

**AIR QUALITY  
TECHNICAL MEMORANDUM**

Northeast Connector Expressway – Phase 1  
From Cyrils Drive to Nova Road (CR 532)  
Project Development and Environment Study

Central Florida Expressway Authority

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**CENTRAL  
FLORIDA  
EXPRESSWAY  
AUTHORITY**

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CFX Project No.: 599-228  
Contract No.: 001546

June 2021

## 1.0 Introduction

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The Central Florida Expressway Authority (CFX) is conducting a Project Development and Environment (PD&E) Study for a new expressway between Cyrils Drive and Nova Road in Osceola County. The study area begins at the terminus of the planned Osceola Parkway Extension (SR 534) near Cyrils Drive and extends to Nova Road, a distance of approximately 4.3 miles. **Figure 1.0.1** shows the Northeast Connector Expressway – Phase 1 (hereafter referred to as Northeast Connector) study area. The purpose of this Technical Memorandum is to document the findings of the air quality analysis.

### 1.1 Project Description

The Northeast Connector Expressway will link the planned SR 534, which is based on an approved PD&E Study, with the planned Osceola/Brevard County Connectors (OBCC), which is currently in the planning phase. These connections will promote regional connectivity, provide for transit opportunities, and enhance mobility in Osceola County. The link between the planned SR 534 and the OBCC will also provide a seamless limited access, high-speed connection from the Orlando International Airport (OIA) to I-95 in Brevard County. In the interim, before the OBCC is constructed, the Northeast Connector Expressway will extend the limited access connection from Cyrils Drive to Nova Road, a major county road. This connection will be vital to providing a limited access, north-south facility within the Northeast District, a large master-planned development in northeast Osceola County. The Northeast District Conceptual Master Plan includes planned local roadways and expressways which would result in future intersections and interchanges within the study area as shown on **Figure 1.1.1**.

One typical section is considered for the length of the project. The proposed typical section features an initial two 12-foot travel lanes in each direction flanked by 12-foot paved inside and outside shoulders. The proposed median width is 82 feet wide, which can accommodate future widening. The ultimate typical section features an eight-lane section and two potential multi-use lanes with a concrete median barrier wall. The proposed typical section requires 330 feet of limited access right-of-way, which includes a border width of 88 feet on both sides of the Northeast Connector as shown on **Figure 1.1.2**.

### 1.2 Existing and Future Land Uses

The existing land in the corridor is primarily agricultural as shown on **Figure 1.2.1**. According to the Osceola County property appraiser 2019 data, 99% of the land in the study area is agricultural, 0.6% is public/semi-public (waterbodies), and approximately 0.2% is residential and vacant residential. Forty structures/buildings are located within the study

area. The majority of those are located in the southwest quadrant of the study area, near Nova Road. The closest residential structure is located approximately 1,000 feet from the end of the Nova Road proposed improvements.

## 2.0 Analysis and Results

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The proposed project is located in Osceola County, an area currently designated as being in attainment for all National Ambient Air Quality Standards (NAAQS) including ozone, nitrogen dioxide, particulate matter (2.5 microns in size and 10 microns in size), sulfur dioxide, carbon monoxide and lead. As part of this PD&E Study, the project has been reviewed for air quality impacts consistent with the guidance provided in Part 2, Chapter 19 of the Florida Department of Transportation (FDOT) PD&E Manual entitled Air Quality (dated July 1, 2020).

Based on this review, the project alternatives did not require any detailed Air Quality analysis. The project does not meet the criteria for a Carbon Monoxide (CO) screening and does not meet the following thresholds per Section 19.2.2.1, Part 2, Chapter 19 of the FDOT PD&E Manual:

1. The project is an Environmental Impact Statement (EIS) and/or;
2. The project is expected to have community controversy regarding air quality.

Florida is in attainment for particulate matter; therefore, no project level analysis is needed. In addition, since the Class of Action has been determined to be a Project Environmental Impact Report, the project has no potential meaningful Mobile Source Air Toxics (MSAT) effects and is exempt from a MSAT analysis.

