

 October 28-29, 2025
 Orlando, FL

**TRANSPORTATION
SYMPOSIUM**

District 2

Starke Railroad Overpass Enhancing Mobility, Safety & Community Access

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Shannon Mobley

Transportation Symposium
Website

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Project Purpose

Primary:
Develop a grade
separated railroad
overpass for Starke

Secondary:
Regional Mobility



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Agenda

1. Planning & PD&E
2. Design
3. Construction
4. Post Construction
5. Lessons Learned
6. Contact Us
7. FDOT Safety Message



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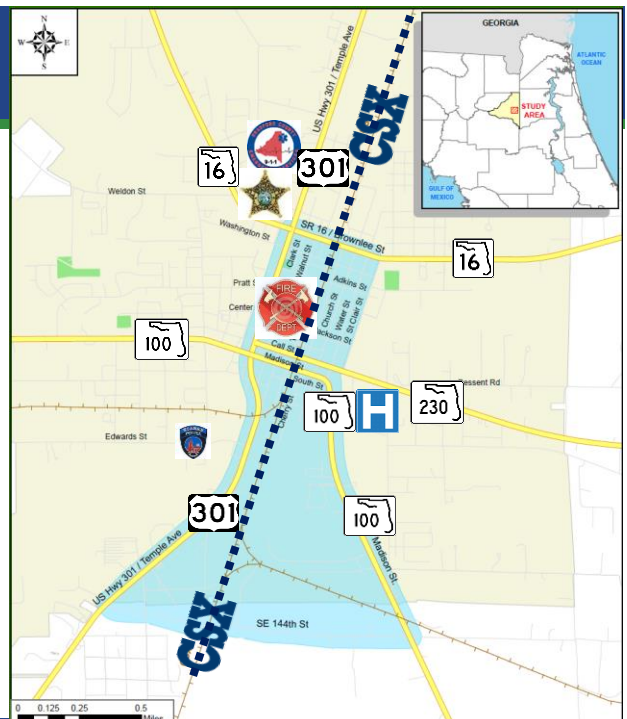
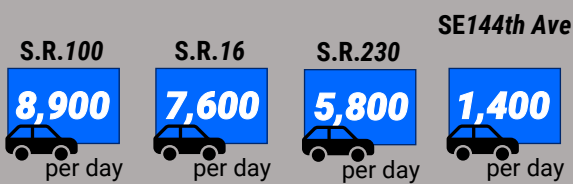
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Project Need

US 301 parallels CSX S Line

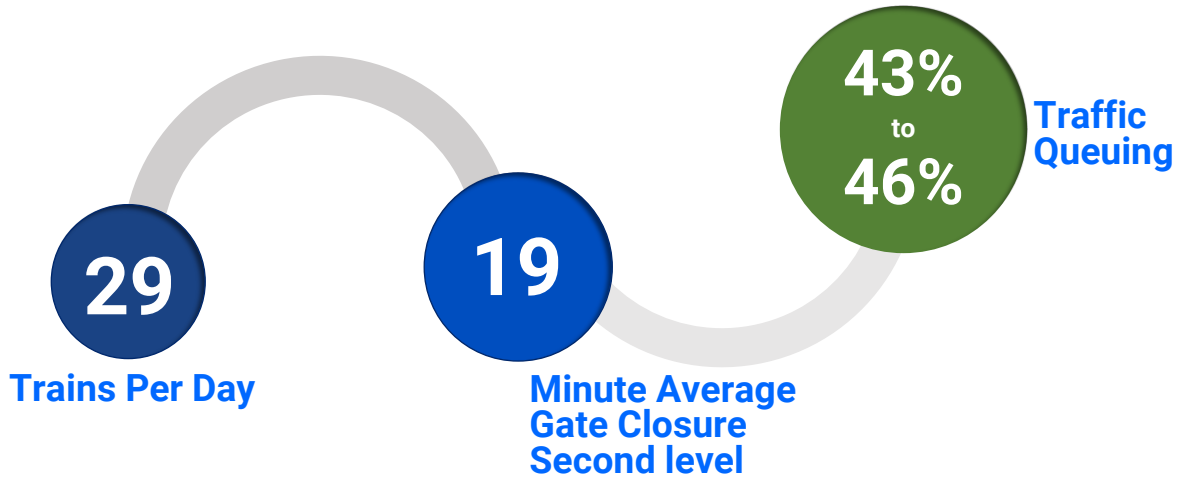
Emergency services located on west side
while the hospital is on the east side

Several major east-west arterials



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Project Need



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Project Need

- 9 "At-grade" railroad crossings.
- 7 Railroad crossings located within 1 mile of each other.



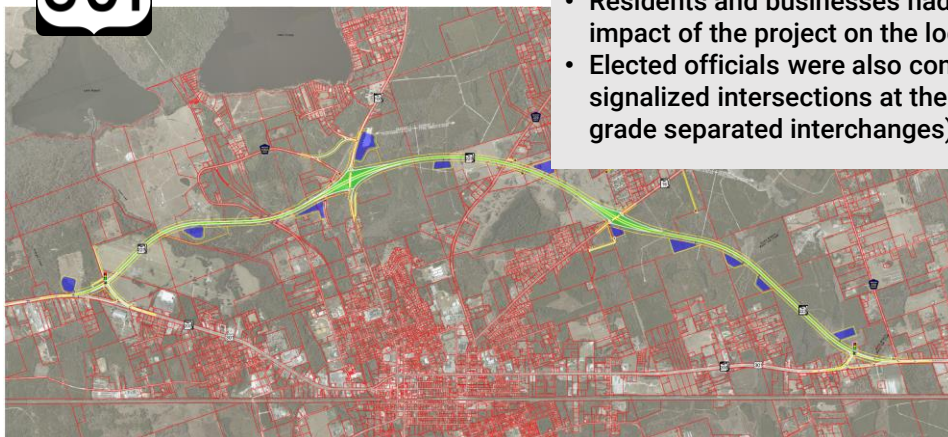
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Biggest Hurdle



Starke Alternate Truck Route

- Construction began June 2016 and opened to traffic September 13, 2019.
- Nearly 20 years of analysis from planning to construction.
- Residents and businesses had concerns regarding the impact of the project on the local community.
- Elected officials were also concerned about the signalized intersections at the connections (wanted grade separated interchanges).



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Community Engagement

Project Kickoff
Meeting

April 6, 2015

Alternatives
Public Meeting

August 17, 2015

Alternatives
Public Meeting

January 4, 2016

Public Hearing

June 28, 2016

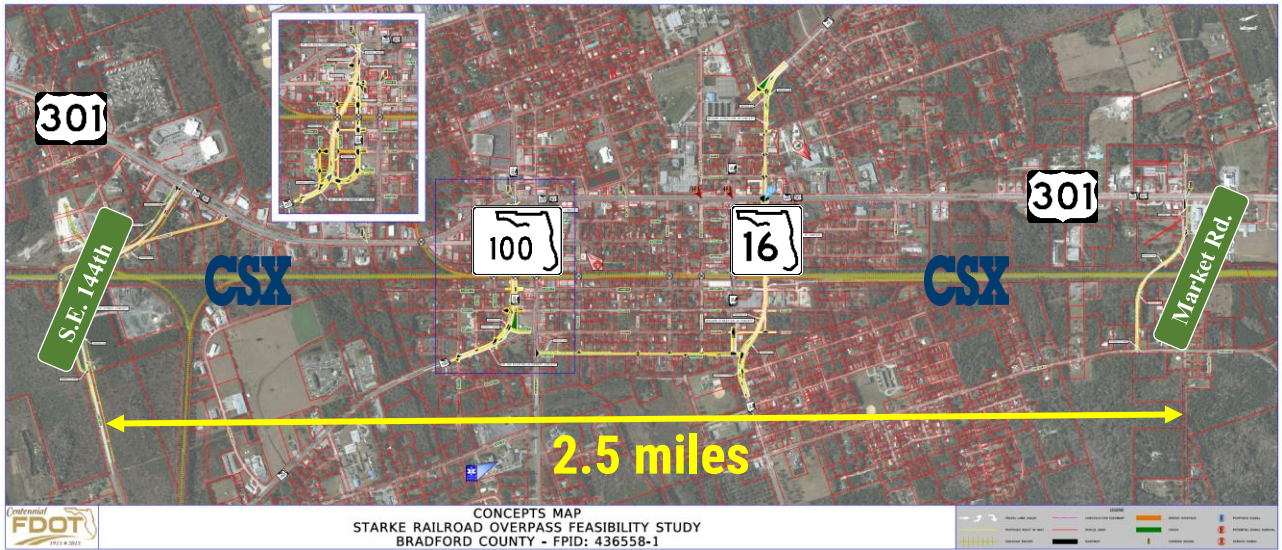


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April 2015 Kickoff Meeting - Early Alternatives



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April 2015 Kickoff Meeting - S.R. 100

100 Realignment Concept



100 Existing Alignment Concept



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April 2015 Kickoff Meeting - Lessons Learned

Narrowed the focus to two alternatives:

1. SR-100

- Updated cost estimate and improved concept
- Revisited Maintenance of Traffic (MOT) to enhance feasibility and minimize disruption
- Prioritized aesthetics to reduce community impacts and preserve character
- Focused on connectivity to local street network
- Met with the City and Chamber to align on goals and gather input

2. SE 144th Avenue

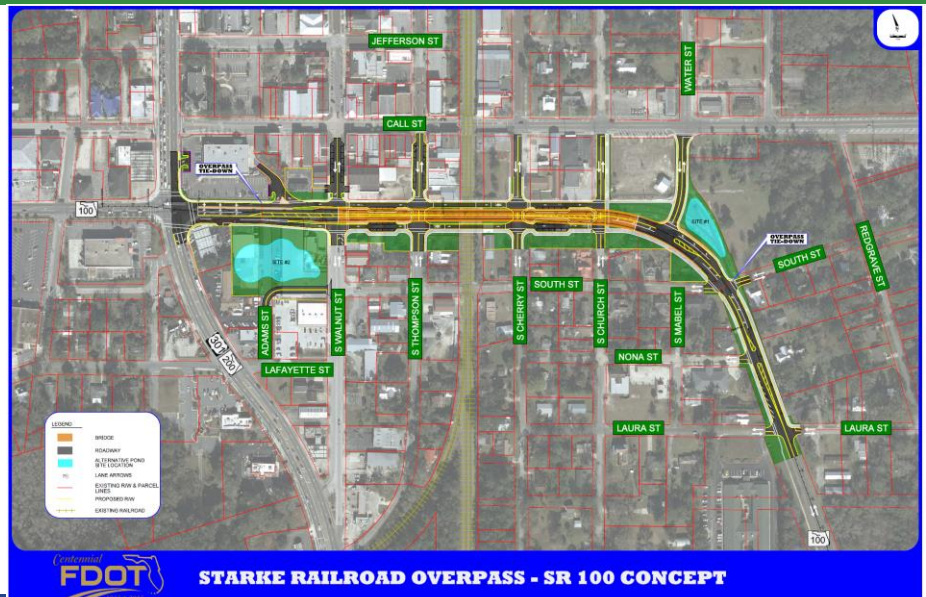
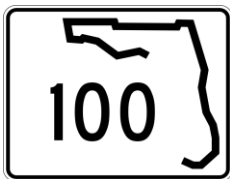
- Updated cost estimate and improved concept

