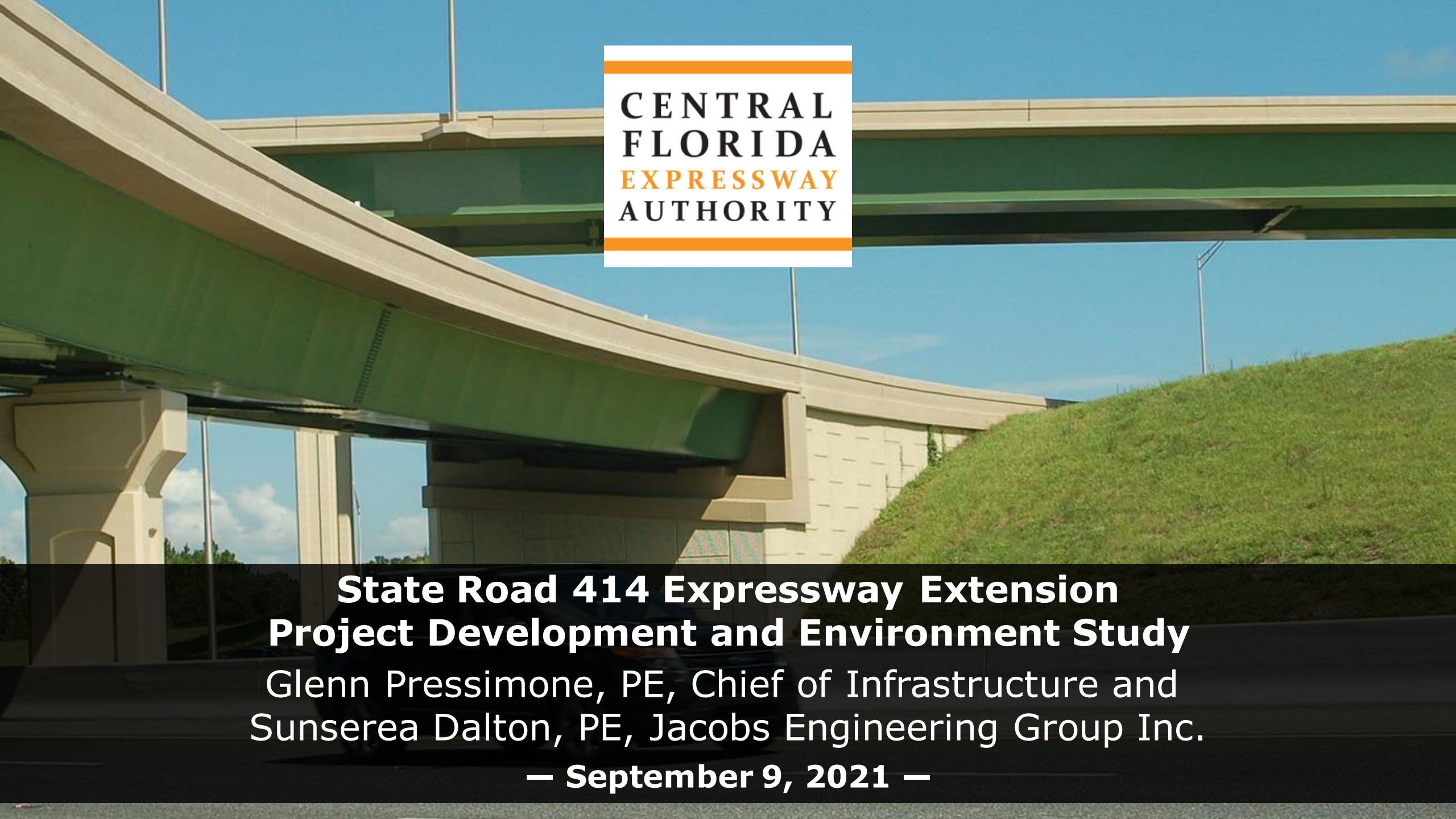


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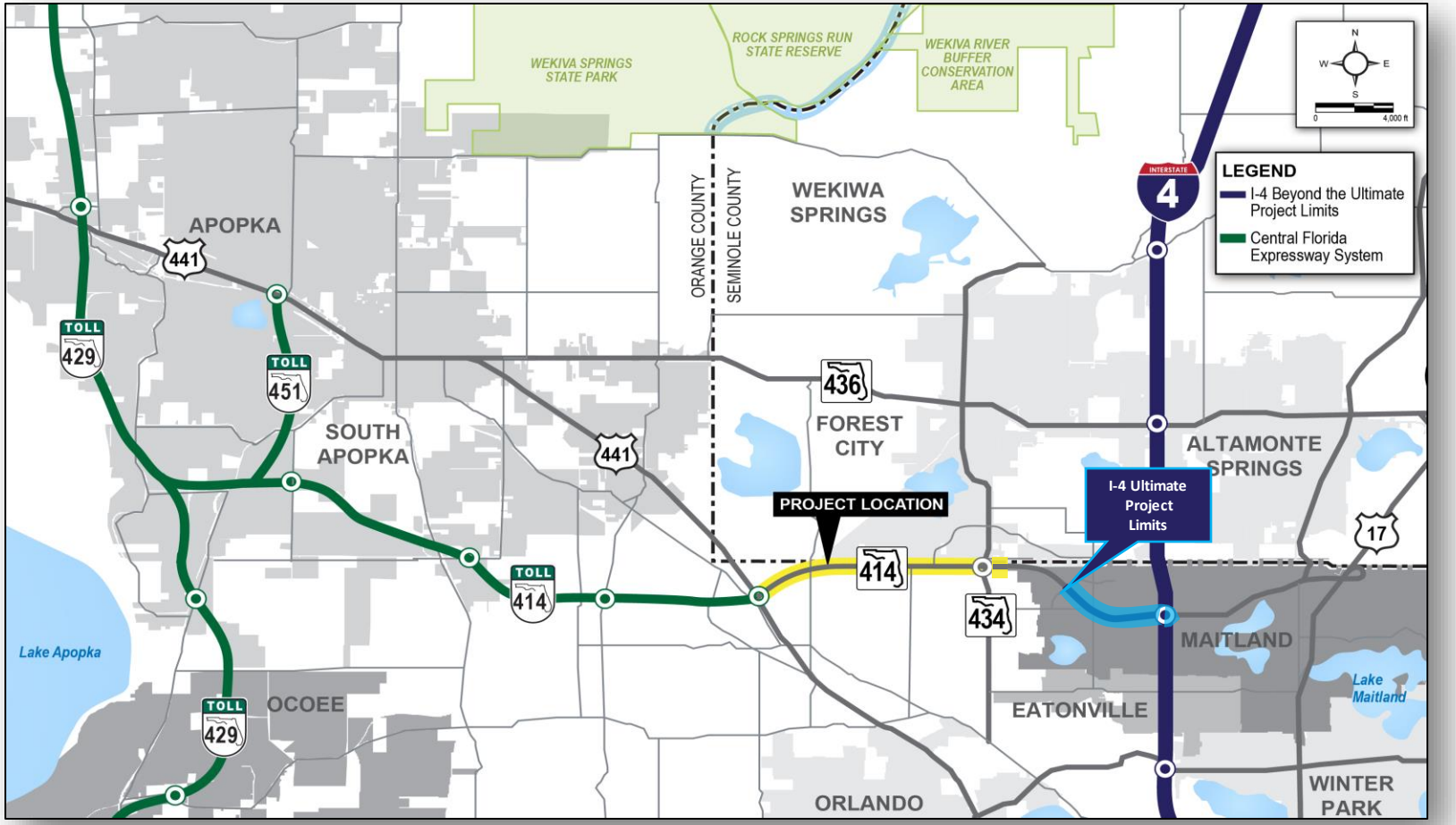
# State Road 414 Expressway Extension Project Development and Environment Study

Glenn Pressimone, PE, Chief of Infrastructure and
Sunserea Dalton, PE, Jacobs Engineering Group Inc.

