



# US 301 PD&E Study

From CR 470 E to State Road 44 in Sumter County  
FM No. 430132-1-22-01

## Alternatives Public Meeting

May 2, 2017

# NEPA Assignment

*The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the Federal Highway Administration and FDOT.*

# Title VI Compliance

*Public participation in this meeting is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting:*



Jennifer Smith

Title VI Coordinator

FDOT District Five

386.943.5367

[jennifer.smith2@dot.state.fl.us](mailto:jennifer.smith2@dot.state.fl.us)

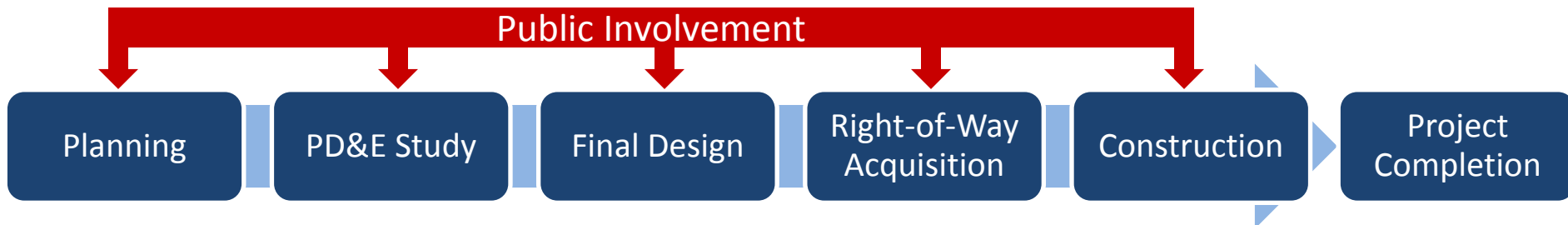
*All inquiries or complaints will be handled according to FDOT procedure and in a prompt and courteous manner.*

# Agenda

- Background
- Progress to Date
- Study Alternatives
- Evaluation Measures
- Comparison of Alternatives
- Turnpike Interchange Alternatives
- Next Steps

# What is a PD&E Study?

- Project Development & Environment (PD&E) Study
- A process to analyze a transportation project
  - Engineering
    - Identify potential design solutions
  - Environmental
    - Evaluate potential impacts to the natural, social and physical environments
  - Public Involvement
    - Seek public input



# Background



# Area Overview



# Area Overview



# US 301 Purpose and Need

Address:



Traffic growth & congestion

Accommodate:



High volume of existing and projected truck traffic



Pedestrians and cyclists

# Study Limits & Segments

- County Road (CR) 470 East to State Road (SR) 44 - 7.8 miles
- 1 South of CR 470 E to Shady Brook Drive
  - 2 Shady Brook Drive to CR 525
  - 3 CR 525 to Stokes Street
  - 4 Stokes Street to Florida's Turnpike
  - 5 Florida's Turnpike to SR 44
  - 6 Potential Realignment Area



# Progress to Date








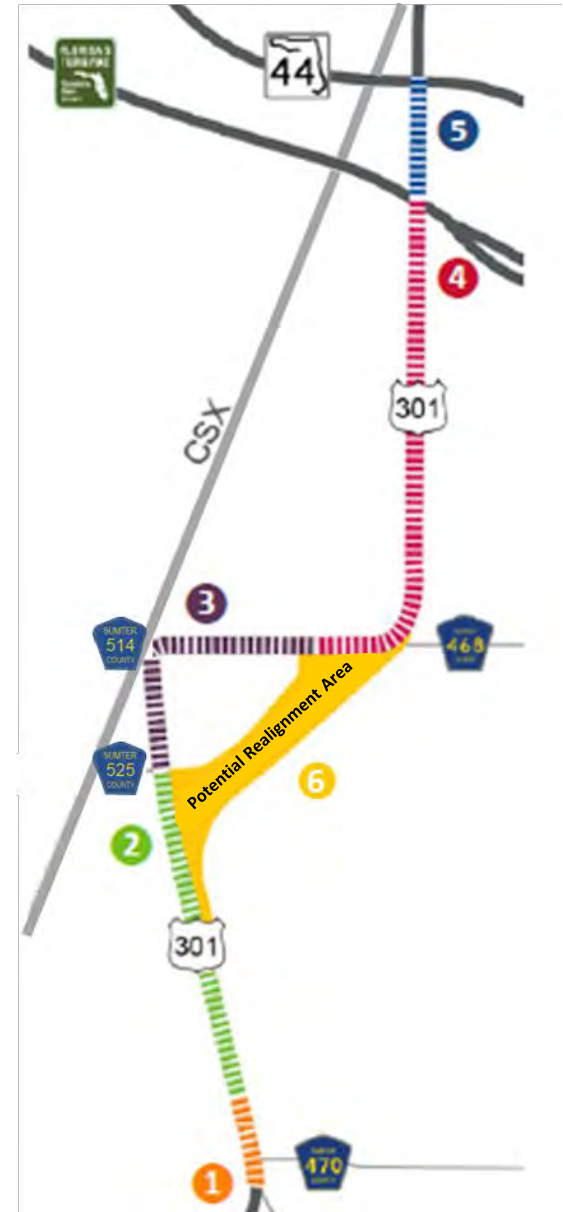
# Progress to Date

- Last Meeting – Alternatives Public Meeting # 1 September 20, 2016
  - Typical Sections Considered
  - Potential Realignment (Truck Route) Alternatives
  - Preliminary Widening Assessment



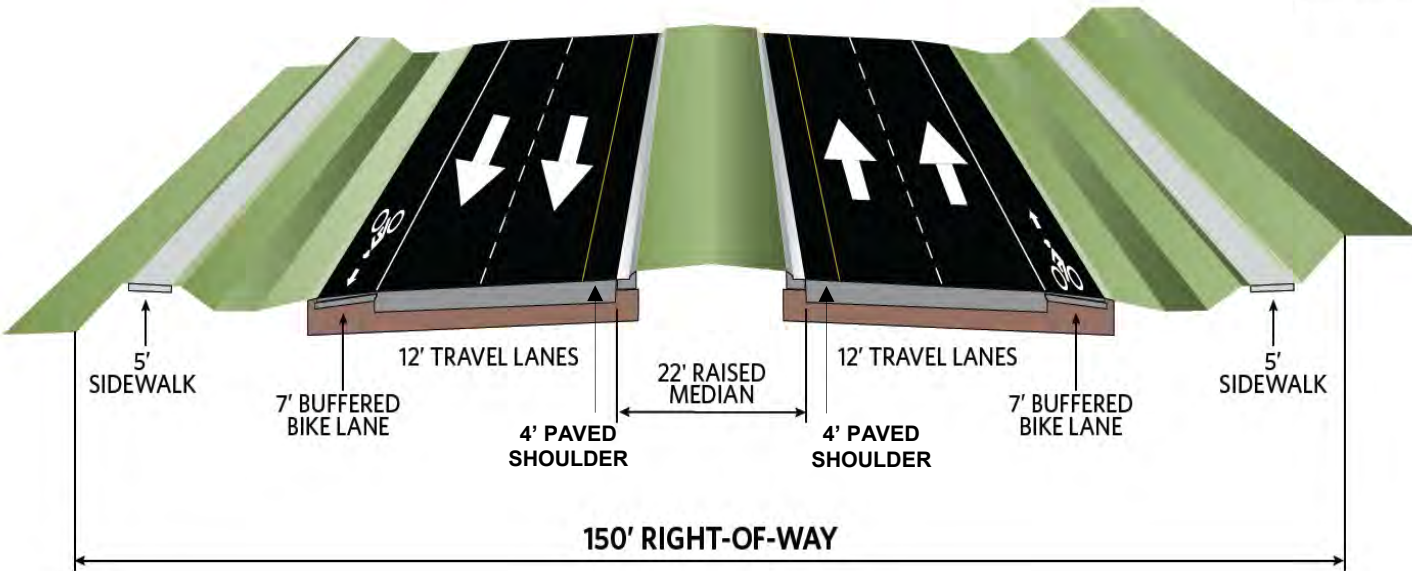
# Recommended Typical Sections (By Segment)

