

# Martha L. Moore, PE, PTOE, RSP1

## Senior Project Manager

Ms. Moore's 34 years of experience encompasses all aspects of multimodal transportation planning and traffic engineering, including corridor analysis and concept design, safety studies, traffic operations studies, traffic signal design, signing and pavement marking design, transportation modeling, and traffic impact and capacity analysis. With the understanding that great communities are built around great corridors, she has led a number of corridor planning and implementation studies for the FDOT, which emphasize the Department's commitment to its Complete Streets policy to serve the transportation needs of transportation system users of all ages and abilities. In support of these projects, she has successfully conducted numerous public meetings for the FDOT, local governments and agencies and has also provided expert testimony services for both municipal and private clients.

### Planning

#### **FDOT District 5 - Districtwide General Engineering Consultant (GEC) Services**

**Project Manager:** Ms. Moore managed a 14-firm team which provided on call services to District 5 in support of the Work program and the operation, maintenance and construction of the state highway system. Ms. Moore's responsibilities included coordination with the Department and subconsultants, development of scopes of services and fee estimates, and oversight of the schedule, deliverables and invoices. Task orders included provision of in-house staff and tracking of staff hours and budgets.

#### **Jacksonville Transportation Authority (JTA) - General Engineering & Architectural Consulting Services – Campus Master Plan and Facilities Assessment Report**

**Project Manager:** This project examined long-term recommendations to address the operational needs of JTA as well as space needs for administrative functions. The report included consideration of existing and future staffing; parking requirements for staff and the transit fleet; parking layout and circulation; and future operations, which included the addition of a BRT fleet, CNG facilities, and relocation of JTA Connexion to the Myrtle Campus. Ms. Moore's responsibilities included coordination with JTA staff, determination of facility requirements, site layout and report preparation.

#### **City of Jacksonville - NAS Cecil Field Business and Operations Reuse Plan - Jacksonville, FL**

**Project Engineer:** Upon closure of the 17,225-acre NAS Cecil Field, facility and infrastructure evaluations were conducted to assist in the reuse of the Air Station to an industrial park. Ms. Moore's responsibilities included facility evaluation and development of a Transportation Impacts Evaluation for the proposed development plan. Ms. Moore completed this project prior to joining Benesch.

#### **Cook County Department of Transportation and Highways - Pulaski Road/Crawford Avenue, Planning**

**Safety Analysis:** Benesch is completing a Phase I preliminary engineering study for improvement of Pulaski Road/Crawford Ave from 159th Street to 127th Street in Cook County. The project is evaluating alternatives for four-miles of suburban arterial roadway including replacement of a 300-ft steel truss structure over the Cal-Sag Channel, intersection improvements, drainage improvements and complete street improvements including new sidewalks and bicycle facilities. As the prime consultant, Benesch is responsible for environmental, traffic, roadway and structural studies required to obtain Phase I approval. The project involves a robust public outreach process engaging five south-suburban municipalities and Cook County Forest Preserve, MWRD, Illinois Tollway and other local stakeholders. Ms. Moore was responsible for crash analysis, countermeasure selection, documentation and QA/QC.

### **Education**

Bachelor of Civil Engineering (BCE), Georgia Institute of Technology

BS, Physics, Jacksonville (FL) University

**Years of Experience:** 34

### **Registrations and Certifications**

Professional Engineer:

FL: 49334

GA: 037669

Professional Traffic Operations Engineer: 4202

Certified, FDOT Advanced Maintenance of Traffic/TTC: 68731

Road Safety Professional 1: 812 (2022)

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## Kane County - Randall Road Multimodal Improvement Study, Planning (2021 - Present)

**Safety Assessment:** The Kane County DOT identified a mobility challenge in its major arterial corridor along Randall Road. Benesch was selected for a Phase I to provide multimodal improvements. The project started with a concept study phase, which evaluated existing conditions, including a safety assessment and development of a proposed multimodal network with feasible alternatives for the eight-mile corridor. The improvements will be prioritized and Benesch will complete the Phase I/II for federally funded sections and design for locally funded sections. Ms. Moore completed the safety assessment and supported the proposed network alternatives development.