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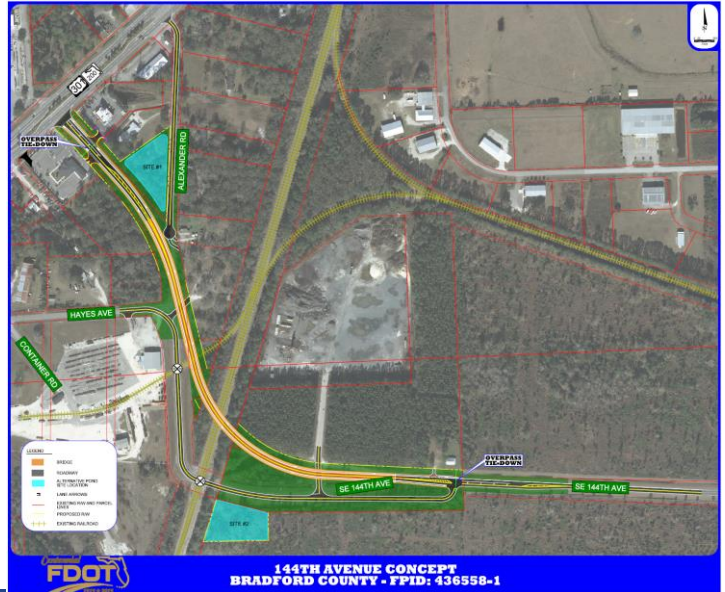
August 2015 Alt's Meeting – S.R. 100 Alternative



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August 2015 Alt's Mtg – SE 144th Ave Alternative

S.E. 144th Ave



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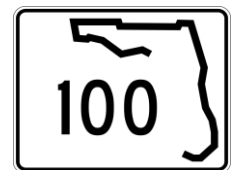
January 2016 Alt's Meeting – S.R. 100 Alternative

Pros

- Centrally located with the highest traffic volumes among alternatives
- Supports both regional and local traffic
- Offers the most direct route to the hospital—critical for emergency response vehicles
- Closest route to the Starke Fire Station
- Located on a state road, enabling FDOT funding for bridge inspection and maintenance
- Enhances safety and access for non-motorists through a complete street approach
- Improves connectivity and access to recreational areas

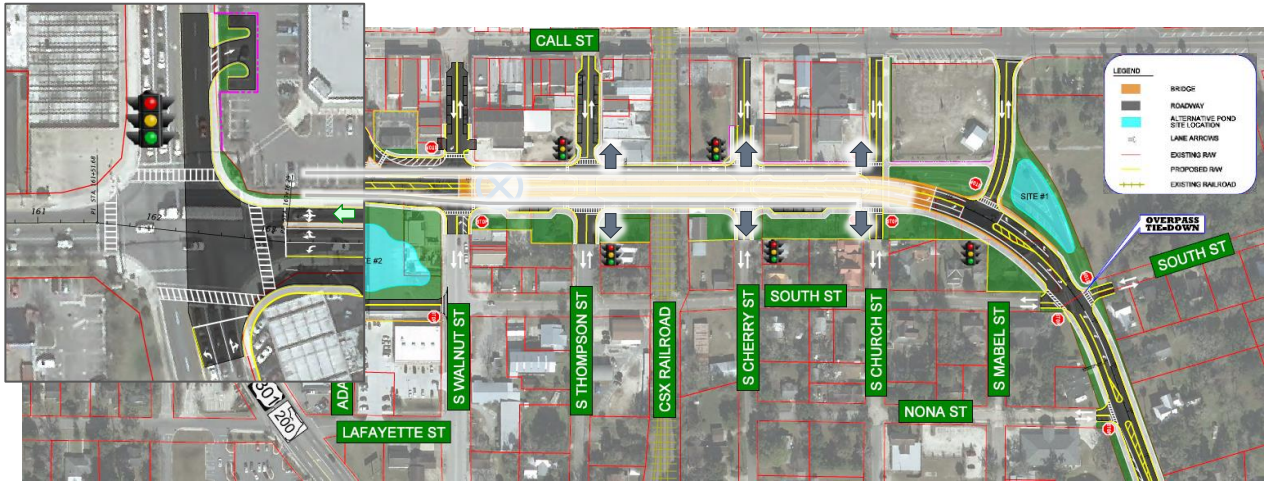
Cons

- Impacts to business and residential properties including relocations
- Walnut Street will no longer connect through the SR 100 intersection
- Temporary disruption to local traffic during construction
- Adjustments to local traffic patterns (closure of Walnut Street to thru traffic)



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January 2016 Alt's Meeting – S.R. 100 Alternative



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January 2016 Alt's Mtg - Aesthetic Options



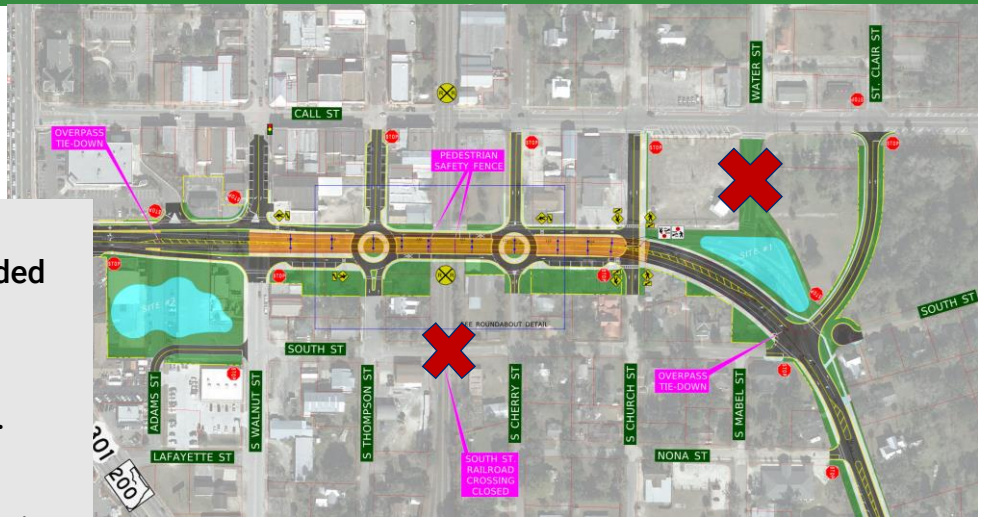
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June 2016 Public Hearing - Challenges

