

MARTIN COUNTY ►  
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MARCH 11, 2025

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RAILROAD QUIET ZONE UPDATE



# BACKGROUND

- ▶ Brightline began commercial operation through the Treasure Coast in September 2023
- ▶ 32 trains per day added to the Florida East Coast Railroad (FEC) Right-of-Way
- ▶ Martin County strategically chose to wait one-year to evaluate a Quiet Zone
- ▶ Began Quiet Zone evaluation in August 2024



# CROSSINGS & ROAD OWNERSHIP

## ▶ 27 FEC Right-of-Way Crossings

- 17 Martin County
- 5 City of Stuart
- 2 State of Florida
- 2 Shared (St. Lucie Co & Palm Beach Co)
- 1 Private





# CURRENT TRAIN HORN OPERATION

- ▶ Federal “Train Horn Rule” (Title 49 CFR 222)
- ▶ Must sound horns 15-20 seconds before reaching a highway-rail crossing
- ▶ In no case may the horn be sounded more than  $\frac{1}{4}$  mile before the crossing
- ▶ Horn is sounded in a Long-Long-Short-Long cadence
- ▶ Decibel level must be between 96-110



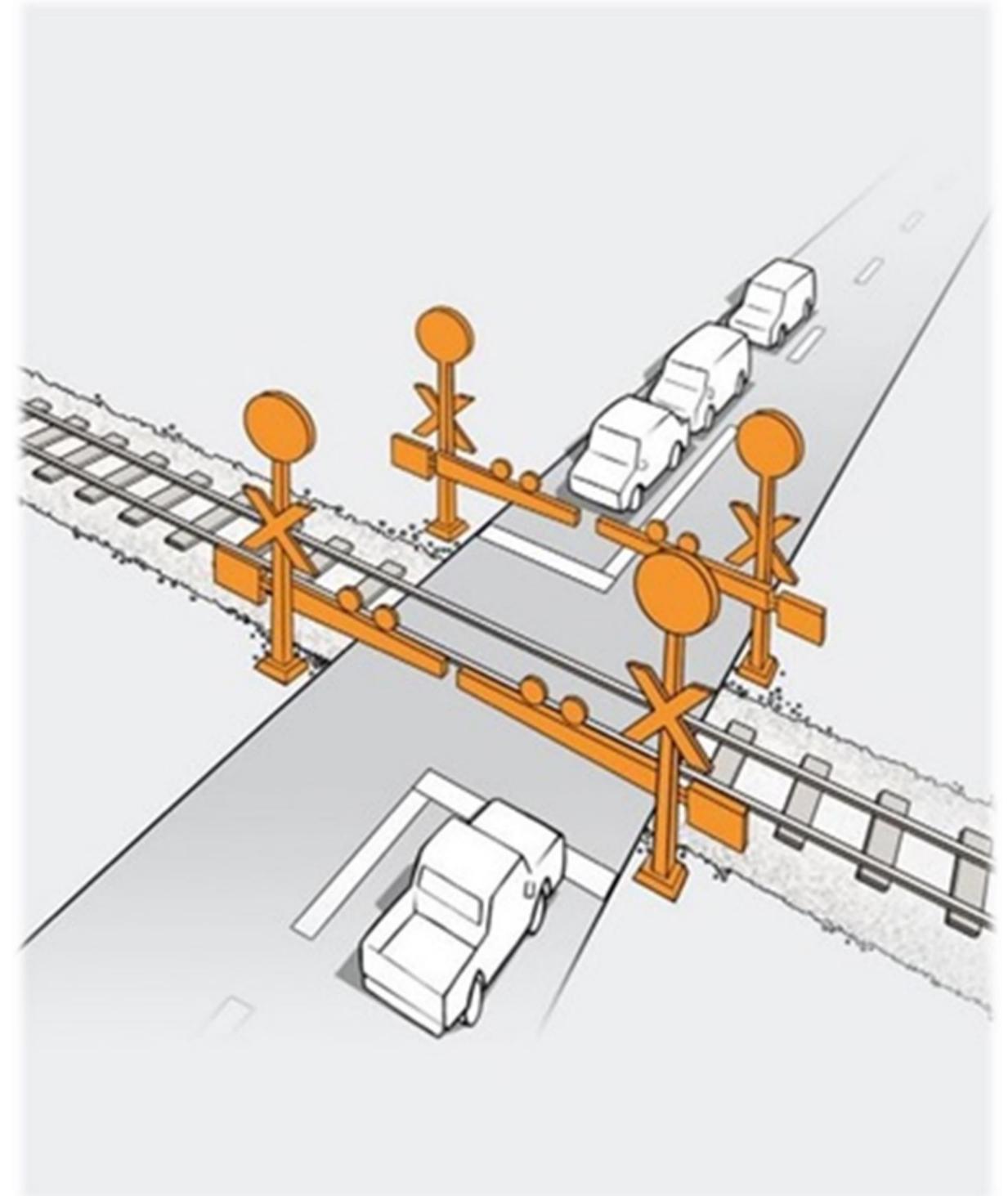
# WHAT IS A QUIET ZONE?