Segment	Urban	Suburban
1 		•
2 		•
3 	•	
4 		•
5 	•	
<b>6 - Potential Realignment</b>		•

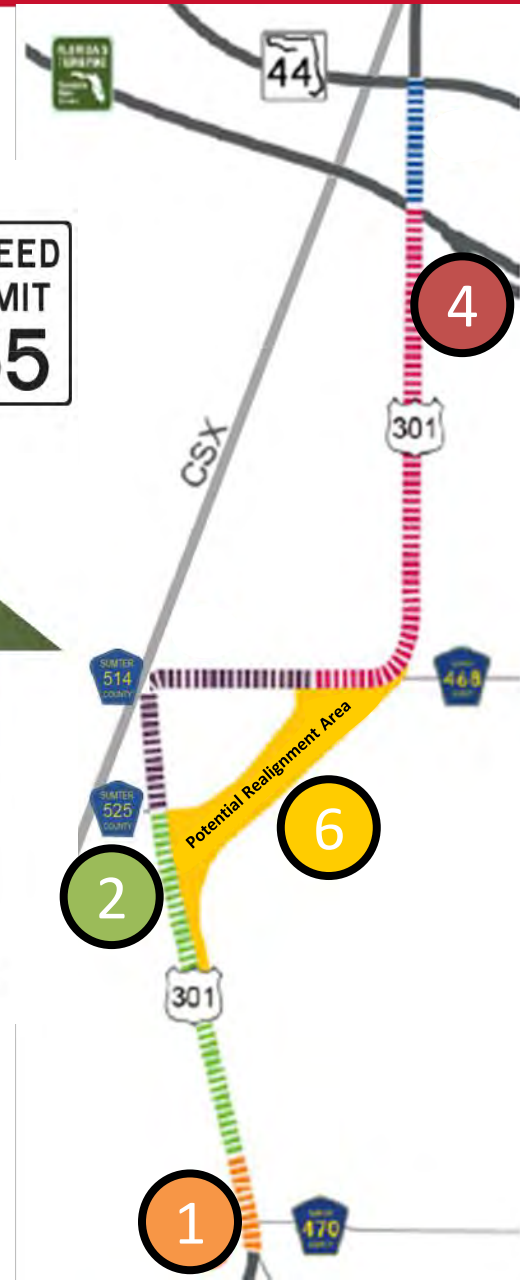


# Suburban Typical Section

- Segments 1, 2, 4 and 6

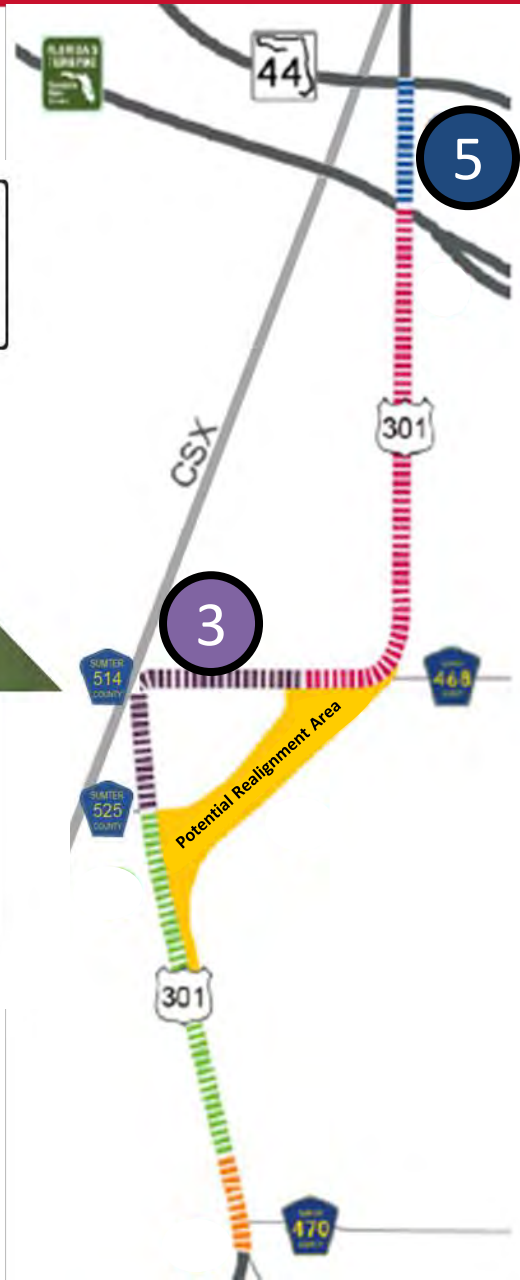
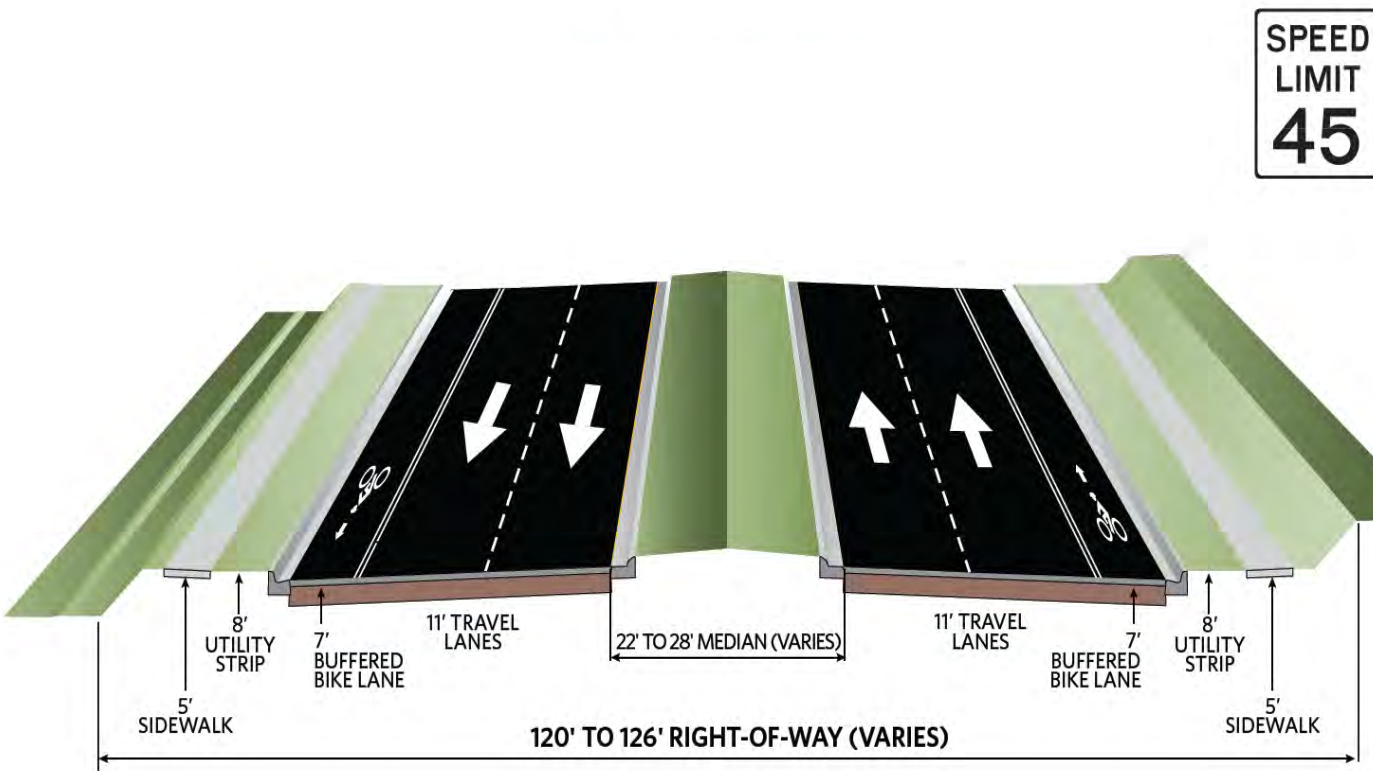