- Water Street needed to be realigned.
- Existing railroad crossings closed.
 - South Street
 - Adkins Street
 - One additional location



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June 2016 Public Hearing




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Environmental Document

<p align="center">FDOT STATE ENVIRONMENTAL IMPACT REPORT FORM</p>	
<p>1. GENERAL INFORMATION:</p>	
Project Name:	Starke Railroad Overpass
Project Limits:	State Road 100 from US 301 to East of the CSX Railroad
County:	Bradford
ETDM Number:	14289
Financial Management Number:	436558-1-22-01
<p>2. PROJECT DESCRIPTION:</p>	
<p>a. Existing: Starke represents the largest city in Bradford County with a population of 5,449 and city limits encompassing 7.2 square miles (2010 U.S. census data). Starke is located at a major transportation hub where the north-south U.S. 301 roadway corridor intersects the SR 100 east-west roadway corridor near the downtown area. The Bradford County Seat is in Starke as well as a hospital, emergency response services, educational/judicial facilities and numerous businesses representing a variety of industries. Both US 301 and SR 100 are part of Florida's Strategic Intermodal System (SIS). State Road 100 is a major arterial roadway serving northeastern Florida from Lake City to Flagler Beach. Starke has predominately developed along the US 301 corridor with a majority of the City's businesses fronting this roadway. The City of Starke is currently divided by the CSX railroad that runs parallel to the US 301 corridor (see Figure 1).</p>	
<p>b. Purpose and Need: The purpose of this project is to provide motorists in Starke, with an unimpeded railroad crossing over the CSX S-line, improve safety, and provide emergency responders a reliable response time when a train is blocking the at-grade crossings in Starke. Currently, about 29 trains per day utilize the CSX S-line and this quantity is anticipated to increase, based on historical growth trends. A train blocked crossing results in motorist delay and potentially disrupts emergency vehicle response times. Although there are currently nine at-grade railroad crossings in Starke, there are no grade separated crossings over the railroad. State Road (SR) 100 is a primary east-west roadway that crosses the railroad. The existing (2015) Average Annual Daily Traffic (AADT) for SR 100 is approximately 8,900 vehicles per day. It is anticipated that this roadway will have an increase in traffic of more than 10 percent by 2040.</p>	
<p>The proposed railroad overpass will have a maximum profile grade of 5% and utilize a combination of a sag, crest and a sag curve to make the connection on the east end of SR 100. The proposed bridge will tie down to existing grade at approximately South Street on the eastern approach. Once eight feet of vertical clearance can be provided to the low member of the bridge, the Mechanically Stabilized Earth (MSE) wall will end and transition to a pile supported structure allowing an open area underneath the structure.</p>	
<p>The bridge will utilize aesthetic treatments to blend with nearby historic resources. The alternative selection process was strongly influenced by feedback from the project public meetings. The Public Hearing held on January 4, 2016, demonstrated local support for the SR 100 alternative as the build alternative. In addition, the city commission voted 5-0 in support of the SR 100 alternative at their meeting held on January 15, 2016. Also, the county commission voted 5-0 in support of the SR 100 alternative at their meeting on January 21, 2016.</p>	
<p>8. APPROVED FOR PUBLIC AVAILABILITY (BEFORE PUBLIC HEARING)</p>	
<p>Date _____</p>	
<p>9. A PUBLIC HEARING WAS HELD ON</p>	
<p>Date <u>01-26-2016</u></p>	
<p>10. APPROVAL OF FINAL DOCUMENT</p>	
<p>This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.</p>	
<p>The final SEIR reflects consideration of the PD&E Study and the public hearing.</p>	
<p> <u>2.24.17</u></p>	
STARKE RAILROAD OVERPASS (PM #: 436558-1-22-01)	Page 1
STARKE RAILROAD OVERPASS (PM #: 436558-1-22-01)	Page 9

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Project Commitments

FDOT is committed to working with the City of Starke and Bradford County to design a railroad overpass that minimizes impacts to the historic district by designing a bridge that is context sensitive to the local community. The maintenance of these enhancements will be worked out with the City of Starke in the design phase.

As part of the project one-way frontage roads will be constructed on the north and south sides of the overpass from US 301 to Water Street to maintain local connectivity.

Maintenance of traffic during construction of the overpass will be maintained along the SR 100 footprint to the maximum extent feasible. However, making connections between construction phases to the existing and proposed roadways may require traffic to be diverted to SR 230 or other local roadways. These diversions will be temporary and every effort will be made to minimize the disruption to local motorists.

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Project Commitments

FDOT will work with the City of Starke to develop an aesthetically pleasing option for the overhead utilities located along SR 100.

Roundabouts are proposed at Church and Cherry Street intersections. These will be further evaluated during design to ensure they meet all necessary design standards. The roundabouts will be designed to accommodate fire trucks as requested by the local government.

The existing railroad crossings at South Street and Atkins Street will be closed as part of this project.

Water Street will be removed from SR 100 to SR 230. This connection will be provided by constructing a new roadway by extending St. Clair Street from SR 230 to SR 100.

FDOT is committed to coordinating all design elements with the City of Starke and other local stakeholders as this project progresses.