## Village of Wilmette - Loyola Neighborhood Traffic Study, Planning (2018-2020)

**Safety Analysis:** Benesch was selected to conduct a before/after study of neighborhood traffic impacted by the Loyola High School parking lot construction in the Village of Wilmette. In addition to traffic observations, volume and speed data was collected and intersection capacity was evaluated at signalized and stop-controlled intersections. Ms. Moore completed the traffic and safety analysis.

## Village of Wilmette - 1010 Central Avenue Parking Study, Planning (2020)

**Safety Analysis:** Benesch prepared a traffic impact study for redevelopment of the Masonic Temple into senior apartments. Ms. Moore performed the traffic impact projections and analysis and prepared a technical memorandum for presentation to Village Board as part of the development approval process.

## Environmental Planning

### FDOT District 5 - Districtwide PD&E Data Collection

**Project Manager/Traffic Lead:** Benesch provided professional and technical services, analyses, coordination and support in identifying and/or implementing data for the PD&E process, including interaction with MPOs, regional planning councils, local government agencies and the general public. Ms. Moore provided day to day management of the contract and task orders, including preparation of scopes of services and fee estimates, coordination with FDOT, and oversight of budget and schedule for multiple concurrent task orders. Ms. Moore also served as Lead Engineer on studies such as a Districtwide Tourism Study; Districtwide Congested Corridors Study using INRIX travel speed data; and multiple corridor planning and concept development studies.

### FDOT District 5 - Districtwide PD&E and Design Continuing Services Project

**Project Manager/Lead Engineer:** Ms. Moore provided day-to-day management of the contract and oversight of budget and schedule for multiple concurrent task orders. Ms. Moore served as Engineer of Record on numerous ESAL reports and Lead Engineer on corridor planning and concept development studies. These include the Intermodal Transit Station Study (Daytona Beach); US 92/International Speedway Blvd. Pedestrian Connectivity and Safety Assessment (Daytona Beach); Concept Development Planning Study for SR 40 (Silver Springs Blvd) (Ocala); and a Multimodal Assessment for SunRail Access (DeLand).

### Jacksonville Transportation Authority (JTA) - Environmental Re-evaluation for Design Modifications for the Jacksonville Regional Transportation Center - Jacksonville, FL

**Project Manager:** This project examined the impact of design modifications to the original Environmental Assessment (EA) approved in February 2008. In addition to oversight of the full EA re-evaluation, Ms. Moore developed the Traffic Technical Memorandum which included analysis of existing and future road segment and intersection traffic volumes, Synchro, traffic demand forecasting, circulation, and site impact and mitigation.

## Professional Affiliations

Institute of Transportation Engineers (ITE)

ACEC - FL/FICE

Transportation and Expressway Authority Membership of Florida (TEAMFL)

Florida Engineering Society (FES)

WTS International (Special Events Committee)

Chair, City of Jacksonville Concurrency & Mobility Management Systems TAC (Appointed)

Systematic Development of Informed Consent, Institute for Participatory Management Planning

Citizen Participation by Objectives, Institute for Participatory Management and Planning

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## Jacksonville Transportation Authority (JTA) - Southwest BRT Environmental Assessment - Jacksonville, FL

**Lead Traffic Engineer:** This project provided planning and environmental review documentation and management support for the implementation of the Southwest Corridor Bus Rapid Transit System. Ms. Moore developed the traffic technical memorandum which included analysis of level of service (LOS), accident data, transit signal priority (TSP), parking impacts, intersection queue jumps and other service improvements.

## Village of Oswego - Wolfs Crossing Phase I Planning Study - Oswego, IL

**Transportation Engineer:** The study examined improvement alternatives for the four-mile rural corridor, including signalization, three-lane cross-sections and roundabouts. A key element of the project was to enhance the overall corridor so the concept plan included multimodal project elements such as sidewalk, bicycle path, landscaped median island and street lighting. Ms. Moore provided crash analysis, benefit cost analysis, and preparation of the local HSIP funding application.