In conclusion, this project is not expected to create adverse impacts on air quality because the project area is in attainment for all NAAQS and would not contribute to any exceedance of any NAAQS. In addition, this project is not funded by state or federal funds, but by an expressway authority; therefore, the state and federal air quality regulations are not applicable.

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

## 3.0 References

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Florida Department of Transportation. "Air Quality", Part 2, Chapter 19. Project Development and Environment Manual, Florida Department of Transportation, Tallahassee, July 1, 2020.

Chapter 62-204, F.S., Air Pollution Control – General Provisions. <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-204>

EPA, 1998. NO<sub>x</sub>, How Nitrogen Oxides Affect the Way We Live and Breathe. EPA – 456/F-98-005.

EPA, 2016. The Green Book Nonattainment Areas for Criteria Pollutants. <https://www.epa.gov/green-book>

EPA, 2014. National Emissions Inventory. <https://epa.gov/air-emissionsinventories/national-emissions-inventory-nei>

FDOT, CO FDOT Florida 2012 User's Guide and Screening Model. <http://www.dot.state.fl.us/emo/software/software.shtm>

EPA, 2011 National Air Toxics Assessment Results. <https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessmentresults>

FHWA, Advisory T6640.8A, Guidance for Preparing and Processing Environmental and Section 4(F) Documents, October 30, 1987; available from the FHWA Environmental Guidebook. <https://www.environment.fhwa.dot.gov/projdev/impta6640.asp>

FHWA, Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. [https://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/](https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/)

FHWA, A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives. [https://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/research\\_and\\_analysis/mobile\\_source\\_air\\_toxics/msatemissions.cfm](https://www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.cfm)

Memorandum of Understanding Between FHWA and FDOT Concerning the State of Florida's Participation in the Surface Transportation Project Delivery Program Pursuant to 23 U.S.C. 327, December 14, 2016. <http://www.fdot.gov/environment/pubs/Executed-FDOT-NEPA-Assignment-MOU2016-1214.pdf>

