

1.0 Introduction

1.1 Project Overview

Florida Department of Transportation (FDOT), District Three is conducting a Project Development and Environment (PD&E) Study to evaluate the need for capacity improvements along I-10 (SR 8) from east of Capital Circle NE (SR 261) to west of Gamble Road (SR 59). This section of I-10, a distance of approximately 13 miles, will be assessed for widening from a four-lane to a six-lane section.

This project is a continuation of an on-going effort to increase capacity on I-10 and will link to numerous widening projects on I-10 throughout north Florida from Leon County through Santa Rosa County. Some of the completed and on-going projects include: a completed I-10 widening, from the Escambia Bay Bridge to east of SR 281 (Avalon Boulevard); a planned (ETDM #14391) widening of I-10 from SR 281 (Avalon Boulevard) to West of CR 189 (Log Lake Road) in Santa Rosa and Okaloosa Counties; a planned (ETDM #14392) widening of I-10 from the West of CR 189 (Log Lake Road) to East of SR 85 in Okaloosa County; and a planned widening project (ETDM #14393) from west of US 90 to west of SR 263 in Gadsden and Leon Counties.

In addition, the City of Tallahassee and Capital Region Transportation Planning Agency (CRTPA) have identified the needs to construct a new interchange at Welaunee Boulevard in the Northeast Gateway Study by the year 2045. With the proposed developments and widening of I-10 (SR 8), the demand for access to I-10 (SR 8) is expected to significantly increase, resulting in future traffic operational and safety concerns for the I-10 (SR 8) ramp terminals at US 90 (Mahan Drive).

This Interchange Operational Analysis Report (IOAR) will document traffic and safety analysis undertaken to evaluate the impacts of the anticipated increase in traffic demand for all proposed developments and to identify any necessary improvements to enhance the operation of the I-10 (SR 8) at US 90 (Mahan Drive) interchange.

1.2 Project Purpose and Need

The purpose of this IOAR is to evaluate the safety, operational and engineering acceptability of the proposed I-10 (SR 8) interchange ramp terminal improvements at US 90 (Mahan Drive). The need for this project is based on the impacts of growth expected by the forecasted demand volumes related to the Welaunee Development, west of the US 90 (Mahan Drive) interchange and widening of the I-10 corridor. Build Alternatives for this project will focus on enhancing traffic flow and improving safety for motorists entering and exiting I-10 to/from US 90 (Mahan Drive).

1.3 Methodology

This IOAR has been prepared in accordance with the Methodology Letter of Understanding (MLOU) and is provided in **Appendix A**. The traffic data collection and forecasted volumes for this IOAR are detailed in the Project Traffic Analysis Report (PTAR) for the I-10 Project Development and Environment (PD&E) Study, From East of Capital Circle NE (SR 261) to West of Gamble Road (SR 59). The PTAR is attached in **Appendix B**.

The analysis years for this study are as follows:

- Existing Year: 2019
- Opening Year: 2025
- Design Year: 2045