**— September 9, 2021 —**

# Project Background and Description

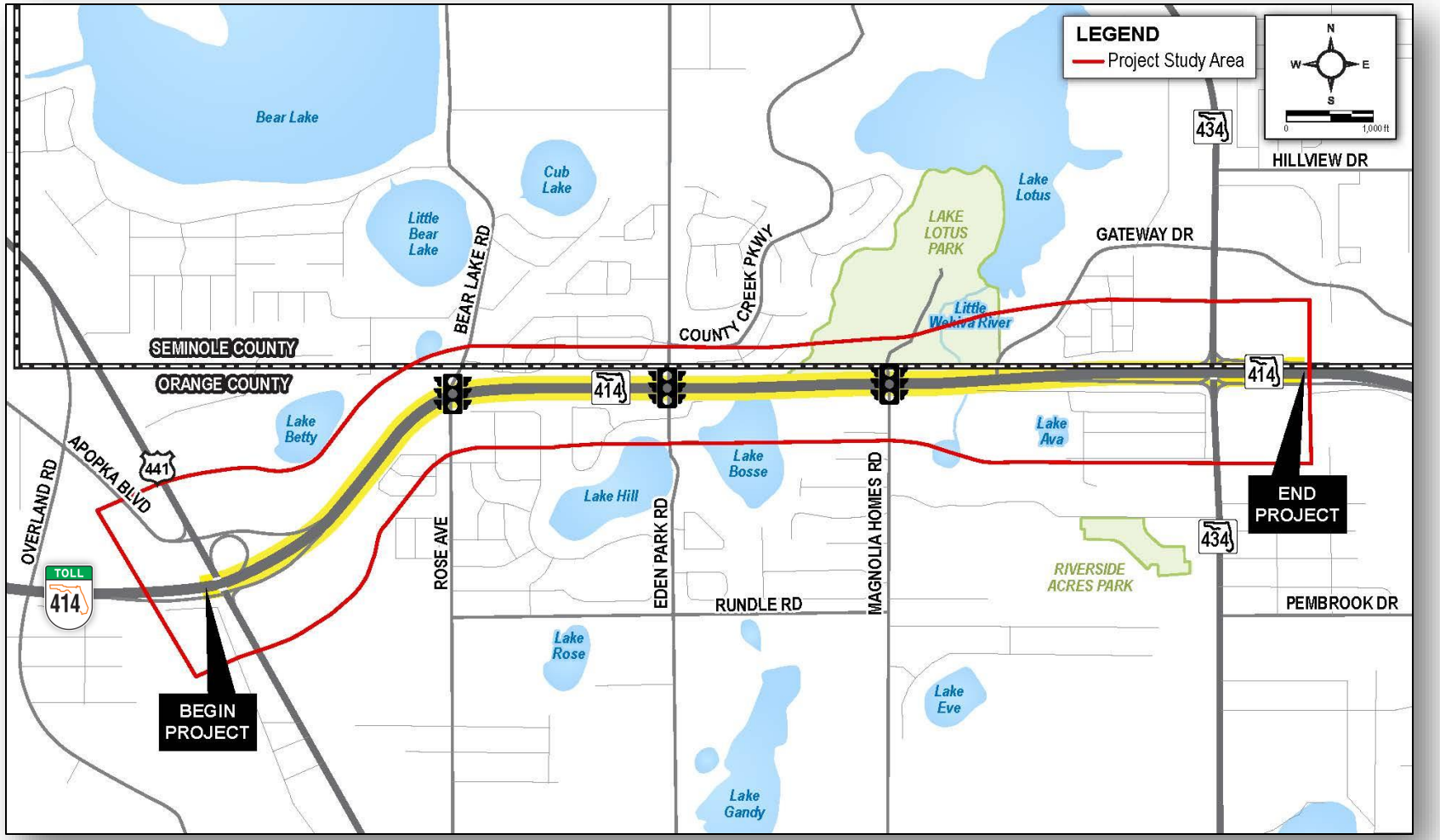
- SR 414 Reversible Express Lanes Schematic Technical Memorandum – 2019
- CFX Visioning + 2040 Master Plan – 2016
- CFX Five-Year Work Program FY2022-FY2026
- MetroPlan Orlando Transportation Improvement Program FY2021/22-FY2025/26



# Project Location Map

## Study Corridor

- From US 441 to SR 434
- 4-lane divided arterial
- Approximately 2.8 miles
- 3 existing signalized intersections
- 1 existing unsignalized intersection



