

A Project Development and Environment (PD&E) study is underway to evaluate the proposed interchange at Braddock Road and Polk Parkway (S.R. 570) at Milepost (MP) 21, and widening of Braddock Road from Polk Parkway to Berkley Road (FPID: 438018-1). The PD&E study is being conducted concurrently with the Design-Build project for widening the two-lane section of Polk Parkway to four lanes, from MP 18 to MP 22. The proposed interchange and widening of Braddock Road will be implemented as part of the Polk Parkway widening project. The design and construction of the proposed Florida Department of Transportation (FDOT) SunTrax test facility, to be located east of Polk Parkway and north of Braddock Road, is also in progress (FPID: 437300-1). The test facility is being sponsored by Florida's Turnpike Enterprise (FTE).

The proposed Braddock Road and Polk Parkway interchange will provide access to the SunTrax test facility, as well as other existing and planned developments around the area. This Interchange Justification Report (IJR) has been developed to support the PD&E study and the need for the proposed interchange. The IJR documents traffic operations analysis and safety evaluations for the proposed interchange. The IJR has been developed in accordance with the review/approval process as set forth in FDOT's *Policy No. 000-525-015-g, Approval of New or Modified Access to Limited Access Highways on the Strategic Intermodal System (SIS)*; *FDOT Procedure No. 525-030-160-k, New or Modified Interchanges*; *FDOT Procedure No. 525-030-120-i, Project Traffic Forecasting*; the *FDOT Interchange Access Request User's Guide (IARUG)*; and the *Project Traffic Forecasting Handbook*.

The Methodology Letter of Understanding (MLOU) for the IJR was approved by the requestor, FTE, and the FDOT Systems Planning Office (SPO) in August 2016. A copy of the signed MLOU is provided in **Appendix A**. Per the MLOU, the analysis years for the IJR are: existing (2016), opening (2021), and design (2041).

1.1 PROJECT PURPOSE AND NEED

The proposed interchange at Polk Parkway and Braddock Road will support the new \$56.2 million FDOT SunTrax test facility and the expected land use development in the vicinity of the interchange within the City of Auburndale, such as the proposed Regional Activity Center (RAC), Commerce Center Development of Regional Impact (DRI), and the recently established Florida Polytechnic University. The proposed interchange will accommodate traffic generated by local development and the FDOT SunTrax test facility to be located at the northeast quadrant of Polk Parkway and Braddock Road. This area was recently annexed into the City of Auburndale. The FDOT SunTrax test facility is planned to test new transportation technologies and support research by students at the nearby Florida Polytechnic University. New SunPass data collection equipment and techniques will also be tested at the facility. Equally important is the need for research and development of new technologies to support the rapidly growing autonomous and connected vehicle industry, which will be conducted at the test facility. This is essential in order for FDOT facilities to maintain technological relevance in the future. Foreseeing a need of a permanent site

for testing these new technologies, FDOT, led by FTE, is designing the new facility, which is expected to break ground in spring 2017.

Local governments and economic development agencies have designated the land adjacent to the proposed interchange location for future development as the Florida Polytechnic University campus continues to grow, spurring future spinoff development in the area. The City of Auburndale will be assigning a future land use designation of RAC for the property, according to the City planners. In addition, a Commerce Center DRI was approved in year 2000, which has resulted in a mixed-use development featuring professional office space, along with related development such as retail, single-family and multi-family dwellings, and other uses. The Commerce Center DRI is bounded to the north by I-4, to the east by the Teco Auburndale Trail, to the south by Old Dixie Highway, and to the west by Polk Parkway.

Further, Polk Parkway is a designated emergency evacuation route per the Florida Division of Emergency Management. This facility is a critical link in evacuating residents of the central portions of Polk County. The proposed Braddock Road interchange will enhance connectivity to evacuation routes, increase the amount of traffic that can be evacuated during an emergency event, and provide improved access for emergency responders and other key local and state personnel.

1.2 PROJECT LOCATION AND AREA OF INFLUENCE

Polk Parkway is an expansion project of FTE. It is a 24-mile limited-access toll facility, forming a semicircle that mainly serves as a beltway around Lakeland, which along with Interstate 4 (I-4) circumscribes most of the city limits of Lakeland. The parkway begins at I-4 (MP 27) near the Hillsborough-Polk County line west of Lakeland and ends at I-4 at MP 41. It provides easier access to I-4 from Polk County cities such as Winter Haven, Bartow, and Auburndale, and the south side of Lakeland. **Figure 1.1** shows the project location.

The anticipated Area of Influence (AOI) of the proposed interchange is shown on **Figure 1.2**. The AOI includes the following:

- Interchanges along Polk Parkway:
 - Old Dixie Highway (MP 18)
 - Pace Road (MP 23)
 - I-4 (MP 24)
- Intersections along Pace Road:
 - Research Way
 - Polk Parkway southbound/westbound ramps
 - Polk Parkway northbound/eastbound ramps
- Intersection along Braddock Road:
 - Berkley Road
- Intersections along Old Dixie Highway: