



# SW 10<sup>th</sup> Street Connector Transportation Systems Management and Operations (TSM&O) Project – 439891-5

## Industry Forum

March 23, 2022

# Ground Rules

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- Please mute microphone
- Hold all questions until the end of the presentation
- Raise hand for questions and wait to be recognized

# Presentation Outline

- SW 10th St Connector Improvements- Achieving FDOT Priorities and Objectives
- DBE/SB Program
- SW 10th St Connector – Overall Program Summary
- SW 10th St Connector TSM&O Project (439891-5)
  - Project Objectives
  - Programmed Funding
  - Agency Coordination / Partnerships
  - Scope of Planned Improvements
- Procurement Process and Schedule
- Next Steps

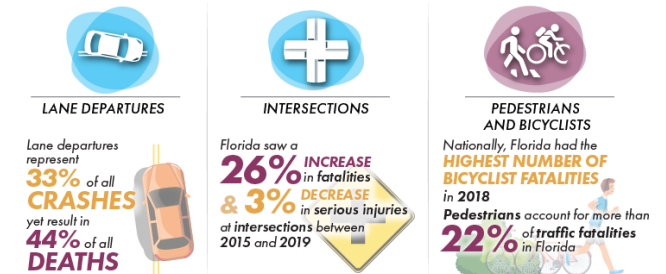


# SW 10th Street Connector Improvements Achieve FDOT Priorities And Objectives

- Focus on the Vital Few
  - Improve Safety
  - Enhance Mobility
  - Inspire Innovation
- SW 10<sup>th</sup> Street Improvement Projects
  - Expand Mobility and Transportation Options
- Work Zone Safety – a Focus Area for the state
  - Work Zone Safety is One of the Emphasis Areas of the Florida Strategic Highway Safety Plan
  - Using ITS and Connected and Automated Vehicle (CAV) technologies in and around work zones has been a focus area identified by FDOT



Top 3 Safety Emphasis Areas of Florida's Strategic Highway Safety Plan and FDOT's Vital Few Safety Focus





## Assisting Small and Disadvantaged Businesses

FDOT Supportive Services Programs  
Thomas Huggins III

## Specialized Development Program (SDP)



**DBE Specialized Development Program**  
A focused approach to assisting prime contractors



- Program was created by FDOT in 2012
- Designed to assist prime contractors on major projects typically \$50 million and above and identify qualified DBEs to take advantage of subcontracting opportunities
- Currently the program is assisting 22 prime contractors on 65 projects worth over \$12 billion
- Has assisted DBEs that have received over \$400 million in contracts
- Provider: **Florida State Minority Supplier Development Council (FSMSDC) and Ariel Business Group**



## Specialized Development Program (SDP)



**DBE Specialized Development Program**  
A focused approach to assisting prime contractors



- Assistance to Primes to meet their DBE Goals on large projects
- Technical Assistance Referrals
- DBE Capacity Assessments
- Bonding and Financing Referrals
- Administers the Bridging the Gap Pilot Program





## Specialized Development Program (SDP)



**DBE Specialized Development Program**  
A focused approach to assisting prime contractors



### SDP Process

- Identification of Interested and Qualified DBEs
- Pre-Proposal Meeting
- Shortlist Announced
- Specialized Development Program DBE Pre- Bid Forum
- Participate in Construction Project Meetings



## Specialized Development Program (SDP)

### Contact info:

Thomas Huggins III	813.207.0003	Project Director
Russell Spears	813.207.0003	Project Consultant (D7)
Mark Jackel	407.474.8556	Project Consultant (D5)
Moya Bailey	305-762-6151	Project Consultant (D4-6)
Kenneth Taite	850-688-6407	Project Consultant (D2-3)

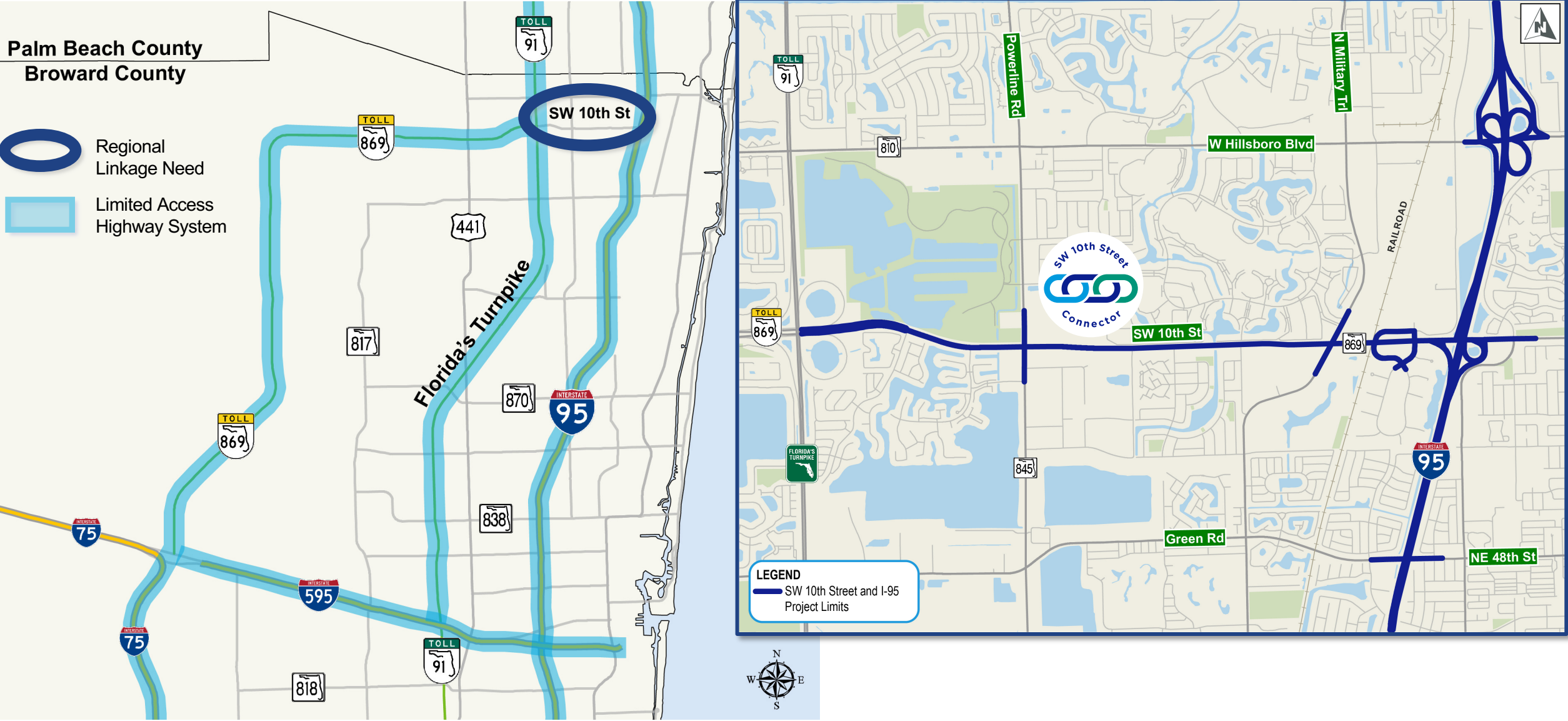
Toll Free: 855 -422-3368  
Website: [www.FDOTDBEServices.com](http://www.FDOTDBEServices.com)