# Stakeholder Coordination































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# Public Involvement

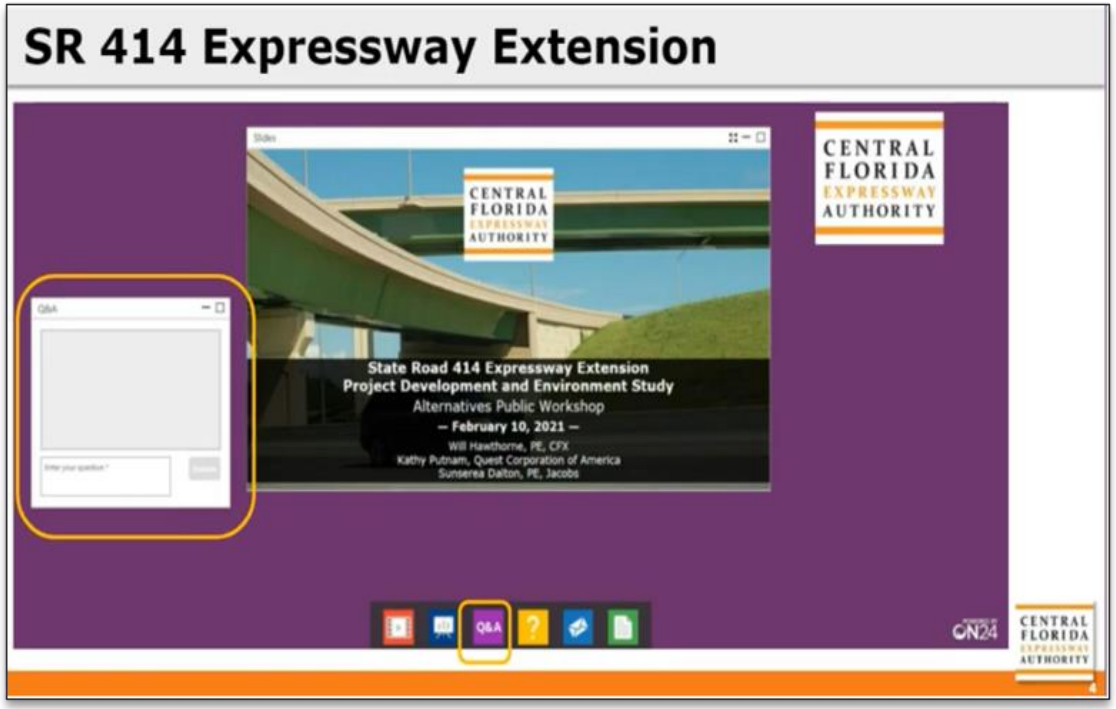
**Environmental & Project Advisory Group Meetings**
- December 8, 2020: 30 Attendees
- August 31, 2021: 51 Attendees

**Environmental Stewardship Committee**
- October 10, 2020
- June 17, 2021
- August 19, 2021

**Public Meetings**
- February 10, 2021: 104 Attendees

**Public Hearing**: October 28, 2021

**MetroPlan Coordination**
- December 9, 2020: MetroPlan Orlando (Factsheet)
- February 4, 2021: MetroPlan Orlando Municipal Advisory Committee




*Source = Virtual Alternatives Public Workshop (QCA Office)*

# Key Input

## Environmental and Project Advisory Groups

- ✓ *Maintain Lake Lotus Park access*
- ✓ *Minimize water quality impacts*
- ✓ *Evaluate expanded sidewalks or shared use path along Maitland Boulevard*
- ✓ *Evaluate geotechnical and archaeological issues at Lake Bosse bridge*
- ✓ *Minimize noise and environmental impacts*
- ✓ *Continue coordination with Orange County and FDOT for their proposed Regional Stormwater Treatment Facility*
- ✓ *Evaluate expanded signage for driver navigation*
- ✓ *Consideration for multimodal opportunities*
- ✓ *Consider lighting that reduces insect impacts*

## Environmental Stewardship Committee

- ✓ *Erosion issues surrounding Little Wekiva Canal*
- ✓ *Minimize impacts to wetlands, surface waters and habitats, including Lake Bosse and Lake Lotus*
- ✓ *During design, consider additional bicycle enhancements, such as lighting*

