

1.2 PURPOSE AND NEED

The existing SW Port St. Lucie and Okeechobee Road (SR 70) interchanges have trumpet configurations with ramps. Typical trumpet ramp terminals normally operate with 3-phase signal timing operations. At the SW Port St. Lucie and Okeechobee Road (SR 70) interchanges, the ramp terminal intersections are both four-legged, connecting to Bayshore Boulevard and Kings Highway, respectively. The intersection traffic signals at these interchanges require inefficient 4-phase operations causing frequent queues during peak periods. The ramp intersections at the SW Port St. Lucie and Okeechobee Road (SR 70) interchanges operate at level of service (LOS) D and C, respectively, during AM peak hours. The ramp intersections at the SW Port St. Lucie and Okeechobee Road (SR 70) interchanges operate at LOS F and D, respectively, during PM peak hours. At Okeechobee Road, the intersection with the Turnpike ramps is projected to operate at LOS F during the AM and PM design hours under No-Build (2045) traffic conditions.

Crosstown Parkway is a six-lane divided arterial running east-west parallel to SW Port St. Lucie. The facility is about a mile north of SW Port St. Lucie. The Crosstown Parkway Extension Project was recently completed and opened, providing a new bridge crossing over the North Fork of the St. Lucie River in the City of Port St. Lucie, connecting Crosstown Parkway from SE Manth Lane to US 1 Highway at Village Green Drive. The project proposes a to/from the south Turnpike partial interchange, which will alleviate congestion at the SW Port St. Lucie interchange and enhance emergency evacuation operations by providing alternative regional access.

The need for additional Turnpike access at Midway Road was evaluated by the Florida Department of Transportation (FDOT) in the following two previous efforts:

- Turnpike in 2005
- District 4 in 2016

The *Turnpike's Midway Road Interchange Concept Study – December 2005* planning level study addressed growth of traffic on the Turnpike in St. Lucie County and a future planned network scenario, which now exists. It determined no fatal flaws existed to providing the interchange in the future. FDOT District 4's effort also included a feasibility study, re-evaluating an interchange at Midway Road in the 2016 PD&E study completed for widening Midway Road from Glades Cut Off Road to Selvitz Road. In this ongoing PD&E, a full interchange is proposed to relieve congestion at the SR 70 interchange, provide alternative regional access, and enhance emergency evacuation operations.

Modifications of the existing interchanges at SW Port St. Lucie and Okeechobee Road (SR 70) interchanges and implementation of the new interchanges at Crosstown Parkway and Midway Road are being proposed to address existing and projected future traffic congestion and related capacity deficiencies caused by high traffic demand that cannot be accommodated by the existing trumpet interchange configurations and to enhance emergency evacuation operations by improving regional accessibility.