**DBE Specialized Development Program**  
A focused approach to assisting prime contractors

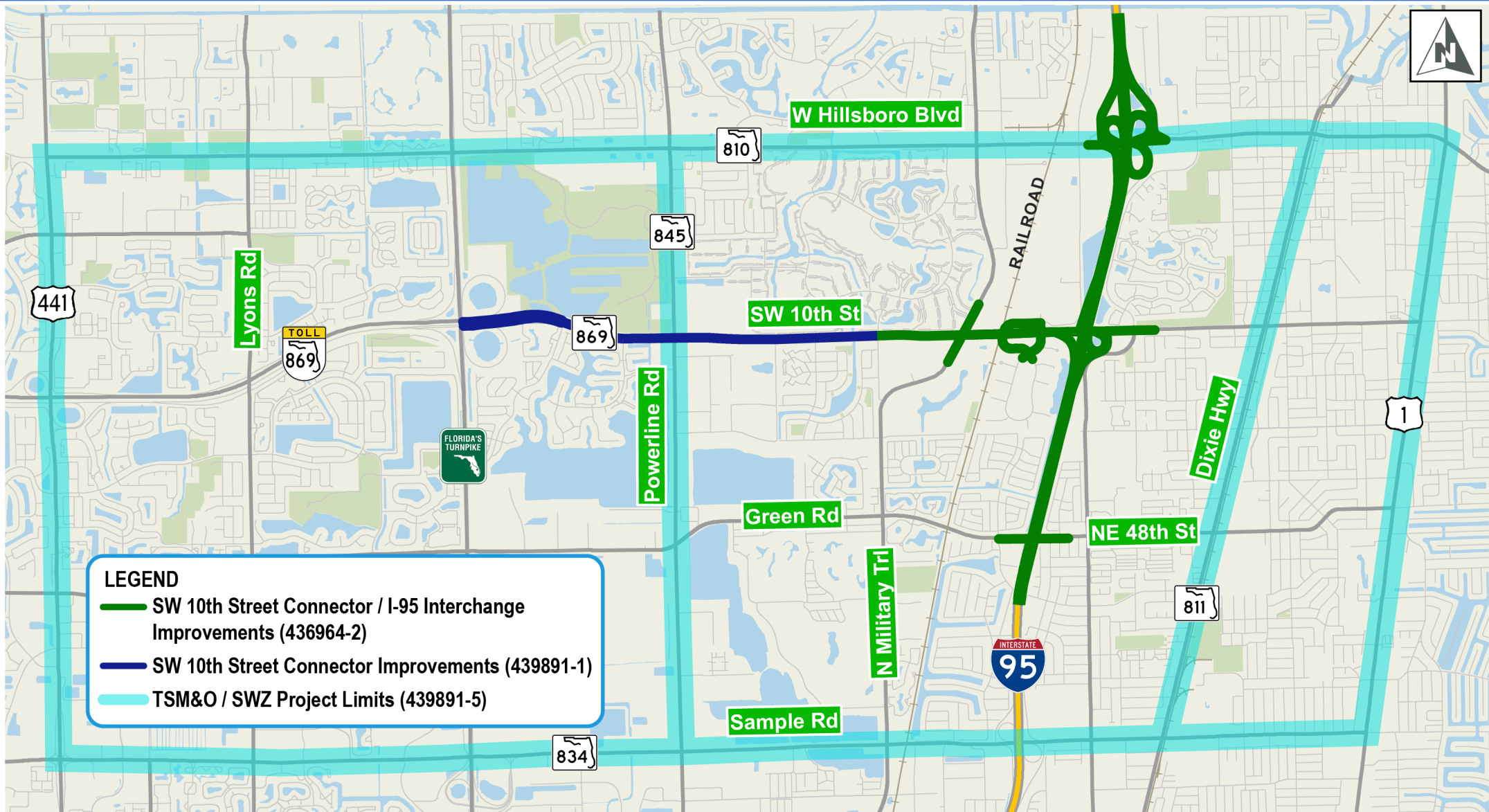


# SW 10th Street Connector – Overall Program Summary





# SW 10th Street Connector – Overall Program Summary



# **SW 10<sup>th</sup> Street Connector TSM&O Project**

**FPID: 439891-5-52-01 &  
439891-5-52-02**

**FAP: D421 and D422**

**Contract #: E4V80**

# Project Objectives

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- Enhance Work Zone Safety and Mobility, Throughout and Beyond Construction Limits of SW 10th Street Connector Projects
- Continued Support of Regional Traffic Operations After Construction
- Enhance Infrastructure Readiness for Future Technology Expansion, Including use of Scalable Connected Vehicles Systems
- Expansion of Regional Network Coverage of Advanced Transportation Management System Corridors in Broward County



# Construction Funding

- 439891-5-52-01 – Approximately \$29M
- 439891-5-52-02 – Approximately \$6.8M



# Agency Coordination / Partnerships

- FDOT District 4
- Broward County
- Florida's Turnpike Enterprise



# Scope of Planned Improvements

- Arterial Advanced Transportation Management System (ATMS) Deployment
- Connected Vehicles Deployment
- Signal Mast Arms Replacement
- Broward County Traffic Signals Interconnection Fiber Deployment
- Broward County Adaptive Traffic Control System Deployment
- Utility Coordination
- Right of Way
- Railroad Coordination
- Survey
- Public Involvement
- Construction Phase Coordination and Administration
- Incentives and Disincentives