Project Challenges

Aesthetics

Focus was on need and location,
requests came late



Brick Color



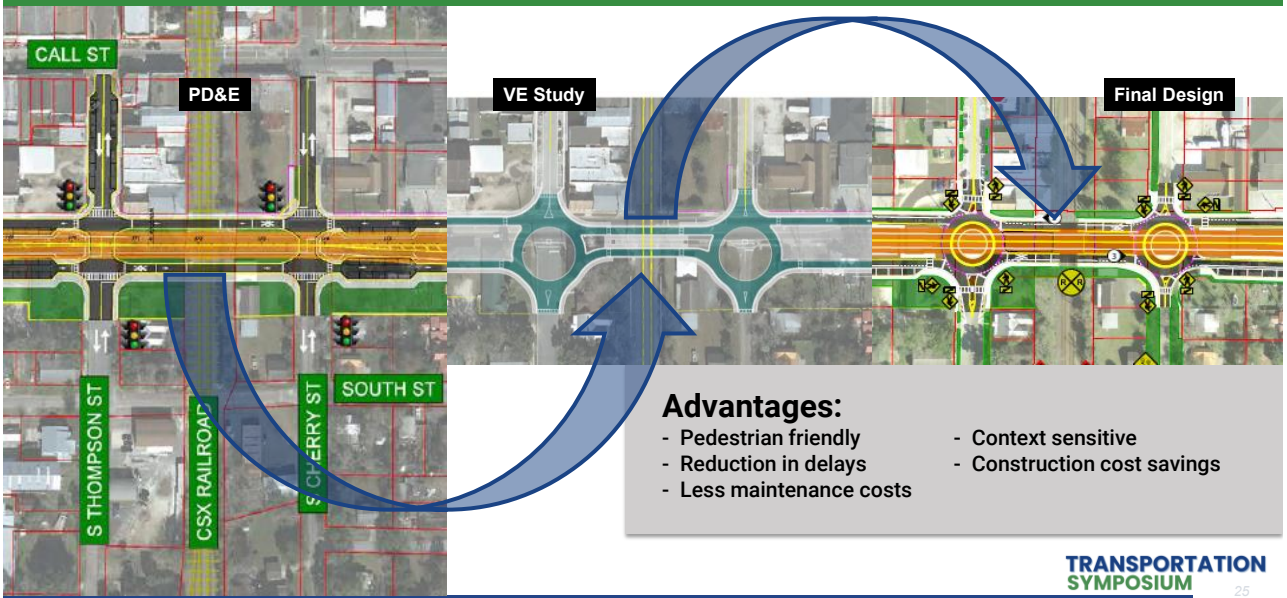
Resurfacing local roads, that were
going to have traffic diverted to them



Utilities

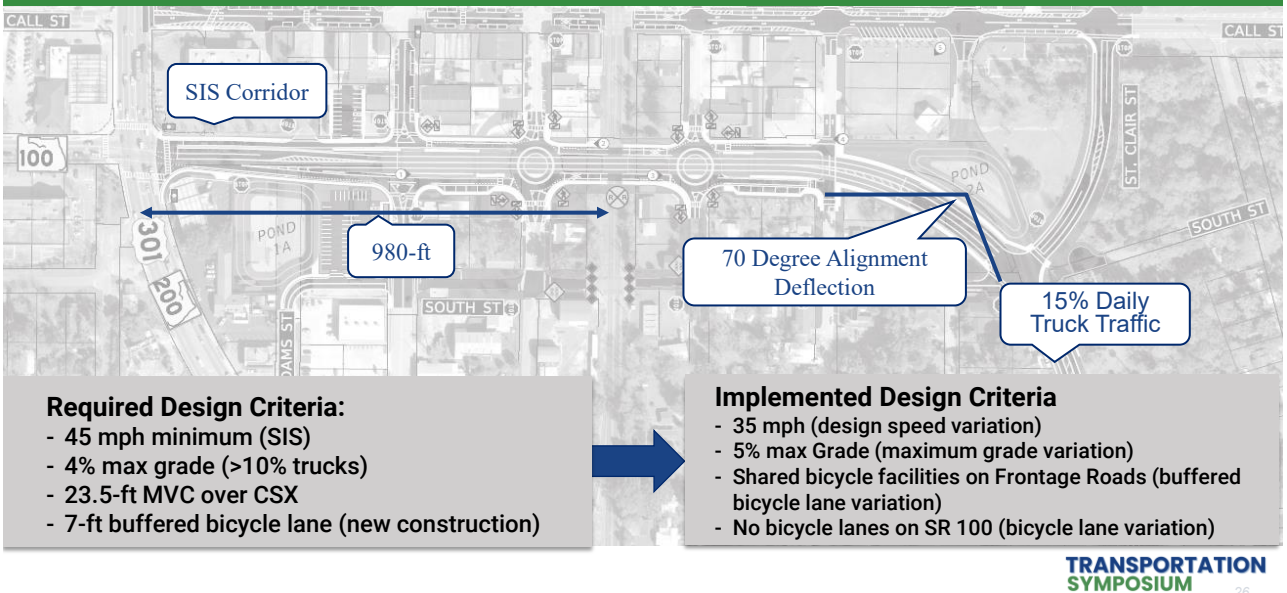
We left a lot for design to figure out!!