SPEED  
LIMIT  
55



# Urban Typical Section

- Segments 3 and 5



# Recommended Realignment– Corridor B/C

- Larger curve radius for US 301 at CR 468 curve
- 55 mph design speed at CR 468 curve for Suburban
- More conducive for a regionally significant thoroughfare
- Encourages through traffic to stay on US 301 & avoid community roadways



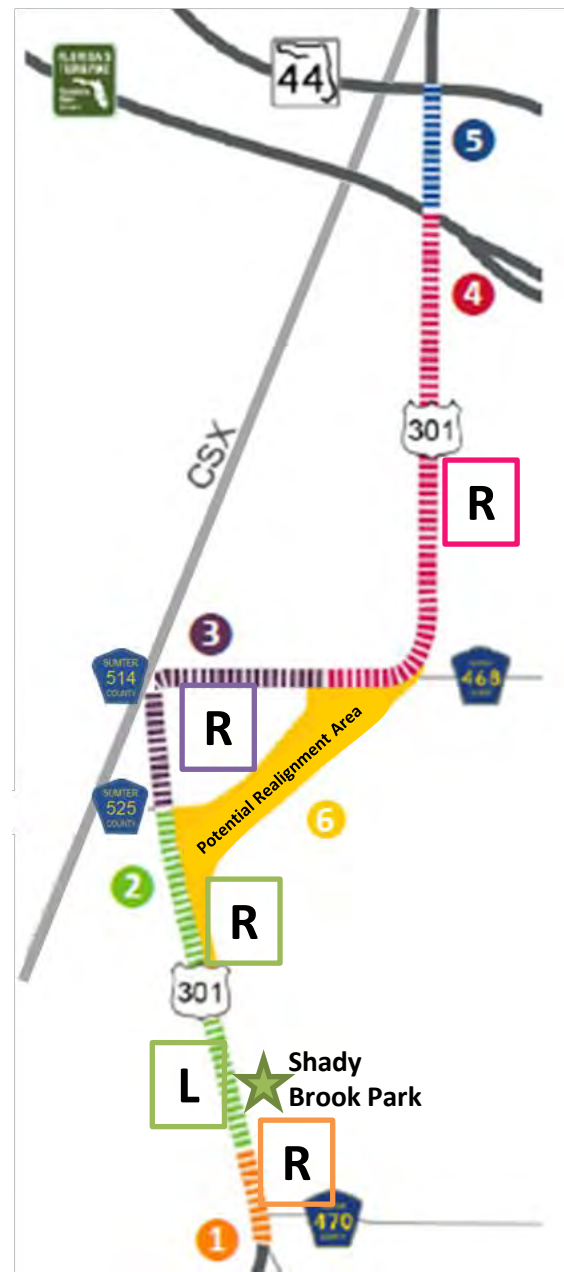
# Widening Assessment

- Screening to assess impacts
  - Potential Relocations
  - Wetland Impacts
  - Floodplain Impacts
  - Parcel Impacts
  - Impact to Utilities (Major Electrical Transmission)
  - Impact to Parks
  - Impact to Historical/Archaeological Sites
  - Impact to Potential Contamination Sites



# Best Fit Alignment

- Right-side widening in most segments
  - Segment 1
  - Segment 2
  - Segment 3
  - Segment 4
- Left-side widening in portion of Segment 2
  - Near Shady Brook Park
- Minor Property Acquisitions on Segment 5



Segment 4 –  
Best Fit  
Alignment



# Study Alternatives



# Study Alternatives

- No-Build Alternative
- Alternative 1 – Widening through Coleman
- Alternative 2 – Widening with Realignment South of Coleman



# No-Build Alternative

- No construction activity or changes to the existing roadway
- US 301 remains 2 lanes from CR 470 E to Florida's Turnpike
- No improvements for bicycles or pedestrians



