

SECTION ONE

Introduction

- Design Year – 2045

Traffic forecasts were developed for the three future years, per the PER, but only 2025 opening and 2045 design year volumes were reported. The 2025 and 2045 models included the socio-economic data from MetroPlan Orlando along with the roadway network improvements identified in MetroPlan's Long Range Transportation Plan (LRTP) and CFX's Master Plan. Per the LRTP, S.R. 50 from the existing 6-lane terminus at Avalon Park Boulevard to S.R. 520 will be widened to 6 lanes by year 2025. In addition, land uses for the proposed The Grow Development, which extends from S.R. 50 to Seminole County Boundary in the north-south direction and from Tanner Road to Chuluota Road (C.R. 419), were included in the model. Future traffic projections were developed for the No Build alternative and multiple Build alternatives. All alternatives, including the No Build, assumed that S.R. 50 would be widened to six lanes prior to the project opening year, beyond the terminus of the recently widened section, i.e., between Avalon Park Boulevard and S.R. 520.

The study corridor was broken down into three segments based on environmental, operational, and access features. Segment 1 started west of Woodbury Road to Avalon Park Boulevard, Segment 2 from Avalon Park Boulevard to Chuluota Road, and Segment 3 from Chuluota Road to S.R. 520. All the Build alternatives considered generally paralleled S.R. 50. Based on the results of the public involvement effort as well as the engineering and environmental analysis, the report recommended a preferred alternative. The preferred alternative consisted of a combination of different segments from two of the various alternatives developed in the study, including improvements/modifications to the existing S.R. 50 and S.R. 408 interchange. The S.R. 408 extension would feature new interchanges at Avalon Park Boulevard (full interchange) and at Chuluota Road (to and from the west). The proposed extension of S.R. 408 would be elevated within Segment 1 starting at the current S.R. 408 terminus to maintain existing access along S.R. 50 and minimize right-of-way acquisition. Along Segments 2 and 3, several grade separations with Texas U-turns were proposed to allow access for the abutting land uses.

1.2 PURPOSE AND NEED

The proposed Colonial Parkway will provide added capacity along with a higher speed, tolled east-west corridor to relieve existing and future congestion along S.R. 50. The direct connect ramps between S.R. 408 and Colonial Parkway will relieve congestion at the existing S.R. 50 and S.R. 408 ramp terminal intersection. Accessibility and connectivity to S.R. 408 will also be improved. Eventually, this corridor could be extended to I-95 via Beachline Expressway (S.R. 528), in Brevard County, offering inter-regional connectivity. The purpose of these improvements is to enhance safety, add capacity, improve reliability, and increase mobility in east Orange County.

Both S.R. 408 and S.R. 50 serve as major east-west connectors for commuters, residents, and tourists between Lake, Orange, and Brevard counties. S.R. 50 is one of only three arterial roadways in east Orange County that provide connectivity to the I-95 corridor, along with S.R. 528 and S.R. 520. These corridors serve virtually all east-west traffic connecting the Orlando area and the Brevard County attractions (Port Canaveral, Kennedy Space Center, Merritt Island, and beach

communities). These three corridors are also major evacuation routes for the residents of Brevard County. The proposed Colonial Parkway will provide enhanced mobility options for reduced commuter and evacuation travel times, while needed improvements to S.R. 50 will enhance user safety and reduce local congestion. The project will include the new toll facility and connectivity to the modified S.R. 408 interchange, as well as bicycle and pedestrian enhancements and intersection improvements along S.R. 50.

1.3 PROJECT LOCATION AND STUDY LIMITS

S.R. 408 intersects with S.R. 50 at Exit 23 in Orange County, Florida, forming a partial cloverleaf interchange. There is both an entrance ramp and an exit ramp on the south side of S.R. 50. There is one loop ramp in the northwest quadrant of the interchange that allows westbound S.R. 50 traffic to enter southbound S.R. 408. S.R. 408 terminates into Challenger Parkway, just north of the interchange. **Figure 1.3** shows the project location.

The S.R. 50 and S.R. 408 interchange is within the Colonial Parkway PD&E study limits. Within the vicinity of the interchange modification, S.R. 408 has two 12-foot travel lanes in each direction, with 8-foot inside and 10-foot outside paved shoulders. The posted speed is 55 mph. The study area of the proposed interchange modification extends from Woodbury Road to Lake Pickett Road along S.R. 50. S.R. 50 is a six-lane divided major principal arterial with a posted speed of 45 mph within the study limits. The intersection of S.R. 50 and Bonneville Drive is about 1,090 feet to the east of the S.R. 408 ramp terminal intersection. The S.R. 408 northbound off-ramp is configured with a dedicated right-turn only lane that merges with eastbound S.R. 50 traffic just west of Bonneville Drive. The closest intersection to the west is located at about 1,400 feet at Woodbury Road. Challenger Parkway is a four-lane divided arterial with a posted speed of 35 mph within close proximity to the interchange. The intersection of Challenger Parkway and Woodbury Road is approximately 1,000 feet from S.R. 50.