# Figures

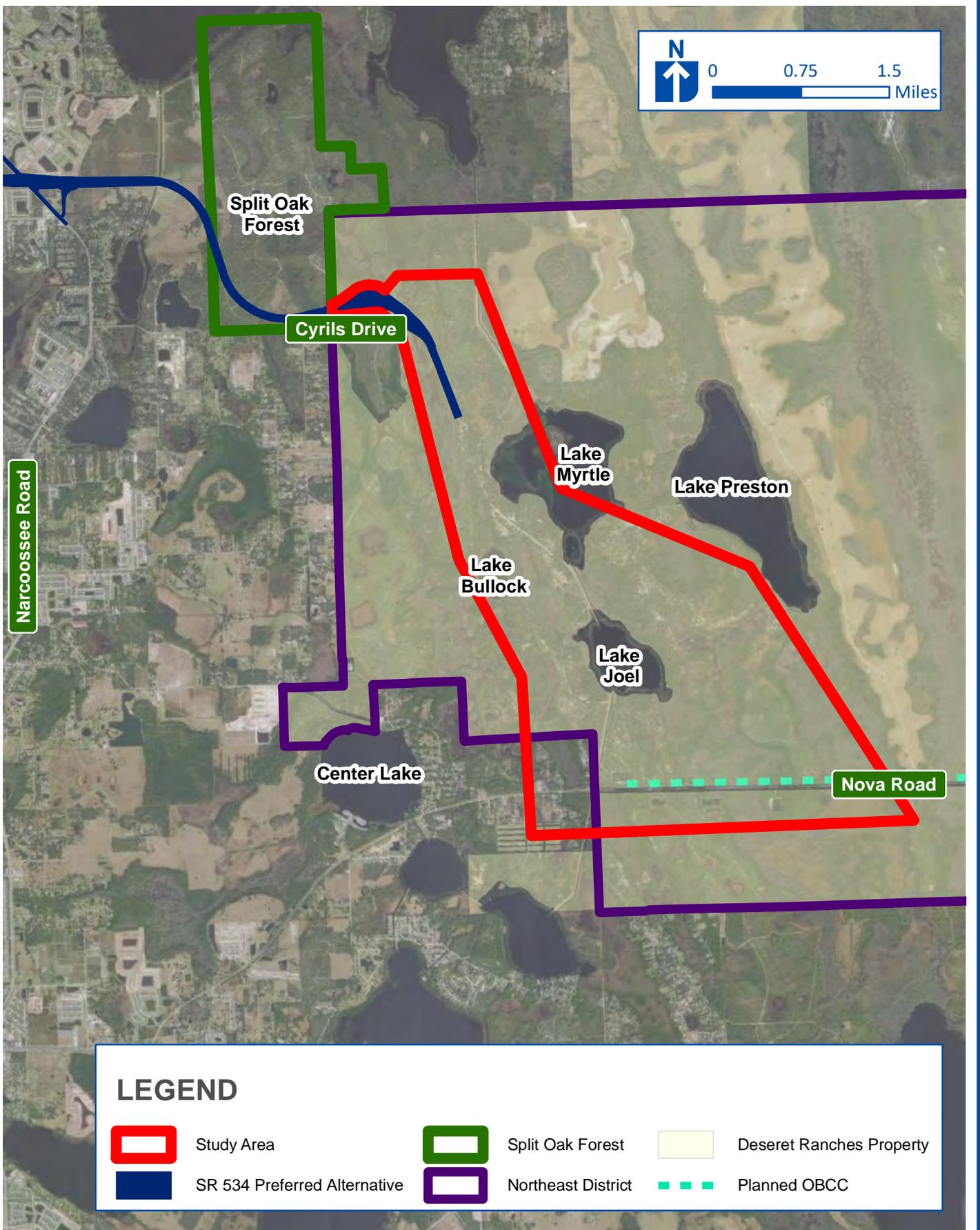