### Transportation Planning

## City of Jacksonville - Traffic Engineering In-House Services, Jacksonville, FL

**Project Manager:** Benesch provides in-house staff to the Traffic Engineering Division as well as technical support for miscellaneous traffic engineering needs, such as maintenance of traffic and engineering plan review. Ms. Moore's responsibilities included coordination with the City and subconsultants, developing of scopes of services and fee estimates, tracking of staff hours and budgets and oversight of the schedule, deliverables and invoices.

## FDOT District 2 - SR 202/J. Turner Butler Blvd Planning Corridor Study - Jacksonville, FL

**Project Manager/Traffic Lead:** Benesch is currently engaged with FDOT to develop future recommendations for this high volume, high-speed corridor located in a densely populated area of Jacksonville. Challenges include closely spaced interchanges, high crash rates, sensitive environmental areas and regulatory issues. Tasks include an Existing Conditions Summary, development of design traffic, historic and predictive safety analysis, O-D and Travel Time Reliability studies and concept development. Ms. Moore's responsibilities include contract oversight and development of task work orders, coordination with FDOT and consultants, existing conditions and alternatives analysis, concept development and documentation.

## FDOT District 5 - Districtwide Traffic Safety Studies and Highway Design – Continuing Services Contract

**Project Manager:** This Districtwide contract provided safety studies and design services. Task orders included RRR design of rural corridors, trail design, signalized intersection improvements and corridor and intersection safety studies, including safe curve speed studies and speed limit analysis and recommendations. Ms. Moore provided oversight and management of projects, including development of scopes and staff hour estimates, monthly tracking and progress reports, and coordination with the FDOT PM and contract administrator. Projects included SR 406 RRR and Trail design, SR 50 Sidewalk design, and Wrong Way Driving Signing and Pavement Marking Maintenance Plans.

## City of New Smyrna Beach, FL - Continuing Professional Transportation Engineering Services

**Project Manager/Reviewer:** Benesch provides transportation planning support on a task order basis. Ms. Moore provided review of traffic impact analyses and DRI annual monitoring

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reports, preparation of impact fee assessments, and coordination with the City, Volusia County and other consultants.

### **City of Jacksonville - Concept Design Report and Widening Design for Duval Rd. - Jacksonville, FL**

**Traffic and Safety Analysis:** This project provided the preliminary concept development and analysis for the widening of this rural road, from Dunn Ave. to I-295. Alternatives included widening from a two-lane rural cross section to a three-lane, four-lane or five-lane urban cross section with pedestrian facilities, improved drainage, bridge widening and repair or replacement and traffic signals. Ms. Moore prepared the Project Traffic Analysis Report.

### **FDOT District 5 - I-95 (SR 9) at US-1 (SR 5) Interchange Modification Report (IMR) - Volusia County, FL**

**Project Manager:** The IMR addressed frequent crashes, queue spill back and operational deficiencies associated with the current interchange design. The interchange is located in a densely populated commercial and residential area and experiences heavy freight and event-specific traffic. Ms. Moore led development of the MLOU; Design Traffic report; predictive safety analysis using the ISAT(e) Tool and SPF spreadsheets; proposed alternatives (ParClo and DDI); IMR documentation; presented to the District Interchange Review Committee (DIRC); and provided local government coordination.

### **FDOT District 5 - Intermodal Transit Station Study - Daytona Beach, FL**

**Project Manager:** Ms. Moore lead the study to plan for the development of an integrated multimodal transportation center, taking into account an understanding of the current system, the potential user needs and community vision. Tasks included identification of areas of needs, an assessment of intermodal transit station issues and opportunities, defining feasible concepts, and determining the degree of local financial commitment. This study provides the vision to expand International Speedway Boulevard corridor, which currently serves as the gateway to the Daytona Beach community and involves public involvement coordination with significant regional multi-modal stakeholders.

