Quality Forum

May 18, 2023

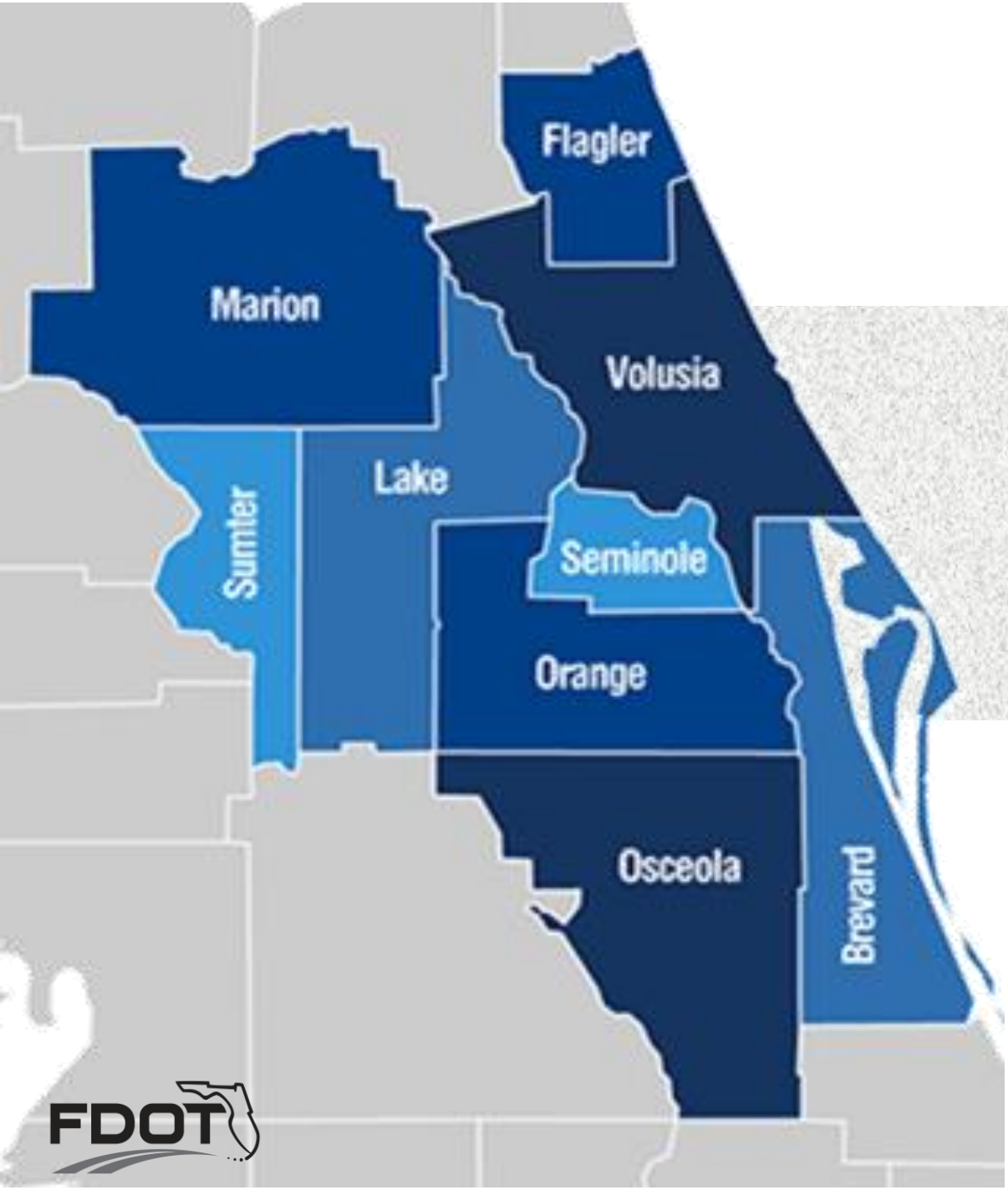
Welcome & Agenda

Catalina Chacon, P.E.
Strategic Initiatives Manager

- ❑ Opening Remarks - Jeff Cicerello, District Design Engineer
- ❑ ACEC Update – Sunserea Gates
- ❑ Procurement Services Update - Michelle Sloan
- ❑ Safety News, Loreen Bobo, District Safety Administrator
- ❑ Updated Smart Scopes – Celine Bounds & Mark Trebitz, PLEMO
- ❑ CPM Update

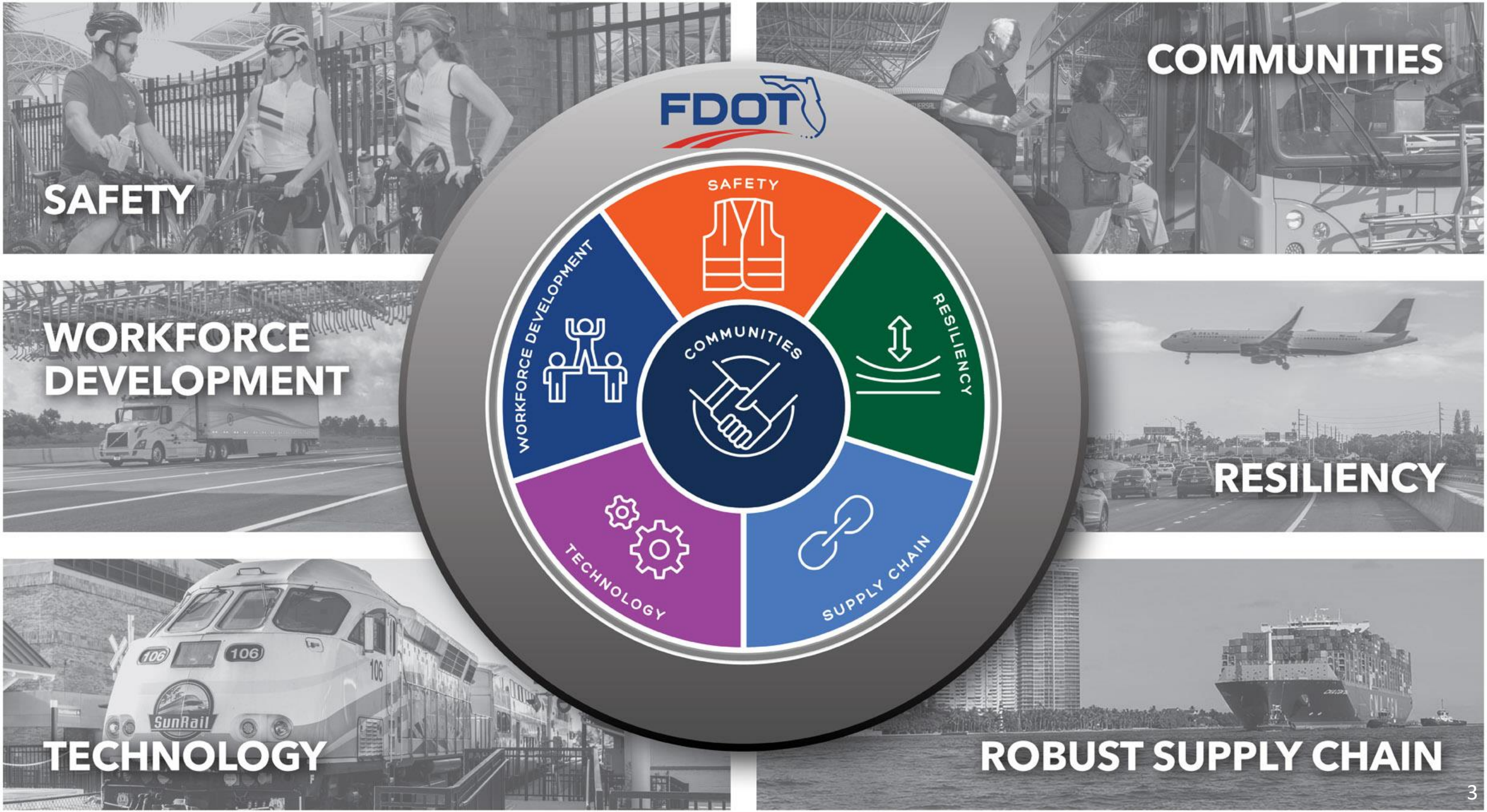
BREAK

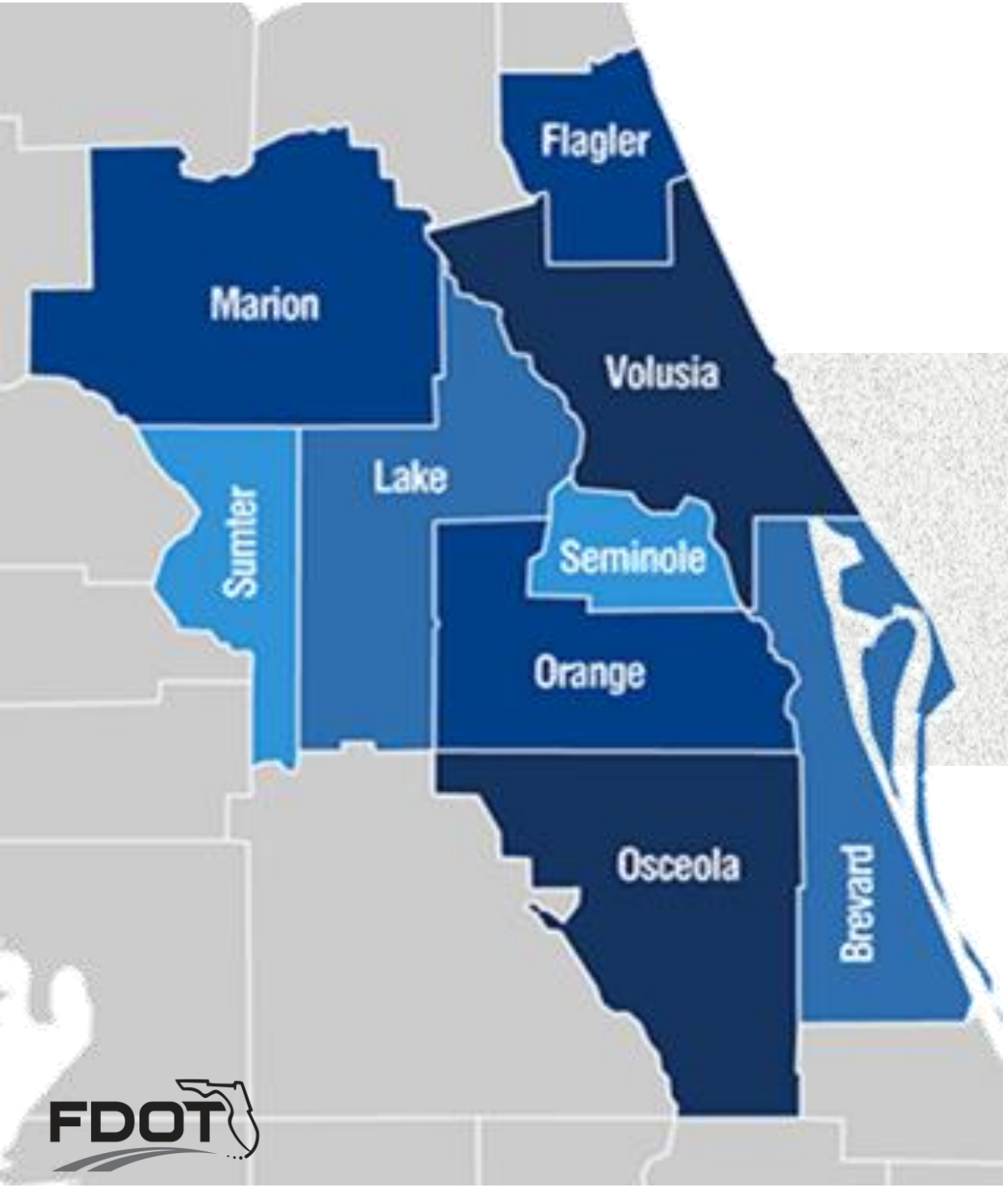
- ❑ TSM&O Update - Jeremy Dilmore
- ❑ Smart Work Zones – Nathan Mozeleski
- ❑ RCUT Construction – Ray Gopal