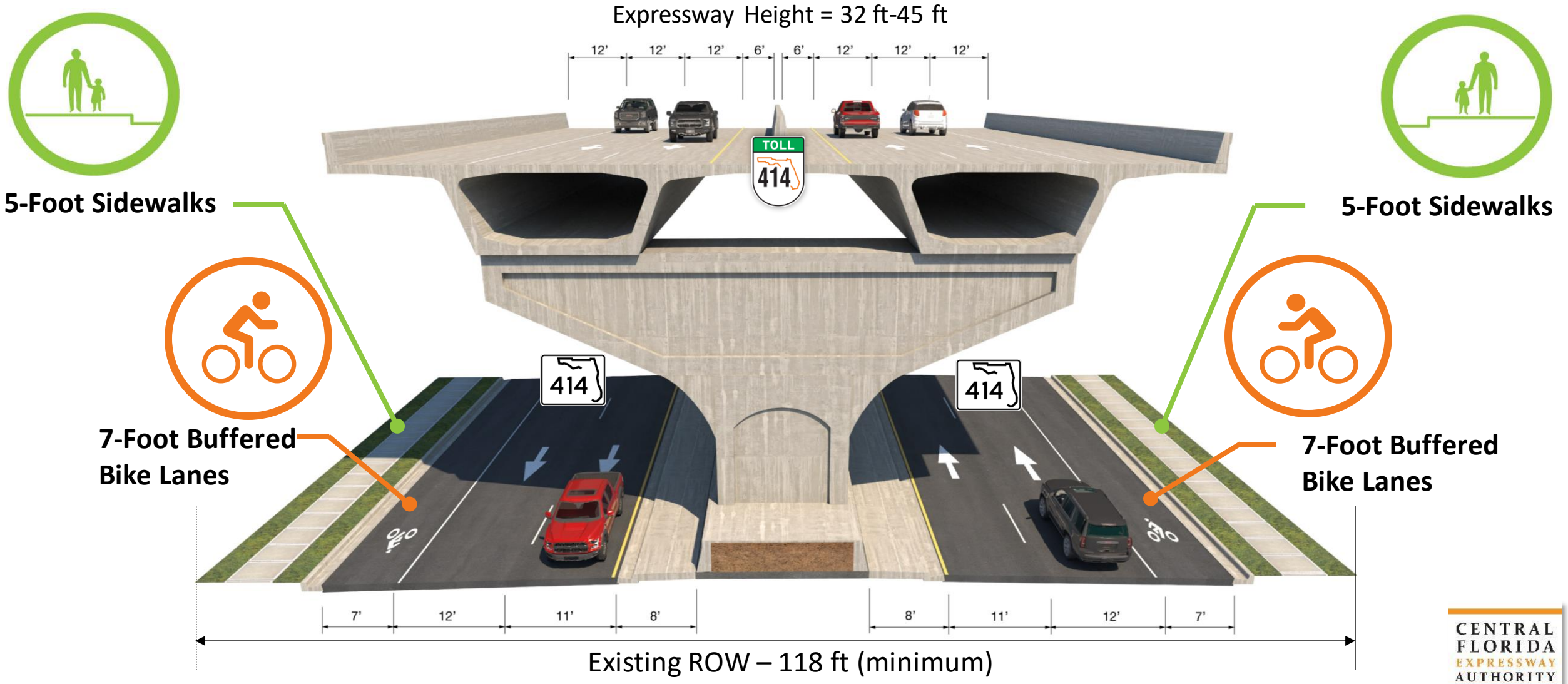
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# Typical Sections Considered