### **FDOT District 5 - US 441/SR 500 (Pine Avenue) Corridor Planning Study - Ocala, FL**

**Project Manager:** This study used a context-sensitive approach to evaluate an array of multimodal and capacity improvements to help transform the project corridor into a walkable urban thoroughfare. Alternatives studies included the addition of turn lanes, a lane reduction ("road diet"), and reallocation of existing through lanes at intersections to function as turn lanes. The study also developed a corridor management plan with LRE cost estimates for recommended improvements and included a charrette and public meetings with community stakeholders. Ms. Moore's responsibilities included project oversight, traffic analysis, QA/QC of report and deliverables, coordination with FDOT and stakeholder advisory team, and public involvement activities.

### **FDOT District 5 - Model Subarea Refinement for Planning and Design, I-95 at LPGA Blvd. Master Interchange - Daytona Beach, FL**

**Project Manager:** A subarea model was developed for the I-95 at LPGA Blvd. interchange to evaluate the impacts of multiple proposed development projects. Tasks included a review of the existing TAZ structure of the Central Florida Regional Planning Model (CFRPM) for appropriateness, recommendations and revisions as needed to ensure the travel demand model was sensitive to evaluation of build and no-build alternatives. The build scenario assumed the widening of LPGA Blvd. to six lanes between Tomoka Farms Rd. and Williamson

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Blvd. Ms. Moore's responsibilities included review and oversight of the model update and coordination with FDOT.

## **FDOT District 5 - SR 434/Alafaya Trail Corridor Study - Orlando, FL**

**Project Manager:** This study developed a Corridor Management Plan that identified a series of goals and objectives for the future transformation of SR 434 (Alafaya Trail) into a walkable urban thoroughfare in the vicinity of the University of Central Florida. The study also included utilizing the corridor as an extension of the Little Econ Greenway Trail to serve as a connection between the university campus and off-campus student housing complexes. Ms. Moore's responsibilities included general oversight, coordination with FDOT and corridor stakeholders, identification of corridor needs and development of the alternatives analysis, and report preparation.

## **City of Jacksonville - Historic Neighborhoods Parking Requirements and Land Use Analysis - Jacksonville, FL**

**Project Manager:** In response to citizen complaints regarding commercial parking encroachment into residential areas, this study identified critical issues related to safe and effective access to non-residential development within the designated 'Commercial Character' areas of the Shoppes of Avondale and Park & King. Tasks included land use and parking inventories, parking utilization study, parking analysis, multimodal analysis and recommended solutions. Ms. Moore's responsibilities included parking analysis, report development and presentations at community meetings and the citizens advisory committee.

## **City of Jacksonville - Annual Traffic Count Program - Jacksonville, FL**

**Project Manager:** Ms. Moore was responsible for overseeing the yearly update of the concurrency traffic count data base. Tasks included coordination with the City, adjustment of counts for seasonal and axle factors, and developing GIS-based maps to display the count data.

## **River to Sea TPO - 2040 Long Range Transportation Plan - Volusia & Flagler Counties**

**Project Manager:** This federally required document outlaid the long range cost feasible project list and provided a blueprint to maintain and enhance the regional transportation system. Supporting analyses included a Congestion Management Plan, Environmental Justice, Revenue Forecast, development of Vision, Goals and Performance Measures, travel demand modeling, needs analysis and development of cost feasible projects. Over the 24-month duration, Ms. Moore led extensive coordination with FDOT and local agencies; monthly presentations to five standing TPO committees and Board; and public outreach including meetings, stakeholder interviews and community presentations.

## **FDOT District 5 - US-92 Corridor Master Management Plan - Daytona Beach, FL**

**Project Manager:** The goal of the study included the integration of multimodal connectivity throughout the corridor with surrounding land use policies in order to define and organize the future look and feel of the US 92/International Speedway Blvd (ISB) corridor. A comprehensive master planning study was developed, including an implementation program, to guide and coordinate FDOT safety, enhancement, transit, congestion management and economic development investments, as well as the private sector equivalents, along the ISB corridor between I-4 and SR A1A. Ms. Moore's responsibilities included concept development, oversight of traffic analysis, report development, coordination with the FDOT, City and local stakeholders, and public involvement activities.