Department Updates

Jeff Cicerello, P.E.
District Design Engineer


SAFETY
COMMUNITIES
WORKFORCE DEVELOPMENT
RESILIENCY
TECHNOLOGY
ROBUST SUPPLY CHAIN
FDOT
SAFETY
WORKFORCE DEVELOPMENT
COMMUNITIES
RESILIENCY
TECHNOLOGY
SUPPLY CHAIN



Department Updates

Questions?

ACEC News

Sunserea Gates, P.E.

Questions?

Procurement Services

Michelle Sloan
Procurement Services Manager

Questions?

District 5's Office of Safety

Safety begins with ME…
Safety begins with YOU!

Loreen Bobo, P.E.
Safety Administrator
District Five Office of Safety
Loreen.bobo@dot.state.fl.us
D5-Safetyideas@dot.state.fl.us

Safety Starts with You!

- Making the safety ‘mission’ personal – All of us, including users of our transportation system can make a difference.
  - D5-Safetyideas@dot.state.fl.us

- **How are you going to make a difference**?
  - Safety begins with **YOU**, act responsibly. Respect other users.
    - Educate and encourage your family, neighbors, and friends to drive, walk, and bike safely, so that they make it home every day.
  - Encourage safety conversations and actions in your daily work.

Safety Central Newsletter

Because ***Safety*** is ***Central*** to everything we do

July 2022 - No. 1

SAFETY CENTRAL

DISTRICT 5 MOVING TO ZERO

District 5 Office of Safety Newsletter

WELCOME FROM THE ADMINISTRATOR

LORETTA BORO, P.E., Safety Administrator, FDOT District 5 - Office of Safety

Welcome to the first edition of the District 5 Office of Safety Quarterly Newsletter – Safety Central! We are excited to bring you interesting content four times a year that will help to build on our culture of safety. Since the Office of Safety in District 5 was established on June 1, 2021, we have been working hard to establish our goals and plan how best to move forward as we strive for zero fatalities and serious injuries. One of those goals was to start a quarterly newsletter that highlights activities, brings attention to efforts by individuals and teams, and brings all of us together in a collaborative format in FDOT's District 5, which encompasses much of Central Florida.

Our theme is 'Safety Central' for many reasons. First, we are focusing our efforts on Central Florida to enhance safety for our residents and visitors as they travel our roadways. Second, Safety is Central to everything we do and every decision we make prioritizes safety above all else. Third, we strive to encourage all users of our transportation systems to make 'Safety' Central to their choices.

When I mention 'We,' I am not talking about just FDOT. I am talking about our partner agencies, coalitions, law enforcement, schools, and community members. While we can make a difference if we act on our own, collaborating together will help District 5 get to zero faster. Let's learn and grow from each other!

Safety Begins with Me. Safety Begins with You. I truly believe that wherever we may work, live, or play, each of us can have a positive impact from a safety perspective. At FDOT, we often think about influencing safety through roadway planning and design, but influencing transportation safety goes way beyond that. I encourage everyone to think about different ways they can impact safety, whether it is at your child's school, within your neighborhood, or in your work.

Thank you for taking a few moments to read our First Quarterly Newsletter! We hope you enjoy it and maybe learn something new.

So, what will you do to be a positive influence on safety? We'd love to hear your ideas; feel free to share at D5-SafetyIdeas@Dot.State.FL.Us

We believe that you can't start too young teaching our transportation users about how to be as safe as possible; we are all responsible for how we act whether we are driving, walking, or biking. Loreen is pictured here with her two boys at the Take Your Child to Work Day on April 28, where the Office of Safety showed 80 children how to use a roundabout and crosswalk safely that day. Let's reinforce daily the lessons they've learned!

COMMUNITY TRAFFIC SAFETY TEAM
Local People Solving Local Problems
Keeping Central Florida residents and visitors safe is Job #1.
Page 2

WALK LIKE MADD
FDOT District Five team members were excited to attend and participate in the Walk.
Page 6

DISTRICT FIVE'S A.R.T.
The Attract, Retain, Train (A.R.T.) team has been working on the District's recruiting efforts.
Page 12

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October 2022 - No. 2

SAFETY CENTRAL

DISTRICT 5 MOVING TO ZERO

District 5 Office of Safety Newsletter

MESSAGE FROM THE D5 SECRETARY JOHN TYLER

EVERY PROJECT IS A SAFETY PROJECT

Photo Credit: Marion County Public Relations

Welcome to the second edition of District Five's Safety Central Quarterly Newsletter. Our vision in District Five is that all users have the safest experience possible on our state and local roads in Central Florida.

For those of you I may not know, I am John Tyler, District Secretary for FDOT's District Five. I have been in Central Florida since 1995 and have raised my family here. Safety has always been and continues to be a main priority for me in both my work and personal life. As District Secretary, I feel a lot of responsibility for everyone who uses our roadways – residents and visitors alike. We want everyone to get home safely.

Over my years with FDOT, I have seen how collaboration with others can lead to awesome opportunities. Together, we can do more. I am very pleased to hear about all the communities that have already chosen to adopt Vision Zero and am encouraged by the many communities that are considering adopting it as well. Adopting Vision Zero is just the start to the action plans and implementation of projects and outreach that will truly make a difference and get us to zero.

Speaking of zero, FDOT has a goal of Target Zero.... Zero Fatalities and Serious Injuries on our roadways. We are working toward this goal through a multi-pronged approach. We want to treat every project as a safety project. We want every safety project to bring forward appropriate countermeasures and emerging technology that will improve safety. But we want to do more than just focus on improving our infrastructure. Since in most crashes a contributing factor is behavior related, we must address the root cause. To do that, we must do things we haven't done before. We must partner with local communities, law enforcement, first responders, educators, and media outlets to develop and deliver outreach efforts that can reach people and change behavior when people are behind the wheel, walking or biking on our roadways. It's a daunting challenge, but we can do it together.

At FDOT, we look forward to engaging with you to make a positive impact for all our users. Whether you are with a local agency, consultant firm, contractor, or citizen, I encourage you to find opportunities where you can make a positive impact. How will you save a life? Always remember: **Safety Begins with Me. Safety Begins with You.**

Mobility Week — WHAT MOVES YOU

SAVE THE DATE
October 21 - 28

TO LEARN MORE:
WWW.FDOT.GOV/PROJECTS/MOBILITYWEEK/MOBILITYWEEK2022.SHTM

STOP ON RED
Every Life Counts. FDOT Encourages Drivers to Stop on Red
Page 2

OPERATION SOUTHERN SLOW DOWN
FDOT teamed with law enforcement agencies across the state to crack down on speeding.
Page 8

A TEAM APPROACH TO SAFETY
FDOT Contractors and Consultants work to get everyone home on the S.R. 44 bridge reconstruction project.
Page 18

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January 2023 - No. 3

SAFETY CENTRAL

DISTRICT 5 MOVING TO ZERO

District 5 Office of Safety Newsletter

MESSAGE FROM JACK ADKINS Director of Development

HAPPY NEW YEAR, CENTRAL FLORIDA! As we wind down from the holiday season, I hope everyone had a chance to relax and take some time to enjoy friends and family.

As we enter a new year, it is a great time to assess where we were, where we are, and where we're going. It's the time of self-assessment and setting new goals.

While we are contemplating goals and New Year's resolutions, it's also the perfect time to reflect on our safety mission.

As I travel throughout the district, I am startled by the number of people glued to their cell phones and other devices. You can always pick out the distracted drivers as they weave within their own lane or wander into other lanes. This seems like such a simple safety factor to adhere to, yet it is still one of the most ignored practices.

Distracted drivers can affect each of us in our daily lives. As a recreational bicyclist that tries to ride three to four times a week, I cringe as vehicles pass me. It only takes a second of distraction to ruin several lives. Many of you may remember Volusia County Sheriff Mike Chitwood being hit on his bicycle by a driver who was shopping on Amazon. Fortunately, a fatality did not occur, but the Sheriff was injured, and I'm sure the driver's life was forever changed.

Another surprising factor is an increase in drivers and passengers not wearing seatbelts. I am certainly old enough to remember rolling around in the back seat of my parents' 1962 Chrysler and lying on the rear window shelf while traveling. However, in 1986, mandatory seat belt legislation was enacted in Florida. While there was a period of adjustment and forming a habit, it didn't take long to start feeling uncomfortable if you were not wearing your seatbelt.

Starting a new year, let's all include safety as a priority. Now is an excellent time to reset your habits if you've gotten lax on remembering to put your phone down or buckling up. As the Florida slogan goes, let's "Arrive Alive" and ensure everyone returns home to their loved ones safely.

