

DENIS MONYO, PE

ENGINEER 1



EDUCATION

M.S., Civil Engineering, University of North Florida, Jacksonville, FL, 2020
B.S., Civil Engineering, University of Dar es Salaam, Tanzania, 2018

REGISTRATIONS

Professional Engineer, FL, 98314

YEARS' EXPERIENCE

4 year

TRAINING

Florida Local User's Group (FLUG), OpenRoads Designer, OpenRoads Context Capture, LumenRT)
Advanced MOT Certified, 83627
Long Range Estimating Training, FDOT

INDUSTRY INVOLVEMENT

Institute of Transportation Engineers, ITE

SKILLS

Synchro, HCS, GIS, Microstation, OpenRoads Designer, VISSIM, and MS Office



ABOUT

Denis has experience in the industry of transportation engineering. Since he entered the industry, Denis has been involved in different traffic and transportation engineering projects. Denis's traffic engineering experience comes from various traffic studies, including transportation planning, crash analysis, signal warrant analysis, mid-block crosswalk analysis, signal retiming, intersection left-turn lane length analysis, and preparing traffic studies reports. His transportation engineering experience includes road geometric design, pavement design and improvements, drainage design and analysis, and lane closure analysis for temporary traffic control design.

GRADUATE EXPERIENCE

Graduate Research/Teaching Assistant at the University of North Florida (UNF), 2019 – 2020, Jacksonville, FL

- **Exploring the Potential of Emerging Communication and Connected Vehicles (CV) Technologies in Identifying Primary Incident and Mitigating Secondary Crashes on Florida's Turnpike.** In this project funded by the FDOT, activities performed include building and calibrating a VISSIM model for the study location, writing a VB script to simulate CV applications, analyzing traffic conflicts using SSAM software, and preparing a study deliverable for FDOT. Published technical report, "Strategies to Identify and Mitigate Secondary Crashes Using Real-Time Traffic Data on Florida's Turnpike" (2021)
- **Investigating Factors Influencing Driving Errors Leading to Interchange-Related Crashes Involving Older Drivers.** Activities performed include analyzing crash data and roadway characteristics obtained from Signal 4 Analytics and FDOT RCI databases. Published article, Monyo, D. E., Haule, H. J., Kitali, A. E., & Sando, T. (2021). Are Older Drivers Safe on Interchanges? Analyzing Driving Errors Causing Crashes. Transportation Research Record, 2675(12), 635-649.
- **Teaching Assistant for Transportation and Geomatics Classes.** Activities performed include preparing and supervising Lab tutorials for Synchro, Microstation and Arc GIS software and grading class assignments.

PROJECT EXPERIENCE

Engineer 1 at Peters and Yaffee, 2020 – Present, Jacksonville, FL

- **Mid-Block Crossing Analysis, FDOT, District Two, Duval and Alachua County.** This project involved mid-block crosswalk analysis at five different locations and the determination of the appropriate device to use at each mid-block crossing. The analyses involved identifying pedestrian generators and attractors, identifying vehicular volume and safety

concerns, collecting and analyzing crash data, determining if mid-block crosswalks are warranted based on the FDO TEM criteria and making recommendations for crosswalk location, type and device. Individual reports were written for each of the five locations. The five mid-block crossing locations included SR A1A at 3rd Avenue South (Duval County), SR 134 at Vivian Drive (Duval County), SR A1A south of 7th Avenue North (Duval County), SR 120 at NE 5th Terrace (Alachua County), and SR 13 between Cedar Street and Lasalle Street (Duval County).

- **SIPS Interconnect Traffic Studies, COJ and JEA, Duval County.** This project involved traffic forecasting, trip generation and distribution from planned developments, traffic analysis, and recommendations for viable detour options during the construction phases.
- **SIPS Deerwood, JEA, Duval County.** Maintenance of Traffic design included analyzing multiple detour routes to allow for block closures of City of Jacksonville streets, as well as a detour plan for the construction of the new water main within the FDOT owned right of way of Beach Boulevard. Additional details included addressing construction phasing requirements for activities affecting commercial parking lot areas.
- **SR 188 at Denton Boulevard Intersection Improvements, FDOT, District Three, Okaloosa County.** The project included the addition of right turn lanes on SR 188, an urban minor arterial four lane divided roadway with a raised median, as well as relocation of the existing left turn lanes on SR 188 to provide a neutral offset of these left turn lanes at the intersection. The addition of right turn lanes on Denton Boulevard, a two lane, two way local road were also included. The preparation of the design and construction plans for roadway improvements, minor drainage modifications, median modifications and signalization improvements was included. The project included preparation of a Level I Temporary Traffic Control Design.
- **San Juan Avenue Road Diet, FDOT, District Two, Duval County.** This project included the preparation of construction plans for SR 128 (San Juan Avenue) between US 17 (Roosevelt Boulevard) and SR 211 (Herschel Street). The roadway design modifications include reducing the roadway to two 10 foot lanes with an 11 foot median/center turn lane and dedicated bike lanes. Necessary signing and pavement markings were designed as well as lighting and signal modifications required for the road realignment and the addition of a mid-block crossing.
- **SR 26 at NW 16th Street and NW 19 Street Signals, FDOT, District Two, Alachua County.** This project included the preparation of design and construction plans for signal layout concepts to avoid the need for right-of-way acquisition and utility adjustments. Peters and Yaffee then took Concept 1, consisting of signalization, curb ramps, sidewalk, curbed bulb-outs and lighting improvements, to final plans for construction.
- **CR 361 (Beach Road/2nd Street West) at 1st Avenue, FDOT, District Two, Taylor County.** This project provided for the reduction of the frequency and severity of roadway departure crashes along County Road 361 through the implementation of enhanced curve-warning signing, pavement markings and audible-vibratory pavement markings at 31 curves throughout the corridor and to address a potential hazard involving nearby roadside hazard at the intersection of CR 361 (2nd St W) at 1st Ave N in Taylor County.
- **Palatka To Lake Butler Trail from CR 235 to CR 237, FDOT, District Two, Bradford County.** This project included the preparation of the drainage design for multiple cross drains and trailside ditches for 2.3 miles of a 12-foot wide shared use path to be constructed on an abandoned rail bed. Also included was the preparation of the design and construction plans to address erosion control requirements during construction in conjunction with a Stormwater Pollution Prevention Plan.
- **Armsdale Road Forcemain Relocation, JEA, Duval County.** This project included the design for the replacement of existing water service lines as well as the relocation of 884' of 6" sanitary sewer force main to accommodate new sidewalk and associated drainage improvements.