# Arterial ATMS Deployment

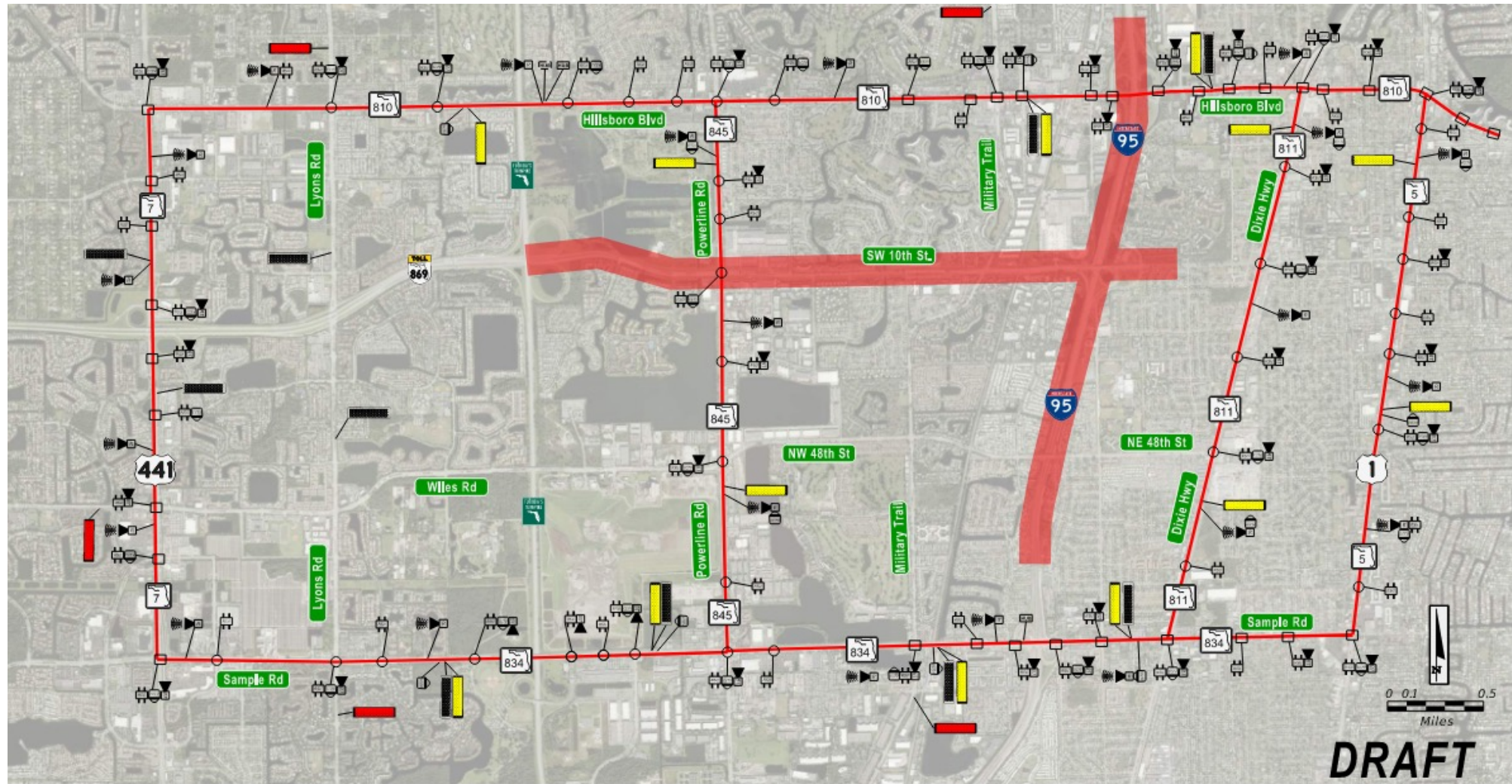
- Arterial ATMS Deployments on These Six State Road Corridors
  - SR 810 (Hillsboro Boulevard) from SR 7 to US 1
  - SR 834 (Sample Road) from SR 7 to US 1
  - SR 7 (US 441) from SR 810 to SR 834
  - SR 845 (Powerline Road) from SR 810 to SR 834
  - SR 811 (Dixie Highway) from SR 810 to SR 834
  - SR 5 (US 1) from SR 810 to SR 834

# Arterial ATMS Deployment

## Summary of Planned Improvements

- Communications Subsystem – 144 SMFOC, new Hub Shelters, L2/L3 Switches, etc.
- Power Subsystem – electrical service points, UPS in the device cabinet, permanent generators, etc.
- CCTV Cameras – approximately 45
- Arterial DMS – approximately 13
  - Including 2 ADMS which will be integrated into FTE system
- Potential 5 additional ADMS on County Roads (Military Trail, Lyons Road, Wiles Road) approaching construction influence area
- Vehicle Detection System – both MVDS and Bluetooth detectors – approximately 60

# ATMS Device Exhibit



## LEGEND:

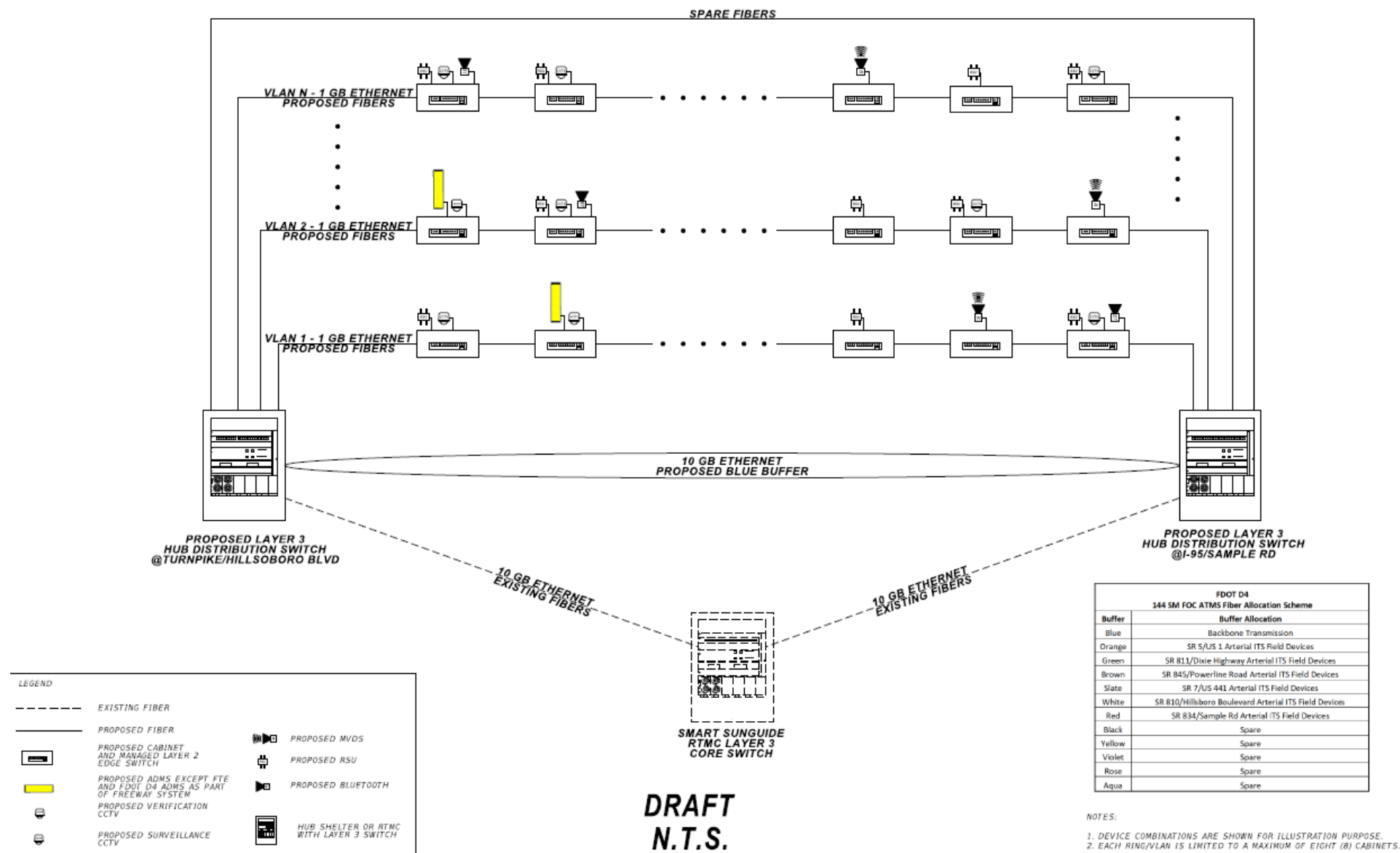
- PROPOSED PERMANENT ARTERIAL DMS
- EXISTING ARTERIAL DMS
- POTENTIAL ARTERIAL DMS ALONG COUNTY ROAD