HAPPY NEW YEAR, everyone!

Come volunteer with us at events in your community!
To learn more, see page 12.

WALKING BACK THE IDEA OF JAY WALKING
Please be aware of people crossing where you might not expect them.
Page 4

VOLUNTEER WITH US!
The D5 Office of Safety invites community partners to volunteer in the New Year!
Page 12

SAFE MOBILITY FOR LIFE COALITION
Learn more about CarFit certification and register to become certified!
Page 20

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Would you like to receive the quarterly Safety Central Newsletter – email D5-SafetyCentral@dot.state.fl.us

Volunteer with us!

Help us share safety messages!

Volunteer opportunities are always being added to this site,

https://www.eventbrite.com/cc/fdot-d5-office-of-safety-outreach-events-1473989

FDOT D5 Office of Safety Outreach Events

FDOT District Five Office of Safety

The Office of Safety frequently hosts & attends events in the community, providing safety outreach. This is rewarding work. We need your help! Please consider joining us to work one (or more) of these events.

Events in this collection

Upcoming (7) Past (18)

Walk Like MADD & MADD Dash Central Florida
Sun, May 7, 6:00 AM
Blue Jacket Park • Orlando, FL
Free

Melbourne Mall Hometown Heroes Event
Sat, May 13, 10:00 AM
Melbourne Square Mall • Melbourne, FL
Free

Hang 8 Dog Surfing Extravaganza
Sat, May 20, 8:00 AM
5th Street South walkover on A1A just south of the Pier • ...
Free

Rollin' & Strollin' OBT Community Outreach Event
Sat, May 20, 9:00 AM
South Trail Branch Library • Orlando, FL
Free

Osceola Teen Mock Trauma
Sat, Jun 10, 4:00 PM
Promenade at Sunset Walk • Kissimmee, FL
Free

Volusia County School District FACT Fair - DeLand High School
Fri, Oct 13, 5:30 PM
DeLand Beach High School • DeLand, FL
Free

Volusia County School District FACT Fair - Campbell Middle School
Fri, Nov 17, 5:30 PM

FDOT

TARGET ZERO FATALITIES & SERIOUS INJURIES

Questions?

Smart Scopes

Celine Bounds

Mark Trebitz

Scoping: Past, Present, & Future

- ❑ Why are we here?
- ❑ Why the change?
- ❑ What have we learned?
- ❑ Where are we going?

Agenda

1. Goals and Benefits of Smart Scopes
2. Example Smart Scopes
3. Scoping Process
4. Design Process
5. Pilot Projects
6. Other Scope Types

Key Goals of Smart Scopes:

Community Engagement

Project Sequencing: 3R vs Safety

Opportunities for Innovation

Strategic Survey & Mapping

Benefits

- EOR innovation and differentiation
- Open for local agency input
- The latest in safety and speed management countermeasures
- Establishes the foundation of the 3R project
- Clear expectations for design negotiations

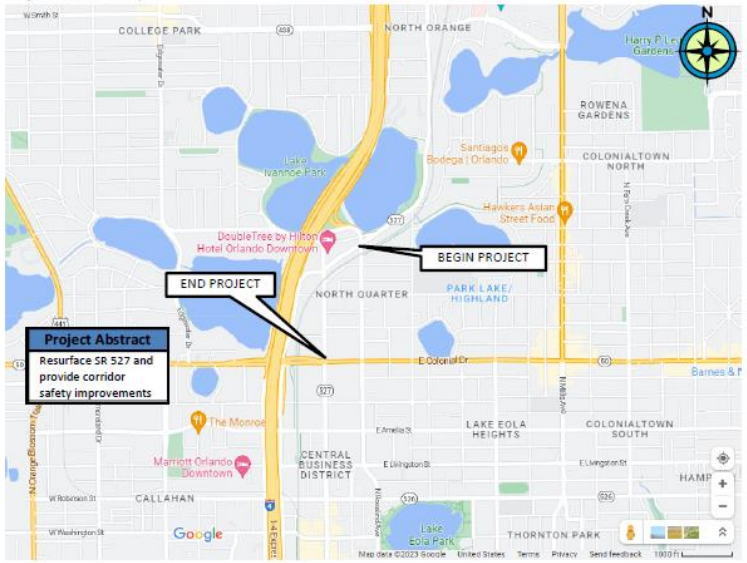
Smart Scope Example

450577-1: SR 527 (SB) Resurfacing from N Magnolia Avenue to SR 50

State Road Number: 527
Section Number: 75040-102
County: Orange
Project Limits: From N Magnolia Avenue to SR 50 (US 17-92/Colonial Drive)
Begin MP/End MP: 0.017 to 0.511 (0.494 MI)
FM: 450577-1

1. Existing R/W Map Project Numbers:	7504-275 & 175: varies 30-ft LT & RT (min)			
2. Old Construction Project Numbers:	439066-1 (2023) MP 0.217 to MP 0.426, Trail 422004-1 (2011) MP 0.000 to MP 0.511, Mill & Resurf			
3. Additional R/W required?	No.			
4. Level of Community Awareness Plan:	CAP Level 2 urban resurfacing, no access or parking changes.			
5. Agreements required?	☐ No	☒ Yes		
	☐ Yes, including Local Funds.			
6. Are there any bridges within the limits?	No.			
7. Are there any RR Crossings within the project limits or in the vicinity?	CFRC 622179-Y			
8. Are there any Airports within 10 nautical miles?	Yes.			
9. Storm Water Management jurisdiction:	SJRWMD.			
10. Is the Project within CCCL *(Coastal Construction Control Line)*?	No.			
11. Existing Utilities per Sunshine One Call: (per SS1C, as-builts, and field markers)	AT&T Florida Bright House Networks LLC dba Charter/Spectrum CenturyLink/Lumen Crown Castle Fiber Orlando Utilities Commission (OUC)- Electric/Fiber/Sewer/Water Summit Broadband TECO Peoples Gas Verizon Business/MCI Windstream Florida Inc. ZAYO Group			
12. Is the project near a significant archaeological site?	The Engineer is to conduct a Cultural Resources Assessment.			
13. Any special MOT concerns?	Pedestrian detours, including trail crossing. CFRC RR crossing, PE and flagging expected.			
14. Any construction concerns?	No.			
15. Posted/Design Speed Limits (mph):	Location	Design Speed (MPH)	Posted Speed (MPH)	Target Speed (MPH)
	SR 527	35	30	25
16. Design Criteria and Context Classification:	SHS, FDM (2023), RRR			
	Facility		Context Classification	
	SR 527		C6 "Urban Core"	
17. Lump Sum or Pay Item?	Pay Item.			
18. Proposed Design Schedule:	18-24 Months.			

Agreements Required:
The Engineer shall coordinate to obtain an agreement with City of Orlando for any maintenance related to proposed improvements, including pedestrian paver, special colored concrete, patterned pavement marking, etc. restoration.



The Engineer is responsible for verifying all items in the proposed scope and shall review the project for conformance with all applicable criteria and standards.

Blue text in the Technical Scope notates areas where the Engineer is to provide innovative recommendations and solutions to address project specific issues or concerns that have been identified by the Department.

Intent and Nature of Project:
The purpose of the project is to rehabilitate the asphalt pavement to extend the service life of the existing roadway, including necessary roadside improvements, in accordance with FDOT Design Manual Section 114. The nature of the project is asphalt resurfacing and associated safety, pedestrian, and functional improvements. The project is based on a request from the FDOT District 5 Pavement Management/Maintenance for a RRR review of Roadway 75040-102 from MP 0.017 to MP 0.511.

Project Description:
- Project is in the downtown core of the City of Orlando.
- SR 527 is classified as an urban principal arterial with Access Classification 07.
- The following projects have been identified within the vicinity of this project. The FDOT PM is to confirm improvements and coordinate project limits prior to advertisement.
  - 445220-1 SR 527 resurfacing project from Magnolia Avenue to Rollins Street anticipated to be let to construction in December 2023. The FDOT PM is Joseph Fontanelli.

curb line modifications. This project is still in the planning stages, the City contact is Gustavo Castro.

Typical Sections:
- Per as-built plans, the project includes 4 typical sections.

Narrow lanes where existing pavement width is available, considering bus usage, on-street parking, and adjacent project lane widths for a consistent corridor. Apply surplus width to existing bicycle lanes or to create new bicycle lanes.

  - MP 0.017 to MP 0.175; 3-lane curb and gutter section with three 11-ft lanes (one northbound and two southbound), 8-ft paved shoulder northbound only, and 5-ft to 7-ft variable width sidewalks (left and right). Gutter pans appear to have been overlaid and are included in the travel lane widths.
  - MP 0.175 to MP 0.259; 3-lane curb and gutter section with three 11-ft lanes, 7-ft parking lane (left), 5-ft bicycle lane and 8-ft parking lane (right), and 6-ft to 10-ft variable width sidewalks (left and right).
  - MP 0.259 to MP 0.423; 3-lane curb and gutter section with two 11-ft lanes (outside and inside), one 10-ft lane (center), 6.5-ft parking lane (right), variable width sidewalk* (left) and newly constructed 6-ft sidewalk, 4-ft buffer and 10-ft trail (right). **No changes proposed, this station range should be a pavement exception, with improvements limited to pedestrian accessibility.**
  - MP 0.423 to MP 0.511; 3-lane curb and gutter section with 11-ft lanes, 7-ft parking lane (left) and 5-ft bicycle lane (right) and variable width sidewalks* (left and right).

    *Portions of the sidewalk are outside the apparent FDOT right of Way and within a variable width City Services and Sidewalk Easement.
- Per 2021 traffic data: 9,800 AADT, T = 8.5% (755035).

Roadway Scope Items:
- A Pavement Condition Assessment will be requested and completed by FDOT. Existing pavement was observed to generally be in fair condition. 1 pavement design has been assumed for estimating purposes: 1) milling and resurfacing all pavement surfaces. Address the overlaid gutter pans.
- Implement speed management strategies to ensure vehicles are traveling at the intended target speed.
  - Curb extensions (bulb-outs), details anticipated. Delivery vehicles observed utilizing the "no parking" painted gores.
  - Lane narrowing- consider bus usage, on-street parking, and adjacent project lane widths for a consistent corridor.
- MP 0.098 to MP 0.145 RT- Tree roots have buckled the gutter and has created a ponding condition. Reconstruct to restore flow line where practical, ensuring tree survival.
  - MP 0.109 existing driveway to be reconstructed.
  - MP 0.138 existing driveway to be reconstructed.
- MP 0.175 N Garland Avenue/Legion Place- Modify returns and curb lines to accompany narrowed lanes aligning with the existing painted gores.
- MPSV data has not been obtained however cross slope modification is not anticipated at this time.