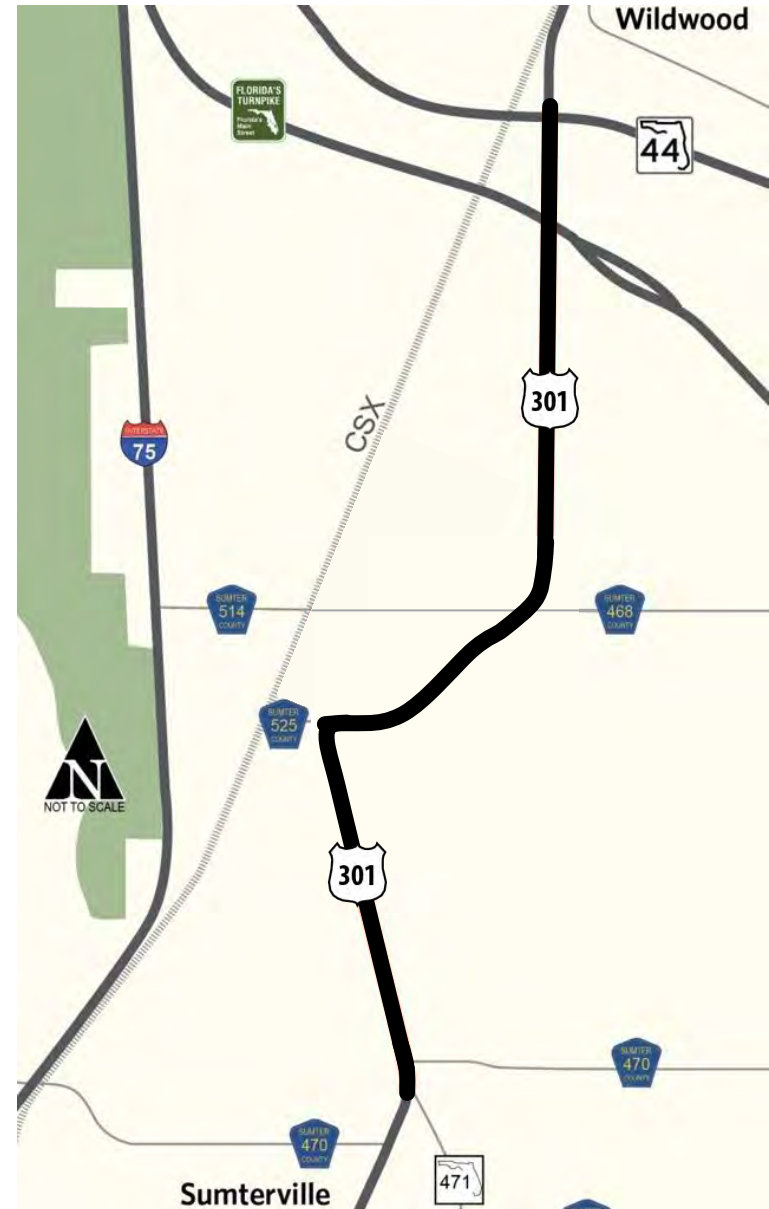
# Alternative 1: US 301 Widening

- Improve existing US 301 to 4 lanes along the entire project length
- Widening through Coleman
- Provides improvements for bicycles and pedestrians



# Alternative 2: US 301 Realignment

- Improve existing US 301 to 4 lanes from:
  - CR 470 E to CR 525
  - CR 468 to SR 44
- Realign a portion of US 301 as 4 lanes south of the City of Coleman
- Provides improvements for bicycles and pedestrians



# Evaluation Factors



# Evaluation Factors



## Social & Economic

- Consistent with Land Use & Plans
- Potential Relocations



## Physical

- Air Quality
- Noise
- Contamination



## Cultural

- Historic & Archaeological



## Roadway/Traffic

- Access Management
- Roundabouts
- Traffic Volumes & Level of Service



## Natural

- Wetlands & Floodplains
- Drainage / Stormwater Pond Alternatives
- Wildlife & Habitat



## Cost



# Social & Economic

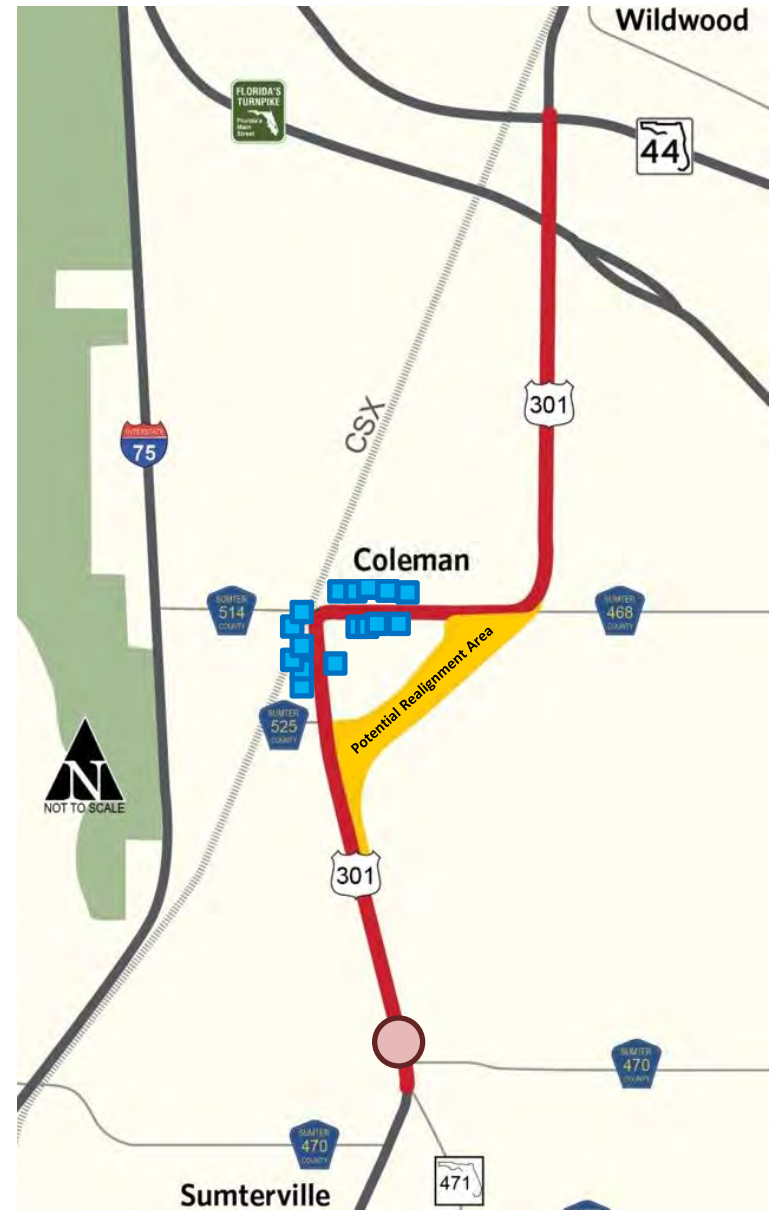
- No-Build Alternative
  - Inconsistent with Local Plans
  - Potential Relocations: 0
- Alternative 1: US 301 Widening
  - Inconsistent with Local Plans
  - Potential Relocations: **21**
- Alternative 2: US 301 Realignment
  - Consistent with Local Plans
    - City of Coleman
    - City of Wildwood
    - Sumter County
    - Lake~Sumter MPO
  - Potential Relocations: **8**





# Cultural and Historic Resources

- Archaeological survey was performed in the existing and proposed right-of-way
  - 673 shovel tests performed
  - Recommended 1 site for additional study (●)
- Historic Resources
  - 30 resources recommended as eligible for listing in the National Register of Historic Places (NRHP) (■)





# Wetlands & Floodplains

## ■ Wetland Impacts

- No-Build Alternative: 0 acres
- Alternative 1: 2.69 acres
- Alternative 2: 2.79 acres

## ■ Floodplain Impacts

- No-Build Alternative: 0 acre-ft
- Alternative 1: 10.54 acre-ft
- Alternative 2: 10.64 acre-ft





# Drainage Analysis

- 2-3 Potential Pond Sites Identified per Drainage Basin (20 basins)
  