Design – Value Engineering



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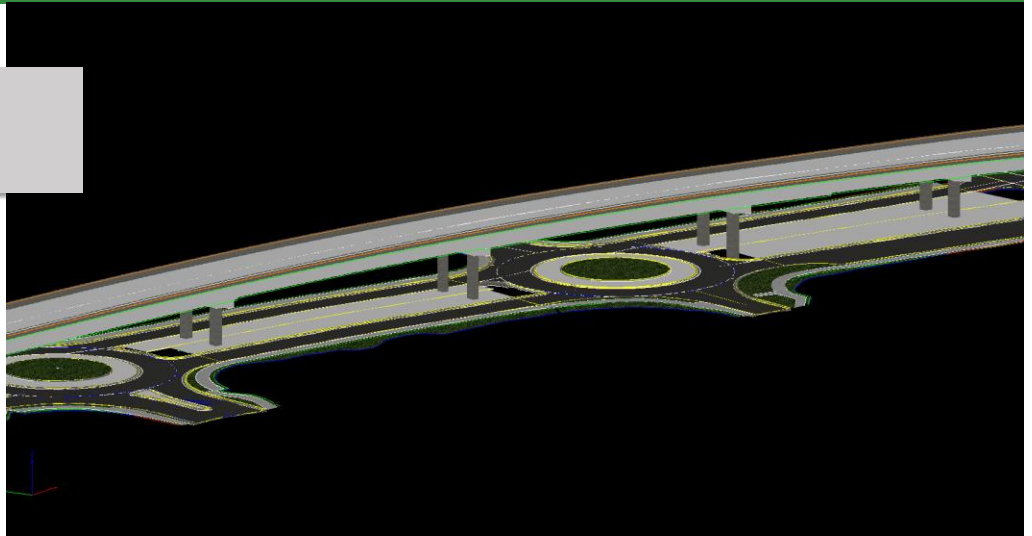
Design – Geometric Constraints



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Design – Unique Aesthetics

Design Model



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Design – Unique Aesthetics

SR 230 / Call Street at Walnut and Thompson Streets (Vision)



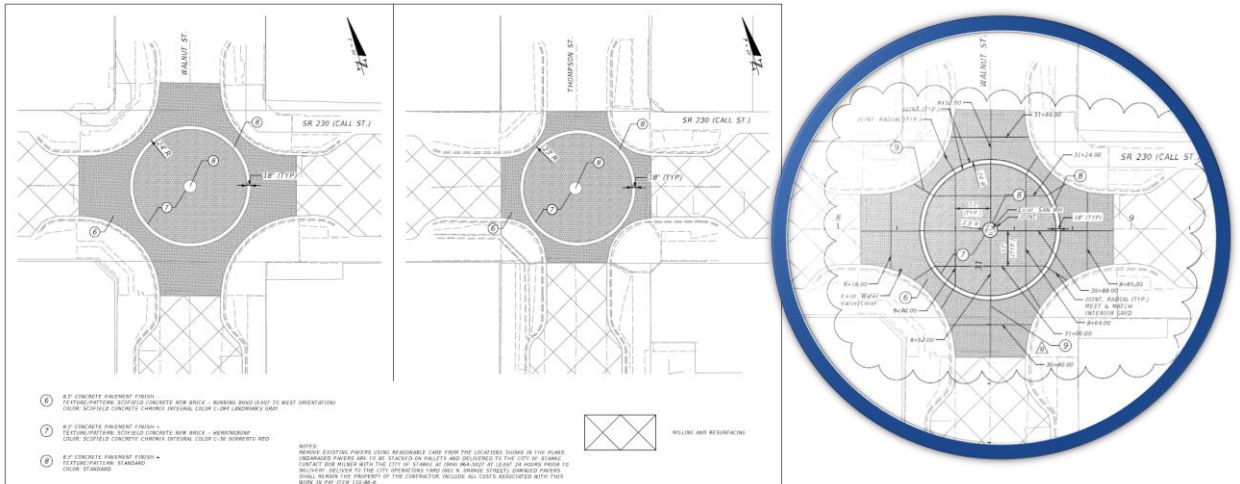
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Design – Unique Aesthetics

SR 230 / Call Street at Walnut and Thompson Streets (Design)

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Design – Unique Aesthetics

SR 230 / Call Street at Walnut and Thompson Streets (Reality)TRANSPORTATION
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Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Vision)



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Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Vision)



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Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Design)

MEDIAN DETAIL
SHEETS LEGEND

①

16' (TYP.)
N.T.S.

②

N.T.S.

③

16' (TYP.)
N.T.S.

④

16' (TYP.)
N.T.S.

TEXTURE/PATTERN: SCOFIELD CONCRETE NEW BRICK - RUNNING BOND
LOCATIONS: TRUCK APRONS (EAST-WEST ORIENTATION), INTERSECTION DIVISIONAL ISLANDS (EAST-WEST ORIENTATION), UNDER BRIDGE DECK MEDIANS (SEE SPECIAL DETAILS)
COLOR: SCOFIELD CONCRETE CHROMIX INTEGRAL COLOR C-36 SORRENTO RED

TEXTURE/PATTERN: SCOFIELD CONCRETE NEW BRICK - DOUBLE SOLDIER BORDER 2 ROW
LOCATIONS: UNDER BRIDGE DECK MEDIANS, SIDEWALK BANDING (SEE SPECIAL DETAILS)
COLOR: SCOFIELD CONCRETE CHROMIX INTEGRAL COLOR C-36 SORRENTO RED

CONCRETE SIDEWALK FINISH - 16" DOUBLE SOLDIER BORDER 2 ROW BANDING EXTERIORS WITH BROOM FINISH INTERIORS (TYP.)
LOCATIONS: UNDER BRIDGE DECK MEDIANS, SIDEWALK BANDING (SEE MEDIAN DETAILS)