- ▶ Partnership between a public authority and the Federal Railroad Administration (FRA)
- ▶ Section of rail line with one or more consecutive public crossings where locomotive horns are not **routinely** sounded
- ▶ Train engineers may still use horns in case of emergency or to comply with other federal regulations
- ▶ 24-Hour vs. Nighttime (10 PM to 7 AM)
- ▶ Must be at least ½ mile long with no other crossings within ¼ mile of the beginning or end



# HOW TO QUALIFY FOR QUIET ZONE

- ▶ Quiet Zone Risk Index (QZRI) must be below Risk Index with Horns (RIWH) or Nationwide Significant Risk Threshold
- ▶ Supplemental Safety Measures (SSMs)
  - Four Quadrant Gate Crossings
  - Gates with Medians
  - One-way Crossings
- ▶ Alternative Safety Measures (ASMs)
  - Combination of SSMs



# QUIET ZONE SAFETY REQUIREMENTS

- ▶ Comply with MUTCD (traffic signage & markings)
- ▶ Advanced Warning Signs
- ▶ Flashers
- ▶ Gates
- ▶ Pedestrian Warning Bells
- ▶ Power-Out Indicator
- ▶ Other requirements





# BRIGHTLINE SETTLEMENT IMPROVEMENTS

- ▶ Crossing Improvements
  - Upgrades to all 19 Martin County controlled and shared grade crossings
  - All crossing improvements complete
- ▶ Fence Improvements
  - Brightline is funding up to \$1MM of additional fencing in FEC right-of-way
  - Locations being coordinated with County staff