- Pond Location Evaluation Measures
  - Constructability
  - Maintainability
  - Environmental
  - Cultural
  - Contamination
  - Right-of-Way Costs
  - Utilities





# Drainage Analysis

Potential Stormwater Pond locations are shown in detail on the display boards and the project website ([www.US301Sumter.com](http://www.US301Sumter.com))





# Wildlife & Habitat

- No adverse effects on federal or state listed species are anticipated to occur in association with the proposed project



## Occurring Species

Likelihood for Occurrence	Animal Names
<b>Low</b>	Florida Scrub-Jay; Bald Eagle; Short Tailed Snake; Red Cockaded Woodpecker; Wood Stork; Florida Pine Snake; Fox Squirrel; Florida Black Bear
<b>Moderate</b>	Burrowing Owl; Florida Sandhill Crane; Florida Eastern Indigo Snake; Little Blue Heron; Tricolor Heron
<b>High</b>	Southeastern American Kestrel; Gopher Tortoise



# Air Quality & Noise Evaluations

- Air Quality Evaluation
  - Focus on Carbon Monoxide (CO) concentrations
  - Alternatives are *not* predicted to exceed National Ambient Air Quality Standards
- Potential Noise Sensitive Sites
  - No-Build Alternative: 0
  - Alternative 1: US 301 Widening - **185**
  - Alternative 2: US 301 Realignment - **70**
  - Detailed Noise Model Analysis to be performed on the preferred alternative



# Potential Contamination Sites

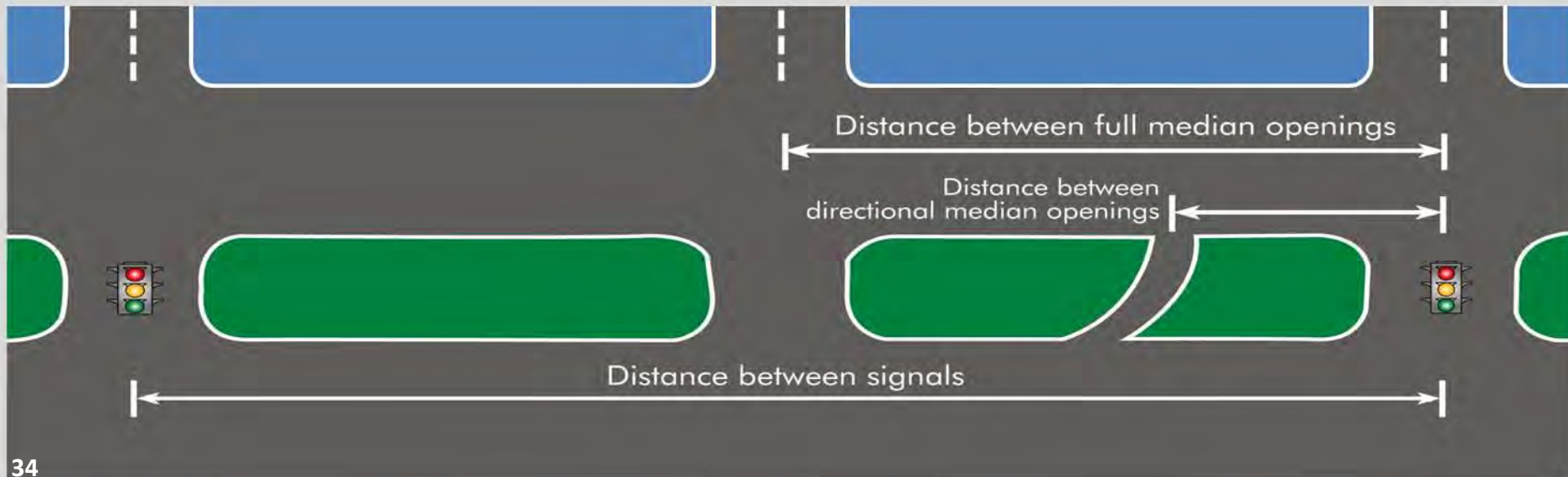
- 48 Sites Evaluated for Potential Contamination
  - No Risk: 14
  - Low Risk: 11
  - Medium Risk: 14
  - High Risk: 9





# Access Management

- Determine location, number, and spacing of
  - Driveway connections
  - Median openings
  - Traffic signals
- Improve safety and traffic flow with fewer vehicle conflicts