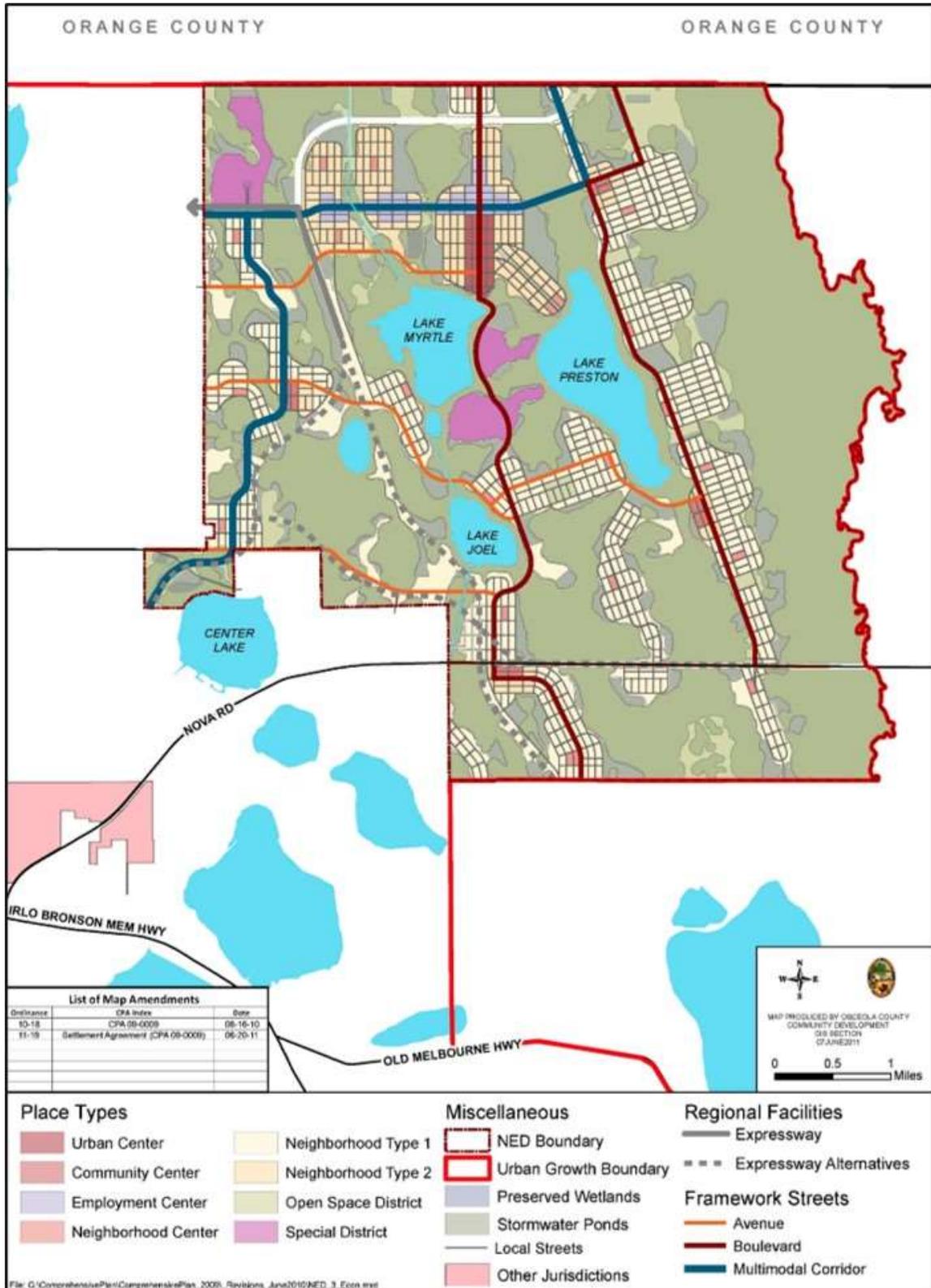
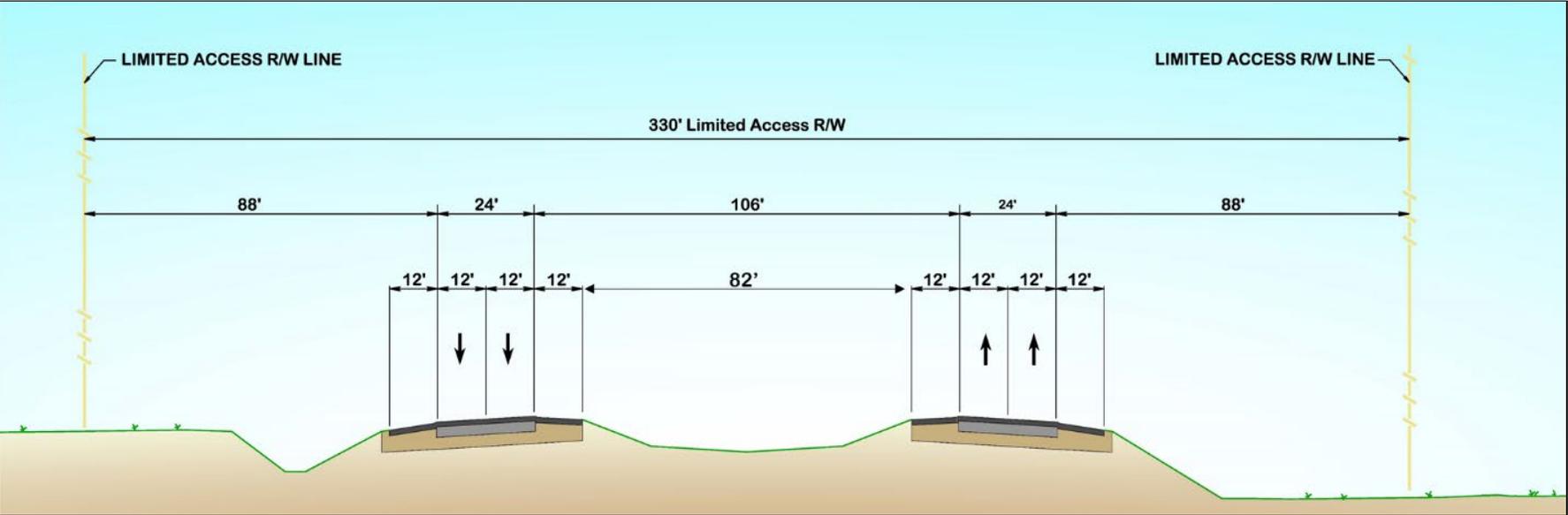