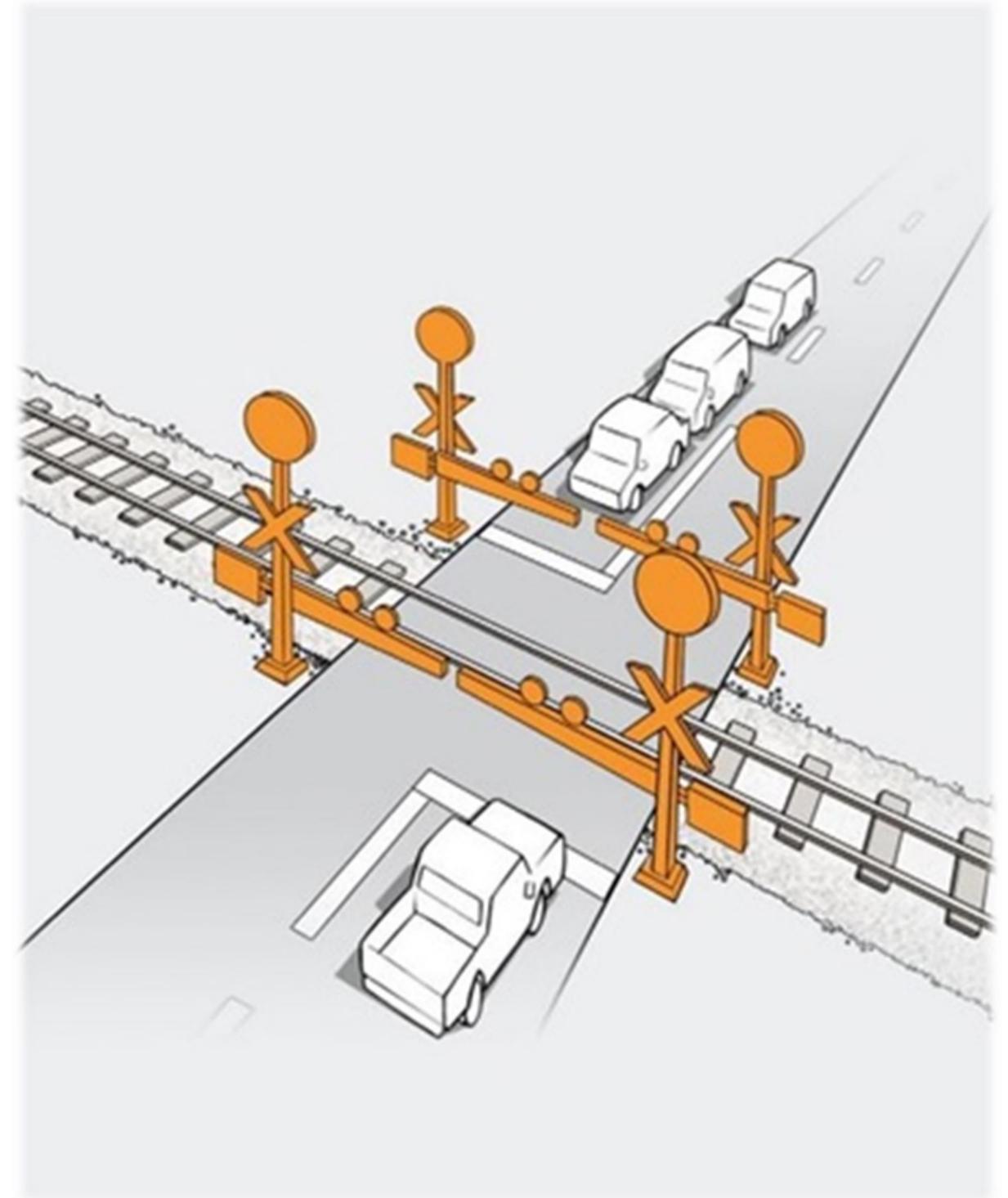


# CURRENT CROSSING CONFIGURATIONS

- ▶ Martin County (17 total)
  - SSMs - 12
  - ASMs - 4
- ▶ State of Florida (2 total)
  - ASMs - 1

- ▶ City of Stuart (5 total)
  - SSMs – 2
- ▶ Shared (2 total)
  - SSMs - 2
- ▶ Private (1 total)
  - SSMs - 1

\*With minimal modifications





# INTERLOCAL COORDINATION

- ▶ All affected Public Authorities must agree to the Quiet Zone
- ▶ County-wide Quiet Zone requires interlocal agreements with:
  - City of Stuart
  - St. Lucie County
  - Palm Beach County
  - FDOT
  - Florida DEP





# ESTABLISHING A QUIET ZONE

## Public Authority Designation

- FRA approval not required (self certify)
- SSM's implemented at every public crossing or,
- Quiet Zone Risk Index (QZRI) meets thresholds
- ASM's cannot be used to achieve QZRI

## Application to FRA

- Quiet Zone Risk Index (QZRI) meets thresholds
- Can use SSM's and ASM's to achieve QZRI
- Multi-agency review period
  - Longer process





# STEPS TO A QUIET ZONE – SELF DESIGNATION

- ▶ Preliminary Steps
  - Update Traffic Counts
  - Update Grade Crossing Inventory Forms
  - Execute Interlocal Agreements
  - Update signing and markings per current federal standards
- ▶ File Notice of Intent
- ▶ 60-Day Comment Period
- ▶ Diagnostic Review & Implementation
- ▶ File Notice of Quiet Zone Establishment
- ▶ Quiet Zone Established



**9 – 12-month process**



# STEPS TO A QUIET ZONE – FRA APPLICATION

- ▶ Preliminary Steps
  - Update Traffic Counts
  - Update Grade Crossing Inventory Forms
  - Execute Interlocal Agreements
  - Update signing and markings per current federal standards
- ▶ File Notice of Intent
- ▶ 60-Day Comment Period
- ▶ Diagnostic Review & Implementation
- ▶ Submit Application Package to FRA
- ▶ FRA Review & Approval
- ▶ File Notice of Quiet Zone Establishment
- ▶ Quiet Zone Established



**12 – 18-month process**





# ONGOING REQUIREMENTS

- ▶ Maintain Required Signage
- ▶ Adhere to relevant Quiet Zone federal regulations
- ▶ Stay below Quiet Zone risk thresholds
- ▶ Affirm in writing and provide up-to-date Grade Crossing Inventory Forms every 2 ½ to 3 years