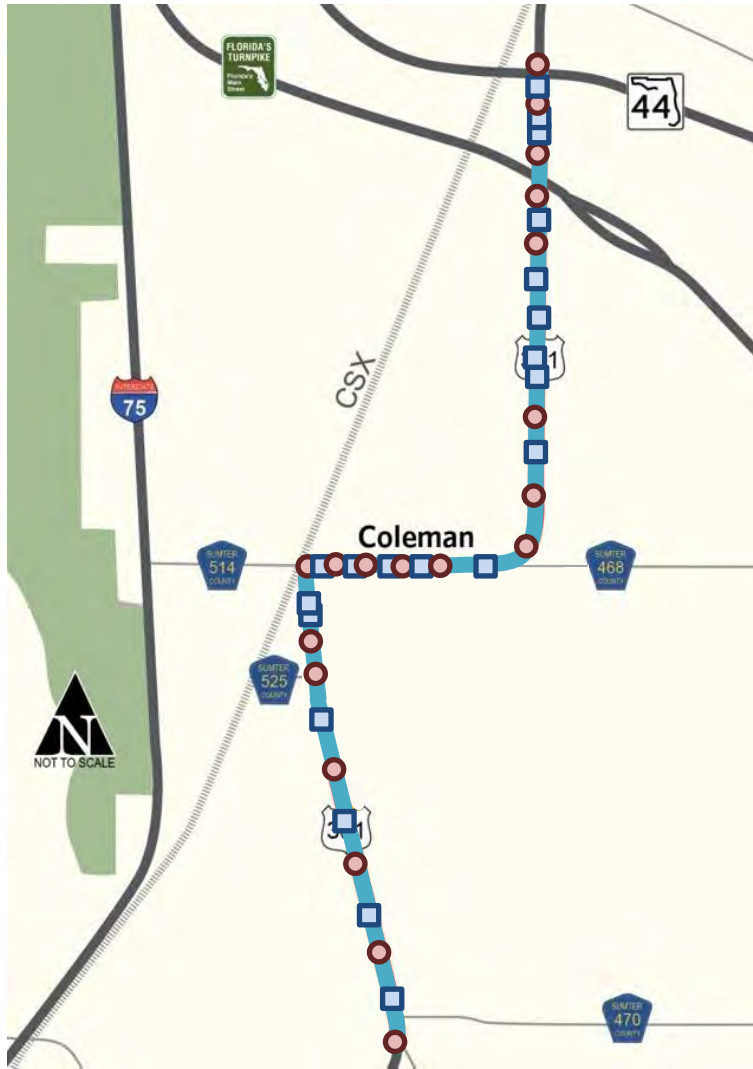




# Access Management

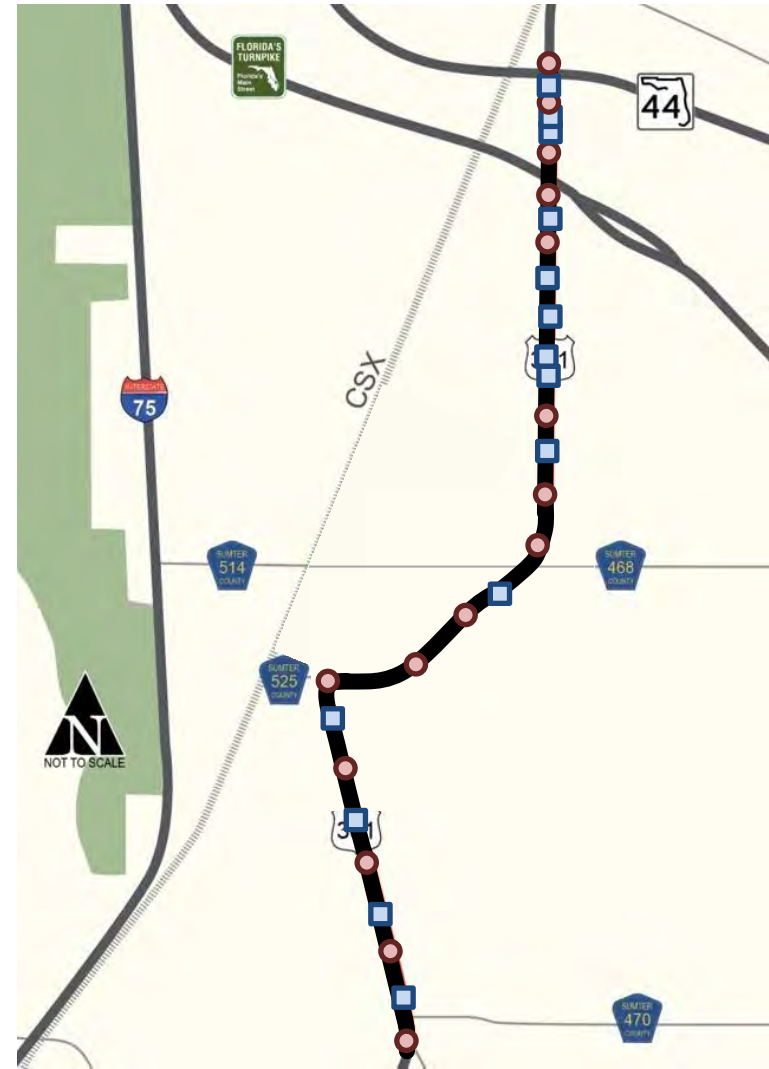
## Alternative 1: US 301 Widening

- 19 Full Median Openings (●)
- 20 Directional Median Openings (◻)



## Alternative 2: US 301 Realignment

- 16 Full Median Openings (●)
- 14 Directional Median Openings (◻)





# Roundabouts

## ■ Benefits of Roundabouts

- Fewer and less serious crashes
- Improves traffic flow with fewer stops
- Safely operates during power outages

## ■ Three intersections are under evaluation

- US 301 & CR 525 E
- US 301 & CR 468
- US 301 & Warm Springs Ave.





# 2042 Traffic & Level of Service (LOS)

## Average Daily Traffic & Peak Hour / Peak Direction LOS

US 301 Roadway Segment	No-Build Alternative	Alternative 1	Alternative 2
Turnpike to SR 44	28,000 <b>C</b>	33,000 <b>D</b>	34,000 <b>D</b>
CR 521 to Turnpike	21,000 <b>E</b>	22,000 <b>D</b>	23,000 <b>D</b>
Realigned – CR 525 E to CR 521	---	---	22,000 <b>C</b>
Existing – CR 525 E to CR 521	22,000 <b>F</b>	22,000 <b>D</b>	9,600 <b>C</b>
CR 470 E to CR 525E	26,000 <b>E</b>	28,000 <b>B</b>	30,000 <b>B</b>

Examples of Level of Service

A/B



C/D



E/F





# Project Cost Estimates




Phase	Alternative 1: US 301 Widening	Alternative 2: US 301 Realignment
Design	\$6,200,000	\$5,600,000
Right-of-Way	\$26,070,000	\$26,090,000
Construction	\$62,300,000	\$55,500,000
Construction Engineering & Inspection	\$6,200,000	\$5,600,000
Mitigation	\$308,000	\$320,000
<b>Total Preliminary Cost*</b>	<b>\$101 Million</b>	<b>\$93 Million</b>

*\*Includes the costs for an interchange.*




# Comparison of Alternatives



# Alternatives Evaluation Matrix

Criteria	No-Build	Alternative 1 Widening	Alternative 2 Realignment
 <b>Social &amp; Economic</b>			
Consistency with Existing & Future Land Use	No	No	Yes
Preserves Community Integrity / Cohesiveness	Medium	Low	High
Right-of-Way (parcels / acres)	0 / 0	144 / 95.8	110 / 110.6
Potential Relocations	0	21	8
Community Service Impacts	0	2	1
 <b>Cultural</b>			
Potential Section 4(f) Impacts	N/A	High	Low
Historic Resources Eligible for NRHP	N/A	12	0
Potential Archaeologically Eligible Sites	N/A	1	1
Recreation Area Impacts	N/A	0	0
 <b>Natural</b>			
Wetland Impacts (acres)	0	2.69	2.79
Outstanding Florida Waters	1	1	1
Floodplains Impacts (acre-ft)	0	10.54	10.64
Potential Wildlife and Habitat Impact	N/A	Low	Low

# Alternatives Evaluation Matrix

Criteria	No-Build	Alternative 1 Widening	Alternative 2 Realignment
 <b>Physical</b>			
Potential Noise Sensitive Sites	N/A	<b>185</b>	<b>70</b>
Potential Constructability Issues	None	<b>High</b>	<b>Medium</b>
Potential Contamination Sites (Low/Medium/High)	N/A	8 / 11 / 7	6 / 8 / 6
Aesthetic Impacts	None	<b>Medium</b>	<b>Low</b>
Bike and Pedestrian Accommodation	<b>Low</b>	<b>Medium</b>	<b>High</b>
Utility & Railroad Impacts	None	<b>High</b>	<b>Medium</b>
 <b>Roadway/Traffic – US 301 Segments - Daily Traffic &amp; Level of Service (2042)</b>			
Turnpike to SR 44	28,000 / <b>C</b>	33,000 / <b>D</b>	34,000 / <b>D</b>
CR 521 to Turnpike	21,000 / <b>E</b>	22,000 / <b>D</b>	23,000 / <b>D</b>
Realigned – CR 525 E to CR 521	---	---	22,000 / <b>C</b>
Existing – CR 525 E to CR 521	22,000 / <b>F</b>	22,000 / <b>D</b>	9,600 / <b>C</b>
CR 470 E to CR 525E	26,000 / <b>E</b>	28,000 / <b>B</b>	30,000 / <b>B</b>
 <b>Project Costs (in millions)</b>			
Total Preliminary Cost	-	\$101 Million	\$93 Million