## **City of Jacksonville - Growth Management Review (Traffic and Transit) - Jacksonville, FL**

**Senior Traffic Engineer:** Ms. Moore served as an extension to City of Jacksonville staff in a multi-year contract to review proposed developments for compliance with the City's growth

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management ordinance. Her responsibilities included trip generation, traffic distribution using CUBE modeling software, review of traffic studies and LOS analyses, preparation of impact fee assessments, presentations to City Council and citizens, and maintenance of the traffic count database. Ms. Moore completed this project prior to joining Benesch.

### City of Jacksonville - Traffic Improvement Plan for the Sports and Entertainment District of Downtown Jacksonville - Jacksonville, FL

**Project Manager/Lead Engineer:** Considering the impacts of City-owned facilities, such as the Stadium, Veterans Memorial Arena and the Baseball Grounds of Jacksonville with the proposed Shipyards multiuse development, the study provided a detailed plan to increase and improve vehicular and pedestrian circulation options within and nearby the Sports District. Concepts included new roadway construction, lane widening, realignment, intersection improvements, signalization, pavement marking and signage. Ms. Moore's responsibilities included overall project management, coordination with the City and project stakeholders, development of a phased parking plan and special events traffic operations plan, and report preparation. Ms. Moore completed this project prior to joining Benesch.

### City of Jacksonville - Chaffee Road Preliminary Engineering Concept Study - Jacksonville, FL

**Project Manager/Lead Traffic Engineer:** This study developed the traffic forecast for the opening, interim and design years to determine the future road cross section and support the concept design efforts. Ms. Moore led the traffic modeling, using the Northeast Regional Planning Model (NERPM), and development of the design traffic report.

### City of Neptune Beach - Traffic Study Review and Expert Testimony for Proposed WalMart Super Center - Neptune Beach, FL

**Senior Transportation Engineer:** Ms. Moore served as a consultant and expert witness to review a developer's traffic impact study and provide testimony at commission meetings and during mediation. Ms. Moore completed this project prior to joining Benesch.

### City of Jacksonville - State Environmental Impact Report (SEIR) and Design for Duval Rd. - Jacksonville, FL

**Traffic and Safety Analysis:** The SEIR provides the preliminary concept development and analysis for the widening of this rural road, from Dunn Avenue to I-295. Alternatives include widening from a 2-lane rural cross section to a 3-lane, 4-lane or 5-lane urban cross section with pedestrian facilities, improved drainage, bridge widening and repair or replacement and traffic signals. Ms. Moore is overseeing development of the Project Traffic Analysis Report. The study follows the FDOT PD&E Manual in anticipation of Federal funding opportunities.

### Military Planning

### Department of the Navy - Transportation Master Plan, Naval Training Center - Great Lakes, IL

**Project Engineer:** The analysis examined the existing on base traffic circulation and operational issues at the 1,628-acres military installation, which has 50 miles of roadway providing access to the 1,153 facilities. Ms. Moore's provided field review, data collection and assisted in the design of an on base shuttle system. Ms. Moore completed this project prior to joining Benesch.

### Department of the Navy - Community Integrated Master Plan (CIMP) Traffic Analysis for Marine Corps Barracks - Washington D.C.

**Project Engineer:** This study examined access and parking issues for potential Bachelor

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Enlisted Quarters (BEQ) complex sites, with special emphasis on use of non-vehicular modes of transportation (transit, cycling) and pedestrian movements. Ms. Moore's responsibilities included field review, coordination with local government, parking requirements and availability analysis, and report preparation. Ms. Moore completed this project prior to joining Benesch.