- PROPOSED PERMANENT MVDS
- PROPOSED PERMANENT CCTV CAMERA
- PROPOSED PERMANENT VCCTV CAMERA
- PROPOSED PERMANENT ROADSIDE UNIT

- PROPOSED PERMANENT BLUETOOTH DETECTOR
- SIGNALIZED INTERSECTION
- ATCS INTERSECTION
- TSM&O PROJECT LIMITS (439891-5)

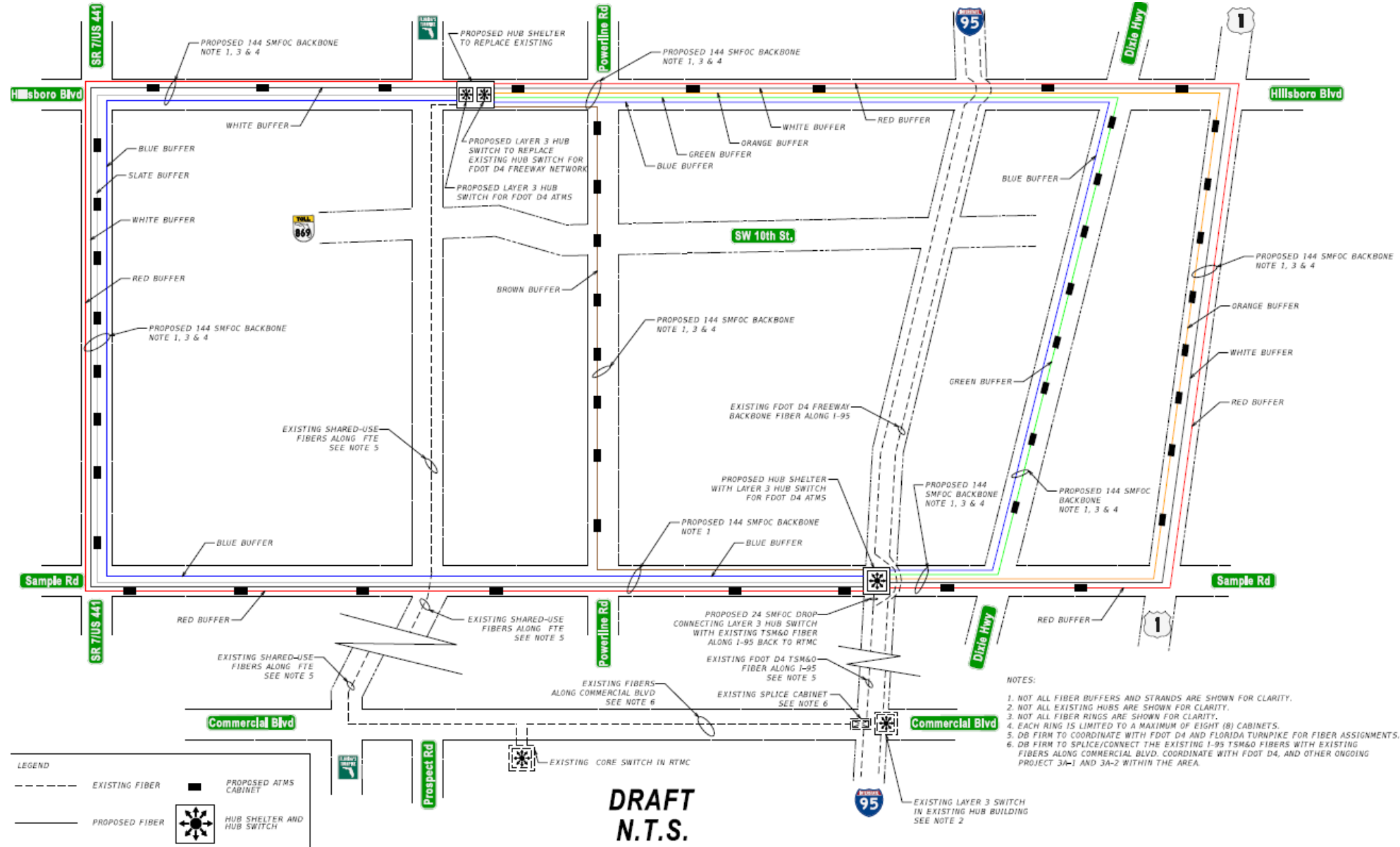
- SW 10th ST / I-95 CONSTRUCTION LIMITS
- PROPOSED PERMANENT HUB
- EXISTING HUB