Drainage Scope Items:
- The primary goal for improvements along this corridor is to utilize the exiting drainage system where feasible.
  - Based on field observations the existing roadside drainage system appears to be functioning properly except as noted.
  - Modify existing drainage to accommodate proposed curb ramp and pedestrian improvements.

Smart Scope Example

Smart Scope Scoping Phase - *Process*

1. Identification of 3R Projects
2. Safety & Corridor Analysis
3. Internal Scoping Collaboration Meeting
4. Community Vision Outreach #1
5. Scope Development
   - *Scoping*
   - *Interactive Scope Review (ISR)*
   - *ERC Review*
6. Community Vision Outreach #2
7. Technical Review Meeting (TRM)
8. Scope Complete

Interactive Scope Review Meeting (ISR

Electronic Review Comment System (ERC)

Technical Review Meeting (TRM)

Smart Scope Design Phase - *Process*

1. **Initial Consultant Acquisition:**

   (DD/TRC Identified ~ Planned Ad ~ Pass the Torch Meeting ~ Marketing Meetings ~ Ad)

2. **Consultant Acquisition:**

   (Letter of Interest ~ DD Longlist/Shortlist ~ Q&A Meeting ~ TRC Recommendation ~ Selection)

3. **Design:**

   - EOR Letter of Proposed Changes

   - Community Vision Outreach #3

   - Decision Process for Accepting Scope Changes

❑ MINOR CHANGES:

- *Management Direction →*
  - *Add to scope with no added analysis needed*
  - *OR Do not include in scope*
- *Negotiate Scope*

❑ SUBSTANTIAL CHANGES:

- *Management Direction →*
  - *Additional Analysis/Info Needed*
  - *Optional Services*
- *Negotiate Scope (with Optional Serv.)*
- *Management Decision →*
  - *Add to scope through SA*
  - *OR Do not include in scope*
- *Post PE Approval*
- *Negotiate SA*

Process: Key Takeaways

Electronic Review Comment System (ERC)

Interactive Scope Review (ISR) Meeting

Technical Review Meeting (TRM)

Pass the Torch Meeting

Scope Change Approval Process

Pilot Projects: Consultant Acquisition

★ *Goes-with*

FPID	Project Manager	Ad Date	Item Segment Description
450946-1	Marcus Lisicki	3/13/2023	**SR A1A FROM NORTH OF ROBERTA RD TO THE FLAGLER COUNTY LINE**
445213-1	Randall Turner	4/17/2023	**SR 518 EAU GALLE BLV FROM SARNO RD TO WEST OF APOLLO BOULEVARD**
450772-1	Jude Jean-Francois	4/24/2023	**SR-50/SR-471 FROM WEST OF CR-739 TO EAST OF SR-471/TARRYTOWN RD;** ★
445295-1	Jude Jean-Francois	4/24/2023	**445295-1 SR 471 FROM CR 478A TO SR 35/US 301;** ★
450948-1	Kathleen Enot	5/8/2023	**SR 40 FROM NE 64TH AVE TO LAKE COUNTY LINE;** ★
450951-1	Kathleen Enot	5/8/2023	**SR 40 FROM 25TH AVE TO NE 64TH AVE;** ★
450583-1	Bita Hooman	5/22/2023	**SR 436 FROM LAKE HOWELL ROAD TO ORANGE COUNTY LINE**
450775-1	Martina Paradysz	6/12/2023	**SR-426 FROM WEST OF EASTROOK BLVD TO UNNAMED CANAL NEAR FORSYTH RD;** ★
451282-2	Martina Paradysz	6/12/2023	**SR 426 (FAIRBANKS RD) FROM S PARK AVE TO N LAKEMONT AVE;** ★
448377-1	Martina Paradysz	6/19/2023	**I-75/SR-93 FROM SR-44 TO THE MARION COUNTY LINE**

FDOT

Pilot Projects: Continuing Services Contracts

FPID	Project Manager	Ad Date
450576-1	Bita Hooman	**SR 434 FROM SR 414 TO SR 436**
450577-1	Sam Jumber	**SR 527 / ORANGE AVE SOUTHBOUND FROM MAGNOLIA AVE TO SR 50**
450952-1	Randall Turner	**SR 40 FROM US 441 TO 25TH AVE**

Safety Projects

INTERSECTION SAFETY STUDY

Section 75250000 – M.P. 5.788
SR 438 (Silver Star Road) at Hastings Street/Sheringham Road
Orange County, Florida

Prepared for:
THE FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT 5 TRAFFIC OPERATIONS
719 South Woodland Boulevard
DeLand, Florida 32720

Districtwide Contract for Traffic Operations
Financial Project ID: 237995-1-32-14
Contract No.: C-9086

Task Work Order: 41

Prepared by:
Peters and Yaffee, Inc.
9822 Tapestry Park Circle, Suite 205
Jacksonville, FL 32246

As a subconsultant to:
England-Thims & Miller, Inc.
1525 International Parkway, Suite 1011
Lake Mary, FL 32746

May 2021

Austin P Chapman 2021.05.12 14:12:25 -04'00'

Prepared By:
Professional Engineer: Austin Chapman, PE
Florida P.E Number: 72474

- Study

District 5 Pre-Programming Checklist
Program Manager and Area:
FM No(s): 450329-1
Project Name: SR 438 at Hastings St/Sheringham Rd Intersection Improvements
Description:

PROJECT INFORMATION (1)

☒ PSEE information is accurate
☐ LRE is Approved by Estimates (Ph 5X)
Version: ___ Marked Primary? ____
☐ Design Fee Prepared by Consultant Project Management (Ph 3X)
☒ R/W Estimate Obtained, if needed (Ph 4X)
☒ LFA\JPA Funding Considered
☐ Potential to combine with another project?
Notes: _____

DESIGN CRITERIA AND RECOMMENDATIONS

Please mark each item as Satisfactory (Yes/No/NA). Explain No or NA in notes on page 2.

No (2) Appropriate Design / Target / Posted Speeds were coordinated and utilized.
N/A (3) Design & Traffic Operations concurrence for proposed criteria (lane widths, medians, etc)
Yes Design Documentation has been approved (Safety) or preliminarily agreed with (Other)
No (4) Environmental Permitting *(Check or note all)* WMD: No; Wetlands: No; Floodplains: No
OFW: No; CCCL: No; 4(f): No
Species: No
No (5) Cultural or Archaeological significance reviewed
No (6) Utilities identified and conflicts ☒ are anticipated OR ☐ are not anticipated.
☐ If yes, can relocations be accommodated within the existing Right of Way?
☐ Is FGT present?
No (7) Right of Way / Easements have been researched and are clear.
☐ Acquisition Required (including easements or maintenance mapping)
☐ Establish Existing Maps Required ☒ No Mapping Required
☐ Encroachments are present (e.g., business signs, parking)
No (8) Additional impacts were considered for a complete project (pedestrian features, control radii, turn lane lengths, signal coordination, etc.)
Yes ADA accommodations are included where required.
☐ If sidewalk gaps are present, should they be filled?
N/A (9) Bicycle accommodations are included or considered for future continuity
Yes Transit users and agencies have been considered
No (10) Modifications to existing signal structures are within structural capacity
☐ If unknown, include analysis in design and replacement costs in LRE
No (11) Constructability reviewed
No (12) Recommendations were compared to existing site conditions on _____(enter date)

ADMINISTRATIVE

Yes Recommendations are easily identifiable, concise, clear and align with Vision Zero.
No (13) ITS Risk Assessment Checklist completed and submitted
No (14) Existing Maintenance Agreements reviewed, do any existing D5 commitments exist?
N/A (15) Railroad involvement coordinated
N/A (16) Interchange Access Request cleared
No (17) If Safety Funds, was B/C ratio recalculated after Estimates Office approval?