### Department of the Navy - Family Market Housing Analysis - Various States

**Analyst:** Housing market analyses were conducted at Navy and Marine Corps installations in the southeastern and midwestern United States to assess the existing and projected housing market and to determine the degree to which the local community would satisfy the anticipated housing requirements of military families. Ms. Moore's provided data collection, field review and coordination with local staff, trend analysis and report preparation and presentation. Ms. Moore completed this project prior to joining Benesch.

### Department of the Navy - AICUZ Program - SC, FL, LA, TX

**Lead Planner:** At each Activity, an update to the Air Installations Compatible Use Zones (AICUZ) mapping was developed to address noise, accident potential and environmental impacts associated with air operations. Calculation of the AICUZ footprint considered such variables as power settings, aircraft model and type, maximum sound levels, and duration and flight profiles. Ms. Moore's responsibilities include field review, assessment of land use compatibility for existing and future development, coordination, report preparation and production of public relations information. Ms. Moore completed this project prior to joining Benesch.

## Safety

### FDOT District 8/Turnpike - SR 91 ERCAR, Sumter County, FL

**Safety Engineer:** Benesch developed an Existing Roadway Conditions Assessment Report (ERCAR) that evaluated of existing conditions and conformance to Interstate RRR design standards for the 11-mile corridor. This included safety of roadway, bridges, drainage, pavement markings, signs, ITS equipment and other freeway components. The final Technical Design Memorandum included recommendations for safety improvements, LRE cost estimate and identification of Design Exceptions and Variations to be repaired or replaced in the next RRR construction project. Ms. Moore provided safety analysis, recommendation of countermeasures and report review.

### FDOT District 2 - RRR Safety Reviews

**Project Manager and Team Lead:** Benesch provided 69 safety assessment reports (SARs) for Work Program RRR projects. Project corridors were located throughout District 2 and included multiple high-speed rural corridors. Each SAR included crash analysis, field review and development of short, medium and long-term recommendations to be incorporated into planned RRR projects using Safety funds. Typical recommendations included signalization upgrades, SPM, lighting and maintenance items.

### FDOT District 2 - Pedestrian and Bicycle Safety Improvement Study - Clay, Duval, St. Johns and Alachua Counties, FL

**Project Manager/Lead Safety Engineer:** Benesch analyzed eight years of crash data to identify locations where small clusters of bicycle and pedestrian collisions could be corrected using primarily low-cost engineering countermeasures. 19 subsets were developed within the FDOT Crash Analysis Reporting (CAR) database to filter the crash data. Locations of these crashes were mapped and segmented to identify small clusters of correctable crashes. 63 sites were identified for further study throughout Clay, Duval, St. Johns and Alachua Counties. From this, 13 sites were selected as likely candidates for Safety Projects

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due the potential to apply effective countermeasures with a satisfactory B/C ratio. For these sites, a concept design, cost estimate and B/C analysis were developed. Ms. Moore's responsibilities included project oversight and coordination with FDOT, recommendation of countermeasures, and report preparation.

### **FDOT District 2 - Districtwide Traffic Engineering Studies**

**Project Manager/Team Lead:** Project Manager/Team Lead: This contract provided safety and operational studies, with an emphasis on pedestrian and bicycle safety. Under Ms. Moore's oversight and direction, task orders included a Five-County Pedestrian and Bicycle Safety Improvement Study, multiple Pedestrian Road Safety Audits (PRSAs) in the Jacksonville Beaches area, RRR safety reviews, Safe Routes to School reviews, and pedestrian midblock crossing assessments and concepts. Study recommendations included cost estimates and HSM benefit/cost (B/C) analysis. Task orders included provision of in-house staff and tracking of staff hours and budgets.

### **FDOT D5 - Districtwide Community Traffic Safety Program**

**Project Manager/Team Leader:** This Districtwide Traffic Operations contract provides safety studies and design services. Under Ms. Moore's direction, task orders have included intersection safety studies, midblock crossing studies, access management studies, signal warrant analyses, APS/LPI studies, safe curve speed studies for rural corridors, speed limit analysis and recommendations, and a systemic pedestrian crosswalk safety analysis for SR A1A. All tasks include qualitative and operational assessment, historical crash analysis, recommendation of countermeasures, concept design, cost estimates, and benefit to cost (B/C) and net present value (NPV) analysis.