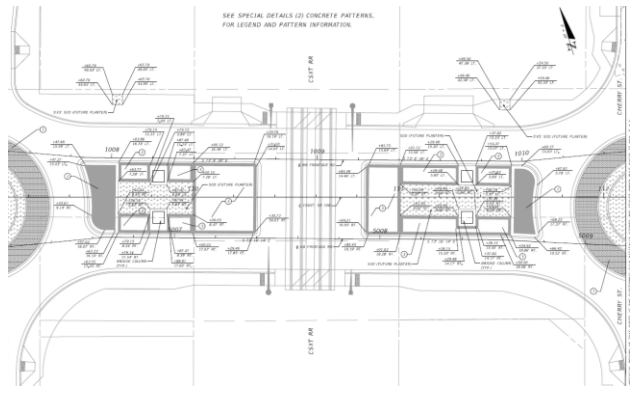
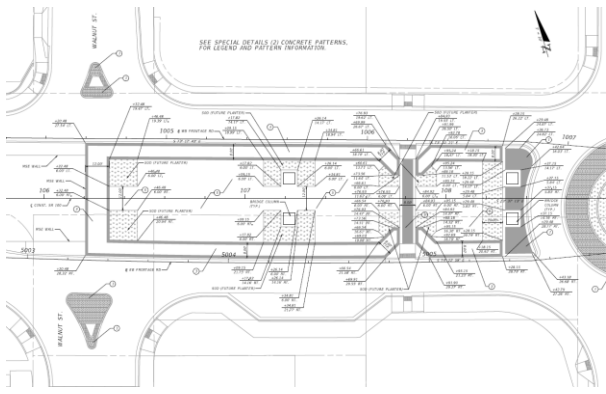
JOINTS TO BE UNIFORM IN SIZE TO BROOM FINISH WIDTHS AND PERPENDICULAR TO EXTERIOR BANDING.
JOINT AND TOOLING SIZES PER INDEX 522-001

BROOM FINISHED INTERIOR SEGMENTS

CONCRETE SIDEWALK FINISH - 16" SMOOTH FINISH BANDING EXTERIORS WITH RUNNING BOND PATTERN INTERIOR (TYP.)
LOCATIONS: UNDER BRIDGE DECK MEDIANS (SEE MEDIAN DETAILS)

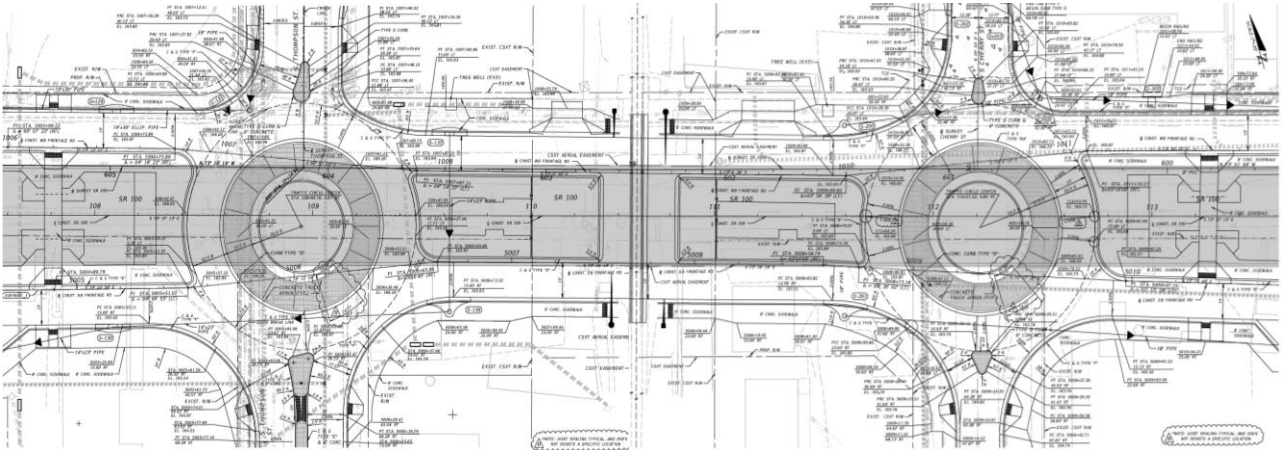
Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Design)



Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Design)



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Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Reality)



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Design – Unique Aesthetics

At Grade SR 100 / Madison Street (Reality)



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Design – Unique Aesthetics

Bridge (Vision)



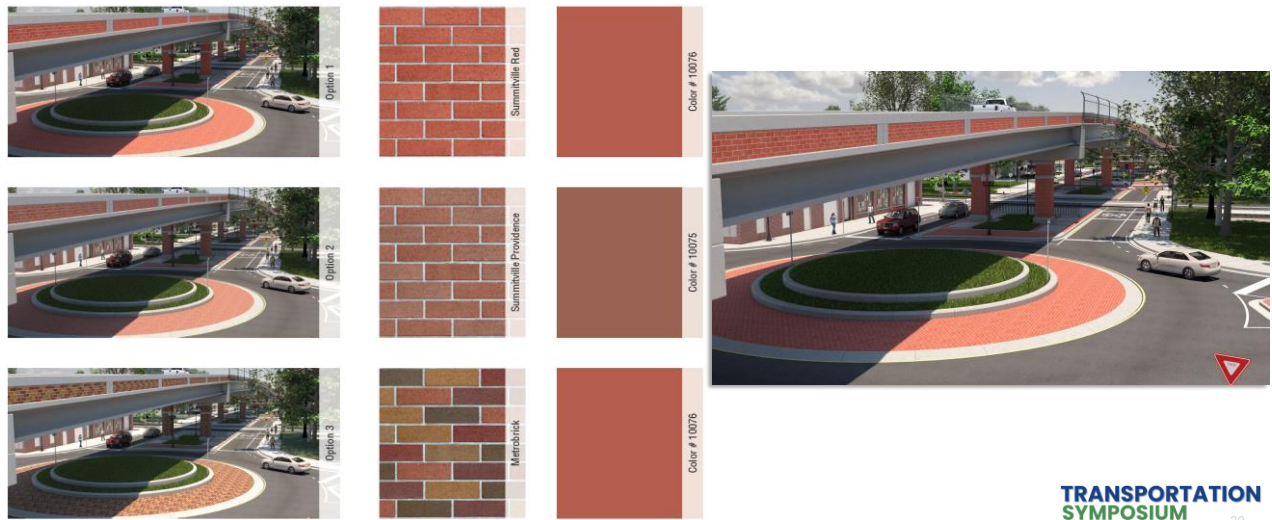
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Design – Unique Aesthetics