450329-1 Pre-Programming Checklist 1

- Pre-Programming Checklist

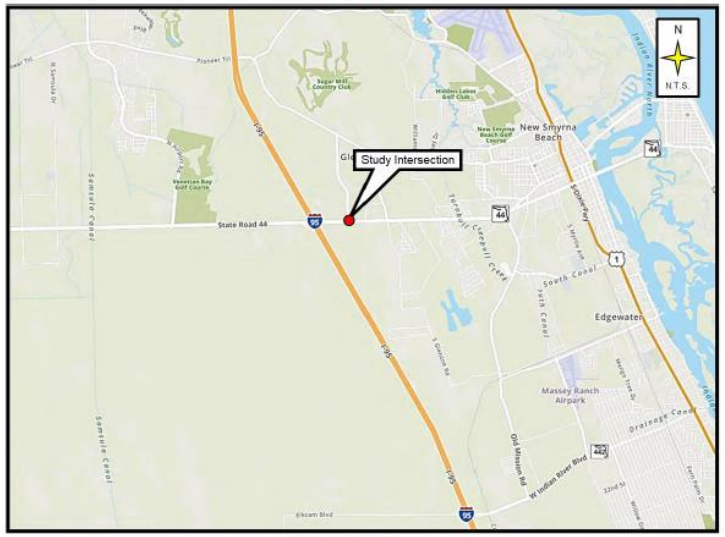
Traffic Operation Projects

INTRODUCTION

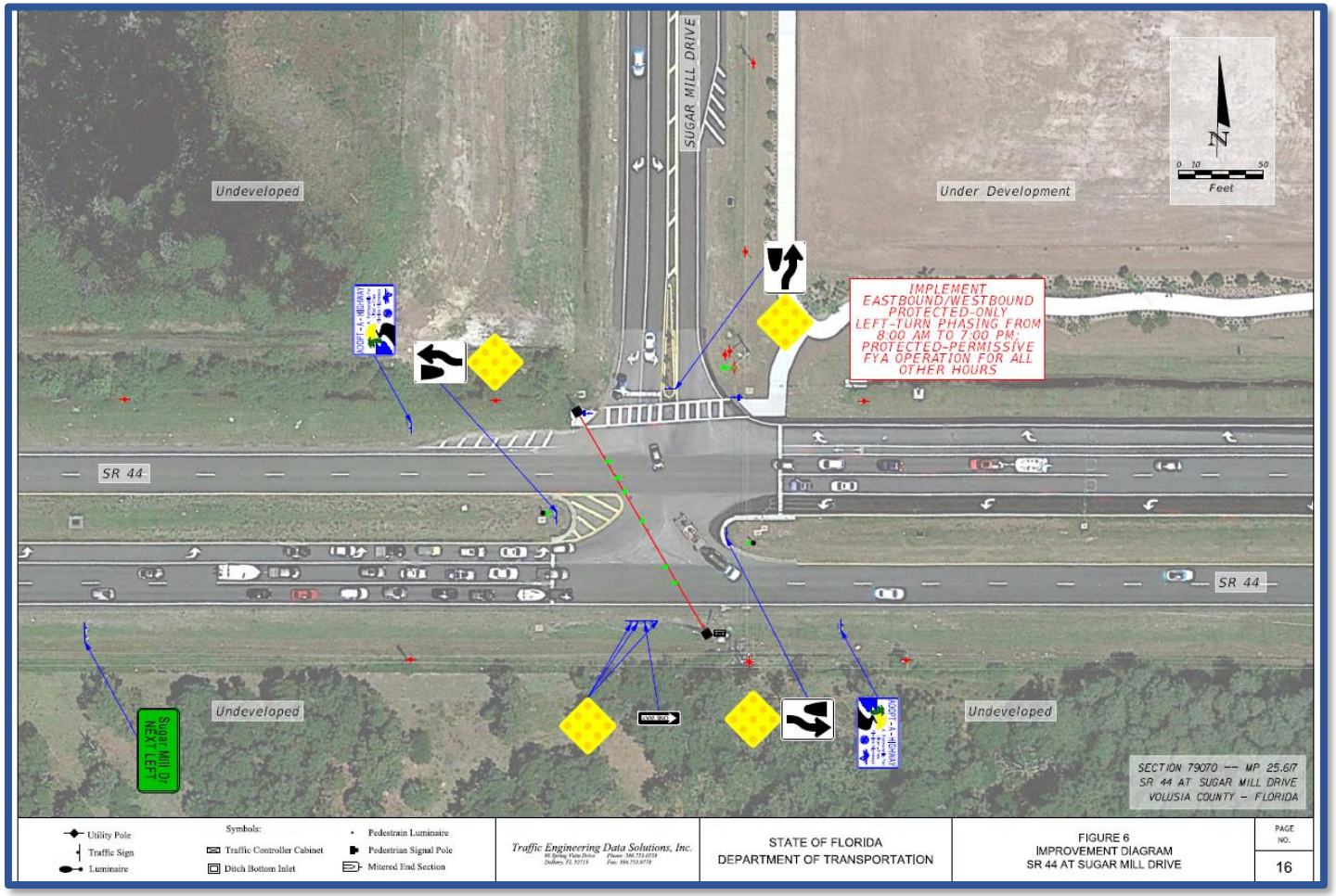
Traffic Engineering Data Solutions, Inc. (TEDS) was retained on behalf of the Florida Department of Transportation (FDOT) to conduct an Intersection Analysis of SR 44 at Sugar Mill Drive in New Smyrna Beach (Volusia County), Florida. A location map of the study intersection is shown below as ***Figure 1***.

The study was initiated by FDOT at the request of a citizen to assess the left-turn phasing at the study intersection. The analysis methods used in completing this study are consistent with the Manual on Uniform Traffic Control Devices (MUTCD), FDOT's Manual on Uniform Traffic Studies (MUTS), FDOT's Traffic Engineering Manual (TEM), and engineering judgment. This report documents existing conditions, vehicle / pedestrian / bicycle counts, crash analysis, qualitative assessment, and recommendations.

Figure 1
General Location Map

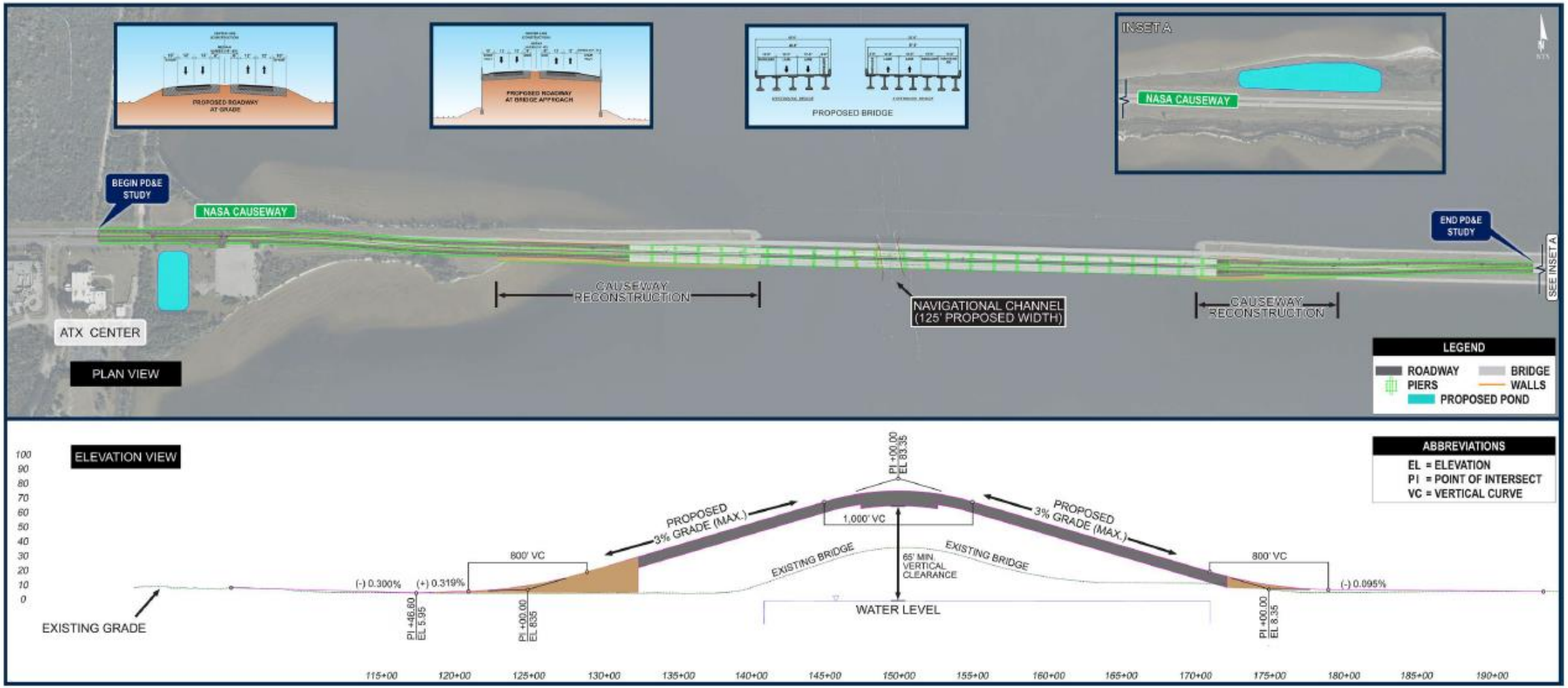


Source: MapQuest



Request Projects

PD&E Projects



Questions? Contact us!

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Questions?