# KEY DECISION POINTS

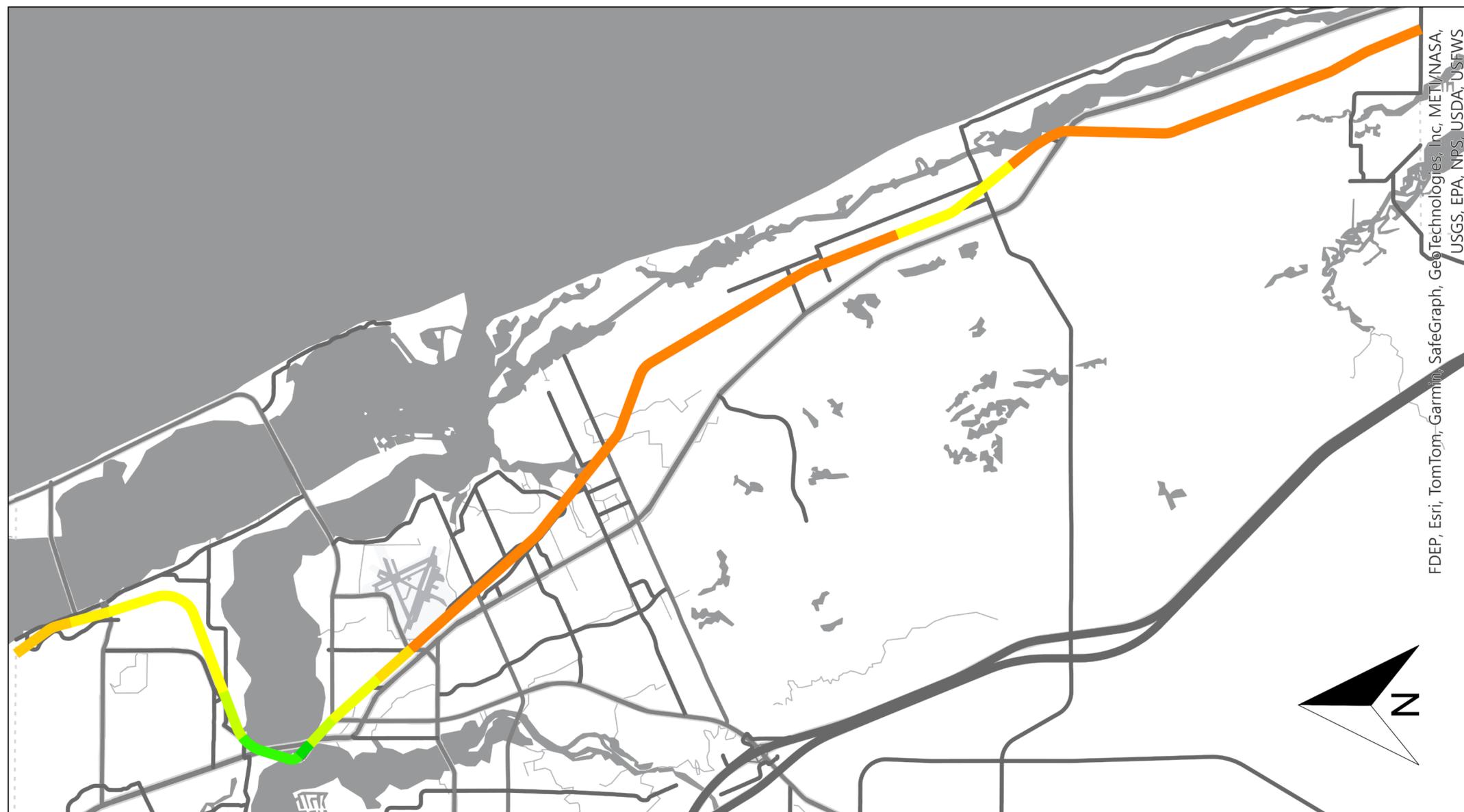
- ▶ Public Safety Impacts
- ▶ Legal Impacts
- ▶ Community Impacts
- ▶ Cost Impacts