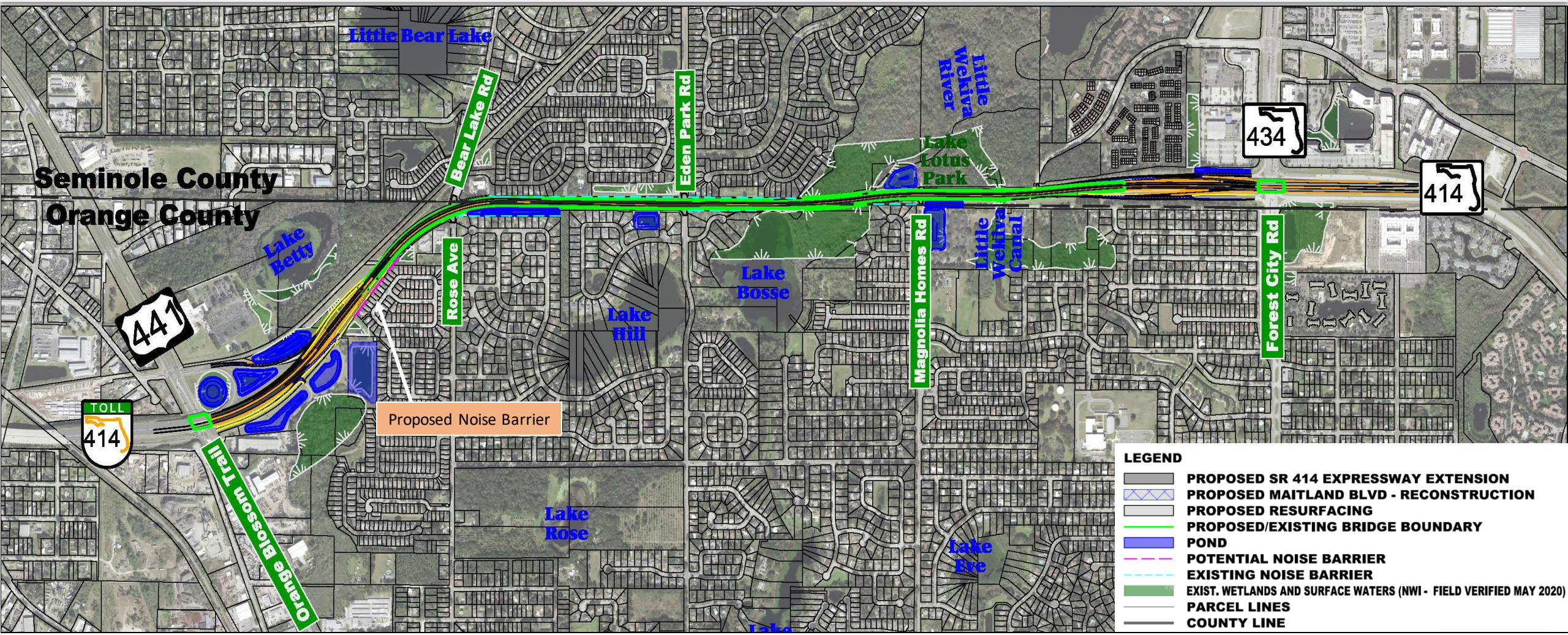
| Typical Section Option No. | Description | No. of Lanes on Expressway (TOLL 414) | No. of Lanes on Maitland Blvd. (414) | Within Existing ROW | Daily Volume/ Capacity Ratio (SR 414) | Minimizes Cost per Mile | Recommendation |
|---|---|---|---|---|---|---|---|
| 1 | 2019 Existing | None | 2 per direction | Yes | 1.50 | High | Not recommended |
| 2 | No-Build | None | 3 per direction | Yes | 1.25 | High | Not recommended |
| 3 | Add 2 Elevated Express Lanes | 1 per direction | 2 per direction | Yes | 1.20 | Medium | Not recommended |
| **4** | **Add 4 Elevated Express Lanes** | **2 per direction** | **2 per direction** | **Yes** | **0.95** | **Low** | **Preferred Typical Section** |
| 5 | Add 2 Elevated Reversible Express Lanes | 2 lanes reversible | 2 per direction | Yes | 1.13 | Medium | Not recommended |
| 6 | Add Elevated Convertible Three Lanes with Movable Barrier | 3 lanes convertible | 2 per direction | Yes | 1.14 | Low | Not recommended |
| 7 | Add 2 Elevated Express Lanes and 2 At-Grade SR 414 lanes | 1 per direction | 3 per direction | Yes | 1.06 | Medium | Not recommended |

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# Preferred Alternative - Typical Section



# Preferred Alternative




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# Evaluation Matrix

| | Evaluation Factors | Preferred Alternative |
|---|---|---|
| **SOCIAL** | Residential Parcels Affected | 0 parcels |
| | Non-Residential Parcels Affected | 0 parcels |
| **CULTURAL** | Potential Effects to Historic/Archaeological Resources | None |
| **NATURAL** | Potential Jurisdictional Wetland Impacts (Acres) | 1 acre |
| | Potential Jurisdictional Surface Water Impacts (Acres) | <0.5 acre |
| | Floodplain Impacts (acres) | <0.5 acre |
| | Potential Impacts to Federally/State Protected Species | No Adverse Effect |
| **PHYSICAL** | Impacted Noise Sensitive Sites (residences and trails) | 47 |
| | Potential Medium Risk Contamination Sites impacted | 4 |
| | Utilities relocated (No. of utility owners affected) | 5 |
| | **TOTAL PROJECT COSTS** | **$373 Million** |

***Subject to change, pending final design***

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# Recommended Motion

Approval to move forward with a Public Hearing for the SR 414 Expressway Extension PD&E Study Preferred Alternative as presented.

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