# Arterial ATMS Deployment





# Arterial ATMS Deployment



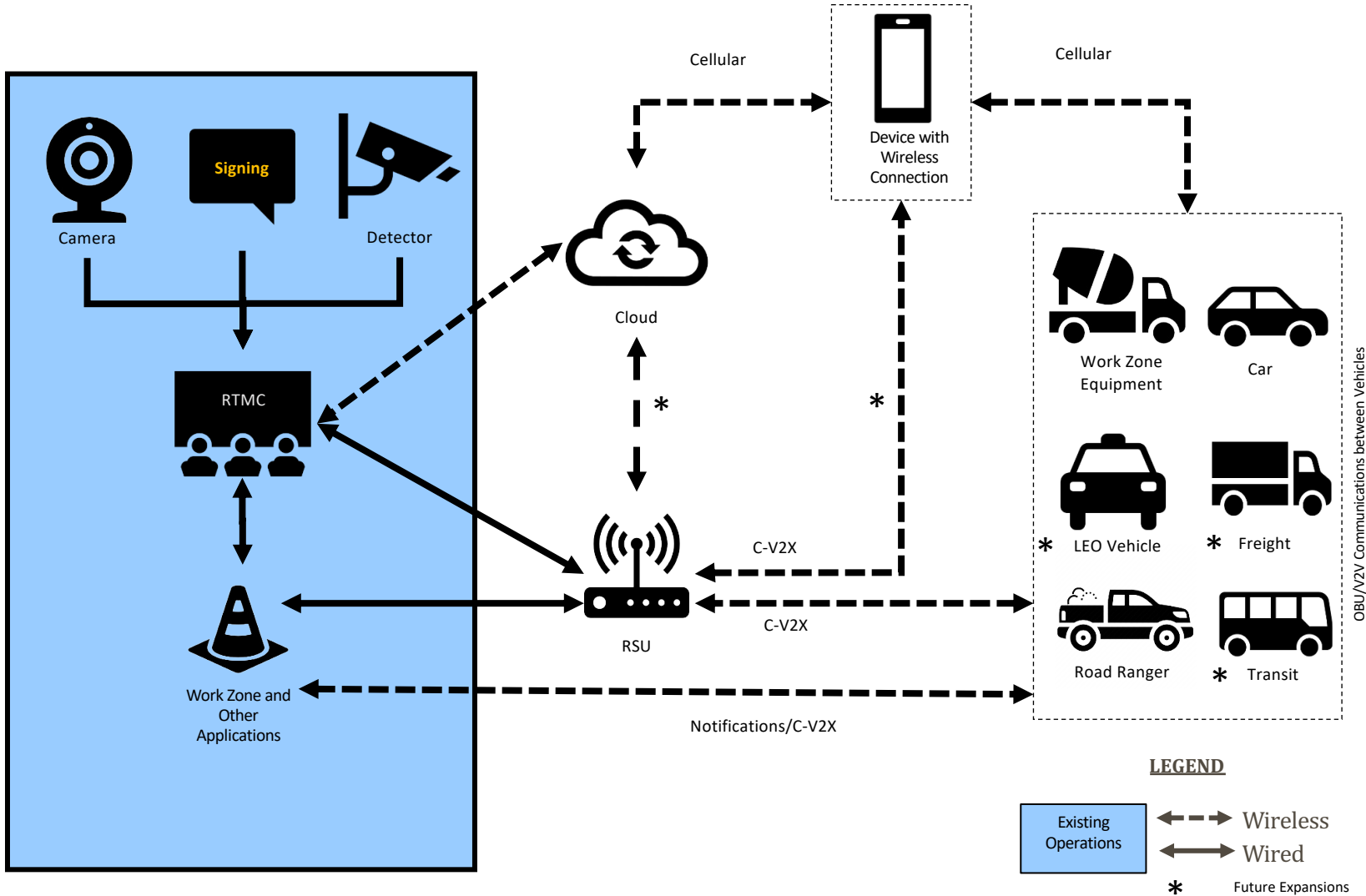


# Connected Vehicles Deployment

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- Connected Vehicle Scope Will Consist of:
  - Roadside Units Field Deployment – Approximately 75
  - Onboard Units Deployment on Designated Vehicles – Approximately 100
  - Smartphone Applications Development and Integration / Deployment
  - CV Central Software / Platform Development

