

Distinguished Qualifications

37 years of experience in traffic engineering specializing in Traffic Operations Studies, Signal Design, Signing and Pavement Marking and Project Management.

Treasurer, Institute of Transportation Engineers (ITE), First Coast Chapter.

Education

BS in Civil Engineering, University of New Haven, 1981

Registrations

Professional Engineer, Florida (42860)

Professional Engineer, Connecticut (14163)

Professional Engineer, Georgia (039359)

Memberships

Institute of Traffic Engineers

International Municipal Signal Association

American Society of Highway Engineers

Wayne Petrone, PE

Senior Traffic Engineer

Mr. Petrone is a traffic engineer has 37 years of experience and is a licensed professional engineer in Florida as well as Connecticut and Georgia. He has extensive experience in traffic signal design, traffic studies, transportation planning, transportation operations and signing & pavement marking design. Mr. Petrone is an expert in using several software programs such as SYNCHRO, SimTraffic and Guide Sign. Mr. Petrone is a member of the Institute of Traffic Engineers, the International Municipal Signal Association (IMSA) and American Society of Highway Engineers. Over the course of his career, Mr. Petrone has worked on thousands of projects involving intersection analysis, signal warrant studies and traffic signal design. Relevant project experience includes:

Kernan Blvd Traffic Analysis, City of Jacksonville, FL. Conducted a Traffic study for a proposed residential and retail development. The purposed was to evaluate the signalization warrant and additional turn lane warrant and the proposed driveway. Data collection (both manual turning movement counts and machine counts); develop existing traffic volumes; determine annual growth rate, develop no-build traffic volumes; calculate trip generation; review model distribution results; develop trip assignment; develop build-out traffic volume; conduct Synchro capacity analysis; recommend improvements, write report and sign & seal report.

Tillman's Automotive Trip Generation Rate Study, City of Jacksonville, FL. Conducted a Traffic study for a 5,098 square foot automobile facility. The work included the observation and data collection of three existing car sale facility intersections, developing traffic volumes for Tillman's Automotive, and calculating trip generation from the developed volumes.

Golden Corral Memorial Park Drive Operational Analysis, City of Jacksonville, FL. An operational analysis was prepared for the City of Jacksonville to review in conjunction with the Driveway Permit Application for a proposed Golden Corral Restaurant. Traffic volumes were presented and were utilized in the operational analyses for evaluating the roadway design alternatives, and for identifying if right or left turn lanes are warranted on Memorial Park Road.

Townsend Blvd at Merrill Road Intersection Safety Study, City of Jacksonville, FL. Conducted a intersection safety study to recommend concepts to improve traffic operations at the Townsend Blvd/Merrill Rd intersection. Existing roadway conditions, land use, driveway locations, and traffic signal equipment were collected and inventoried. Traffic observations were made during AM and PM peak hours. From the data collection and observations, proposed improvements were identified and suggested in the traffic study.

Loves Travel Stop Operational Analysis, City of Jacksonville, FL. Performed a Traffic study in support of a Driveway Connection Permit for a proposed gas station on Pecan Park Road. Data collection (both manual turning movement counts and machine counts); develop existing traffic volumes; determine annual growth rate, develop no-build traffic volumes; calculate trip generation; review model distribution results; develop trip assignment; develop build-out traffic volume; conduct Synchro capacity analysis; recommend improvements, write report and sign & seal report.

Dames Point Marine Terminal Access Analysis, City of Jacksonville, FL. An operational analysis was prepared for the City of Jacksonville to review in conjunction with the Driveway Permit Application for a proposed Dames Point Marine Terminal Intermodal Container Transfer Facility to be located on the south side of New Berlin Road opposite New Berlin Court. Traffic volumes and pedestrian counts were collected and examined, and trip assignments and build-out traffic were developed. A right turn lane, left turn lane, and signal warrants were analyzed.



Fiddler's Reef Mobility Fee, Duval County, FL. Mobility fee and development agreement annual fees were calculated for three development plans. The three development plans included residential townhouse dwelling units and shopping centers. Daily trip generation, internal and external trips, and pass-by trips were calculated and presented.

RaceTrac Operational Analyses, City of Jacksonville, FL. Project Manager for multiple operational analyses for RaceTrac Gas Stations around Northeast Florida. Studies were performed for proposed gas stations and driveway permit applications. Traffic volumes were presented and were utilized in the operational analyses for evaluating roadway design alternatives, and for identifying typical sections and lane configurations at proposed RaceTrac locations. Traffic volumes along the corridors and selected intersections were collected, signal warrants and turn lane warrants examined, accident history analyzed, and appropriate roadway laneage and typical sections determined the for these locations. Studies prepared for RaceTrac locations include:

- Argyle Forest Boulevard/Rampart Road Intersection
- SR 200 at Flora Parke Crossing
- SR 200, East of I-95
- 103rd Street (SR 134), west of Harlow Boulevard

Crawford Road Traffic Study, Nassau County, Florida. The Crawford Road Design Traffic Study was performed for proposed roadway improvements on Crawford Road. Traffic volumes were presented and were utilized in the operational analysis for evaluating the roadway and intersection. This traffic study identified projected 5-year and 20-year traffic volumes along the corridor and the Crawford Road intersection, conducted a signal warrant analysis, analyzed accident history and determined the appropriate roadway laneage and typical sections for Crawford Road.