Consultant Project Management Updates

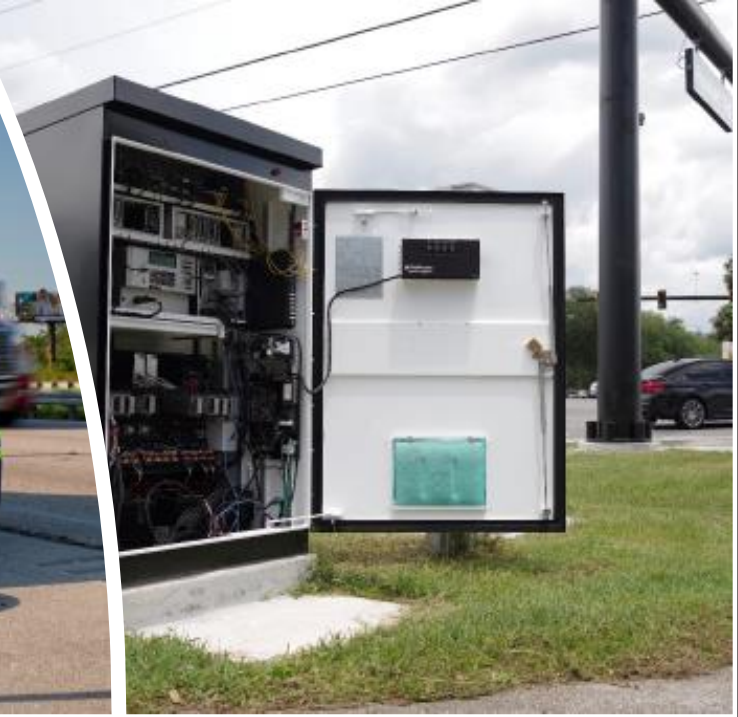
- Staff Updates
- Open Discussion

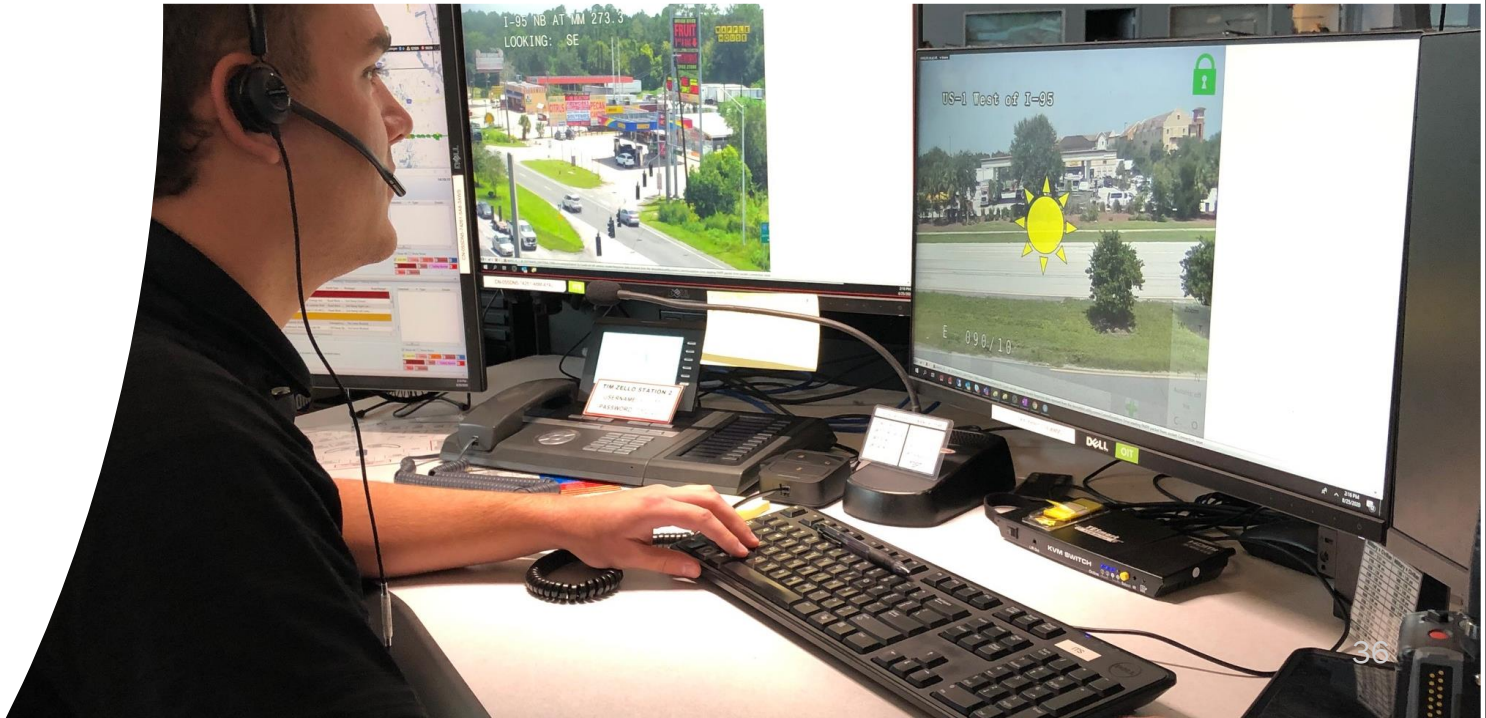
Ed Kestory, P.E.
District CPM Engineer

Back at 11 a.m.

TSM&O

Jeremy Dilmore





FDOT

What is TSM&O

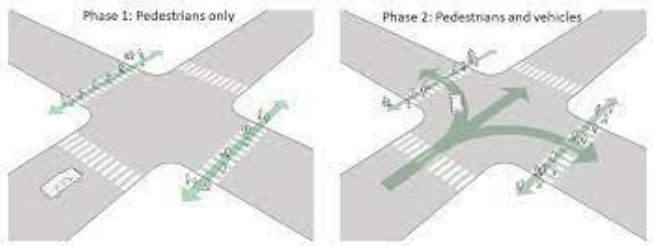
- Smart Signals
- Connected Vehicle
- Fiber/Wireless Communication
- Freeway Management
- Express Lanes
- Ramp Metering
- Wrong Way Driving
- Connected Vehicle

Note: FDOT role has changed with signals

- Managing Networks for Local Agencies
- Performing Active Management of Operations

Challenges

- SOP
  - DDI
  - TUDI with single controller
  - SPUI/SPDI
- Attempt safety for Peds
  - Complex intersection too many outputs
    - Ped/Signal (RYG)
    - Flashing Yellow Arrow
    - BOS
  - Flash/Do Not Walk incorrectly associated
- Communication ➔ Physical Conflict/Network Conflicts
- Maintenance of Communication
- Incorrect Equipment based on local preference



Opportunities

- Safety Improvements
- Constructability Improvements
- Operations during construction

Why Now?

- Increased safety deployments present integration challenges
- Complex intersection/interchange types
- Some persistent issues
- Decrease staffing at Maintaining Agencies

What?

- Meeting with District Staff/Consultant perform integration
  - Arterial Management/ Signal Engineer
  - Network Administrator
  - TSMO Construction Staff

What You Need to Do

- Look at the agenda
  - Part of Schedule Dictionary (https://www.cflroads.com/d5fdotdesign/schedule_dictionary.htm)
- Bring your EOR/designer can talk the subject
- Be prepared to discuss design choices
- Ask questions about preferences/key decisions
  - This isn't a test.
  - We looking for best project and for a partner

When & Where

- Part of the base schedule template
- RTMC -- 4975 Wilson Road, Sanford, FL 32771

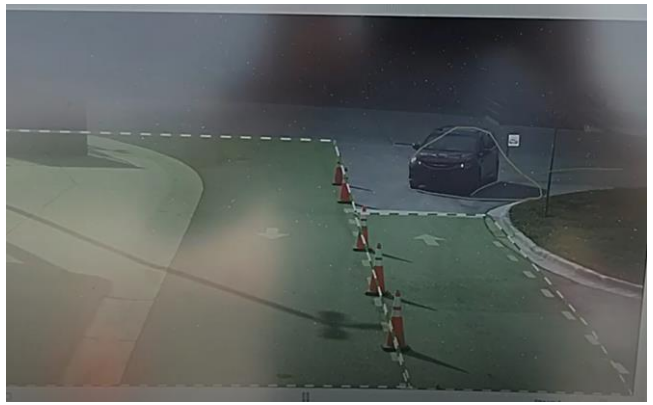
Questions?

Introduction to the Concepts of Smart Work Zone Technology

Nathan Mozeleski, P.E.

FDOT

What is Smart Work Zone Technology?



Smart Work Zone is a combination of roadside technology used to detect traffic and environmental conditions and alert motorists and construction personnel in real-time.

Think "*Portable ITS…*"

Benefits

"Improve the overall safety and experience for all users using roadside technology within active work zones."

Improve Department ability to **monitor**, **manage** roadway during construction

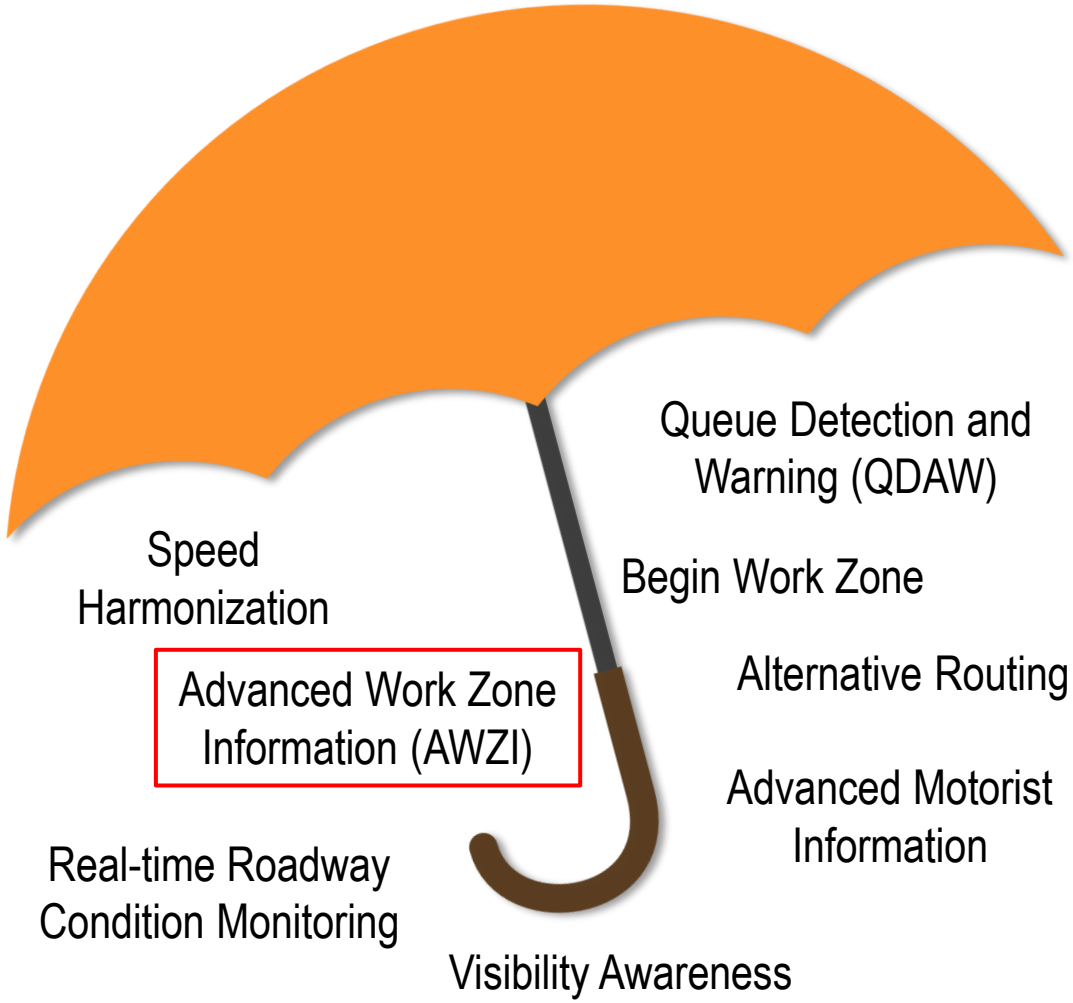
Provide **safer** work zone environments for motorists, construction personnel

