



1.0 Introduction

1.1 Project Background

The applicant, Florida Department of Transportation (FDOT), requests the Federal Highway Administration's (FHWA's) approval of this Systems Interchange Modification Report (SIMR) Re-evaluation for improvements to the Interstate 295 (I-295) eastern beltway located in Duval County, Florida, from the SR 9B interchange to the SR 202 (J.T. Butler Boulevard) interchange, approximately five miles in length. This document has been developed in accordance with FDOT Policy No. 000- 525-015, FDOT Procedure No. 525-030-160, FDOT Interchange Access Request User's Guide, and the FDOT Traffic Forecasting Handbook (Procedure No. 525-030-120).

I-295 is a significant component of the Strategic Intermodal System (SIS) and provides a key transportation element linking the major ports, airports, and railways that handle Florida's passenger and freight traffic. I-295 is a north-south limited-access facility that provides an eastern and western bypass around the City of Jacksonville. I-295 is a four lane urban principal arterial interstate between SR 9B and SR 202 that serves the major north- south traffic movement around the Jacksonville urban area with capacity improvements currently under construction. The goal of this project is to add additional general purpose (GP) lane capacity to the I-295 corridor to improve speeds and travel times.

In October 2014, FDOT completed and obtained approval from FHWA for a Systems Interchange Modification Report (SIMR) that proposed changes in access to I-295 within the project limits and in July 2016, a SIMR Re-evaluation was completed and approved by FHWA for the implementation of modifications to the original approved concept in the SIMR by the Design-Build (D/B) team to improve traffic operations over the original approved concept along this segment of I-295. Both documents are provided in **Appendix A**. The initial SIMR received FHWA approval to authorize the construction of two express lanes in each direction as well as to add other capacity and arterial improvements on the I-295 mainline between SR 9B and SR 202. The SIMR Re-evaluation approved in July 2016 documented several design changes to the initial concept, and this approved alternative is currently under construction with the

expected completion date in spring of 2020. The alternative under construction, referred to as the **Original Build Alternative** in this SIMR Re-evaluation, has several improvements including:

- dual express lanes
- provides braided ramp connections from the I-295 northbound express lanes that to both directions of SR 202 (eastbound and westbound)
- modifies the I-295 southbound off-ramp to SR 152 (Baymeadows Road) to 2 lanes
- adds a choice lane for the SR 202 westbound dual-lane off-ramp to Gate Parkway that drops approximately 1,400 feet downstream
- adds approximately 500 feet of additional queue storage on the SR 202 westbound off-ramp to Gate Parkway for the westbound right turn lane.

The current project (referred to as the **Preferred Build Alternative** in this SIMR Re-evaluation) proposes improvements in addition to the aforementioned that are needed to enhance the GP lane operations and capacity by converting the project from a segment with two express lanes and two GP lanes to a segment with two express lanes and three GP lanes.

1.2 Purpose and Need

The purpose of this project is to add an additional GP lane for each direction of I-295, improve speed and travel time in the GP lanes, and to improve overall operations along the corridor from SR 9B to the Town Center Parkway interchange.

Currently under construction, the I-295 East Express Phase I project provides capacity improvements to the study area corridor by adding two express lanes and reconstructs the existing GP lanes to accommodate the new express lanes in either direction along I-295 between the SR 9B interchange and the SR 202 interchange. However, recent developments and land use changes near the study area are anticipated to increase the magnitude or change existing travel patterns from what was considered during the I-295 East Express Phase I evaluation. Recent counts conducted in the year 2019 showed a significant increase in traffic volumes along SR 9B with the completion of all phases of SR 9B construction from I-295 to CR 2209. At the time of the I-295 East Express Phase I SIMR (October 2014), the Turnpike State Model (TSM) was the best available model for traffic volume development. Since the Re-evaluation approval in July



2016, the North Florida Transportation Planning Organization (NFTPO) released the locally approved Northeast Regional Planning Model (NERPM) Activity-Based (AB) which utilizes the latest and best available socioeconomic data. This travel demand model captures the new developments and roadway improvements within the area and provides more realistic forecasts on traffic volumes for the future conditions.

NERPM AB predicted higher volumes along I-295 and SR 9B by Horizon Year (2040) than what was previously anticipated with the I-295 East Express Phase I SIMR (October 2014). Also, the University of Florida's Bureau of Economic and Business Research (BEBR) projects Duval County's 2040 future population to be 1,177,600 (medium projection). This represents an increase of approximately 207,000 residents. Thus, to ensure optimal functionality of the express lanes, safer and efficient operations of the GP lanes and to serve these additional trips anticipated with the new development and population growth, an additional GP lane is needed in both the northbound and southbound directions along I-295 within the study area.

Preliminary NERPM AB evaluations show that the segment of I-295 north of SR 9B carried an Annual Average Daily Traffic (AADT) that ranged from approximately 125,000 vehicles during Opening Year (2025) to approximately 215,000 vehicles during Design Year (2045). This corresponds to a Level of Service (LOS) C during Opening Year (2025) and LOS F during Design Year (2045) conditions for the current under-construction two express and two GP lanes typical section using the FDOT generalized AADT values for Florida's urbanized areas (Table 1 from FDOT's Quality/Level of Service Handbook).

1.3 Project Location and Area of Influence

The project is located in the southeastern area of the City of Jacksonville, in Duval County, Florida. The area of influence begins south of the SR 9B interchange and ends north of the Town Center Parkway interchange. The on- and off-ramps from I-95 feeding traffic into the project study area were also analyzed.

The study area included six interchanges along I-295 (four service interchanges and two system-to-system interchanges). The study area also included two service interchanges along SR 202 because of their proximity to I-295.

The following interchanges were included in the study:

I-295 Interchanges:

- US 1 (SR 5/Philips Highway) – Service Interchange
- SR 9B – System-to-System Interchange
- SR 152 (Baymeadows Road) – Service Interchange
- Gate Parkway – Service Interchange
- SR 202 (J.T. Butler Boulevard) – System-to-System Interchange
- Town Center Parkway – Service Interchange

SR 202 Interchanges:

- Gate Parkway – Service Interchange
- Kernan Boulevard – Service Interchange

Along the arterials, the simulation network included the ramp terminal intersections and one signalized intersection adjacent to the ramp terminal intersections.

Figure 1-1 shows the project study area location and the area of influence.