Raillex Warehouse and Office Traffic Operational Analysis, FDOT, District Two. Prepared a traffic access analysis for the proposed Raillex Cold Storage Warehouse and office building development in support of a Driveway Permit Application. The purpose of the study was to evaluate the signalization and turn lane warrants at the proposed driveway locations. This study complied with the Manual of Uniform Traffic Control Devices and FDOT procedures.

Dunn Avenue Midblock Crosswalk Study, FDOT, District Two. Performed a midblock crosswalk study on the Dunn Avenue corridor between I-295 and Biscayne Boulevard. Pedestrian and traffic volumes were collected and if mid-block crosswalks were warranted. The study was conducted to determine if crosswalks were needed in the vicinity of Ray Greene Drive/Highlands Library/Rutgers Plaza and at Garden city Elementary Park.

Safety Signing and Pavement Markings on Two-Lane Rural Roads, Suwannee and Taylor Counties, Florida Department of Transportation, District Two. This project includes 120 miles of County Roadways in Suwannee and Taylor Counties that have been included in the FHWA's High Risk Rural Roads Program. Roads in this program require analysis of existing signing and pavement markings to determine a method of remediation for fatal accidents or accidents with severe injuries. Responsibilities include conducting No-Passing Zone Studies, Sign Inventory, Plans Preparation, Signing Design, Pavement Marking Design and Field Investigations.

US 1 & SR 9A/US 1 Interchange Operational Analysis Report (IOAR), FDOT, District Two, Duval County, FL. Project Manager for the I-95/US 1 interchange and SR 9A/US 1 Interchange IOAR. The purpose of this study was to show the Florida Department of Transportation and the Federal Highway Administration that the interchange, with appropriate improvements, will be capable of handling the future traffic generated by the proposed Avenues Walk project.

Traffic Impact Study, Miner Road Commercial Center, Nassau County, Florida. Performed a traffic study for a proposed commercial center to be constructed on the southeast quadrant of the intersection of SR A1A (SR 200) and Miner Road in Nassau County, Florida. The center is to be constructed in two phases, a 16,575 SF Nassau Power Sports in Phase 1 and an additional 58,000 SF of Commercial General (CG) in Phase 2, for a total of 74,575 SF, constructed and fully occupied in early 2008. The traffic study included traffic counts, trip generation, trip distribution, trip assignment, capacity analysis and recommendations.

I-95/Pecan Park Road (Braddock Parkway) Interchange Operational Analysis Report (IOAR), Florida Department of Transportation, District Two. Project Manager for the I-95/Pecan Park Road Interchange IOAR. The purpose of this study was to show the Florida Department of Transportation and the Federal Highway Administration that the interchange, with appropriate improvements, will be capable of handling the 2018 design hour traffic volumes associated with the Timucuan development and the construction of Braddock Parkway.

Baymeadows Golf Club Neighborhood Traffic Operational Analysis, City of Jacksonville, FL. Performed a traffic study in support of a zoning change from a golf course to a mixed-use development.

District Wide Traffic Operations Studies, FDOT, District Two, Duval, FL. Senior Traffic Engineer responsible for providing a peer review of four intersection studies. The intersections included: I-295 at Monument Road, 103rd Street at Old Middleburg Road, I-95 at Southside Boulevard and US 1 at Bowden Road.

Downtown Jacksonville Pedestrian Mobility and Safety Enhancement Study, Duval County, FL Project Manager for this project. The results of the pilot study showed that enhancing pedestrian mobility and safety could be achieved by not adversely reducing automobile mobility of Downtown Patrons. As such, the City of Jacksonville authorized an expanded study to identify strategies for enhancing pedestrian mobility and safety along Adams Street, Monroe Street, Pearl Street and Julia Street. The study also included the portions of Clay Street and Monroe Street to be closed due to the construction of the new County courthouse. The study included changing these existing one-way streets to two-way streets, recommendations to exclusive turn lanes, on-street parking, signalization and access to surface parking lots within the existing width of road. Several traffic calming strategies that could be implemented were identified to enhance pedestrian walkability.

Traffic Concurrency Study, Nassau County, FL. Prepared traffic concurrency studies for several proposed developments in Nassau County. The studies also included an operation analysis of the access drives to determine the appropriate intersection configuration accessing the proposed development. Projects included the following residential projects; Ridgewood, Blackrock Cove, Amelia Island Parkway, South 4th Street Condo's, Brantley Plantation, Cedar Avenue and Hawks Landing and the following commercial developments; Lumber Creek, Dave Turner Plumbing Sadler Road Hotel, Ron Anderson Car Dealership, Bob's Irrigation and Lowe's Out Parcels.

Villages of Amelia Shopping Center, SR 200 at Chester Road, Nassau County, FL. Conducted a Traffic study for a 399,000 sf shopping center in support of a Nassau County Driveway Connection Permit. The work included the analysis of seven intersections. Data collection (both manual turning movement counts and machine counts); develop existing traffic volumes; determine annual growth rate, develop no-build traffic volumes; calculate trip generation; review model distribution results; develop trip assignment; develop build-out traffic volume; conduct Synchro capacity analysis; recommend improvements, write report and sign & seal report.

Old Field Residential Development Signal Warrant Study, St. Johns County, FL. Prepared a traffic signal warrant study for the proposed residential development. The purpose of the study was to evaluate the signalization warrants at the proposed SR 207/Old Field Drive intersection. This study complied with the Manual of Uniform Traffic Control Devices and FDOT procedures.