# Interchange Alternatives



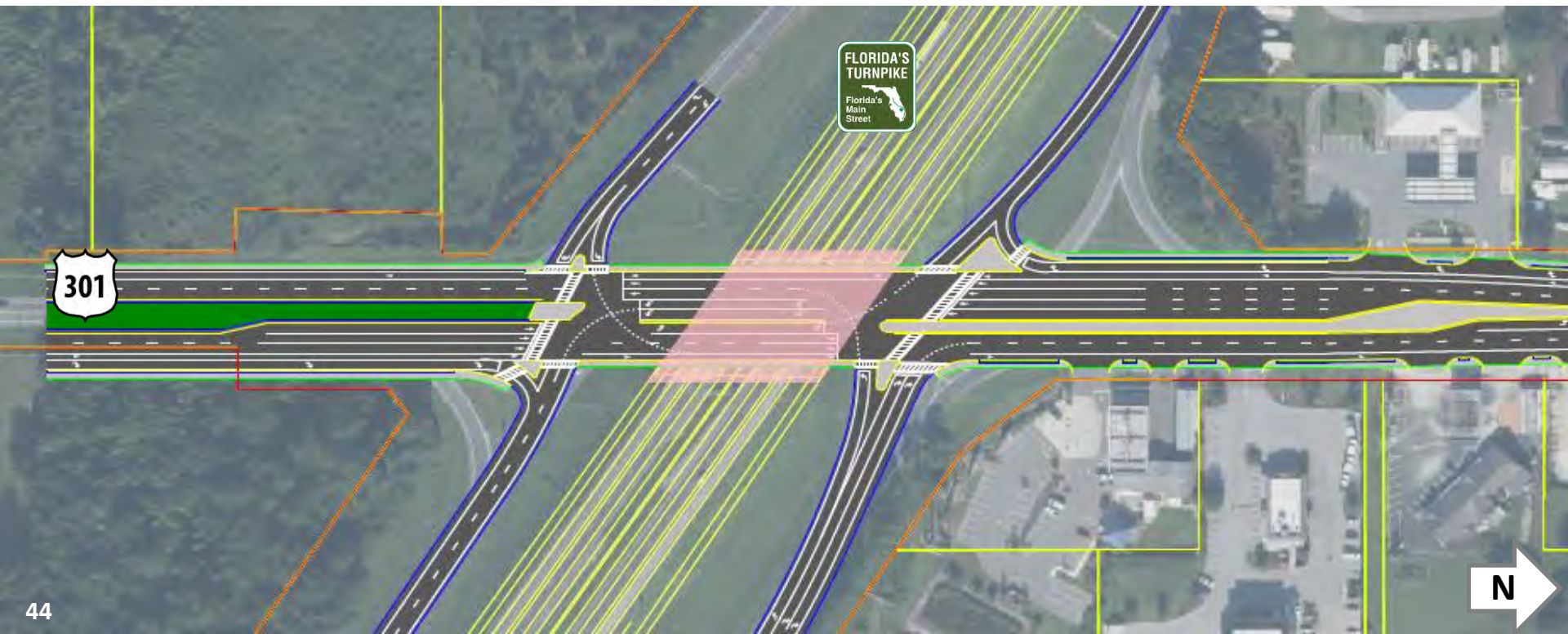
# Interchange Alternatives

- US 301
  - Will be 4 Lanes
- Florida Turnpike Widening
  - Will be 8 Lanes
- Two Interchange Alternatives Under Analysis



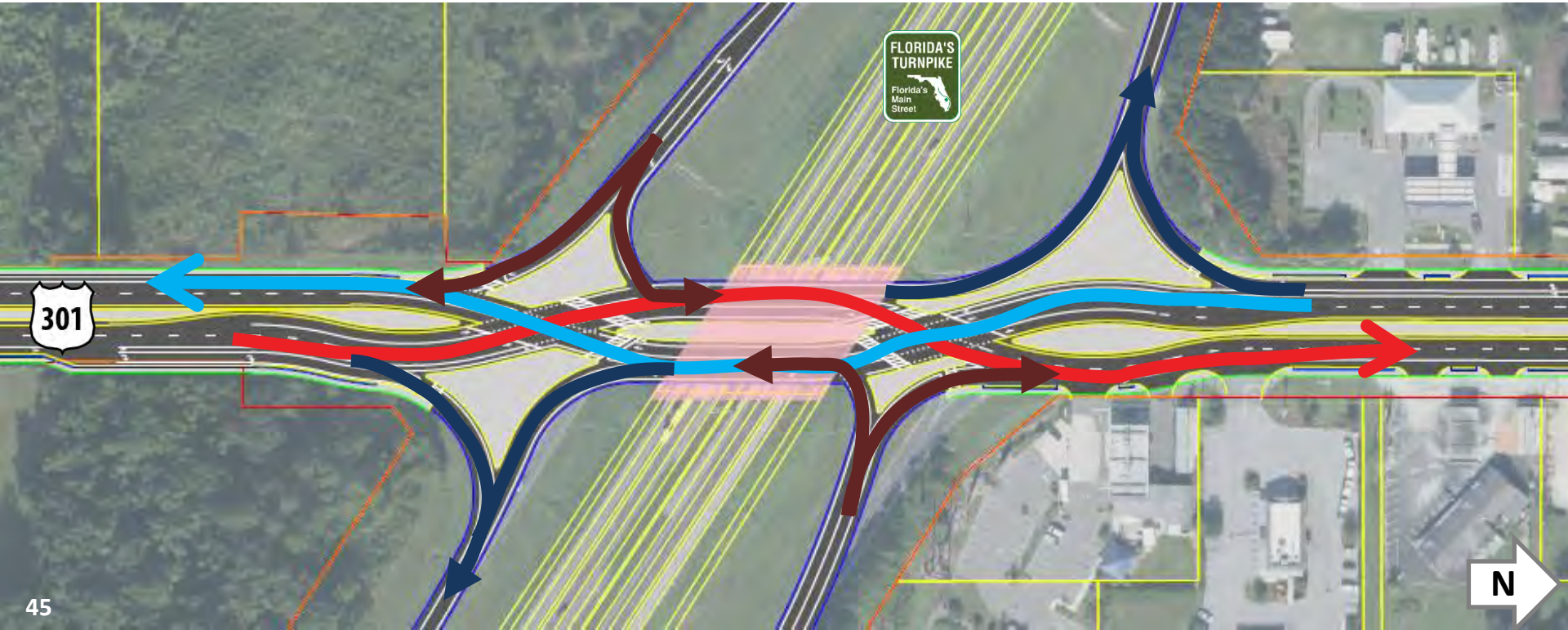
# Tight Urban Diamond Interchange (TUDI)

- Similar to existing interchange
- Replace existing bridges
- Signalize US 301 & Turnpike Ramp intersections



