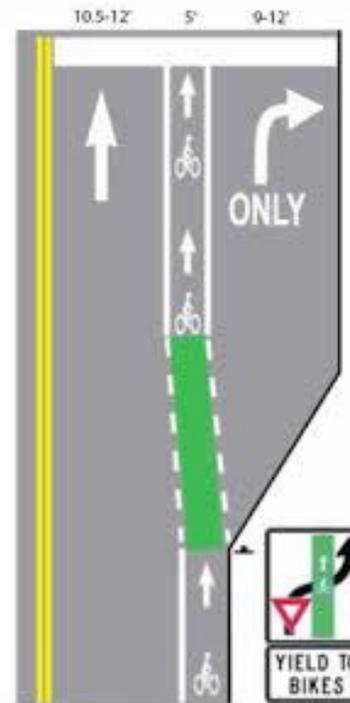
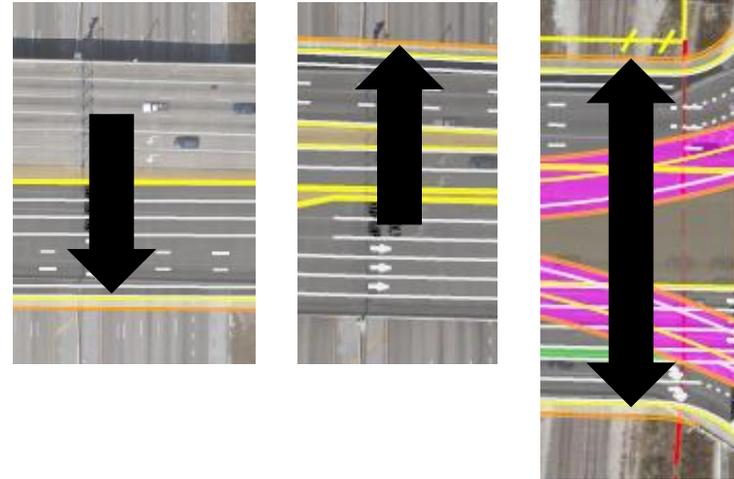


Common Improvements (all Alternatives)

- NB I-95 Exit Ramp
 - 3 at-grade left turn lanes
 - 2 right turn lanes
- NB I-95 Entrance Ramp
 - 1 free flow right turn lane
 - 2 left turn lanes
- Lang Road median - closed
- SB I-95 Exit Ramp
 - 3 right turn lanes
 - 2 left turn lanes
- SB I-95 Entrance Ramp
 - 2 right turn lanes
 - 2 left turn lanes
- No Right of Way acquisition from the Vedado Historic District

Common Improvements (all Alternatives)

- Bridge widening
- Upgraded bicycle facilities
 - Reconstruction: 7-foot, buffered bike lanes
 - Resurfacing: 4-foot bike lanes, Sharrows on Parker Avenue
 - Green pavement in bike lanes where appropriate



Common Improvements (all Alternatives)

- Upgraded pedestrian facilities
 - Reconstruction: new sidewalks
 - Resurfacing: improved ADA features
 - Special emphasis signs/markings at cross walks where appropriate
 - *High Intensity Activated CrossWalk (HAWK)*
 - *Rapid Rectangular Flashing Beacon (RRFB)*



Evaluation Matrix

CATEGORY	CRITERIA	No Build	BUILD ALTERNATIVES			
			1 NB - WB	2** 3rd / 4th	3 EB - NB	4 Dual 3rd Level
Engineering	Fully addresses Project Purpose and Need	-	-	+	-	+
	Addresses all major traffic movements at interchange	-	-	+	-	+
	Satisfies the LOS Criteria through the Design Year	-	+	+++	+	+++
	Improves Roadway / Interchange Operation	-	+	++	+	+++
	Enhances SIS System Connectivity	-	++	+++	++	+++
Environmental and Social	Historic & Archaeological Resources	0	0	0	0	0
	Public Opinion					
	Visual / Aesthetic Impacts	=	-	--	-	-
	Section 4(f) impacts (Dreher Park)	no	maybe	yes	no	maybe
Right-of-Way	Total Right-of-Way Required (# of acres)	0	1.01	1.87	0.58	1.78
Estimated Costs	Construction	0	\$55.6M	\$72.8M	\$50.4M	\$66.2M
	Right-of-way	0	\$\$	\$\$\$\$	\$	\$\$\$
**Alternative 2 has been eliminated from further evaluation.						

I-95 Express Lanes

- Are not a part of this study
- Alternatives will not preclude future express lanes
- Express Lane Direct Connect Concept is under development

Project Schedule



I-95 at Southern Boulevard (SR 80) Interchange Project Development and Environment (PD&E) Study

SCHEDULE

TASK	2015				2016				2017				2018											
	Quarter 2		Quarter 3		Quarter 4		Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 1									
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Study Begins			●																					
Data Collection																								
Public Kick-off Meeting																								
Develop and Evaluate Alternatives																								
Environmental Evaluations																								
Alternatives Public Meeting																								
Finalize Draft Engineering & Environmental Documents																								
Public Hearing																								
Submit Project Document to Federal Highway Administration (FHWA)																								
FHWA Location Design and Concept Acceptance																								

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.

LEGEND: ● Study Begins ■ Tasks 🗳️ Public Meeting ⚖️ Public Hearing ● Study Complete



Meetings Held to Date....

- Towns of Glen Ridge and Cloud Lake
- Palm Beach MPO Staff
- Palm Beach County MPO Advisory Committees
- City of West Palm Beach: Preservation Planner & Planning Staff, Parks and Recreation, Engineering
- Palm Beach County Engineering
- South Florida Regional Transit Authority (SFRTA) Staff



What's Next?

- Continuous Public Involvement
- Finalize alternatives / environmental evaluation / documentation incorporating public input
- Public Hearing
- Recommended Alternative
- Location Design Concept Acceptance (LDCA)



Contact Information

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Email: anson.sonnett@dot.state.fl.us

Project website: www.i95atSouthern.com





Thank You