### **FDOT District 5 - US 92 Pedestrian Connectivity & Safety Assessment Study - Daytona Beach, FL**

**Project Manager and Lead Engineer:** This study focused on identifying existing pedestrian facilities and deficiencies along US 92/International Speedway Blvd. and neighboring roadways within the study area. An implementation plan to prioritize improvements to strengthen pedestrian and bicycle network connectivity was developed. Project tasks included the determination of available right-of-way, documentation and identification of solutions or obstacles possibly impeding pedestrian and bicycle network connectivity, LRE engineering and design cost estimates, and identification of funding sources for recommended improvements along FDOT maintained facilities. Ms. Moore's responsibilities included oversight of analysis, development of recommendations, report preparation and coordination with FDOT and stakeholders.

### **FDOT District 5 - US 92 Pedestrian Crossing Study - Daytona Beach, FL**

**Project Manager/Lead Engineer:** This high-profile, fast-turnaround study was in response to a fatal pedestrian crash of a high school student, and addressed frequent pedestrian crossings on US 92 between Mainland High School, Daytona State College, and commercial properties on the corridor. The assessment included a signal warrant analysis and development of multiple concepts, including a pedestrian overpass, HAWK signal, a half signal, and pedestrian channelization. The final concept was selected and vetted through FDOT Unit Review and proceeded to scoping. Ms. Moore provided field review, data analysis, concept development and report preparation. She also provided briefings to the District 5 Secretary and Directors and coordinated meetings with major stakeholders to ensure understanding and acceptance of the chosen concept.

### **FDOT District 5 - SR A1A Pedestrian Bicycle Safety Strategies & Implementation Study, Ph. 1 - Flagler, Volusia and Brevard Counties, FL**

**Project Manager/Lead Engineer:** A pedestrian and bicycle-focused crash analysis was



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developed for the 87-mile SR A1A corridor across Flagler, Volusia and Brevard Counties. Tasks included field review, assignment of context classification, and a detailed GIS analysis to identify crash clusters/segments using both the HSM sliding window methodology and FHWA Risk Based Safety Analysis. Study results were advanced for mitigation of potential safety concerns. Ms. Moore's responsibilities included field review, oversight of analysis, report development and coordination with FDOT and River to Sea and Space Coast TPOs.

## FDOT District 5 - SR A1A Pedestrian Bicycle Safety Strategies

**Project Manager/Lead Engineer:** A pedestrian and bicycle-focused crash analysis was developed for the 87-mile SR A1A corridor across Flagler, Volusia and Brevard Counties. Tasks included field review, assignment of context classification, and a detailed GIS analysis to identify crash clusters/segments using both the HSM sliding window methodology and FHWA Risk Based Safety Analysis.

## River to Sea TPO - Roadway Safety Evaluation and Improvement Recommendations

**Project Manager:** This study evaluated approximately 68,000 crash records over a five-year period and identified top intersections and segments by crash frequency and severity. These locations were screened and ranked using the Highway Safety Manual Equivalent Property Damage Only (EPDO) method. Five intersections and segments in each category were chosen for further analysis of crash contributing factors. Field investigations verified contributing factors and identified undesirable conditions, driver behaviors, traffic operations and geometrics. Crash countermeasures were identified using the FHWA Proven Safety Countermeasures Toolbox.

## River to Sea TPO - Traffic Operations/ITS/ Safety Feasibility Study/CSC

**Project Manager/Team Leader:** Benesch provides planning support to the TPO to evaluate Surface Transportation Program (SU funded) traffic operations, ITS, and safety projects. For each candidate project, Benesch develops a feasibility study to include a qualitative assessment, crash analysis and operational analysis. Recommendations are supported by a design review and detailed, planning level cost estimates. Recent projects have included the Dunlawton Ave and Yorktowne Blvd Intersection Improvements Study and US 17/US 92 at Dirksen Dr Feasibility Study.