# Diverging Diamond Interchange (DDI)

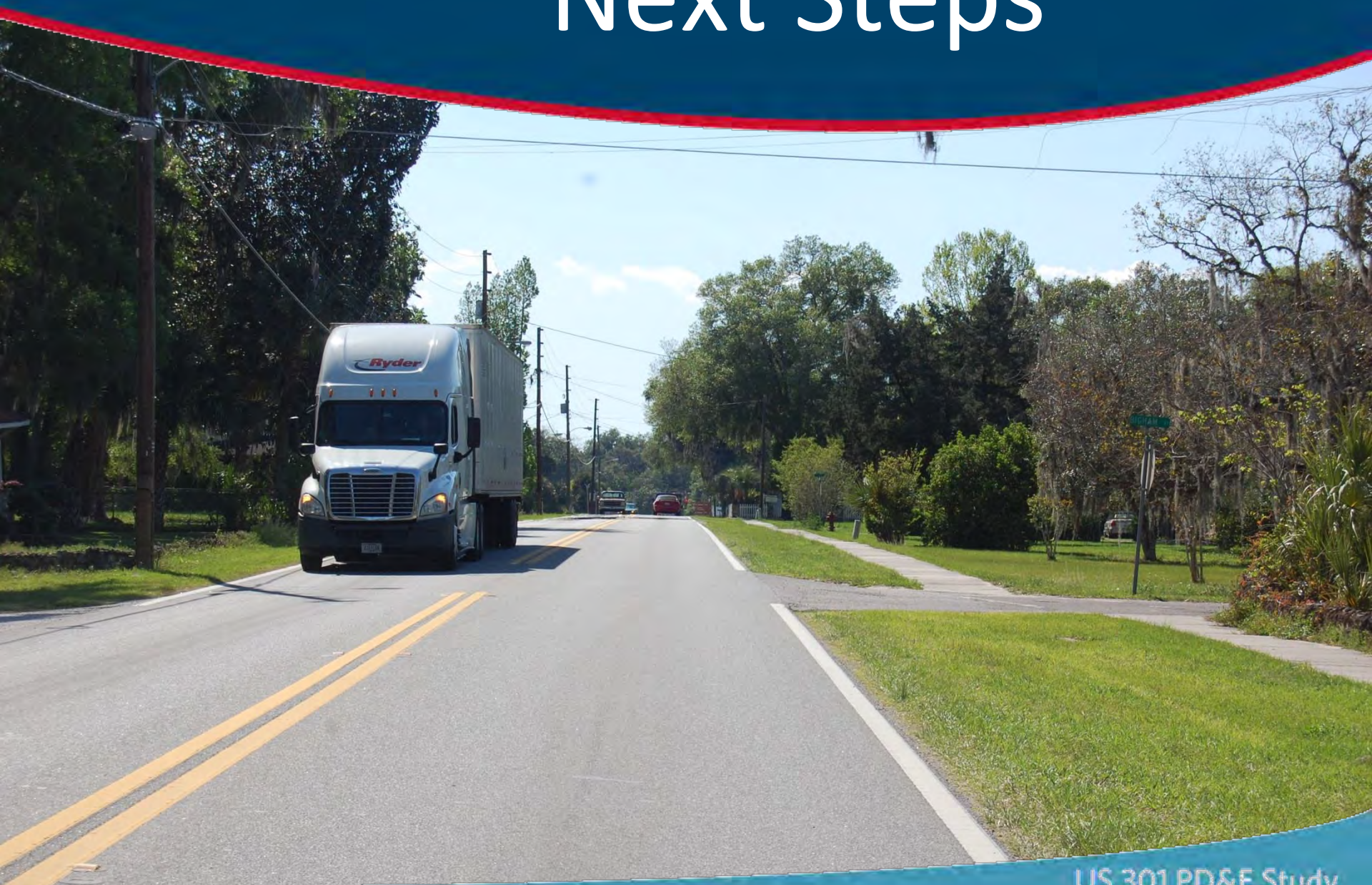
- Replace existing bridges
- Shorter bridge
- New traffic flow
- Signalize US 301 crossover points



# Interchange Alternatives Evaluation

Criteria	No-Build	TUDI	DDI
<b>Design Year Traffic (2042) &amp; Safety</b>			
Potential Crash Reduction	<b>Low</b>	<b>Medium-Low</b>	<b>Medium-High</b>
Avg Network Delay per vehicle (sec/vehicle) AM/PM	577 / 999	14 / 16	18 / 18
US 301 & North Ramps Intersection LOS (AM / PM)	<b>E / E</b>	<b>B / B</b>	<b>C / C</b>
US 301 & South Ramps Intersection LOS (AM / PM)	<b>B / D</b>	<b>C / C</b>	<b>C / B</b>
US 301 NB approach Level of Service & max queue length - AM	<b>F / 7,495 ft</b>	<b>C / 754 ft</b>	<b>D / 774 ft</b>
US 301 NB approach Level of Service & max queue length - PM	<b>F / 6,925 ft</b>	<b>C / 571 ft</b>	<b>D / 596 ft</b>
<b>Other</b>			
Min. distance from a ramp to nearest driveway	<b>20 ft</b>	<b>100 ft</b>	<b>100 ft</b>
Parcel / Business Impacts	0 / 0	0 / 0	0 / 0
Bridge Length	N/A	170 ft	162 ft
US 301 Design Speed through Interchange	45 mph	45 mph	35 mph

# Next Steps



# PD&E Process – Next Steps



## Kick-Off Meeting

## Realignment PAG Meetings

## 1<sup>st</sup> Alternatives Public Meeting

## 2<sup>nd</sup> Alternatives Public Meeting

## Public Hearing

## PD&E Complete

- Introduce study and team
- Obtain feedback on study objectives

- Obtain feedback on Realignment (truck route) alternatives
- Refine realignment concepts

- Obtain feedback on:
  - Typical sections
  - Realignment corridors
  - Preliminary widening assessment

- Present Study Alternatives
- Present Turnpike Interchange Alternatives
- Obtain feedback on study alternatives

- Present Preferred Alternatives
- Take formal public comments

- Location Design & Concept Acceptance

**December 2014**

**July 2015  
April 2016**

**September 2016**

**May 2017**

**Late 2017**

**Summer 2018**

# Funding



## Design

- Funded for 2020



## Right-of-Way Purchase

- Currently not funded



## Construction

- Currently not funded

# Closing



## Individual Discussions & Questions at Boards



## Comment Forms

- Return at sign-in table
- Complete and Mail
- Website

[www.US301Sumter.com](http://www.US301Sumter.com)



# Project Contacts



Mary McGehee

Project Manager

FDOT District Five

386.943.5063

[mary.mcgehee@dot.state.fl.us](mailto:mary.mcgehee@dot.state.fl.us)

Jeff Arms, PE, AICP

Consultant Project Manager

HDR

407.420.4249 (office)

407.595.3193 (mobile)

[jeff.arms@hdrinc.com](mailto:jeff.arms@hdrinc.com)



Brad Cornelius, AICP

Public Information Coordinator

Wade Trim

8010 Woodland Center Blvd, Suite 1200

Tampa, FL 33614

813.882.4373 (office)

813.888.7215 (fax)

813.415.4952 (mobile)

[bcornelius@wadetrim.com](mailto:bcornelius@wadetrim.com)

[www.US301Sumter.com](http://www.US301Sumter.com)