Increase travel time **reliability**

Enhance driver knowledge of work zone conditions, **improve expectations**

FDOT

Nomenclature Can be Dangerous …

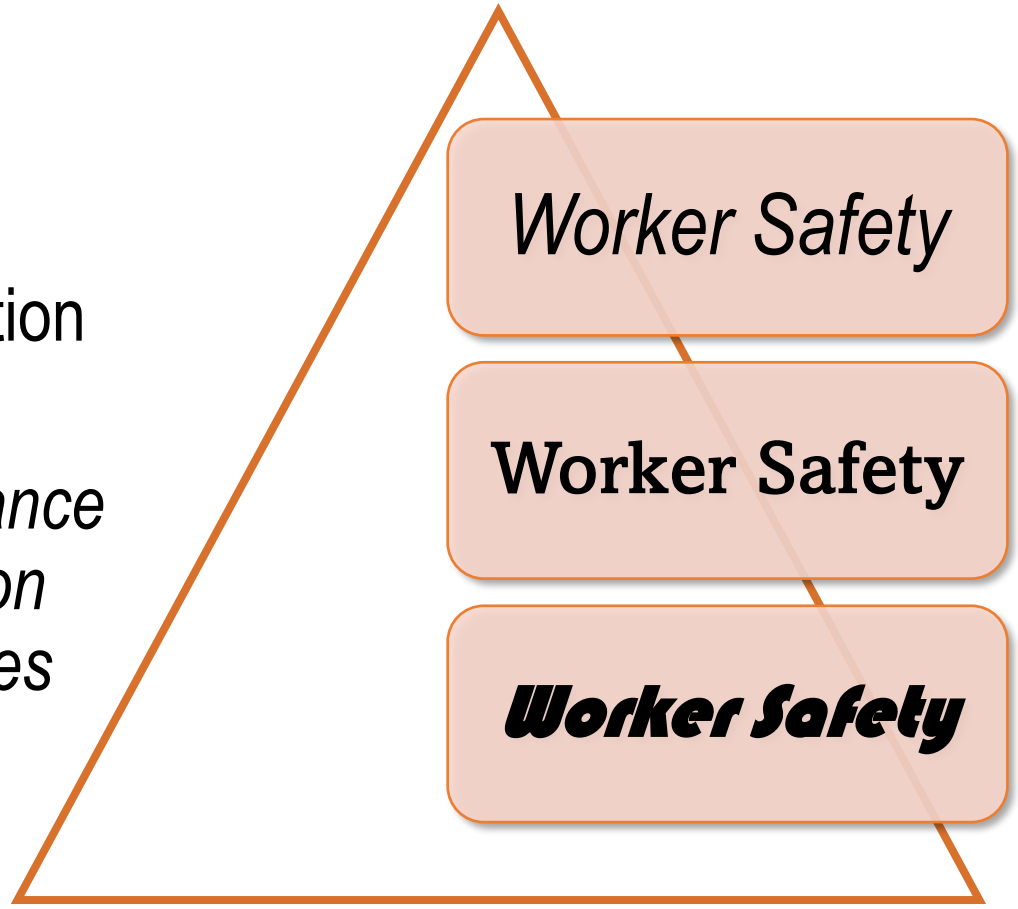


- **Smart Work Zone** – *umbrella* term used to define a wide range of technology deployed on roadside in construction zones
- District Five is focusing on specific applications, including:
  - ***Queue Detection and Warning (QDAW)***
  - ***Begin/End Work Zone***
  - ***Visibility Awareness (VCATS)***
  - ***Advanced Work Zone Information (AWZI)***

Problem Statement

***NOTE*: Each District has different needs, this discussion is specific to District Five.**

- Primary need originated from District Construction – ***improve construction worker safety***
- Additional needs originated from FHWA – *enhance ability to monitor roadways in active construction areas; better understanding of active work zones (begin/end) and lane closures*



OBJECTIVES

Approach the Problem the District Five Way

- Central Office performed market survey to determine options available in the industry
- Findings identified “parts” of the solution, but failed to address the “whole” problem

District Five set out to develop a solution that met the needs…

Approach the Problem the District Five Way

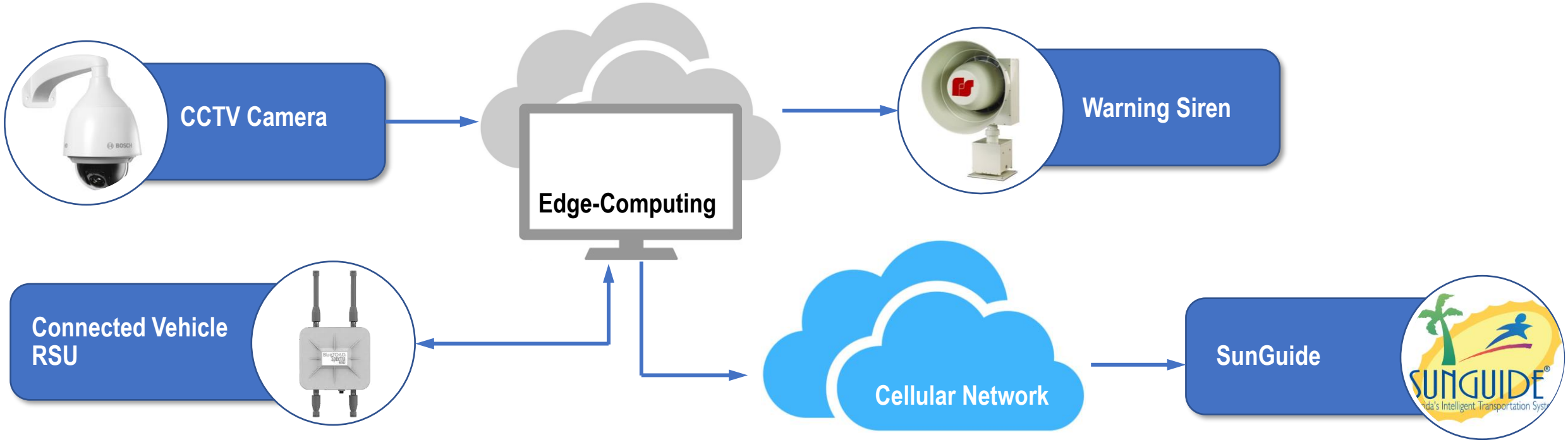
… thus, introducing the *Advanced Work Zone Information (AWZI)* system

- District Five worked with Vendor (TCS) to develop prototype system with the following requirements:
  - Portable trailer w/ solar power, cellular communications
  - Roadside cameras w/ powerful video analytics
  - Connected Vehicle (CV) technology for messaging
  - Multiple alerting formats - visual and audible
  - Security measures

How Does it Work

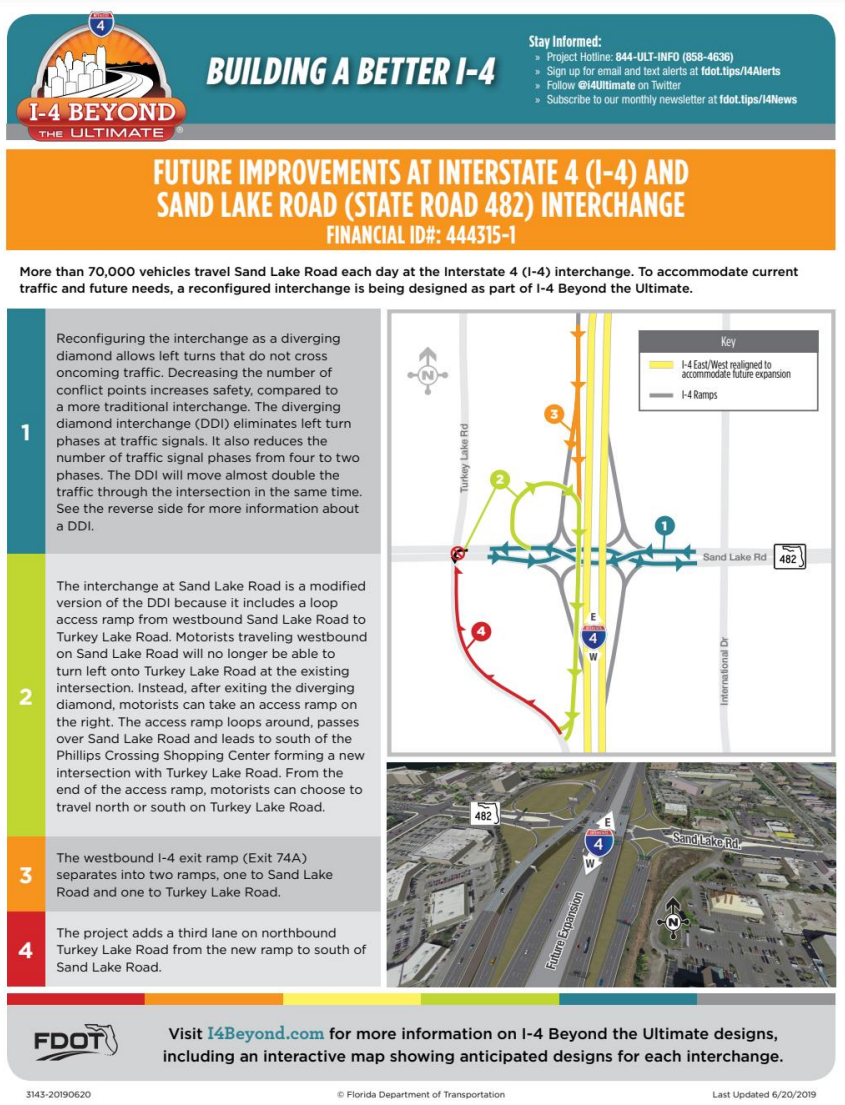
Advanced Work Zone Information (AWZI)

- Cameras w/ advanced video analytics detect events (e.g., vehicle entering work zone)
- Edge-computing used to process inputs, identify appropriate responses
- Alert motorists / construction workers in vicinity w/ loud siren, strobe, Connected Vehicle messaging



What's Next?

- Department purchased five (5) additional ***Advanced Work Zone Information (AWZI)*** system trailers
- Beginning end of May 2023, large-scale rollout of AWZI system on I-4 and Sand Lake Road (SR 482) interchange project
- Continue system evaluation; identify future enhancements and projects for implementation



I-4 BEYOND THE ULTIMATE

BUILDING A BETTER I-4

Stay Informed:
- Project Hotline: 844-ULT-INFO (858-4636)
- Sign up for email and text alerts at fdot.tips/I4Alerts
- Follow @i4Ultimate on Twitter
- Subscribe to our monthly newsletter at fdot.tips/I4News

FUTURE IMPROVEMENTS AT INTERSTATE 4 (I-4) AND SAND LAKE ROAD (STATE ROAD 482) INTERCHANGE

FINANCIAL ID#: 444315-1

More than 70,000 vehicles travel Sand Lake Road each day at the Interstate 4 (I-4) interchange. To accommodate current traffic and future needs, a reconfigured interchange is being designed as part of I-4 Beyond the Ultimate.

1 Reconfiguring the interchange as a diverging diamond allows left turns that do not cross oncoming traffic. Decreasing the number of conflict points increases safety, compared to a more traditional interchange. The diverging diamond interchange (DDI) eliminates left turn phases at traffic signals. It also reduces the number of traffic signal phases from four to two phases. The DDI will move almost double the traffic through the intersection in the same time. See the reverse side for more information about a DDI.

