



EDUCATION:

Bachelor of Science, Civil Engineering, University of Florida

PROFESSIONAL ENGINEER:

State of Florida - #49512

PROFESSIONAL AFFILIATION:

American Society of Civil Engineers

CONTINUING EDUCATION:

Crime Prevention through Environmental Design, sponsored by Florida Atlantic University
Fundamental of Geometric Design Workshops, Northwestern University Traffic Institute
Highway Capacity Training

YEARS OF EXPERIENCE:

Total Years of Experience - 29

Total Years with DPA - 22

EXPERIENCE:

Mr. Espinosa is responsible for the preliminary engineering and transportation planning projects for both the public and private sector. These responsibilities include: project management, technical analysis, report preparation and presentations. He has over 29 years of transportation planning / traffic experience including six years as project manager for in-house Project Development & Environment studies at FDOT's District Four office.

Mr. Espinosa's general experience includes tasks related to preliminary engineering, transportation planning, environmental analysis, site design, access management, pedestrian and bicycle issues and geometric design. His preliminary engineering experience includes Project Development & Environment studies, Corridor Studies, Traffic Impact Analysis and Master Plans. Mr. Espinosa's design experience includes roadway design, site design and traffic signal design.

REPRESENTATIVE PROJECTS:

Mr. Espinosa has worked on various projects from planning through design. Several significant projects are:

Ponce de Leon Boulevard / Madeira Avenue Signal Warrant Study

Mr. Espinosa was the Project Manager for the Signal Warrant Study and Operational Analysis conducted for the Ponce de Leon Boulevard / Madeira Avenue intersection. The signal Warrant Analysis was conducted following the procedures outlined in the *Manual on Uniform Traffic Studies* (MUTS) and the *Manual on Uniform Traffic Control Devices* (MUTCD). Fulfilling any one of the warrants is sufficient to warrant consideration of traffic signal installation. In addition, intersection capacity analysis was performed using *HCS 2010* for existing traffic conditions (un-signalized) and with the proposed signal.



University Drive Safety Study

Mr. Espinosa was the Project Manager for the Safety Study conducted for University Drive between SW 40th Street (Bird Road) and Segovia Street with emphasis at the intersections of University Drive with Anderson Road, Monserrate Street, and Palmarito Street. The study consisted of the following:

- Qualitative assessment of the intersections
- Review and analysis of crashes at these intersections for the past three years (2011, 2012 and 2013)
- Traffic calming evaluation
- Conceptual recommendations

Biscayne Boulevard Corridor Study

Mr. Espinosa was the Project Manager for the Biscayne Boulevard Corridor Study. This study evaluated the urbanization of Biscayne Boulevard in the general area between NE 5th Street and NE 13th Street. The goal was to improve the aesthetics, pedestrian connections, drainage, and operations of this segment of Biscayne Boulevard. Mr. Espinosa developed the traffic models in CORSIM for the proposed analyzed alternatives for the mid-day and afternoon peak hours. Additionally, signal timings were optimized using SIGNAL2000.

Miller Road / Alhambra Circle Operational Analysis

Mr. Espinosa was the Project Manager for the Miller Road / Alhambra Circle Operational Analysis. The purpose of this study was to evaluate the feasibility of installing a mini-roundabout at the intersection of Miller Road and Alhambra Circle. In order to evaluate the impacts of the proposed roundabout on the two adjacent intersections, a traffic analysis was conducted. The analysis incorporated a traffic simulation analysis to evaluate the intersections' level of service and potential queues.

Synchro software was used to perform intersection capacity analysis. **Synchro** is a macroscopic analysis and optimization software application that implements the Intersection Capacity Utilization method for determining intersection capacity. Synchro also supports the Highway Capacity Manual's methodology for signalized intersections and roundabouts.

OTHER SIGNIFICANT PROJECTS

- Boca Raton Transit Feasibility and Funding Study
- Ponce de Leon Boulevard Improvements
- HEFT/NW 12 Street Interchange PD&E Study
- SW 120th Street Corridor Study
- Miami Gardens Drive PD&E Study
- Brickell Avenue Pedestrian and Bicycle Study