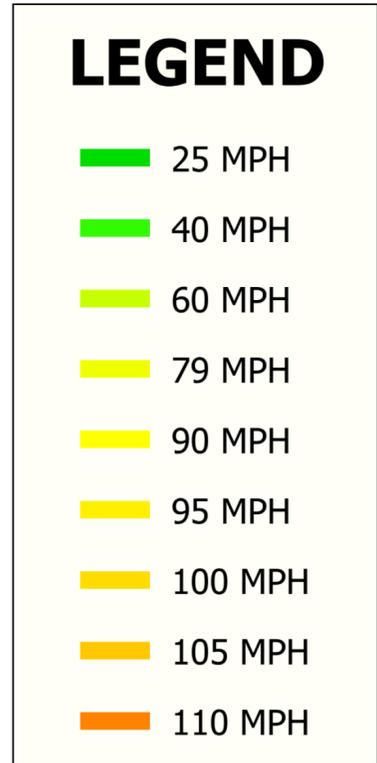


# PUBLIC SAFETY IMPACTS

## RAIL SPEEDS



FDEP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

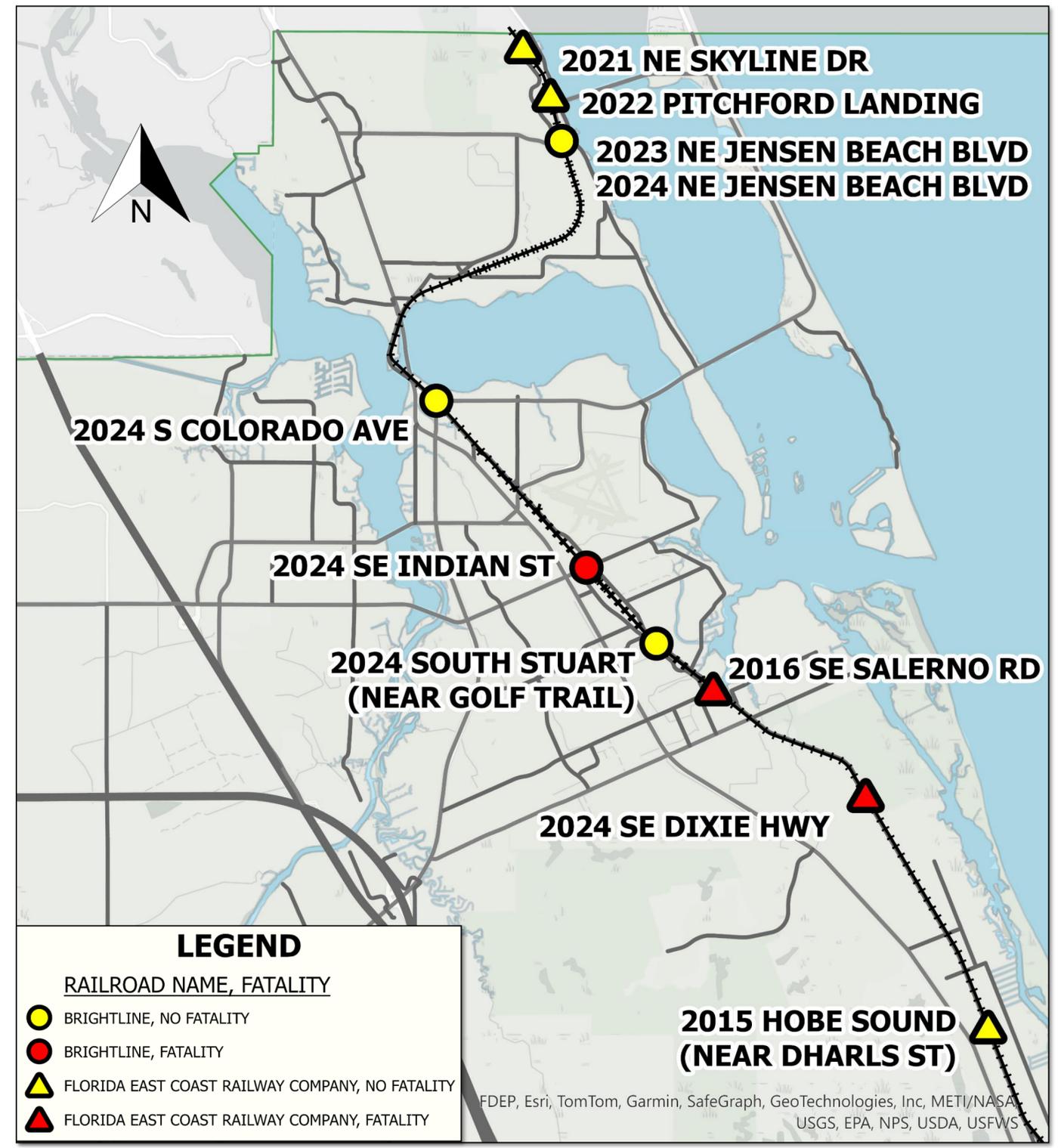


# PUBLIC SAFETY IMPACTS

## 10-YEAR INCIDENT HISTORY

- ▶ 4 incidents Before Sept 2023
  - 1 Fatal
  - 3 at Road Crossings
  - 2 Vehicular/2 Pedestrian
- ▶ 8 Incidents After Sept 2023
  - 2 Fatal
  - 7 at Road Crossings
  - 6 Vehicular/2 Pedestrian
  - 6 Brightline/2 FEC

\*Suicides excluded





# PUBLIC SAFETY IMPACTS

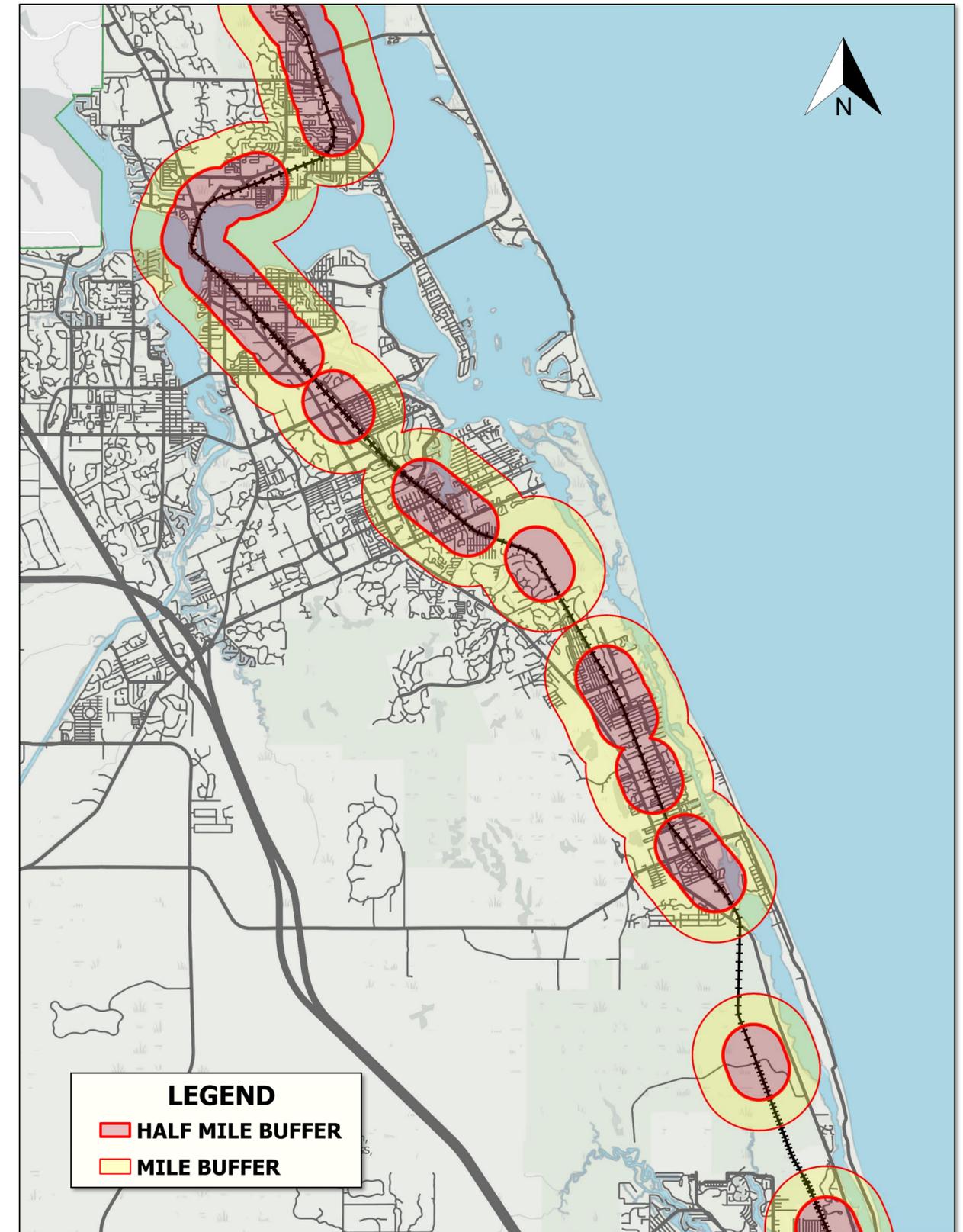
## *HIGH-RISK CROSSINGS*

- ▶ NE Jensen Beach Blvd
- ▶ S Colorado Ave
- ▶ SE Monterey Rd
- ▶ SE Indian St
- ▶ SE Cove Rd



# COMMUNITY IMPACTS

- ▶ Numerous noise complaints received through Request for Service System, phone calls, and emails
- ▶ More than 12,000 residential properties within ½ mile of crossings
- ▶ More than 27,000 residential properties within 1 mile of crossings





# LEGAL IMPACTS

- ▶ The regulations for Quiet Zones were created to remove failure to sound a train horn as an independent cause of action. A claim would likely be based on negligence and liability would be based on the facts and circumstances of each case.





# STATUS OF NEIGHBORING PUBLIC AUTHORITIES

- ▶ **INDIAN RIVER COUNTY**  
Not Pursuing Quiet Zone
- ▶ **ST. LUCIE COUNTY**  
Pursuing 3-Crossing Quiet Zone
- ▶ **CITY OF STUART**  
Exploring Quiet Zone
- ▶ **VILLAGE OF TEQUESTA**  
Pursuing 1-Crossing Quiet Zone
- ▶ **TOWN OF JUPITER**  
Pursuing 6-Crossing Quiet Zone
- ▶ **CITY OF PALM BEACH GARDENS**  
Pursuing 7-Crossing Quiet Zone