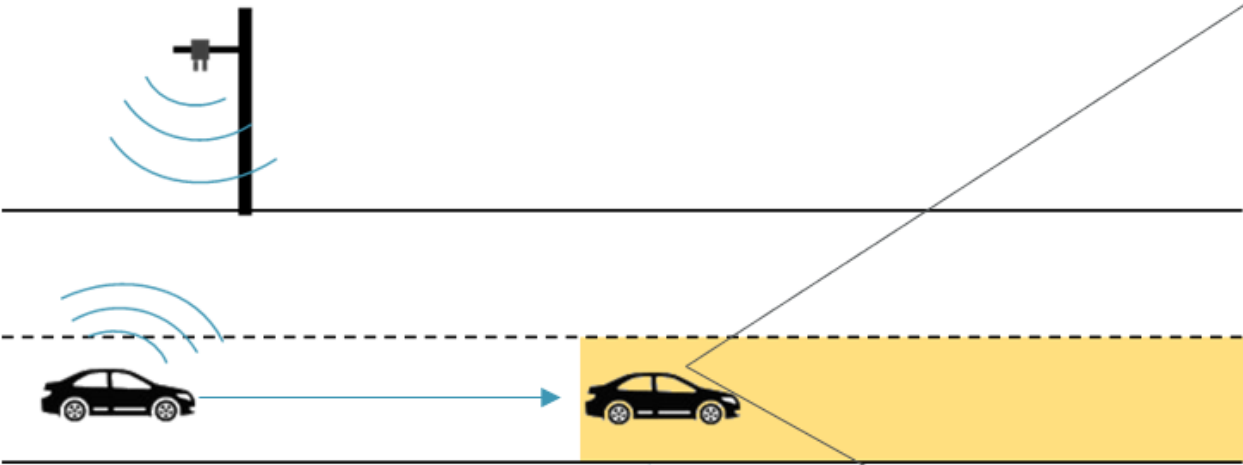
# Connected Vehicles Deployment



## Connected Vehicle System Concept

# Connected Vehicles Deployment

## Connected Vehicle System Concept



Predetermined Geographic Zone for In-Vehicle Driver Alert

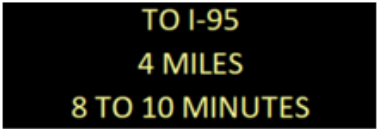
## Sample In-Vehicle Driver Alerts



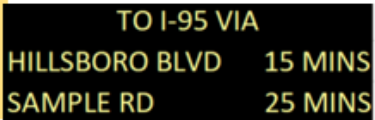
Work Zone Ahead



Traffic Queue Warning



Travel Time Advisory

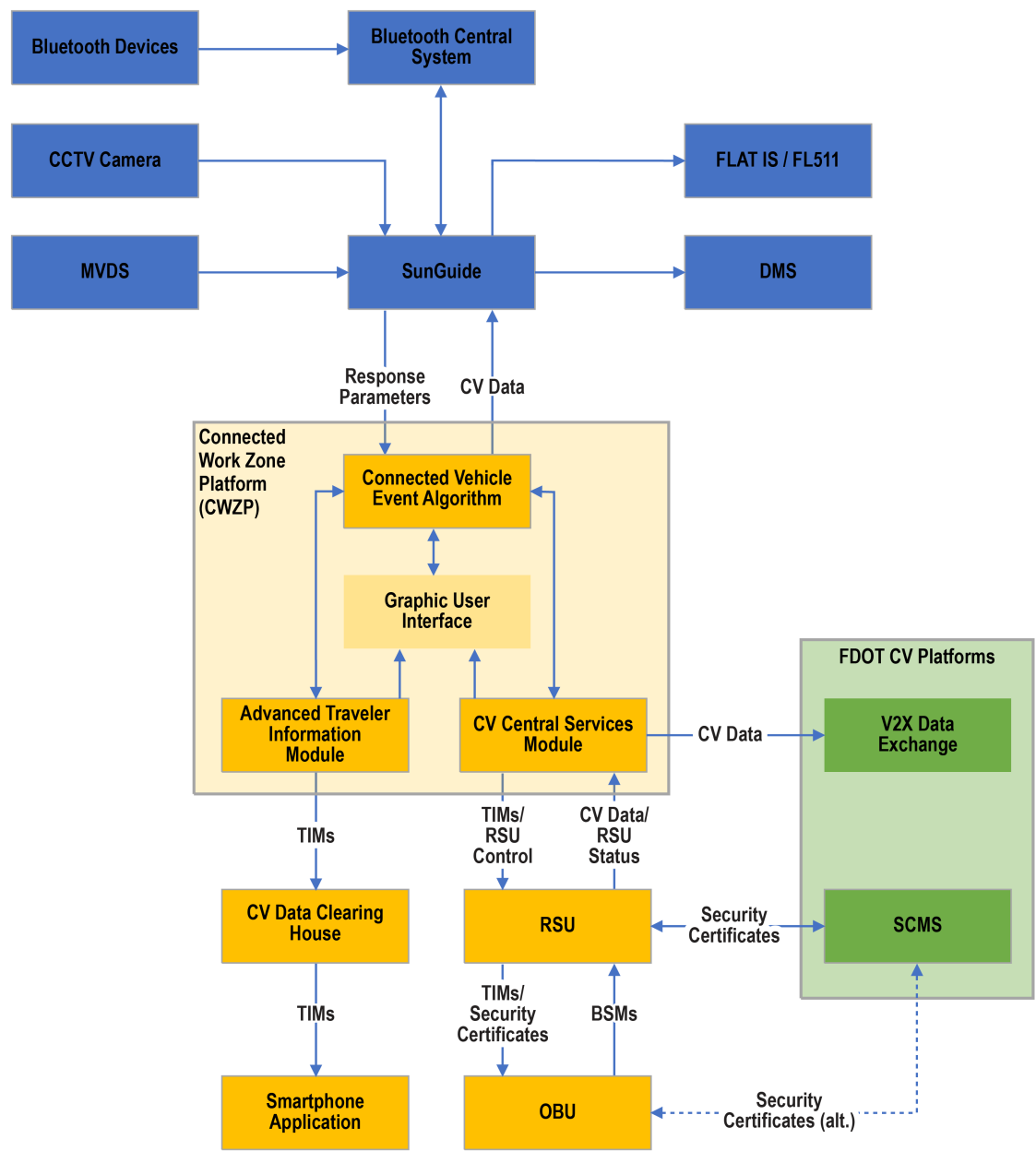


Alternate Routes  
Travel Time Advisory



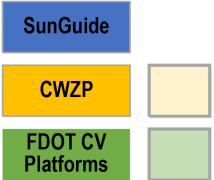
Speed Limit Advisory

# Connected Vehicles Deployment



## Connected Vehicle System Architecture

Legend



# Signal Mast Arms Replacement

- Mast Arm Assemblies, Traffic Signal and Ancillary Equipment at Below Two Intersections Shall be Replaced
  - SR 810 (Hillsboro Boulevard) at Deerfield Plaza – 4 Mast Arms
  - SR 810 (Hillsboro Boulevard) at NW 41<sup>st</sup> Way – 4 Mast Arms



# Broward County Traffic Signals Interconnection Fiber Deployment

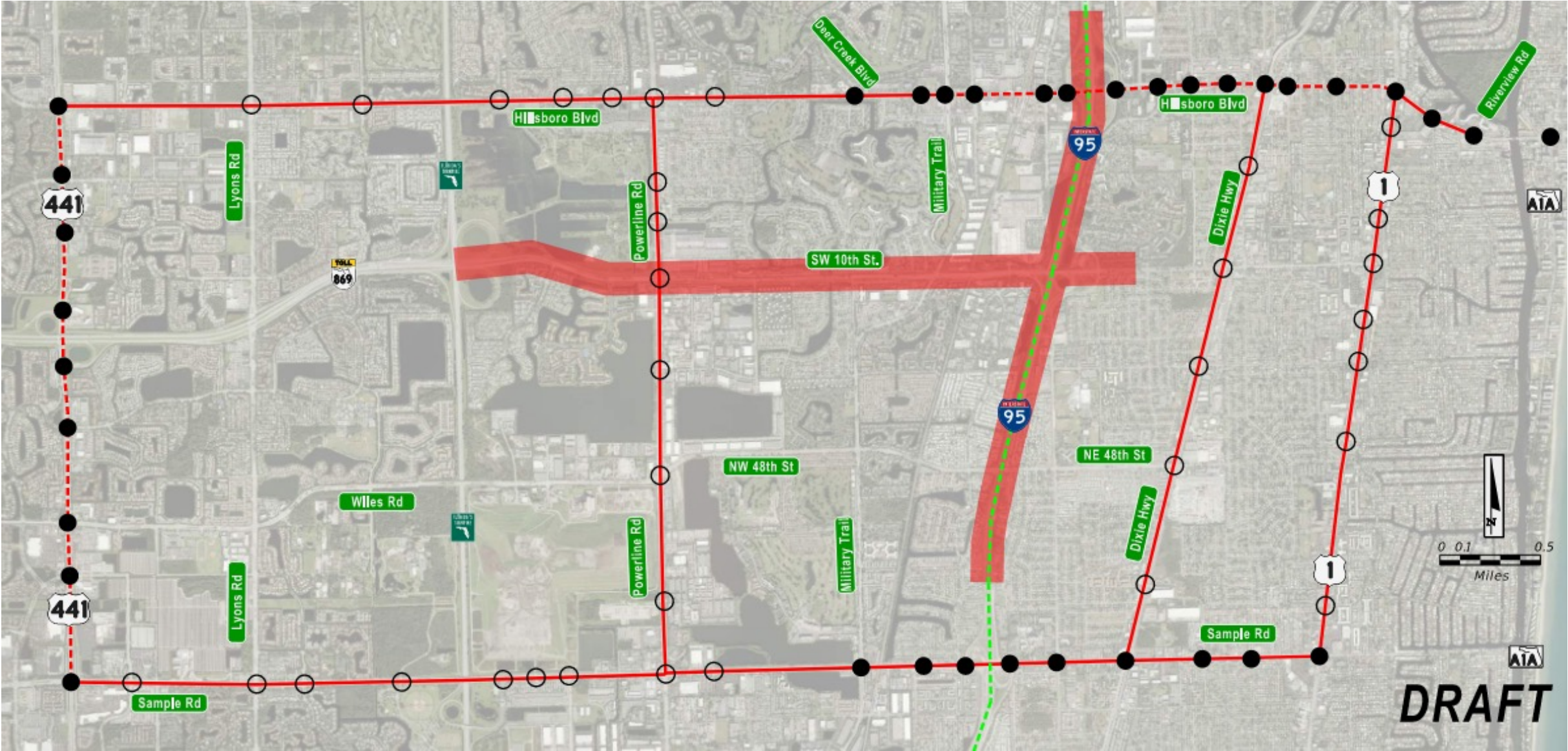
- Deployment Limits
  - SR 810 (Hillsboro Boulevard) from SR 7 to Military Trail and from US 1 to Riverview Road
  - SR 834 (Sample Road) from SR 7 to US 1
  - SR 845 (Powerline Road) from SR 810 to SR 834
  - SR 811 (Dixie Highway) from SR 810 to SR 834
  - SR 5 (US 1) from SR 810 to SR 834