Bridge (Design)



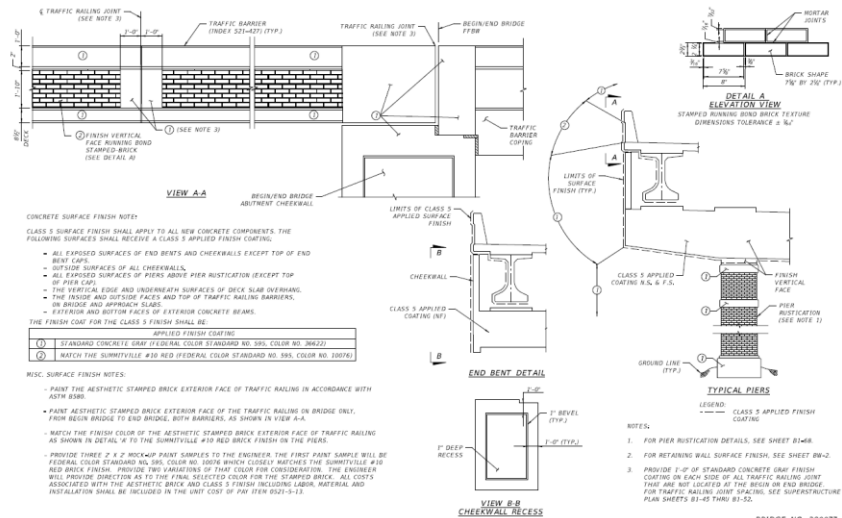
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Design – Unique Aesthetics

Bridge (Design)



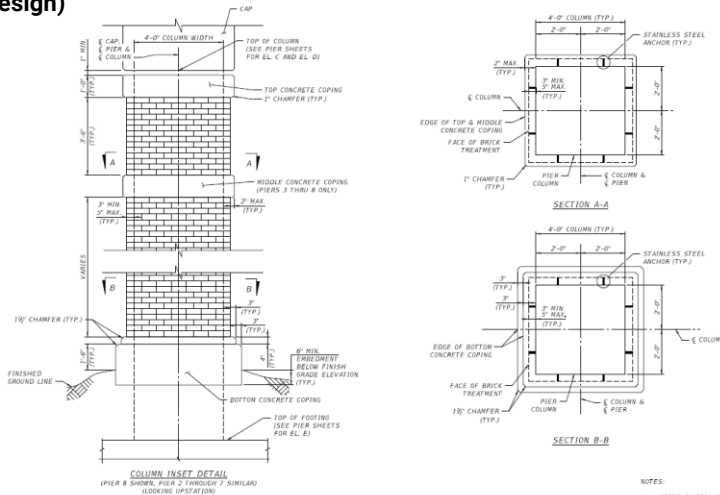
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Design – Unique Aesthetics

Bridge (Design)



- NOTES:
1. REFER TO T751 PIER AESTHETIC TREATMENT FOR FURTHER DETAILS.
 2. WORK THIS SHEET WITH SHEETS B1-23 THROUGH B1-36.

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BRIDGE NO. 280077

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Design – Unique Aesthetics

Bridge (Reality)



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Design – Unique Aesthetics

Other Enhancements

- Decorative lighting
- Electric bollards
- Aesthetic fencing for RR crossing Protection (pedestrian channelization barrier, D550-804, type P1 fence)
- Irrigation sleeves for landscaping



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Construction

B

Construction Challenges

- i. Having to maintain traffic on newly constructed and existing pavements since full road closure wasn't allowed – commitments made during design
- ii. Construction of bridge footprint limited to 44' of available space
- iii. Utilities
 1. Limited as-built information available
 2. Challenge constructing JPA portion due to limited information
- iv. Subsurface soil conditions for drilled shafts resulted in multiple bridge footer redesigns
- v. All street intersection improvements that were added last minute design – MOT coordination / concrete / aesthetics

C

Coordination Challenges

- i. CSX coordination with installing gates/arms/signals due to CSX installing devices
- ii. Walgreens Driveway – coordination of work with access to SR-100/Frontage Roads

A

Construction Open House held between Phase 1 and Phase 2

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Construction Challenges



B (i.) Maintaining existing traffic and limited workspace proved to be a challenge during the construction process

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Construction Challenges



B (iv.) Subsurface soil conditions for drilled shafts resulted in multiple bridge footer redesigns

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Construction Challenges



B (v.) All street intersection improvements that were added last minute design – MOT coordination / concrete / aesthetics

Construction Challenges



C (i.) CSX coordination with installing gates/arms/signals due to CSX installing devices

Construction Challenges



C (ii.) Walgreens Driveway – coordination of work with access to SR-100/Frontage Roads

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Post Construction Benefits

Once construction of the new music venue is complete, the City of Starke will begin hosting events that utilize the area beneath the overpass.



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Lessons Learned

A

Original concept continuously evolved throughout the project– go to public in advance

B

Unsuitable material found – more borings – bridge foundation, roadway, storm and sanitary sewer

C

Pedestrian MOT – up to ADA standards – what existing facilities can and cannot accommodate

D

Aesthetics plan – architect's vision in design and what FDOT can typically construct

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Lessons Learned Continued



A

Full closure for construction -- reduction in construction time

B

Temporary access construction on east side – truck detours SE 144th Street

C

Construction dollar savings

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Safety Message



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Thank You

Contact Us

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Shannon Mobley - smobley@gpinet.com

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 October 28-29, 2025
 Orlando, FL





DEADLINE

Please be sure to **certify your attendance** before leaving this event or no later than **Friday, November 21st**, in order to receive PDH/CEC. Detailed instructions are available on the Transportation Symposium website.

Transportation Symposium Website



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