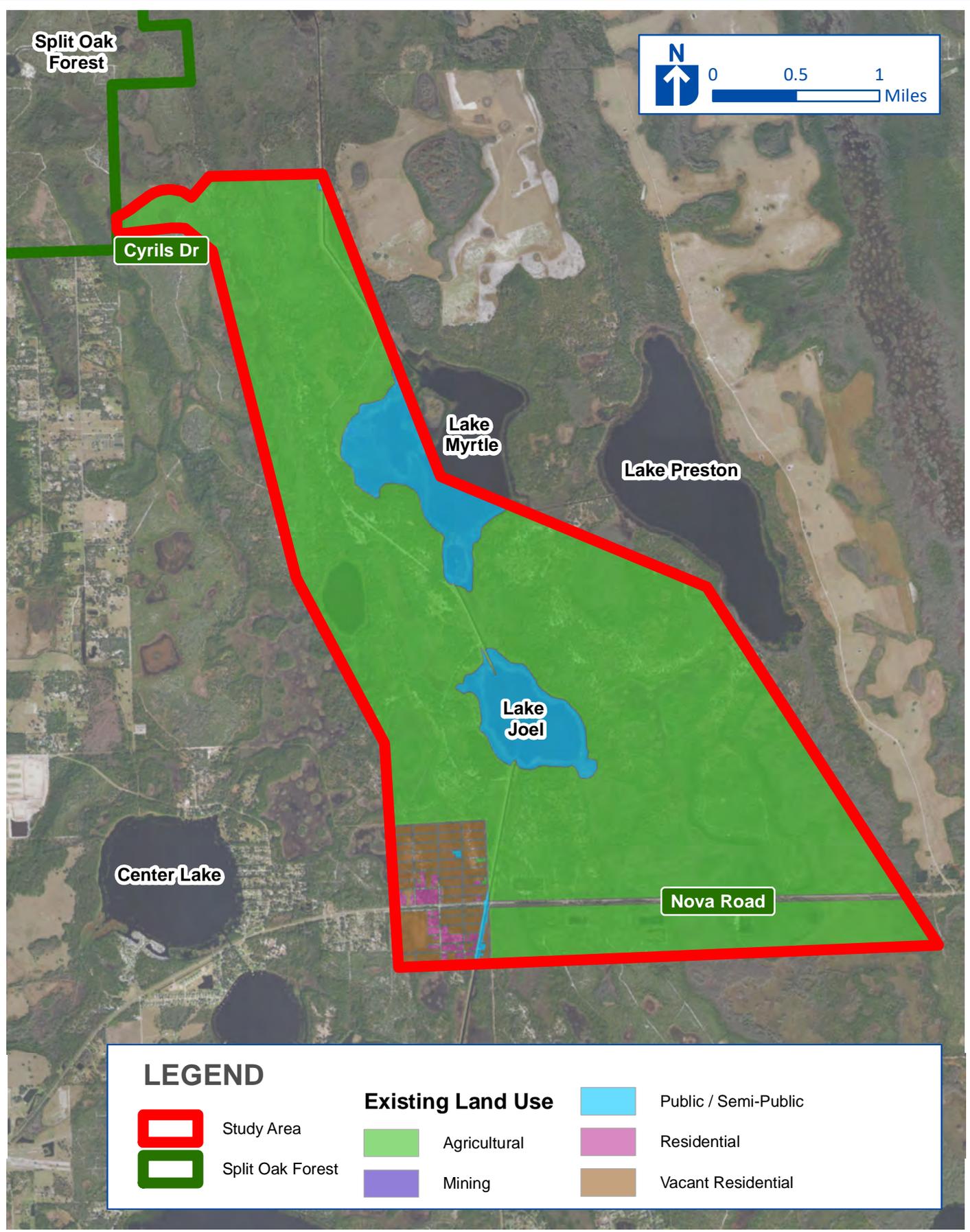
Figure 1.1.1 Northeast District Conceptual Master Plan



Source: Northeast District Element, August 2010

Figure 1.1.2: Proposed Initial Typical Section

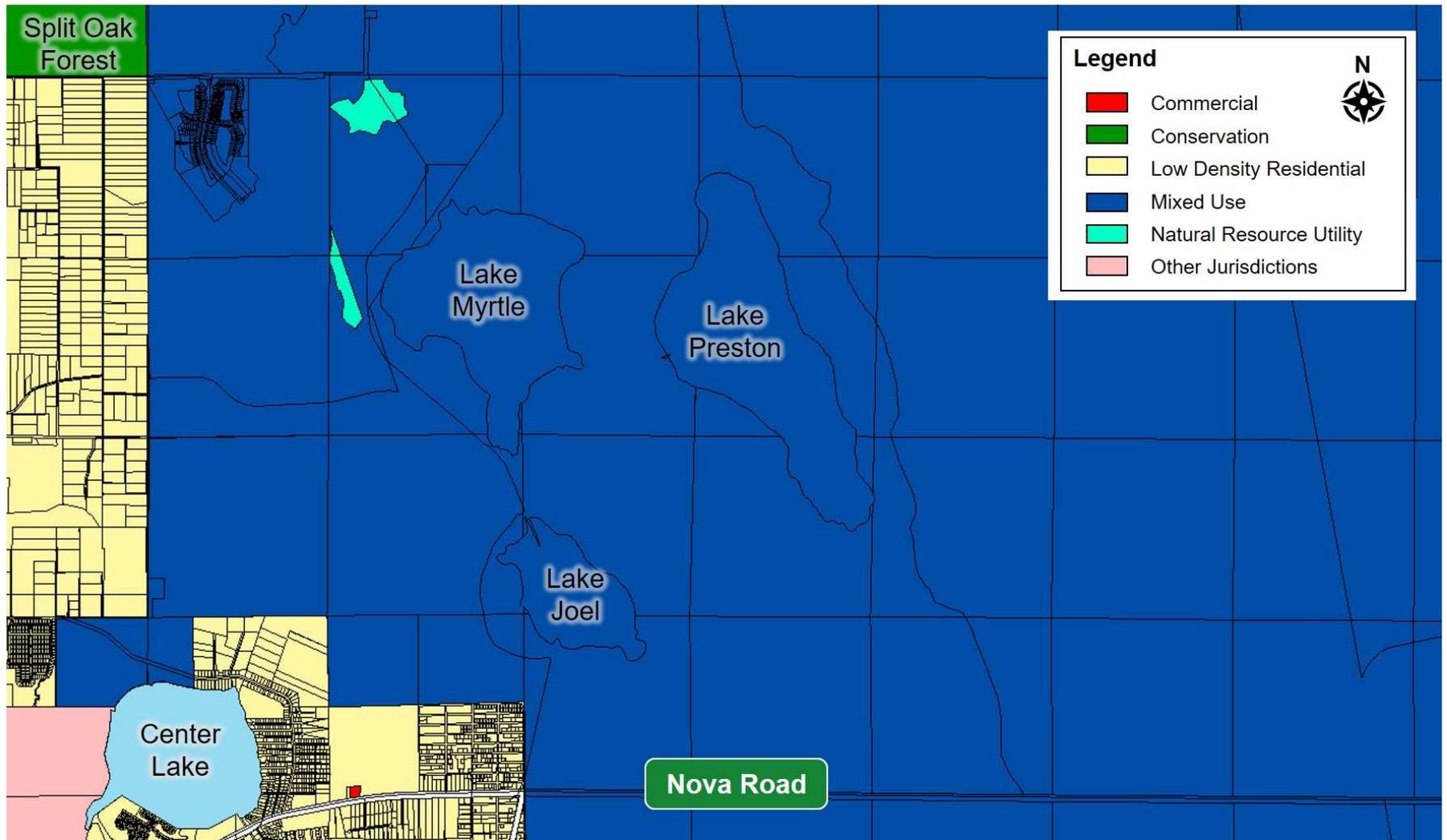




**LEGEND**

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|---|------------------|---|--------------------|---|----------------------|
|  | Study Area       |    | Agricultural       |  | Public / Semi-Public |
|  | Split Oak Forest |    | Mining             |  | Residential          |
|   |                  |  | Vacant Residential |   |                      |

Figure 1.2.2: Future Land Use



Source: Osceola County Interactive Maps: <https://maps.osceola.org/gisweb/WebPages/Map/FundyViewer.aspx>