2 The interchange at Sand Lake Road is a modified version of the DDI because it includes a loop access ramp from westbound Sand Lake Road to Turkey Lake Road. Motorists traveling westbound on Sand Lake Road will no longer be able to turn left onto Turkey Lake Road at the existing intersection. Instead, after exiting the diverging diamond, motorists can take an access ramp on the right. The access ramp loops around, passes over Sand Lake Road and leads to south of the Phillips Crossing Shopping Center forming a new intersection with Turkey Lake Road. From the end of the access ramp, motorists can choose to travel north or south on Turkey Lake Road.

3 The westbound I-4 exit ramp (Exit 74A) separates into two ramps, one to Sand Lake Road and one to Turkey Lake Road.

4 The project adds a third lane on northbound Turkey Lake Road from the new ramp to south of Sand Lake Road.

Visit I4Beyond.com for more information on I-4 Beyond the Ultimate designs, including an interactive map showing anticipated designs for each interchange.

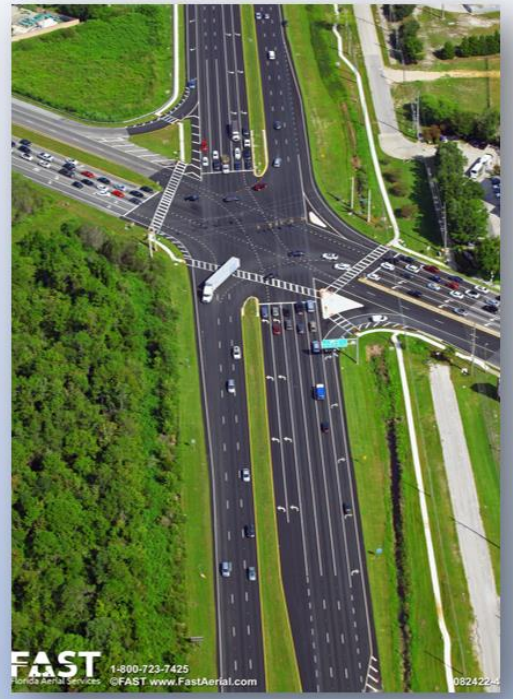
3143-20190620 © Florida Department of Transportation Last Updated 6/20/2019

Parallel Efforts

- Central Office is working on statewide approach to integrate various Traffic Ops data into single platform – **Work Zone Data Exchange (WDZx)**
  - Work Zone Begin / End Limits
  - Active vs. Non-Active Work Zones
  - Lane Closures
  - Active Detour Routes
- Smart Work Zone system information will integrate into WZDx in future

Questions?

Lessons Learned – RCUT Construction



S.R. 535 from north of Lake Bryan Boulevard to Vineland Avenue and
S.R. 535 from International Drive to south of I-4

Ray Gopal, Construction Manager

FPID Nos.: 439237-1 and 441146-1 Contract: E5Z93

Lesson 1

SUMMARY:

- Three of the four RCUT intersections were new intersections.
- Long interval from construction to when intersection open for pedestrian traffic. Sidewalk Closed/LCD's to prevent pedestrian use of the intersection.
- The original plan quantity for these pay items to account for this time period was not anticipated resulting in an overrun of $16,186 furnish/day of pedestrian LCDs at an additional cost of $2,427.90.

LESSON LEARNED/RECOMMENDATION: -

- Design to include comprehensive TTCP for pedestrians.
- Additional pedestrian LCDs should be anticipated in TTCP plans and included in the plan quantities.

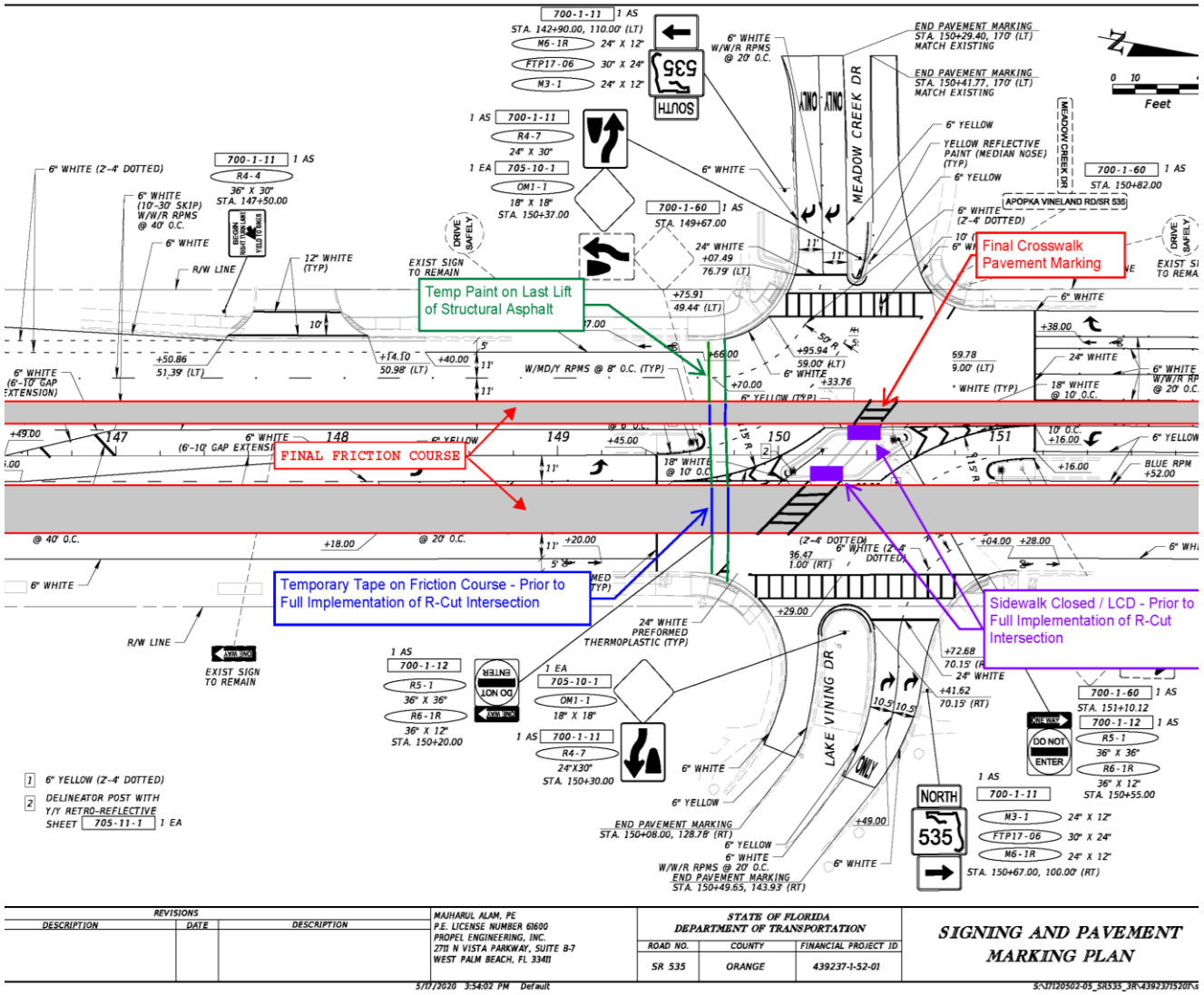
Lesson 2

SUMMARY:

- The intersection at Meadow Creek and S.R. 535 was signalized with pedestrian access prior to construction. During construction, the pedestrian pathway was changed from perpendicular to diagonal across the intersection.
- Since the final friction course is typically constructed in stages over a period of days, temporary tape is necessary to keep the perpendicular pedestrian pathway active until the full RCUT intersection is open to pedestrian traffic.
- The perpendicular crosswalk can be kept visible with temporary paint on the final structural layer during phased construction of the friction course; however, paint cannot be applied to the friction course. As a result, temporary tape should be included as a pay item in the contract.

RESOLUTION/LESSON LEARNED:

- More emphasis in TTCP on the transition from the perpendicular to diagonal pedestrian walkway.
- If left to contractor's means & methods, add temporary tape pay item.



Lesson 3

SUMMARY:

- The contract documents specified to use Rhythm Engineering InSync adaptive signal control equipment.
- The use of this system and required detector/adaptive process included two 30-day phases, resulting in a 60-day period following signal installation before the project can be final accepted.
- The 60-day detector/adaptive phases are not mentioned in the contract documents and are not mentioned on the manufacturer's website. As a result, the 60-day period was not included in the contractor's project schedule.
- The only document we are aware of that describes this process is the attached email from Rhythm Engineering to the Contractor.

LESSON LEARNED/RECOMMENDATION:

- A sole source product or system that requires a specific burn-in/testing time period should be identified, and documents provided in the Technical Special Provisions so that the contractor can reflect the requirement in their schedule submittal.

From: Ashley Reynolds <ashley.reynolds@rhythmtraffic.com>
Sent: Wednesday, March 23, 2022 12:10 PM
To: George Hanna <ghanna@middlesexco.com>
Subject: Re: SR 535 - Rhythm System

CAUTION: This email originated from outside of the organization. Use caution when clicking links or opening attachments. The sender may not be who they appear to be.

Good Afternoon,

Once all equipment is installed and we have verified remote access along with having aimed the cameras, we will schedule a tech to come onsite for detector mode turn-on. The system runs in detector mode for 3-4 weeks collecting traffic pattern data. That data is what our engineers use to create the initial adaptive configurations. After we have the necessary data we will schedule an engineer to come onsite to put the system into adaptive. At this point the project is considered complete and can be closed out unless a 30-day acceptance test is required by Orange County.

The time between detector mode and adaptive mode depends on the data being collected as well as engineer availability. That time frame is roughly 4-6 weeks.

1

Time for Detector Mode and Adaptive Mode are two approx 30-day periods equaling approx 60 days. This information is not in the contract documents and cannot be found on the manufacturer's website.

Lesson 4

SUMMARY:

- The contract plans represented the presence of slack in the fiber optic cable (FOC) necessary to splice into the proposed traffic signal cabinets at the three new signalized intersections.
- Slack was either not available or was not useable, resulting in a $93,652 supplemental agreement to replace the FOC for the length of the project.

LESSONS LEARNED/RECOMMENDATION:

- A field review of existing conditions during design should be required. Further, if existing slack is to be used permission should be in writing from the maintaining agency.
- During the pre-construction meeting, contractor should verify the availability of FOC slack and coordinate with the maintaining agency within the first 90 days of the project to avoid potential delays in the project.

Questions?

Save the Date

Next Quality Forum:
September 14, 2023

Thank You!