# QUIET ZONE OPTIONS

- ▶ Option 1 – No Change
- ▶ Option 2 – County-wide Quiet Zone
- ▶ Option 3 – Partial Quiet Zone(s)
  - Jensen Beach
  - Hobe Sound





# QUIET ZONE OPTIONS NO CHANGE

- ▶ Lowest Risk to Public Safety
- ▶ Highest Community Impact
- ▶ \*Minimal Cost

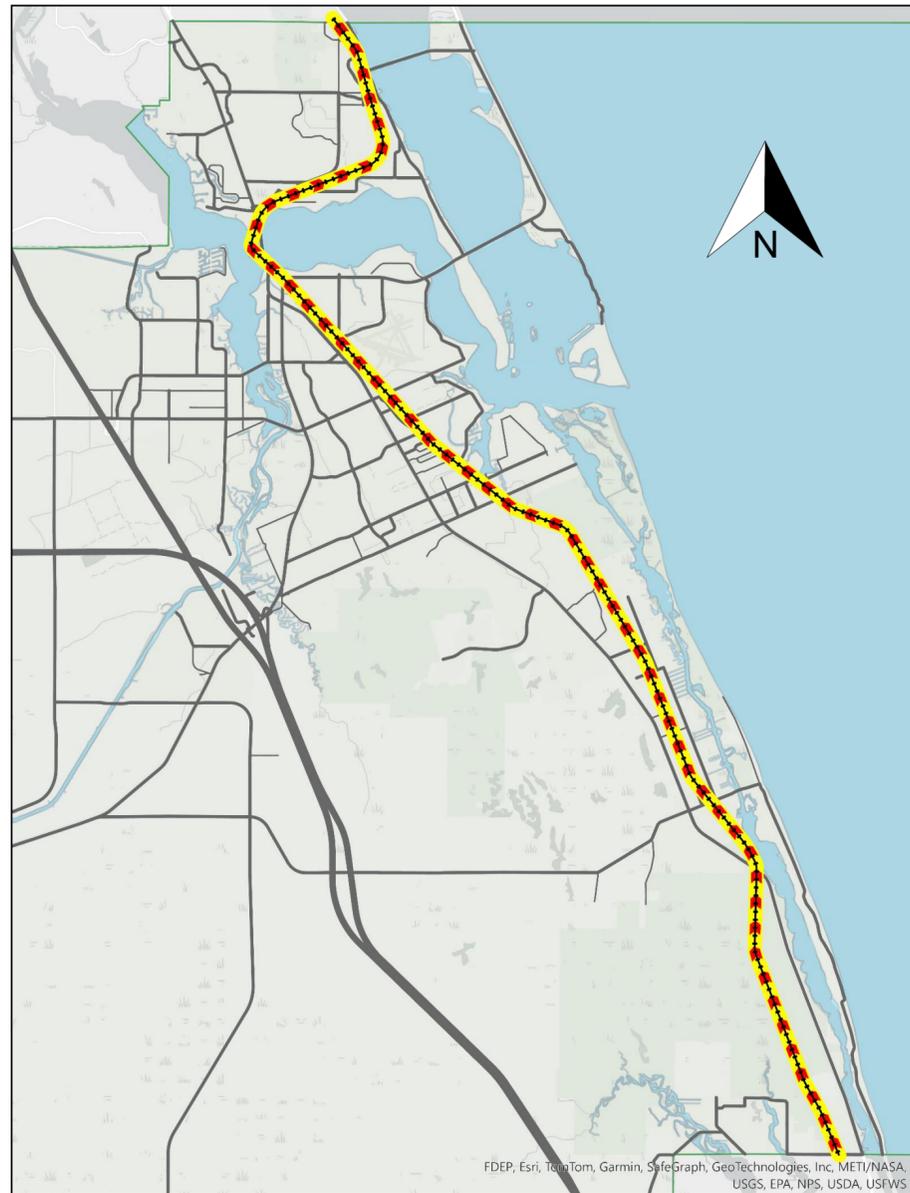
\*Minor improvements are being implemented based on site visits with FRA, FDOT, and consultant



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# QUIET ZONE OPTIONS – COUNTY-WIDE