# Broward County Adaptive Traffic Control System (ATCS) Deployment

- Deployment Limits (35 intersections) –
  - SR 810 (Hillsboro Boulevard) from Deer Creek Boulevard to SR A1A
  - SR 834 (Sample Road) from Military Trail to US 1
  - SR 7 (US 441) from SR 810 to SR 834

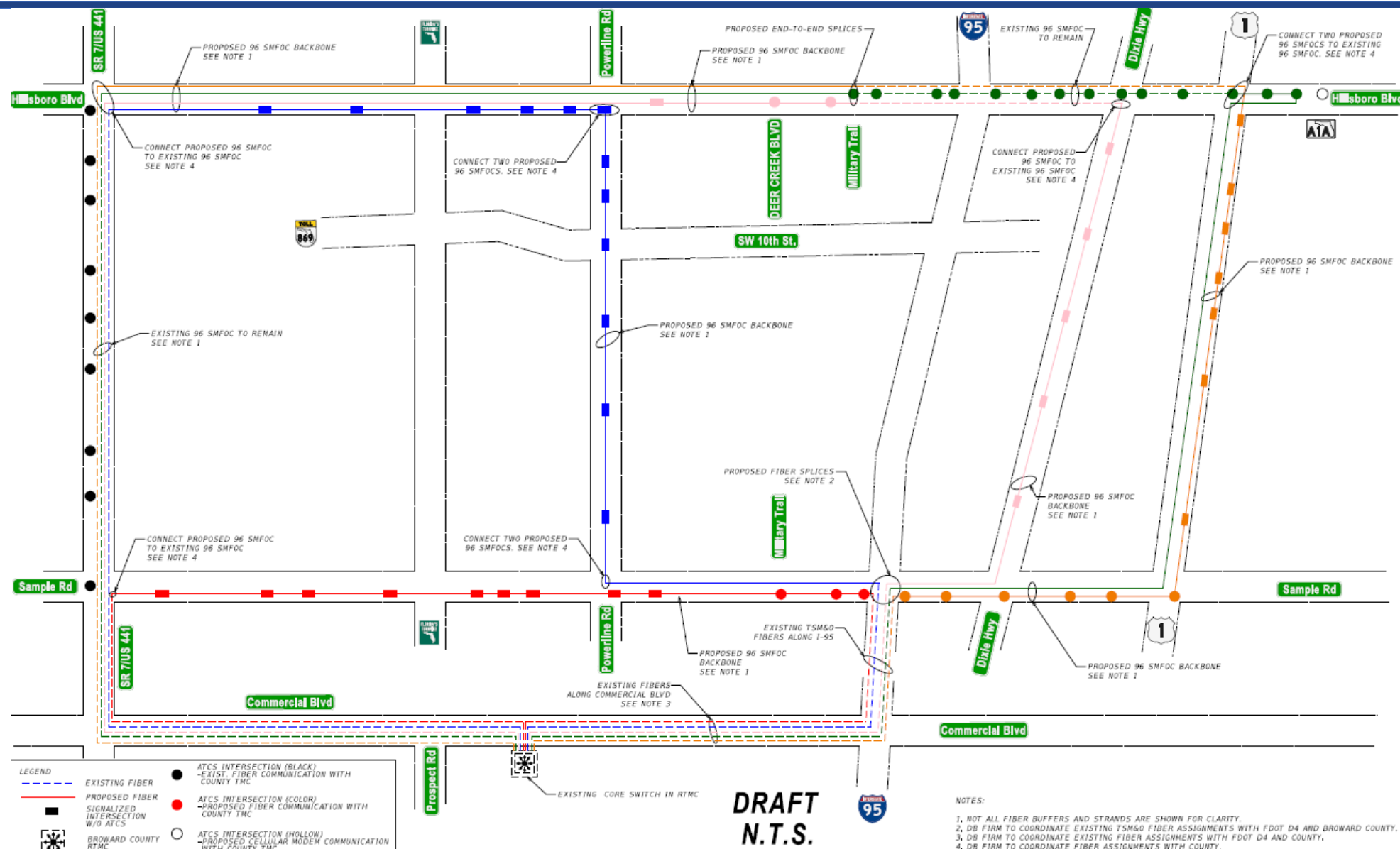


# Broward County Fiber and ATCS Deployment Exhibit





# Broward County Fiber and ATCS Deployment Exhibit



# Utility Coordination

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- Department Coordinating with UAOs
- Department will Provide the Following Items:
  - Utility Base Map
  - Utility Records and Markups , Quality Level “D”
  - Summary of UAOs Within Project Limits
  - Limited Quality Level “C” SUE Investigation Using Terrestrial Mobile LiDAR
- No Relocations Anticipated



# Right of Way

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- All Work Within the Existing Right of Way
- Department will Provide:
  - Right of Way Certification
  - Preliminary Right of Way information
- Refer to RFP for Additional Details

