Overview

As a solution to growing safety and transportation concerns, FESA Engineering and Consulting (FESA) suggests closing W. University Boulevard to through traffic and extending Edgewood Drive from Country Club Road to Babcock Street. Additionally, a growth in Main Campus enrollment rates has decreased the amount of parking available to commuting students, faculty, and visitors. FESA has provided a new design for the Columbia Village parking garage in order to provide more parking spaces.

Transportation: Traffic Signal Design

Combined with a Kimley-Horn traffic count survey, data was gathered to determine peak-hour density. This density warranted a traffic signal be implemented at the proposed intersection.

Survey and Mapping

Elevations were taken 24 ft. on each side of the centerline at 6 ft. intervals starting from Country Club intersection to S Ruffner Rd.

Structural

The structural component in this project is the design of the main parking structure, which will include redesigning the existing parking garage in front of Columbia Village, which will then be demolished and replaced. This building is approximately 180 ft by 126 ft and each additional level added would increase the height of the structure by twelve feet. The minimum extension will be four stories that will add approximately 275 spaces, including 7 handicap spaces required by the City of Melbourne.