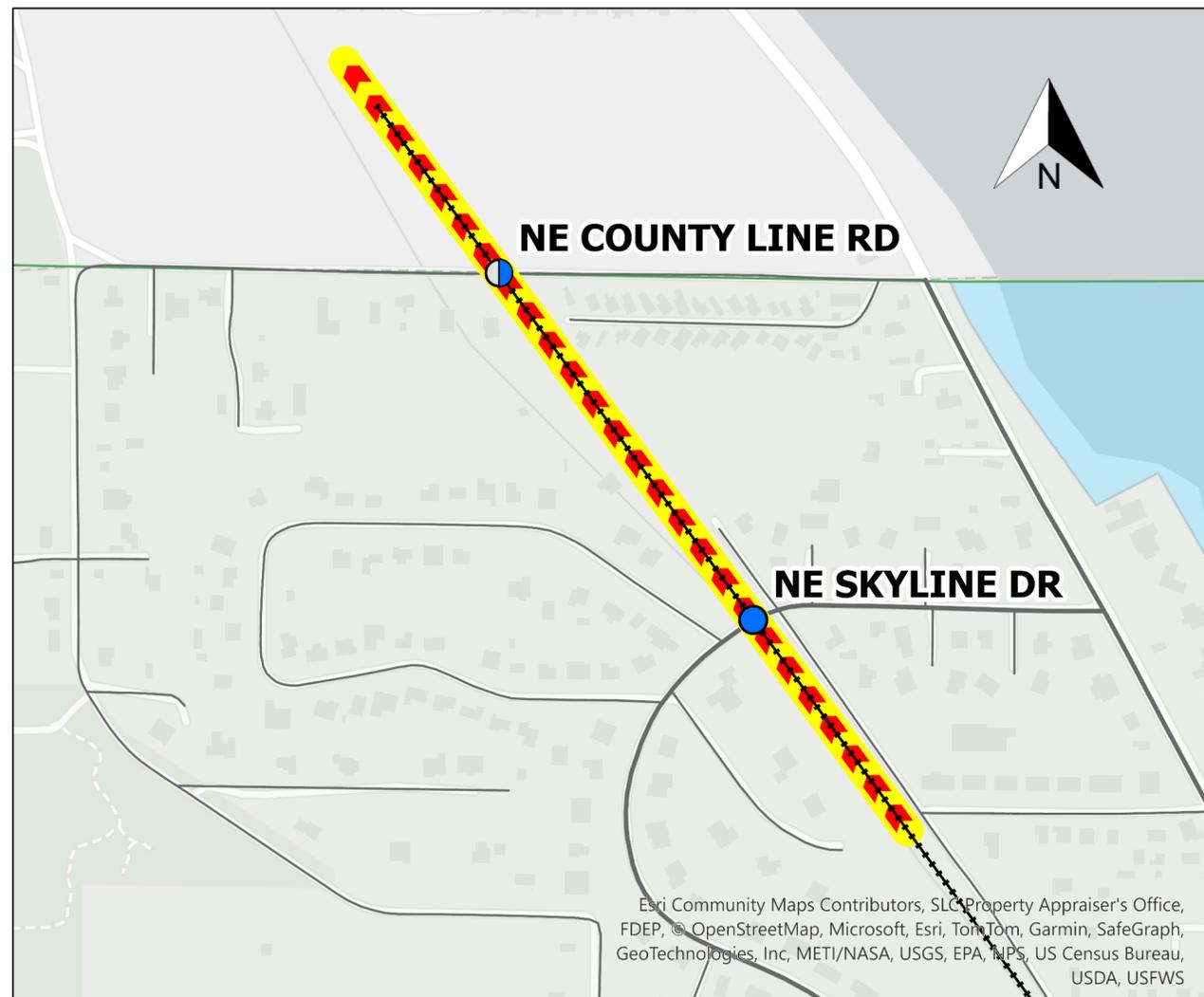


- ▶ Highest Public Safety Risk
- ▶ Full application to FRA
- ▶ Coordination with 5 Agencies
- ▶ Significant improvements recommended
- ▶ Highest Cost\* More than \$5MM

\*With recommended improvements. Excludes improvements within City of Stuart.



# QUIET ZONE OPTIONS – JENSEN BEACH



- ▶ 2 Crossings
- ▶ Self-Designation
- ▶ Interlocal Agreement with St. Lucie County
- ▶ Maximum Train Speeds 100 MPH
- ▶ Recommended Improvements
  - Signage & Striping
  - Vegetation Clearing
- ▶ Order-of-Magnitude Costs\* \$40K - \$140K

\*With recommended improvements



# QUIET ZONE OPTIONS – HOBE SOUND



- ▶ 5 Crossings
- ▶ No Interlocal Agreements required
- ▶ Maximum Train Speeds 90 – 110 MPH
- ▶ Recommended Improvements
  - Signage & Striping
  - Vegetation Clearing
- ▶ Order-of-Magnitude Costs\* \$60K - \$240K

\*With recommended improvements.





# NEXT STEPS

- ▶ Direction on Quiet Zones
  - No Action
  - County-Wide (24-hour vs nighttime)
  - Partial (24-hour vs nighttime)
  - Other Direction





THANK YOU

Questions?



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