# Railroad Coordination

- Railroad Coordination is Anticipated with FEC and SFRTA for Below Instances:
  - SFRC Crossing at Sample Road
    - Underground conduit under the tracks
  - SFRC Crossing at Hillsboro Boulevard
    - Underground conduit under the tracks
  - FEC Crossing at Sample Road
    - Underground conduit under the tracks
  - FEC Crossing at Hillsboro Boulevard
    - Underground conduit under the tracks
  - FEC Along Dixie Highway
- Refer to RFP Railroad Coordination Section for Additional Details

# Public Outreach

- Recent and Ongoing Outreach Efforts:
  - January 2022 Project Information Session
  - Information Posted on SW 10<sup>th</sup> Street Connector Website
  - Project One-on-One Contractor Meetings – March 24<sup>th</sup>, 2022
  - Elected Official Briefings – April through July 2022
  - Public Meeting (combined with the SW 10<sup>th</sup> Street Connector Projects) – Summer 2022
- DB Firm Responsible for Ongoing Support Role to FDOT PIO for Key Deliverables:
  - Community Awareness Plan
  - Public Meetings / Workshops
  - Technical Assistance
- Refer to RFP Public Involvement Section for Additional Details

# Construction Phase Coordination and Administration

- Adjacent Projects Coordination
  - 436964-2: SW 10<sup>th</sup> Street Connector Interchange with I-95 – Advertisement Summer/Fall 2022, Letting July 2023
  - 439891-1: SW 10<sup>th</sup> Street Connector – Advertisement Summer 2023, Letting July 2024
  - 436958-1: I-95 at Sample Road
  - 433108-4-52-01, 95 Express Phase 3A1
  - 433109-5-52-01, 95 Express Phase 3B2
  - 409354-2-52-01, 95 Express Phase 3C
  - Refer to RFP for additional projects
- Construction Time Estimate: 871 days
- Incentives / Disincentives Provisions



# Incentives and Disincentives

- Incentive / Disincentive Included to Minimize the Inconvenience to the Traveling Public and Expedite Operation of DMS and confirmation cameras.
  - Incentive / Disincentive for Turning Over “Operational” ITS Devices to D4 RTMC (\$500K)\* on the Following Four Corridors:
    - Hillsboro Boulevard
    - Sample Road
    - SR 7
    - US 1

ID #1\*: Cameras and DMS operational and able to be used by D4 RTMC , the I/D total amount of \$500,040.00 with an I/D completion date to read 691 calendar days from commencement of Contract Time”, and an “I/D daily amount” of \$2,778. Estimated early date for compensation of I/D is Fiscal Year 2025.

\*Subject to change

# Procurement Process and Schedule

# DB Procurement Process

- Adjusted Score Design-Build
- Standard FDOT Two-Phase DB Approach
- Phase I – Expanded Letter of Interest
- Phase II – Technical Proposal
  - Alternative Technical Concept (ATC) Meetings
  - Page Turn Meeting
  - Question & Answer Session
- Bid Price Proposal
- Final Selection Formula (Adjusted Score)
  - Bid Price Proposal/Technical Score

# DB Procurement Process

- Phase I – Expanded Letter of Interest (LOI)
  1. DB Firm Name and Prequalification – Pass/Fail
  2. Past Performance Evaluations, DB Project Experience, Organization, and Staffing - (0-7 Points)\*
    - Contractor and Professional Consultant Grades
    - DB or Similar Work Experience
    - Performance History with Other States or Agencies, if None With the Department
    - Environmental Record
    - Current Year Contractor Experience Modification Rating
    - Organization / Staffing / Coordination Plans
  3. DB Project Requirements and Critical Issues - (0-13 Points)\*
    - Understanding of DB Project Requirements
    - Identification of Critical Issues
    - Outline for Addressing Critical Issues

\*Weightings subject to change

# DB Procurement Process

- Phase II – Technical Proposal
- Only top 3 Design-Build Firms score the highest from Phase I move to Phase II
  1. Design - (30 Points)\*
    - ITS Design, Connected Vehicle Design, Integration
    - Others refer to RFP
  2. Construction - (30 Points)\*
    - Safety
    - Utility Coordination
    - Connected Vehicle Central Software
    - Others refer to RFP
  3. Innovation - (15 Points)\*
    - Refer to RFP
  4. Value Added - (5 Points)\*
    - Refer to RFP

\*Weightings subject to change



# DB Procurement Process

- Final Selection Formula
  - Adjusted Score =  $BPP / TS$
  - BPP = Bid Price Proposal
  - TS = Technical Score (Combined Scores from LOI and Technical Proposal)
- The Design-Build Firm selected will be the Design-Build Firm whose Adjusted Score is lowest

# DB Procurement Process

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- Stipend Awards
  - Stipend may be paid to non-selected Short-Listed Design-Build Firms
  - Current stipend amount \$107,500\*
  - Refer to RFP

\*Subject to change

# DB Procurement Process

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- Technical Review Committee
  - Alexandra Lopez
  - Brad Salisbury
  - Daniel Smith
  - William Grey

# DB Procurement Schedule

Procurement Activity	Milestone Date*
Planned Advertisement (with Draft RFP)	April 28, 2022
Advertisement	May 9, 2022
Expanded Letters of Interest Due	May 31, 2022
Shortlist Posting	July 7, 2022
Final RFP Provided to DB Firms	July 12, 2022
Technical Proposals Due	December 9, 2022
Bid Price Proposals Due	February 8, 2023
Anticipated Award Date	March 13, 2023
Anticipated Execution Date	March 28, 2023

\*Dates subject to change

# CEI Project Procurement Schedule

Procurement Activity	Milestone Date*
Advertisement	July 18, 2022
Advertisement Close	August 1, 2022
Longlist	August 24, 2022
Shortlist	August 29, 2022
Final Selection	September 19, 2022
Anticipated Execution Date	November 18, 2022

\*Dates subject to change



# Project Procurement Documents

- Draft RFP
- Draft ITS Deployment Requirements
- Draft CV Deployment Requirements
- Draft CV OBU Requirements
- Draft Broward County Requirements
- Draft ITS Concept Plans
- Draft ATCS Concept Plans
- Draft Signal Interconnection Concept Plans
- Draft Systems Engineering Documents

Above documents are already posted on the FDOT Planned Ad Website

<https://pdaexternal.fdot.gov/Pub/AdvertisementPublic/AdDetail/04/12278/D-B/P/P>

# Next Steps

- Updated RFP for Official Ad
- Final RFP at Shortlist
- One-on-One Meetings
  - March 24<sup>th</sup> at D4 Headquarters
    - D4 Management Team
    - Technical Review Committee
- Advertisement May 2022
- Shortlisting July 2022
- Letting February 2023



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# Questions