## FDOT District 5 - Traffic Operations Studies Continuing Services Contract

**Project Manager/Team Leader:** This contract provided traffic operational and safety studies in accordance with the Manual on Uniform Traffic Studies (MUTS) and the Manual on Uniform Traffic Control Devices (MUTCD). Studies typically included data collection, qualitative assessment, collision analysis and development of recommendations. Ms. Moore was also responsible for tracking progress and budgets of multiple concurrent task orders and coordination with FDOT project manager.

## North Florida TPO – Rogero Rd Corridor Study

**Project Manager:** The study identifies improvements and conceptual designs to create a better and safer walking experience on Rogero Road. Tasks include a review of corridor characteristics, crash history and analysis, development of location-specific safety enhancements, cost estimates and documentation of analysis and results. Outreach includes an online survey, interagency coordination and presentations to the North Florida TPO Board and committees.

## North Florida TPO – Myrtle Avenue Complete Streets Study

**Project Manager:** The study determines the feasibility of bicycle facilities to provide the highest level of comfort for nonmotorized users of all ages and abilities for travel. Tasks

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include a review of past studies and plans, corridor characteristics, crash history and analysis, planning concept development, cost estimates and documentation of analysis and results. Outreach includes interagency coordination and presentations to the North Florida TPO Board and committees.

## North Florida TPO – Clay County Dirt Road Evaluation

**Project Manager:** The study analyzes Clay County’s public dirt road network and creates a strategic plan to prioritize dirt roadways that are feasible to pave. Tasks include an inventory of the public and prescriptive dirt road network, roadway characteristics inventory, crash analysis, and development of quantitative and qualitative metrics to evaluate the expected value of paving each road. Documentation includes development of a strategic plan that outlines phasing and an implementation strategy for the dirt road paving program. Outreach includes interagency coordination and presentations to the North Florida TPO Board and committees.

## FDOT District 2 - FDOT District 2 Fatal Crash Review

**Safety Engineer:** Benesch provided an assessment of the severe crashes that occurred in the four “urban” counties in District 2. The analysis included a quantitative review of the crash data; qualitative look at fatal crashes in four focus areas (Non Motorized, Lane Departure, Angle + Left Turn, Rear End + Sideswipe); recommendation of multidisciplinary countermeasures and non-infrastructure options.

## North Florida TPO General Consulting Services Corridor Studies

**Project Manager:** Benesch provides planning and production support associated with the Unified Planning Work Program (UPWP). As part of this effort, Benesch developed three corridor studies within the City of Jacksonville which focused on providing multimodal facilities and safety improvements in underserved areas. Each study included a review of existing conditions, crash analysis and recommendations, and concept development roll plot. Locations include 8th St, Myrtle Ave and Rogero Rd.

## Traffic Operations

### City of Jacksonville – Temporary Traffic Control Plan (TTCP) Tracking System, Jacksonville, FL

**Project Manager:** Benesch is assisting the Traffic Engineering Division to identify and develop a system to track active TTCP across the City, so that conflicts between projects, special events and others can be avoided or mitigated. Tasks include identifying basic tracking system requirements; user interviews (COJ, FDOT, JEA, JTA, CSX, JSO, JFRD); a review of commercial applications; and recommendations for either a 3rd party .system or development of a custom system. Ms. Moore is leading the user interviews as well as coordinating with the City and providing oversight of the schedule, deliverables and invoices.

### City of Daytona Beach - Traffic Operational Evaluation of US 92 Roundabouts - Daytona Beach, FL

**Project Manager/Lead Engineer:** This operational study evaluated the current and future operation of three intersections under 1) the current signalized condition and 2) conversion to roundabouts. Tasks included collection of peak-hour turning movement counts for weekday and weekend periods; collision analysis; development of future traffic volumes; operational analysis using Synchro, HCS and SIDRA software; and conceptual layout of roundabouts. Ms. Moore’s responsibilities included field review, oversight and QA/QC of the analysis and coordination with the City and FDOT.